TOWN BOARD WORK SESSION

July 12, 2021 - 5:30 PM

Town Board Chambers, 301 Walnut Street, Windsor, CO 80550 Please click this URL to join. https://windsorgov.zoom.us/j/88071773614 OR join by telephone at (888) 788-0099 or (877) 853-5247 - Webinar ID:880 7177 3614

***GOAL* of this Work Session is to have the Town Board receive information on topics of Town business from the Town Manager, Town Attorney and Town staff in order to exchange ideas and opinions regarding these topics.**

Members of the Public in attendance are asked to be recognized by the Mayor before participating in any discussions of the Town Board

AGENDA

1. Town Board/Manager/Attorney Monthly Meeting
2. Water Attorney Update, Brad Grasmick
3. Feral/Domesticated Cat Ordinance Discussion - R. Klimek, Police Chief
4. Larimer County Hazardous Mitigation Plan - R. Klimek, Police Chief
5. Action Plus Style Meeting Minutes Discussion - K. Frawley, Town Clerk
6. Future Meetings Agenda

The Town of Windsor will make reasonable accommodations for access to Town services, programs, and activities and will make special communication arrangements for persons with disabilities. Please call (970) 674-2400 by noon on the Thursday prior to the meeting to make arrangements.

MEMORANDUM

Date: July 12, 2021
To: Mayor and Town Board
Via: Shane Hale, Town Manager
From: Rick Klimek, Police Chief
Re: Feral Cat Ordinance Discussion
Item #: 3.

Background / Discussion:

There have been a number of times over the years that issues concerning cats have been examined. The concerns are similar in nature and seem to focus on licensing and stray cats. Feral (stay cats) are considered un-owned, free ranging domestic cats and are not considered as wildlife. State laws that do not allow for the feeding of wildlife cannot be applied to feral cats.

We have allowed residents when dealing with feral cats to borrow a cat trap and then take the animal to the Humane Society. In past years Weld residents would take them to Greeley and Larimer County residents would use the Larimer County Humane Society. There were cost in Weld County but none required in Larimer County.

Windsor PD entered into a contract with Larimer County Humane Society to take all of our stray dogs. Part of that that contract allows for all residents surrender cats without a cost to them. Windsor PD is charged for each cat and dog that goes unclaimed.

Cat owners often site safety concerns regarding the use of collars or tags for their pets. Almost no cats have identifying tags when captured. Dogs are required to have an ID and rabies vaccination tag and many do have tags. When cats are relinquished to the Larimer County Humane Society they are seldom claimed by owners. Dogs on the other hand seldom go unclaimed.

Financial Impact:

The cost estimate a few years ago was estimated around $14,000 if we were to include the cost of cats to our impound process. Should we add an ordinance that cost will be higher. There also will be a staffing burden to deal with the increased calls for service.

Recommendation:

We can adopt an ordinance that would restrict the feeding of un-owned cats.

Make no changes to the ordinance and provide cat traps for homeowners. They would then be able to relinquish the animals to the Humane Society.

MEMORANDUM

Date: July 12, 2021
To: Mayor and Town Board
Via: Shane Hale, Town Manager
From: Chief Klimek
Re: Larimer County Hazardous Mitigation Plan (HMP)
Item #: 4.

Background / Discussion:

The resolution before you is to adopt the 2021 Hazardous Mitigation Plan Larimer County. The plan is updated every five years and we have participated in this program since 2004. Previously, we worked in conjunction with the Northeast Colorado Emergency Manager Multi-Hazard Mitigation Plan which incorporated all counties in the north east section of the State. The plans now are divided into counties and each jurisdiction within that county being able to contribute and participate to the plan. The adopted plans will make the Town of Windsor eligible for funding and technical assistance from the State and Federal hazard mitigation programs. This plan also meets the requirements of the Federal Emergency Management Agency (FEMA) and the Colorado Division of Homeland Security and Emergency Management (DHSEM).
The following is the list of Mitigation Action Guides for Windsor:
1. Flood Plain Management
2. Acquire Emergency Power System for Public Works
3. Conduct LETA 911 Outreach to Residents
4. Storm Water Improvements- Whitney Ditch.
5, Storm Water Improvements - Eastman Park.
6.Development of an EOC.
7. Technology Infrastructure upgrades.

Financial Impact:

To be addressed in current and future budgets

Relationship to Strategic Plan:

Build Community Spirit and Pride, Section A, Promote Safety and Security

Recommendation:

Approval of the resolution to adopt the Larimer Hazardous Mitigation Plan.

CC:

https://drive.google.com/drive/folders/1X3OnCpSDVxharKIHgHXAW490q1HkdpAh?usp=sharing

ATTACHMENTS:

- Larimer County HMP
- Larimer County Letter of Intent

A. Town of Berthoud

"Garden Spot of Colorado, where good things grow. A small progressive community which endeavors to provide the quality of life enjoyed by past and present generations while ensuring its position for the future within the dynamic Front Range economic corridor. A town that works together to control its own destiny by being proactive in planning for future growth while preserving and enhancing its rural character."

-- 2014 Berthoud Comprehensive Plan

A.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Town of Berthoud participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section A.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the Town on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

A.2 Community Profile

The Town of Berthoud is located north of the Little Thompson River and west of Interstate 25 between Longmont and Loveland. The Town is located in both Larimer and Weld counties. Berthoud is a small community surrounded by mostly farmland. Rich in agricultural history (wheat was the first crop to be grown, followed by alfalfa and beets), Berthoud quickly became an agricultural center of Larimer County.

Berthoud's Comprehensive Plan states that in the face of future population growth and development, the town will remain a small to medium-sized community featuring a "vibrant mixed use commercial and residential core as well as a state-of-the-art mixed use residential, educational, employment and commercial presence at I-25. Downtown will be surrounded by vibrant strong neighborhoods, and regional business and commercial facilities will be featured along U.S. 287, I-25 and Larimer County Road 17. Outside of Berthoud neighborhoods, the rural pattern of development will be a mix of agricultural, open space and large lot residential property. Parks, open spaces, neighborhoods and outlying areas will be connected by community and regional trails." This vision will guide planning and development decisions as well as future hazard mitigation and risk reduction activities in and around the town.

Figure A-1 shows a map of the Town of Berthoud.

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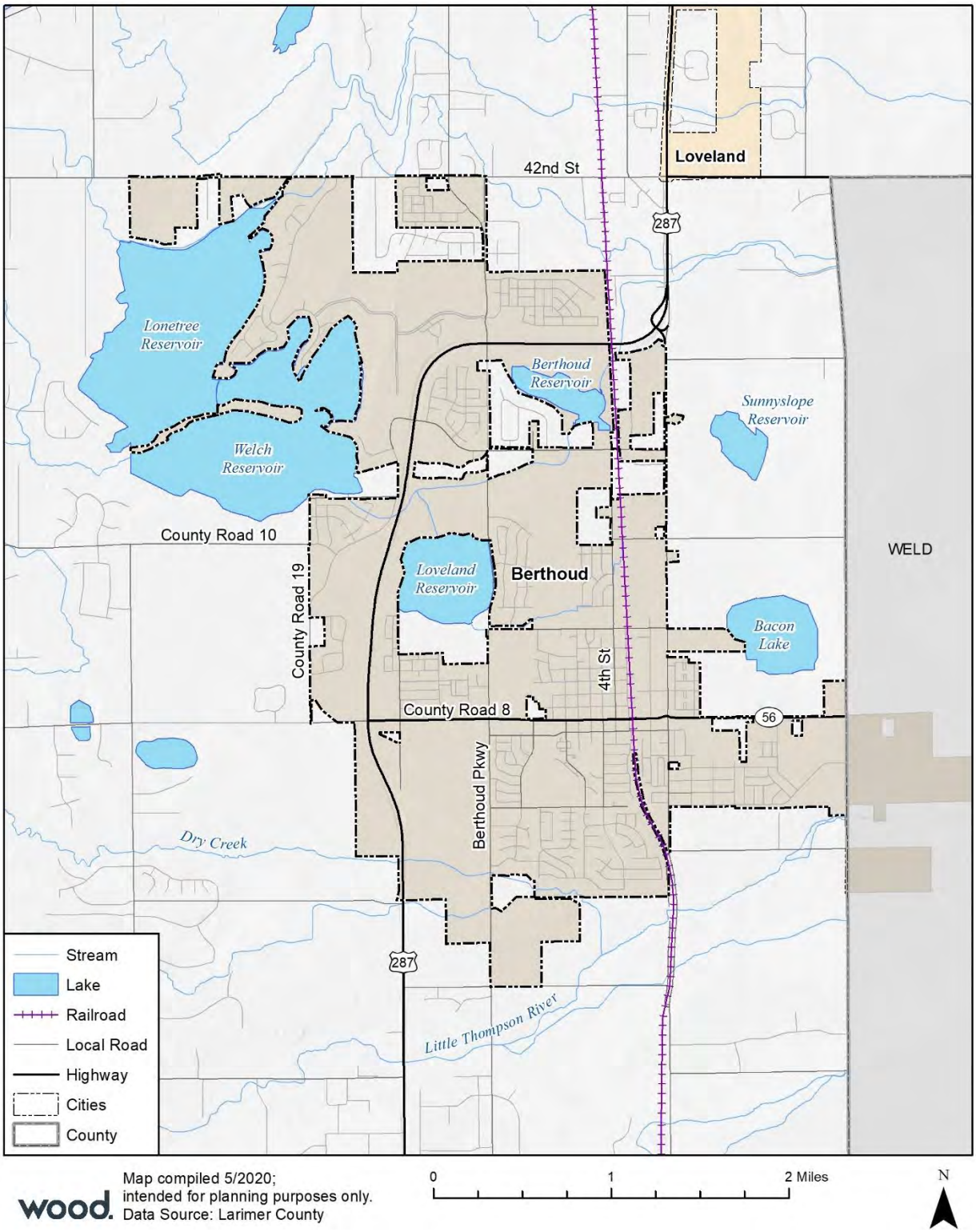
Figure A-1 Map of the Town of Berthoud



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County

A.2.1 Demographics

The following tables and graphs summarize key demographic and social characteristics of the Town of Berthoud.

Table A-1 Town of Berthoud Demographic and Social Characteristics, 2014-2018

Town of Berthoud	2014	2018	% Change
Population	5,323	6,518	22.45%
Median Age	42.3	40.3	-4.7%
Total Housing Units	2,167	2,652	22.4%
Housing Occupancy Rate	95.1%	97.1%	2.1%
% of Housing Units with no Vehicles Available	1.90%	3.40%	78.9%
Median Home Value	$230,300	$304,300	32.1%
Unemployment Rate	9.7%	6.3%	-35.1%
Mean Travel Time to Work (minutes)	29.4	27.8	-5.4%
Median Household Income	$90,828	$72,849	-19.8%
Per Capita Income	$28,576	$34,683	21.4%
% of Individuals Below Poverty Level	7.5%	7.4%	-1.3%
% Without Health Insurance	10.3%	10.7%	3.9%
# of Households	2,061	2,576	25.0%
Average Household Size	2.6	2.5	-2.3%
% of Population Over 25 with High School Diploma	96.7%	95.5%	-1.2%
% of Population Over 25 with bachelor's degree or Higher	31.2%	32.1%	2.9%
% with Disability	9.9%	12.4%	25.3%
% Speak English less than "Very Well"	1.0%	0.9%	-10.0%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table A-2 Demographic and Social Characteristics Compared to the County and State

Demographic & Social Characteristics (as of 2018)	Berthoud	County	Colorado
Median Age	40.3	35.9	36.6
Housing Occupancy Rate	97.1%	91.7%	89.8%
% of Housing Units with no Vehicles Available	3.4%	4.1%	5.2%
Median Home Value	$304,300	$336,200	$313,600
Unemployment	6.3%	5.0%	4.7%
Mean Travel Time to Work (minutes)	27.8	23.2	25.5
Median Household Income	$72,849	$67,664	$68,811
Per Capita Income	$34,683	$35,390	$36,415
% of Individuals Below Poverty Level	7.4%	12.0%	10.9%

Demographic & Social Characteristics (as of 2018)	Berthoud	County	Colorado
% Without Health Insurance	10.7%	6.3%	8.1%
Average Household Size	2.5	2.5	2.6
% of Population Over 25 with High School Diploma	95.5%	95.8%	91.4%
% of Population Over 25 with bachelor's degree or Higher	32.1%	46.3%	40.1%
% with Disability	12.4%	9.8%	10.6%
% Speak English less than "Very Well"	0.9%	2.6%	5.9%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table A-3 Demographics by Race and Sex

Berthoud	Population	%
Total Population	6,518	100%
Male	3,279	50.3%
Female	3,239	49.7%
White, not Hispanic	5,943	91.2%
Hispanic or Latino	516	7.9%
Black	7	0.1%
Asian	0	0.0%
American Indian and Alaska Native	12	0.2%
Native Hawaiian and Other Pacific Islander	19	0.3%
Some other race	122	1.9%
Two or more races	85	1.3%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table A-4 Types and Total Amounts of Housing Units in Berthoud

Type of Housing Units	Total	%
Total housing units	2,652	100%
1-unit detached	2,056	77.5%
1-unit attached	97	3.7%
2 units	15	0.6%
3 or 4 units	115	4.3%
5 to 9 units	52	2.0%
10 to 19 units	76	2.9%
20 or more units	0	0.0%
Mobile home	241	9.1%
Boat, RV, van, etc.	0	0.0%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

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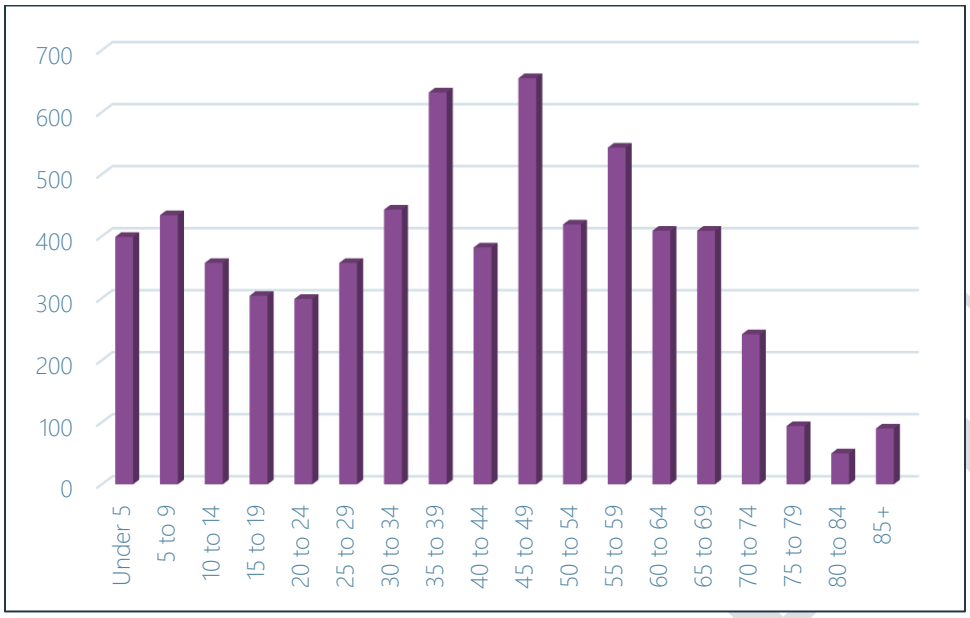
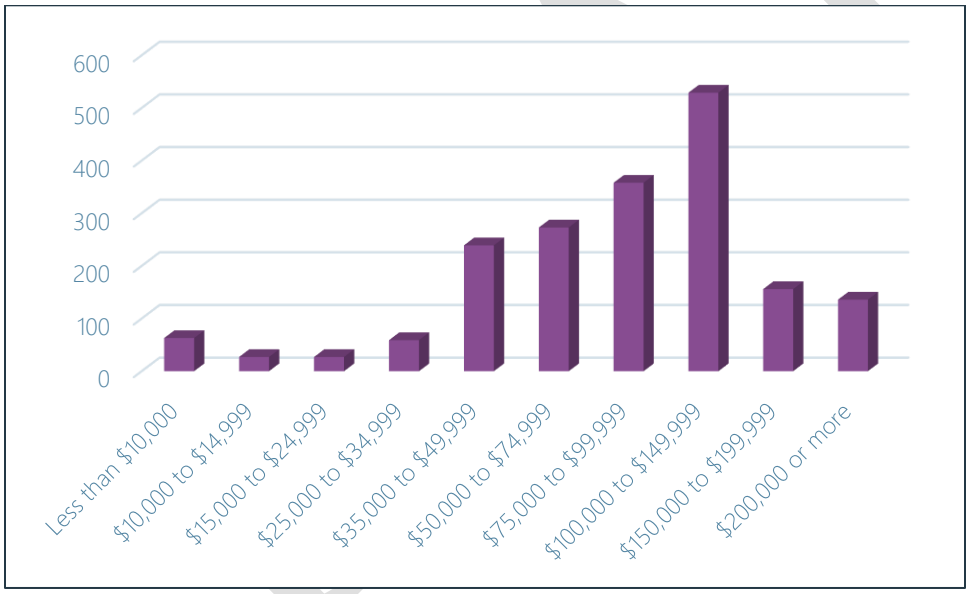
Figure A-2 Town of Berthoud Population Distribution by Age



Source: U.S. Census Bureau American Community Survey, www.census.gov/

Figure A-3 Town of Berthoud Income Distribution



Source: U.S. Census Bureau American Community Survey, www.census.gov/

A.2.2 Social Vulnerability

Social vulnerability scores for the Town of Berthoud can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. Berthoud's overall social vulnerability is above average compared to the rest of Larimer County and Colorado as a whole. In particular, Berthoud's vulnerability ranks high in the household composition and disability vulnerability category. However, the Town's vulnerability ranks low in the minority status and language vulnerability category.

For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

A.3 Hazard Identification and Risk Assessment

The Town of Berthoud is situated in both Larimer and Weld Counties. For the purpose of this plan, spatially analyzed hazard risks have been assessed for the areas of the town that lie specifically within Larimer County.

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table A-5 Hazard Identification and Risk Assessment Summary for the Town of Berthoud

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Unlikely	Extensive	Critical	Low
Civil Disturbance	Occasional	Limited	Negligible	Low
Dam Inundation	Occasional	Limited	Significant	Medium
Drought	Likely	Extensive	Significant	Medium
Earthquake	Occasional	Significant	Critical	Low
Flood	Highly Likely	Limited	Negligible	Medium
Hazardous Materials	Unlikely	Extensive	Critical	Low
Landslide/Rockslide	Unlikely	Limited	Negligible	Low
Soil Hazards	Occasional	Extensive	Negligible	Low
Spring/Summer Storm	Highly Likely	Extensive	Negligible	Medium
Tornado	Likely	Extensive	Catastrophic	Medium
Utility Disruption	Likely	Significant	Negligible	Low
Wildfire	Occasional	Significant	Significant	Medium
Winter Storm	Highly Likely	Extensive	Critical	High

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

A.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Town of Berthoud, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the Town's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Spring/Summer Storm
- Tornado
- Utility Disruption
- Winter Storm

For the purpose of this plan, only the parts of the city that lie specifically within Larimer County have been assessed for vulnerability data. For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

A.4.1 Community Asset Inventory

Table A-6 shows the total number of improved parcels, properties, and their improvement and content values for the Town of Berthoud. See Section 4.2.2 of the Base Plan for details and methodology.

Table A-6 Total Exposure of Improved Properties within the Town of Berthoud

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value
Agricultural	7	9	$2,177,570	$2,177,570	$4,355,140
Commercial	187	218	$64,659,447	$64,659,447	$129,318,894
Exempt	28	161	$49,195,096	$49,195,096	$98,390,192
Industrial	11	11	$10,360,100	$15,540,150	$25,900,250
Mobile Home	9	195	$12,426,982	$6,213,492	$18,640,474
Multiple Unit	19	59	$31,917,795	$31,917,795	$63,835,590
Residential	3,395	3,482	$1,045,359,190	$522,679,591	$1,568,038,781
Total	**3,656**	**4,135**	**$1,216,096,180**	**$692,383,141**	**$1,908,479,321**

Source: Larimer County GIS/Assessor's Office, Wood analysis.

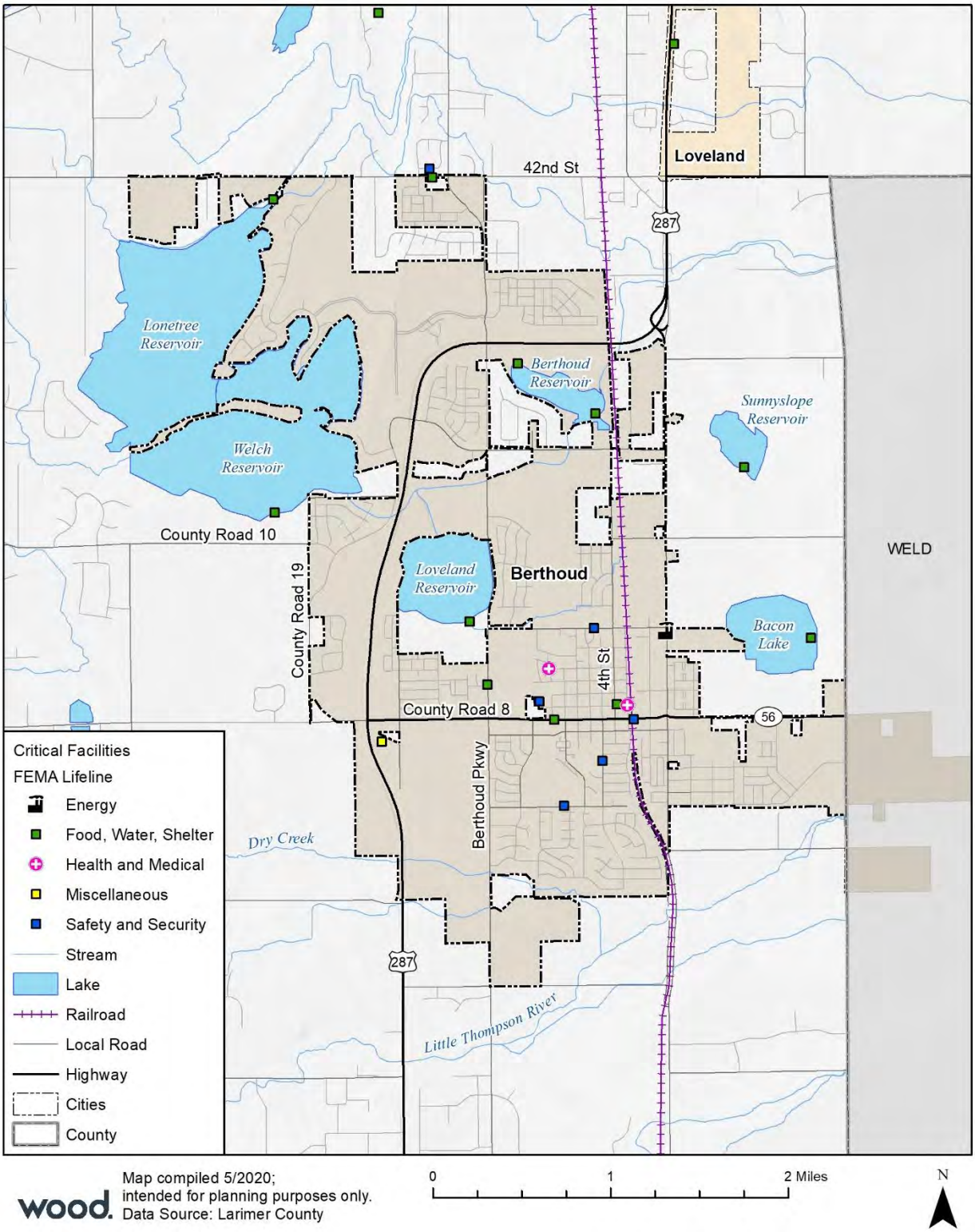
Table A-7 lists summary information about the 16 critical facilities and other community assets identified by the Town as important to protect or that provide critical services in the event of a disaster. These facilities are mapped in Figure A-4. For additional information on the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan.

Table A-7 Town of Berthoud Critical Facilities and Infrastructure Summary

FEMA Lifeline	Count
Energy	1
Food, Water, Shelter	6
Health and Medical	2
Miscellaneous	1
Safety and Security	6
Total	**16**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

Figure A-4 Town of Berthoud Critical Facilities and Infrastructure



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County

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A.4.2 Dam Inundation

Potential dam inundation areas in and around the Town of Berthoud are shown in Figure A-5.

Figure A-5 Dam Inundation Areas for the Town of Berthoud

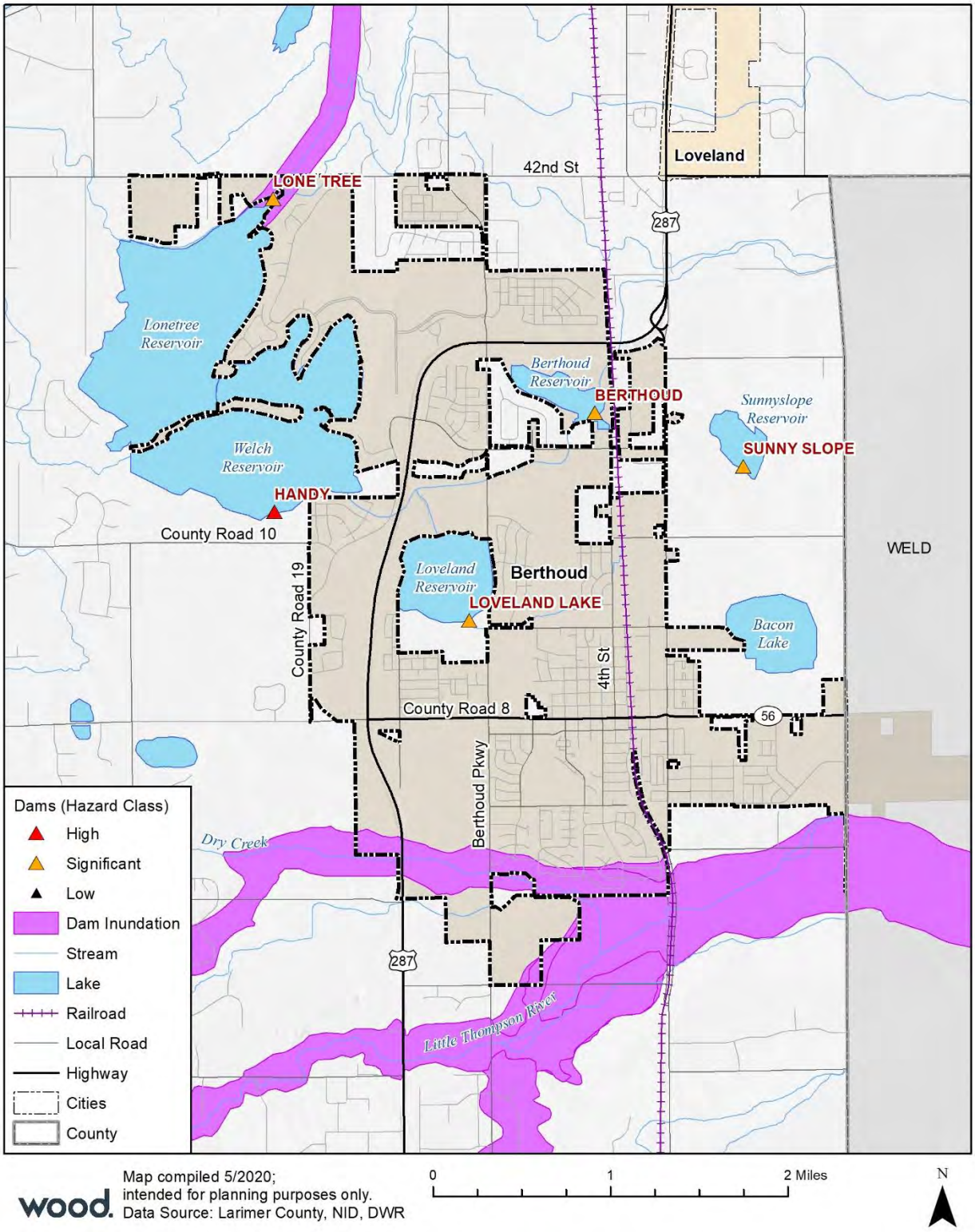

Table 4-17 in Section 4.3.3 of the Base Plan lists dams of concern for Larimer County. Dams upstream of the Town of Berthoud are:

- Dry Creek
- Ish #3 (Main Dam)
- Highland #2 (North)

Table A-8 shows that Berthoud has 110 parcels potentially at risk of dam inundation, valued at $50M; an estimated 275 residents live in those parcels.

Table A-8 Town of Berthoud Parcels Potentially at Risk of Dam Inundation

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value	Population
Residential	110	110	$33,361,699	$16,680,845	$50,042,544	275
Total	**110**	**110**	**$33,361,699**	**$16,680,845**	**$50,042,544**	**275**

Source: USACE National Inventory of Dams 2018, Colorado Dam Safety Program, Larimer County GIS, U.S. Census Bureau, Wood analysis

None of the critical facilities identified in the Town of Berthoud are located in areas at risk of dam inundation.

Based on the above analysis, the spatial extent and severity of the dam inundation hazard in the Town of Berthoud is lower than that of Larimer County as a whole. The overall significance of this hazard for the Town is Medium.

A.4.3 Flood

FEMA mapped floodplains in and around the Town of Berthoud are shown in Figure A-6.

The Town of Berthoud does not have any parcels in areas of 1% annual chance of flooding. As shown in Table 4-36 in Section 4.3.6 of the Base Plan, there are an estimated 38 parcels and 95 residents located in the 0.2% annual chance flood hazard area, with a total value of $16,503,962 and estimated losses of $4,125,991.

The Town does not have any critical facilities in 1% or the 0.2% annual chance flood hazard areas.

Based on the above analysis, the spatial extent and severity of the flood hazard in the Town of Berthoud is lower than that of Larimer County as a whole. The overall significance of this hazard for the Town is Medium.

National Flood Insurance Program Policy Analysis

The Town of Berthoud has participated in the National Flood Insurance Program (NFIP) since 1978. NFIP insurance data shows that as of January 2021 there are 7 flood insurance policies in force in the Town with $2,128,000 of coverage. There has been only one historical claim for flood losses, for $139,313. There are no repetitive or severe repetitive loss structures in the Town as defined by the NFIP, although there is one repetitive loss property (single-family residential) in the unincorporated County that has a Berthoud mailing address. The Town of Berthoud does not participate in the Community Rating System (CRS) program.

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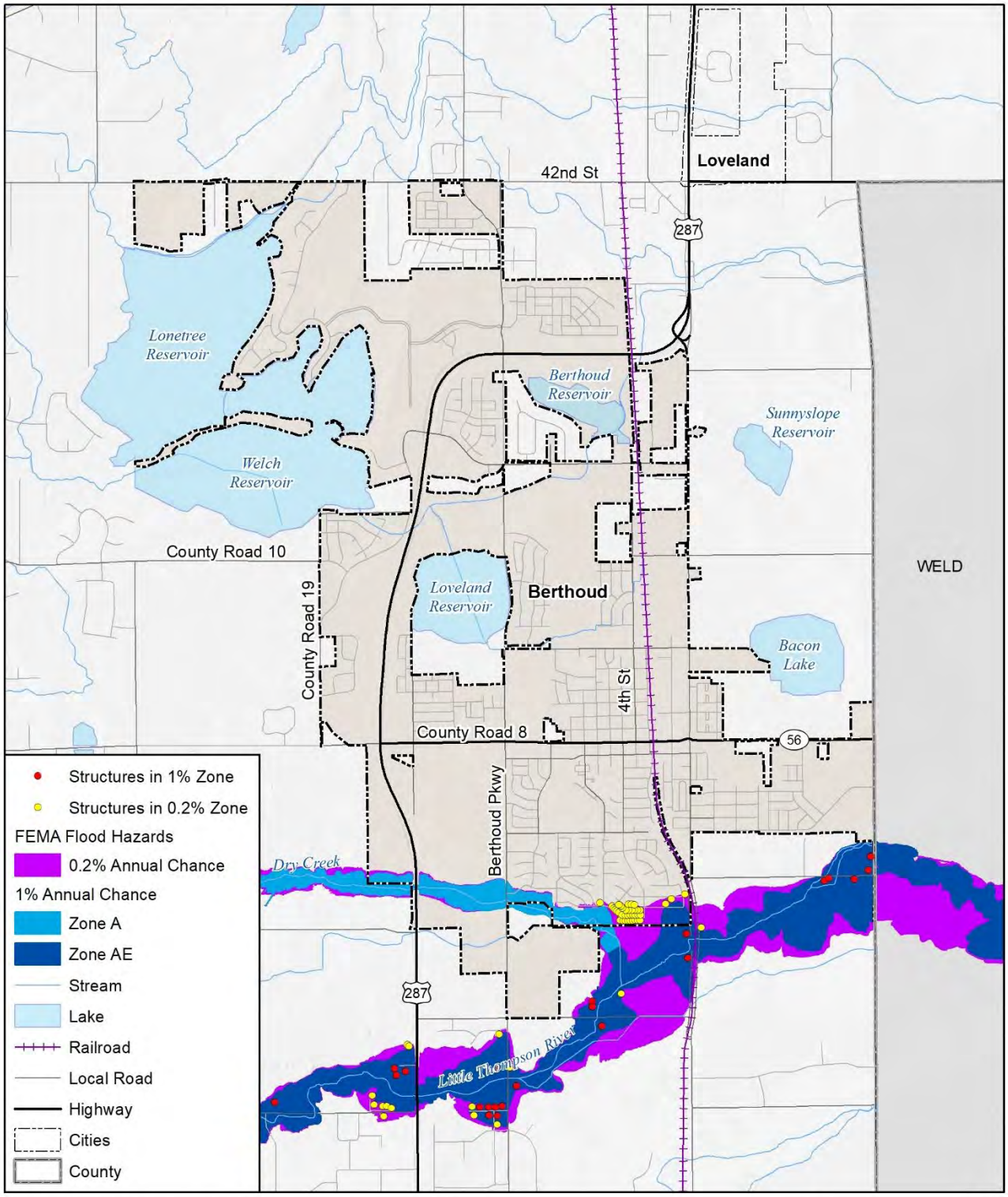
Figure A-6 FEMA Special Flood Hazard Areas for the Town of Berthoud



Map compiled 10/2020;
intended for planning purposes only.
Data Source: Larimer County,
FEMA NFHL 2/6/2013 and Preliminary 3/8/2019

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A.4.4 Hazardous Materials Incident

There are no designated hazardous materials routes passing through the Town of Berthoud. However hazardous materials are still shipped through the Town, primarily along US 287 and the rail line. There is one Risk Management Plan (RMP) facility located within the Town limits.

The National Response Center (NRC) data cited in Section 4.3.7 of the Base Plan includes 6 hazardous materials incidents in or near the Town of Berthoud from 1987 through 2019. This averages out to one hazardous materials incident every 5-6 years. Only two of those incidents resulted in injuries, for a total of 6 injuries and no deaths; however as noted in the Base Plan, it is likely that the majority of those injuries came from the physical impacts of the accident that caused the release, rather from exposure to hazardous materials themselves.

Based on the above analysis, the frequency and spatial extent of hazardous materials incidents in the Town of Berthoud is lower than that of Larimer County as a whole. The overall significance of this hazard for the Town is Medium.

A.4.5 Landslide/Rockslide

There are no identified areas of landslide or rockslide risk in the Town of Berthoud. The overall significance of this hazard for the Town is Low.

A.4.6 Soil Hazards

No historically undermined areas or areas at risk of land subsidence have been identified in the Town of Berthoud. However significant portions of the Town are at risk of collapsible or expansive soils, as shown in Figure A-7 and Figure A-8.

Table 4-49 in Section 4.3.9 of the Base Plan shows 2,976 parcels and 3,424 buildings at risk to collapsible soils, with a total value of $1,539,195,231. This represents more than 81% of all parcels in the Town. An estimated 7,478 residents are also at risk.

Similarly, Table 4-50 in Section 4.3.9 of the Base Plan shows 2,755 parcels and 3,138 building at risk to expansive soils, with a total value of $1,416,877,810. This represents more than 75% of all parcels in the Town. An estimated 7,163 residents are also at risk.

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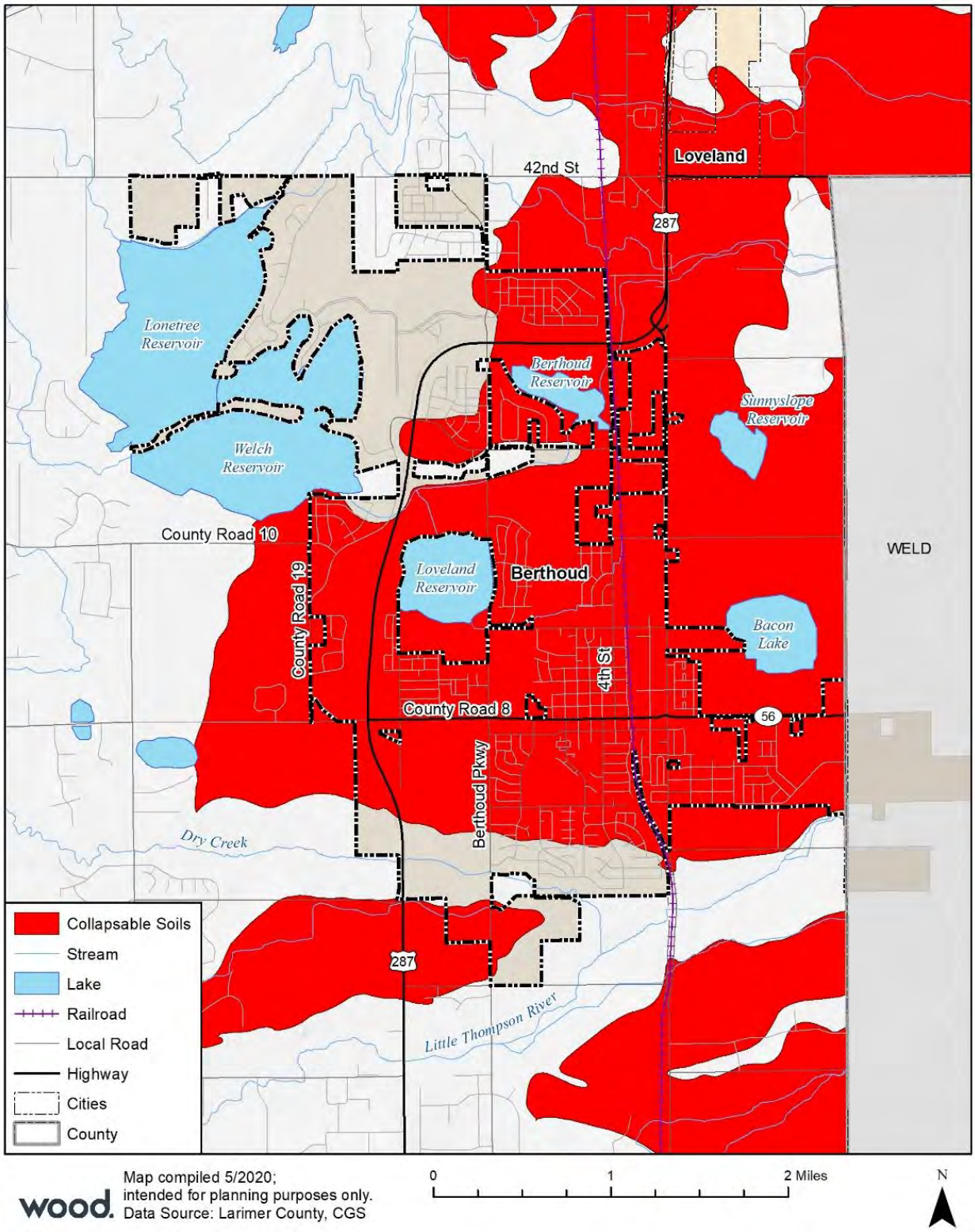
Figure A-7 Potential Collapsible Soils Areas – Town of Berthoud



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

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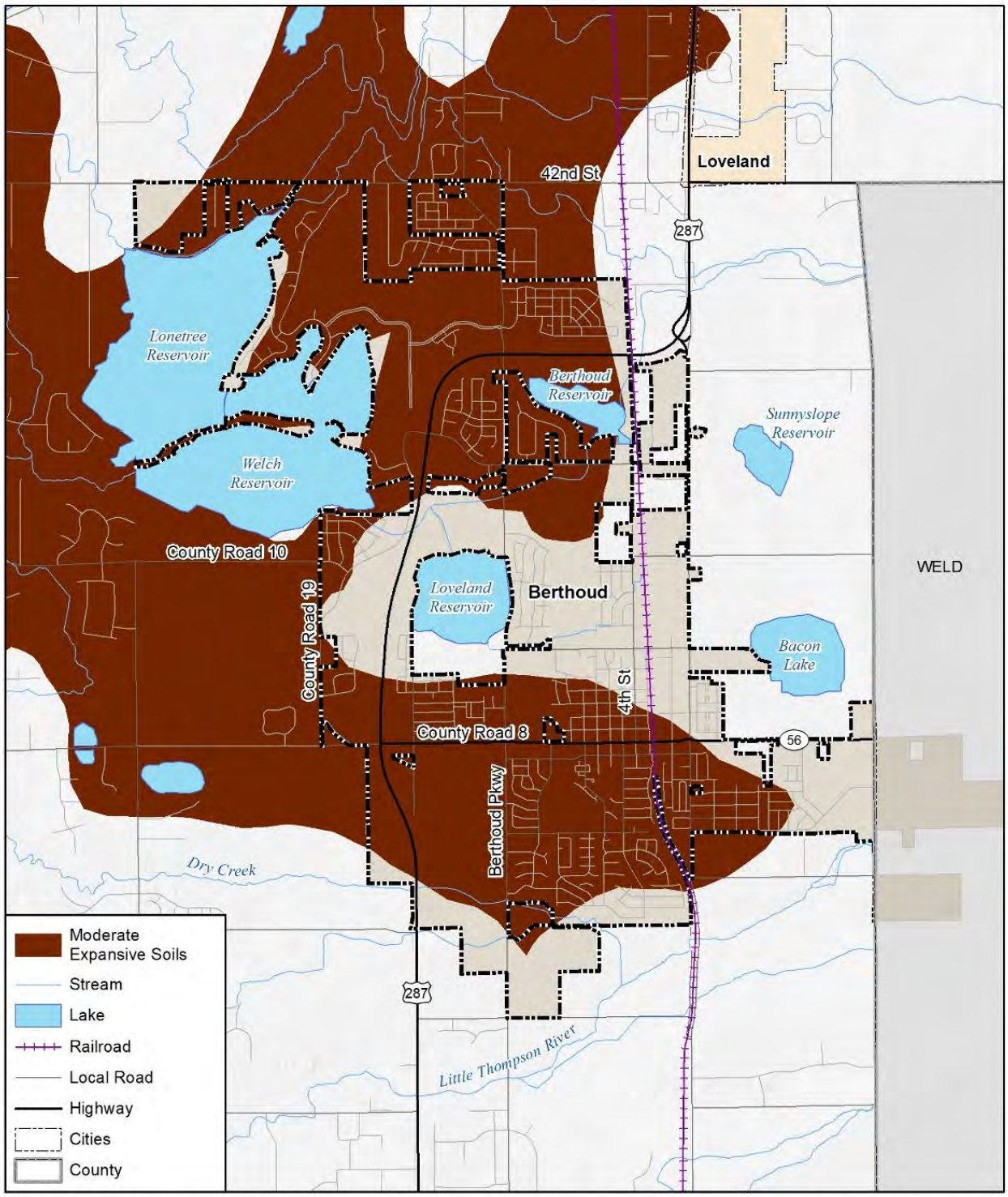
Figure A-8 Potential Expansive Soils Areas – Town of Berthoud



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

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The critical facility exposure analysis shows 15 critical facilities in Berthoud potentially at risk of collapsible soils and 14 potentially at risk of expansive soils, as shown in Table A-9.

Table A-9 Berthoud Critical Facilities with Potential Soil Hazards

FEMA Lifeline	Collapsible Soils	Expansive Soils	Total
Energy	1	0	1
Food, Water, Shelter	5	6	11
Health and Medical	2	2	4
Miscellaneous	1	1	2
Safety and Security	6	5	11
Total	**15**	**14**	**29**

Source: Cascarta

While the Town is at low risk of land subsidence or undermined areas, extensive portions of the Town are exposed to expansive or collapsible soils compared to Larimer County as a whole. Due to the minor impacts of expansive or collapsible soils the overall significance of this hazard for the Town is Low.

A.4.7 Wildfire

The Town of Berthoud has not had a significant history of wildfire activity in or adjacent to the Town, although the Town has felt impacts from wildfires in other areas of the County.

Areas in and around the Town of Berthoud at risk of wildfire, based on CO-WRAP assessment, are shown in Figure A-9.

Tables 4-72, 4-73, and 4-74 in the Wildfire profile of the Base Plan shows that the Town has only 178 parcels and 190 buildings at moderate, high, or highest risk of wildfire, with a total value of $103,883,778. An estimated 435 residents live in these at-risk areas.

The Town has three critical facilities identified at being at risk of wildfires, as shown in Table A-10.

Table A-10 Berthoud Critical Facilities Exposed to Wildfire Risk

FEMA Lifeline	Lowest Risk	Low Risk	Moderate Risk	High Risk	Highest Risk	Total
Miscellaneous			1			**1**
Safety and Security	2					**2**
Total	**2**	**0**	**1**	**0**	**0**	**3**

Source: Cascarta, CO-WRAP

While a relatively low percentage of the Town's total parcels and structures is at direct risk of wildfire, a look at Figure A-9 shows a significant portion of the land immediately west or south of the Town are at moderate or high wildfire risk. The overall significance of this hazard for the Town is Medium.

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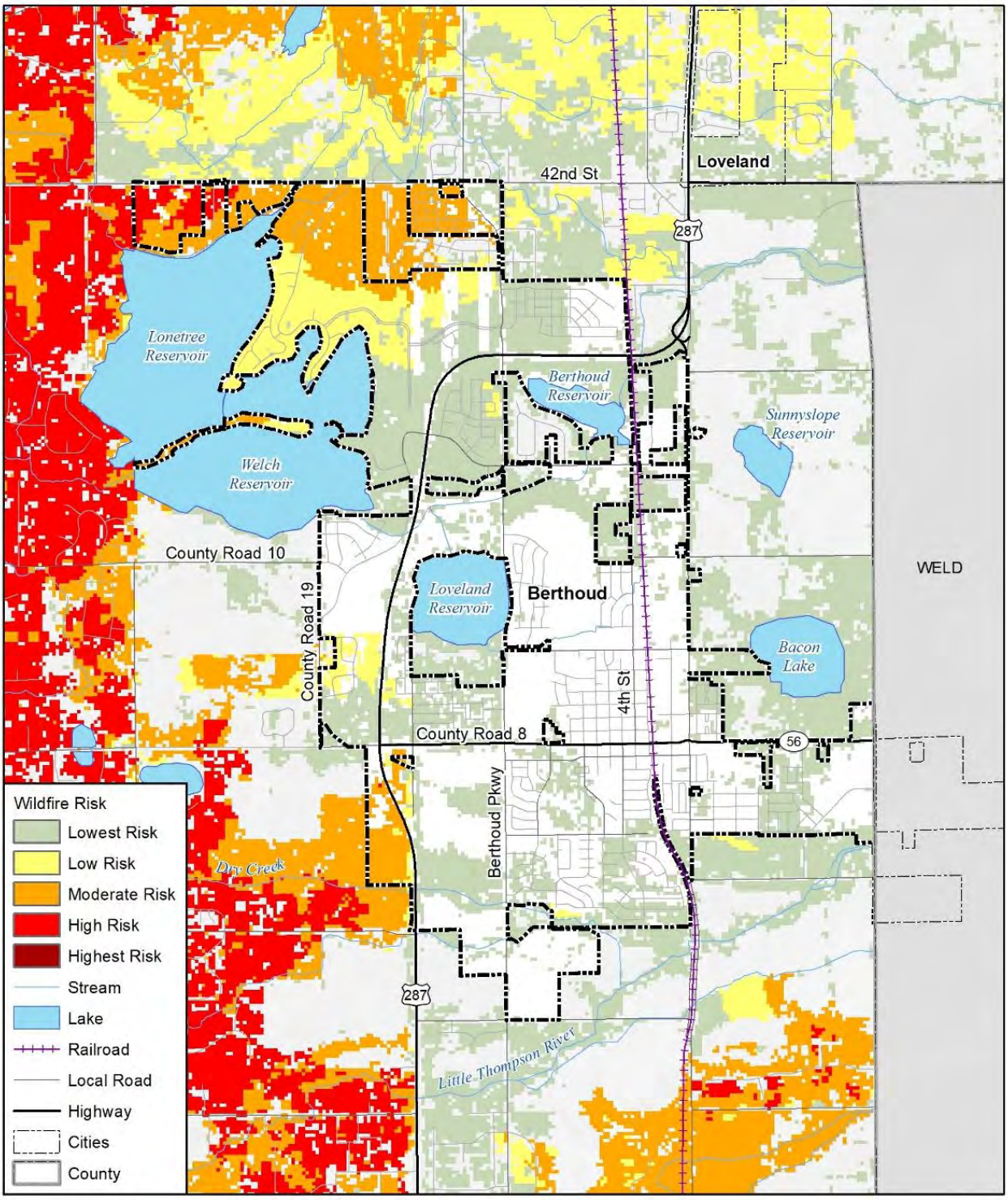
Figure A-9 Berthoud Wildfire Risk



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CO-WRAP

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A.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Town of Berthoud to reduce hazard impacts or that could be used to implement hazard mitigation activities.

A.5.1 Existing Capabilities

The following tables summarize the Town's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Table A-11 Town of Berthoud Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/ No	Comments
Comprehensive Plan	Yes	https://www.berthoud.org/home/showdocument?id=50 and a new comp plan coming in 2021
Zoning ordinance	Yes	Municipal Code Section 30-3
Subdivision ordinance	Yes	Municipal Code Section 30-3
Growth management ordinance	Yes	Municipal Code Section 30-2
Floodplain ordinance	Yes	Adopted with 2014 Comp Plan
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Municipal Code section 30-2-119 B, data provided by FEMA
Building codes	Yes	Municipal Code section 30-6-102 and 30-2-123
BCEGS Rating	Yes	4/4
Fire department ISO rating	Yes	International Building Code 2018 plus amendments
Erosion or sediment control program	Yes	https://berthoudfire.org/about/about/#:~:text=The%20Berthoud%20Fire%20Protection%20District%20received%20a%20Public%20Protection%20Classification,miles%20of%20either%20fire%20station.
Stormwater management program	Yes	Municipal Code Section 30-6-112
Site plan review requirements	Yes	Municipal 30-2-123
Capital improvements plan	Yes	Municipal Code section 30-6-112
Economic development plan	Yes	Municipal Code section 30-6-112
Local emergency operations plan	Yes	
Community Wildfire Protection Plan	No	
Other special plans	Yes	
National Flood Insurance Program	Yes	Joined 2006
Community Rating System	Yes	Included in Berthoud FPR CWPP
Flood insurance study or other engineering study for streams	Yes	
Elevation certificates (for floodplain development)	No	

Source: Town of Berthoud planning team

Table A-12 Town of Berthoud Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Community Development Director
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Public Works Director

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer/scientist with an understanding of natural hazards	Yes	Planner I
Transportation Planner	No	
Resiliency Planner	No	
Personnel skilled in GIS	Yes	Planner I
Full time building official	No	Contracted out with Pro Code
Floodplain manager	Yes	Community Development Director
Emergency manager	Yes	Sergeant Jim Anderson
Grant writer	Yes	Dispersed throughout staff
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Planner I
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	No	
Other key personnel	Yes	Building Technicians

Source: Town of Berthoud planning team

Table A-13 Town of Berthoud Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	No	No	
Capital improvements project funding	Yes	Yes	
Authority to levy taxes for specific purposes	Yes	Yes	
Fees for water, sewer, gas, or electric services	Yes	Yes	
Stormwater Service Fees	Yes	Yes	
Impact fees for new development	Yes	Yes	
Incur debt through general obligation bonds	Yes	Yes	
Incur debt through special tax bonds	Yes	Yes	
Incur debt through private activities	No	No	
Withhold spending in hazard prone areas	Yes	No	

Source: Town of Berthoud planning team

Table A-14 Town of Berthoud Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	No	
Firewise	No	
StormReady	No	

Source: Town of Berthoud planning team

Local land use plans and building codes are tremendous tools for evaluating local policies related to hazard mitigation and risk reduction. Additionally, comprehensive master plans, capital improvement plans, stormwater plans and zoning ordinances all present opportunities for enhanced local capabilities.

Building codes are another tool that communities use to enhance public safety. For example, they can increase structural integrity, mitigate structure fires, and provide benefits in relation to natural hazard avoidance. In Colorado, land use regulations and building codes are typically implemented at the local level. Even without a statewide mandate, most counties and many municipalities have enacted regulations

and codes. The Town of Berthoud has adopted a local building code requirement, demonstrating their understanding of the benefits codes provide, including reduced exposure to hazards.

A.5.2 Opportunities for Enhancement

Based on the capability assessment, Berthoud has several existing mechanisms in place that already help to mitigate hazards. There are also opportunities for the Town 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 DHSEM. Additional training opportunities will help to inform Town staff and Town Council on how best to integrate hazard information and mitigation projects into the Town policies and ongoing duties of the Town. Continuing to train Town staff on mitigation and the hazards that pose a risk to the Town will lead to more informed staff members who can better communicate this information to the public.

The Town will also explore becoming a StormReady and/or Firewise community.

A.6 Mitigation Strategy

The Town of Berthoud has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The Town had six mitigation actions in the 2016 Plan, and has completed five of them:

- Full Adoption of Updated FEMA Floodplains
- Flood Recovery Mitigation Activities
- Emergency Operations Plan
- Continuity of Operations Plan
- Town of Berthoud Update Snow Removal Plan

The remaining action has been carried over into the 2021 Plan, along with four new actions.

The local planning team identified and prioritized the following mitigation actions for the Town of Berthoud based on the risk assessment. 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.

National Flood Insurance Program

Recognizing the importance of the National Flood Insurance Program (NFIP) in mitigating flood losses, the Town of Berthoud will place an emphasis on continued compliance with the NFIP. As an NFIP participant, the Town has and will continue to make every effort to remain in good standing with NFIP. This includes continuing to comply with the NFIP's standards for updating and adopting floodplain maps and maintaining and updating the floodplain zoning ordinance as well as review of any potential development in special flood hazard areas.

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Table A-15 Town of Berthoud 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
A1	Goals 1,2,3,4,5 Objectives 1,2,3,4,5	Spring/Summer Storm and Tornado	**Severe Weather Warning System.** Issue: The Town of Berthoud does not have a severe weather warning system. An F3 tornado struck an area south west of the Town of Berthoud in June 2014. Recommendation: To secure funding to contract the design and installation of a severe weather warning system for the Town of Berthoud to include all annexed areas. Action: Contact vendors who design and install severe weather warning systems, obtain funding through a grant or donations and award a bid to complete the project.	**Town of Berthoud** Larimer County Office of Emergency Management, Berthoud Fire Protection District	$219,273	Grants / Donations	Medium	Ongoing	Continue- Not Completed. Residents are encouraged to sign up for LETA.
A2	Goals 1,2 Objectives 3,5	Tornadoes, Wildfire, Flood, Spring/Summer Storm, Earthquake, Soil Hazards	**Creation of Hazard Mapping Database.** Berthoud currently does not have a mapping database dedicated to past hazard events in the area. Benefits: A better understanding of historic disaster events to help predict and plan for future events.	**Town of Berthoud** NOAA, Larimer County GIS	Staff time, minimal cost	Revenues from property and sales tax / Grants	High	Six months	New in 2021
A3	Goals 1,2,4 Objectives 1,2,5	Biological, Civil Disturbance, Dam Inundation, Drought, Earthquake, Flood, Hazardous Materials, Landslide/Rockslide, Soil Hazards, Spring/Summer Storm, Tornado, Utility Disruption, Wildfire, Winter Storm	**Multi-Hazard Public Education Program.** Educate residents on natural hazard threats, impacts, mitigation opportunities, and advanced preparations to make in advance of events. Print materials will be developed and distributed at local government buildings and public libraries. Include the Los Ranchos Citizen Corps Program as part of this effort.	**Town of Berthoud** Larimer County Office of Emergency Management,	TBD	Town budget, grants	Medium	12 months	New in 2021
A4	Goals 1,2,3,4,5 Objectives 1,2,5	Winter Storms, Flash Flood, Severe Thunderstorms, Tornados	**Pursue StormReady accreditation.** This will help the community withstand the effects of severe storms.	**Town of Berthoud** NWS, Larimer County EMA	Staff time	Mitigation Fund	Low	0-5 years	New in 2021.
A5	Goals 1,2,3,4,5 Objectives 1,2,5	Wildfires	**Pursue FireWise accreditation.** This will help the community mitigate the potential for and impacts of wildfires.	**Town of Berthoud** NFPA, Larimer County EMA	Staff time	Mitigation Fund	Low	0-5 years	New in 2021.

A.7 Plan Maintenance and Implementation

The Town of Berthoud has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the town will continue public participation in the plan maintenance process.

A.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The Town of Berthoud's implementation strategy included:

- The Town, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the Town Board of Trustees.
  - The parties continuously meet to discuss items included in the 2016 HMP and other items as they arise.
- The Town will post information on the website and utilize the marketing and communications firm to get information to citizens and businesses.
  - The Town posted the HMP when it was adopted five years ago, and continuously posts hazard event updates to its website to help make citizens aware.
- The Town has a Comprehensive Master Plan that is continually updated. All actions will be documented or planned in advance. Budgeted items will be reviewed annually.
  - The Town is currently in the process of updating its Comprehensive Plan, and hazard items are being discussed and included.

A.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the Town to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

One of the Planners will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Planner involved will also be responsible for representing the Town on future Larimer County Planning Team meetings, and for coordination with town staff and departments during plan updates. The Town, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the Town Council.

Integration Into Other Planning Mechanisms

The Town of Berthoud will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically:

- Items from the HMP will be incorporated into the Comprehensive Plan.
- Post information on the Town's website to get information to citizens and businesses.

Continued Public Involvement

The Town of Berthoud will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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A.8 Letter of Intent to Participate

Town of Berthoud
807 Mountain Ave
P.O. Box 1229
Berthoud, CO 80513
970.532.2643

December 11, 2018

Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins CO 80522
Attn: Tori Hodges, Director of Emergency Management

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Town of Berthoud (Berthoud) is submitting this letter of intent to confirm that the Town of Berthoud has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, the Town of Berthoud agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

The Town of Berthoud understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I Christopher Kirk, commit the Town of Berthoud to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 11th day of December, 2018

Chris Kirk
Town Administrator

B. Berthoud Fire Protection District

"To Serve, To Care, To Support"

– Mission Statement, Berthoud Fire Protection District

B.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Berthoud Fire Protection District participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section B.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the District on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

B.2 Community Profile

The Berthoud Fire Protection District is a Special District under Title 32, Colorado Revised Statutes. The District celebrated 125 years of service to the Berthoud community in 2013. The District serves more than 17,500 residents within its 103 square mile area. Fire protection, emergency medical, rescue, hazardous material response and emergency management services are provided to portions of Larimer, Weld and Boulder Counties. The District has maintained a vision to provide the highest quality and cost effective service, community involvement, and excellence as a public service agency to the Town of Berthoud and surrounding area.

Figure B-1 shows a map of the Berthoud Fire Protection District.

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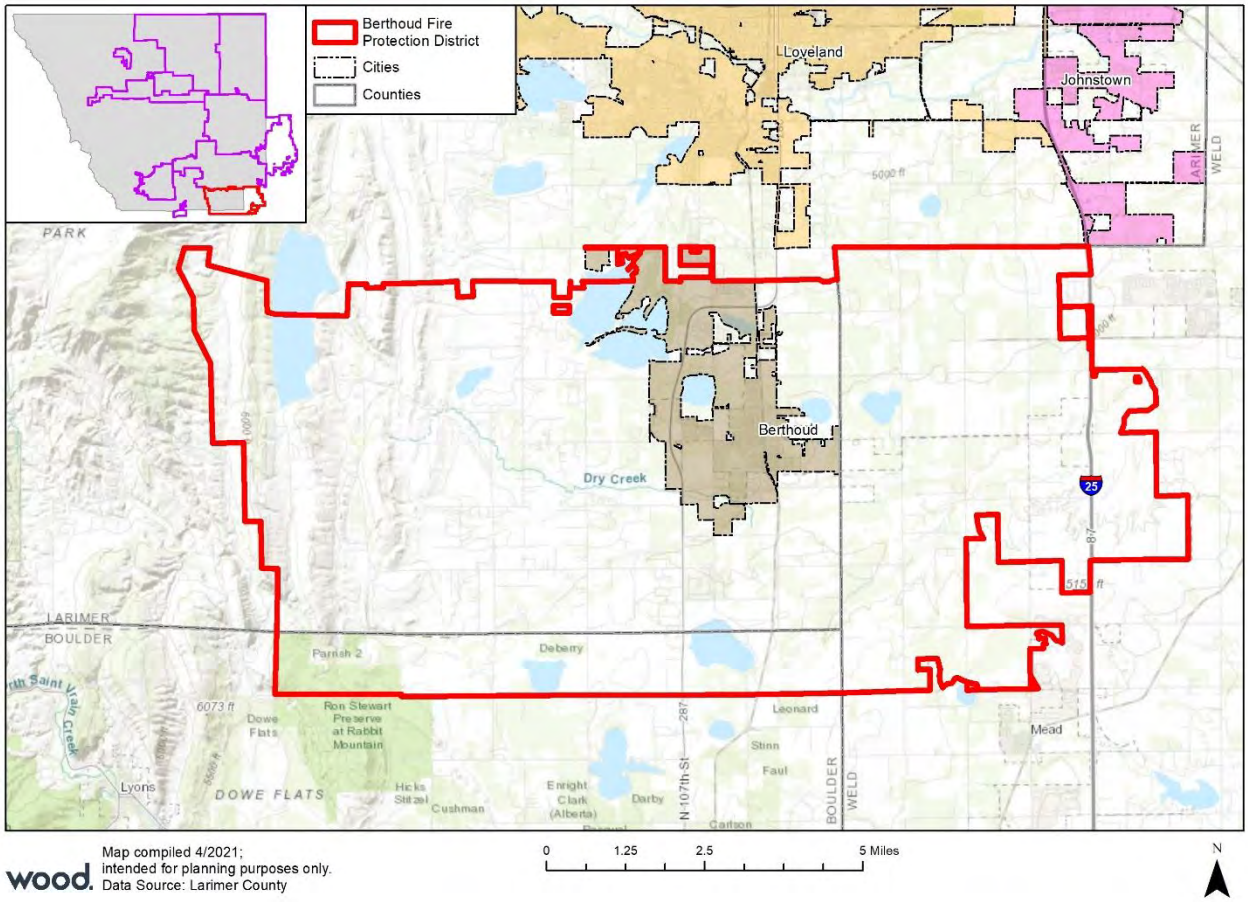
Figure B-1 Map of the Berthoud Fire Protection District



Social vulnerability scores for the District can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. Overall social vulnerability ranges from above average in the Town of Berthoud to below average in the rural areas of the District. For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

B.3 Hazard Identification and Risk Assessment

Berthoud Fire Protection District covers parts of Larimer, Boulder, and Weld Counties. For the purpose of this plan, spatially analyzed hazard risks have been assessed for the areas of the district that lie specifically within Larimer County.

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table B-1 Hazard Identification and Risk Assessment Summary for the Berthoud Fire Protection District

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Likely	Significant	Critical	Medium
Civil Disturbance	Likely	Limited	Negligible	Medium
Dam Inundation	Occasional	Limited	Significant	Medium
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Significant	Significant	Low
Flood	Likely	Significant	Significant	Medium
Hazardous Materials	Likely	Significant	Significant	Medium
Landslide/Rockslide	Unlikely	Limited	Negligible	Low
Soil Hazards	Likely	Limited	Negligible	Low
Spring/Summer Storm	Highly likely	Significant	Significant	High
Tornado	Likely	Limited	Significant	Medium
Utility Disruption	Highly Likely	Significant	Significant	Medium
Wildfire	Likely	Significant	Negligible	High
Winter Storm	Likely	Extensive	Limited	Medium

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

B.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Berthoud Fire Protection District, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the District's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Hazardous Materials Incident
- Soil Hazards
- Spring/Summer Storm
- Tornado
- Utility Disruption
- Winter Storm

For the purpose of this plan, only the parts of the District that lie specifically within Larimer County have been assessed for vulnerability data. For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

B.4.1 Community Asset Inventory

Table B-2 lists summary information about the 28 critical facilities identified as important to protect or that provide critical services in the event of a disaster. For additional information on critical facilities, to include the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan and Annex A Town of Berthoud.

Table B-2 Berthoud Fire Protection District Critical Facilities and Infrastructure

FEMA Lifeline	Count
Energy	1
Food, Water, Shelter	16
Hazardous Material	1
Health and Medical	2
Miscellaneous	1
Safety and Security	7
Total	**28**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

B.4.2 Dam Inundation

Areas at risk of dam inundation in the District can be seen in Figure A-5 in Annex A (Town of Berthoud) and Figure 4-5 in the Base Plan. One critical facility (food-water-shelter category) has been identified as at risk of dam inundation. Additional information about assets at risk can be found in Annex A and Section 4.3.3 of the Base Plan.

Table 4-17 in Section 4.3.3 of the Base Plan lists dams of concern for Larimer County. High Hazard dams in or upstream of the Berthoud Fire Protection District are:

- Carter Lake Dam #1
- Carter Lake Dam #2
- Dry Creek
- Handy
- Ish #3 (Main Dam)

Based on the above analysis, the spatial extent and severity of the dam inundation hazard in the Berthoud FPD is lower than that of Larimer County as a whole. The overall significance of this hazard for the District is Medium.

B.4.3 Flood

FEMA mapped floodplains in and around the Berthoud Fire Protection District can be seen in Figure A-6 in Annex A (Town of Berthoud) and Figure 4-19 in the Base Plan. None of the critical facilities in Table B-2 are located in mapped floodplains. Additional information about assets at risk can be found in Annex A and Section 4.3.6 in the Base Plan.

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Based on the above analysis, the spatial extent and severity of the flood hazard in the Berthoud Fire Protection District is lower than that of Larimer County as a whole. The overall significance of this hazard for the District is Medium.

B.4.4 Landslide/Rockslide

There are no identified areas of landslide or rockslide risk in the Berthoud Fire Protection District. The overall significance of this hazard for the District is Low.

B.4.5 Soil Hazards

Of the 28 critical facilities identified in Table B-2, 19 are at risk of collapsible soils and 14 are at risk of expansive soils; see Figure A-7 and A-8 in Annex A. However, the threat presented by these hazards is unlikely to result in significant disruption. The overall significance of this hazard for the District is Low.

B.4.6 Wildfire

The Berthoud Fire Protection District has not had a significant history of wildfire activity in or adjacent to the Town, although the District has felt impacts from wildfires in other areas of the County.

Areas in and around the District at risk of wildfire, based on CO-WRAP assessment, are shown in Figure A-9 in Annex A (Town of Berthoud) and Figure 4-43 in the Base Plan. A significant portion of the central and western part of the District are at Moderate to High risk of wildfires.

None of the critical facilities in Table B-2 are located in areas at highest or high wildfire risk. Three facilities (two food-water-shelter; one miscellaneous) are at moderate risk. An additional seven facilities (four food-water-shelter; two safety-security, one hazmat) are in areas at low or lowest risk. Additional information about assets at risk can be found in Annex A and Section 4.3.13 in the Base Plan.

The overall significance of this hazard for the District is High.

B.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Berthoud Fire Protection District to reduce hazard impacts or that could be used to implement hazard mitigation activities.

B.5.1 Existing Capabilities

The following tables summarize the District's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Berthoud FPD is covered under a Community Wildfire Protection Plan (CWPP), which was last updated in 2007; they have an ongoing action to update the CWPP.

Table B-3 Berthoud Fire Protection District Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/ No	Comments
Comprehensive Plan	Yes	Emergency Operations Plan/Larimer County
Zoning ordinance	Yes	
Subdivision ordinance	Yes	
Growth management ordinance	Yes	
Floodplain ordinance	Yes	
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Community Wildfire Protection Plan, railway, water treatment plant

Regulatory Tool (ordinances, codes, plans)	Yes/ No	Comments
Building codes	Yes	
Fire department ISO rating	Yes	ISO 2
Erosion or sediment control program	Yes	
Stormwater management program	Yes	
Site plan review requirements	Yes	Reviewed to insure fire apparatus access and fire protection in accordance with 2018 IFC
Capital improvements plan	Yes	Annually
Economic development plan	Yes	Completed in 2020 by James Vincent Group
Local emergency operations plan	Yes	
Flood insurance study or other engineering study for streams	No	
Elevation certificates (for floodplain development)	No	
Other special plans	No	Continuity of Operations, BNSF Railroad Mitigation, Standards of Cover, Impact Fee Study, Staffing Needs Assessment, Risk Mgmt. Framework

Source: Berthoud Fire Protection District planning team

Table B-4 Berthoud Fire Protection District Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/ Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Curt Freese
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Adam Olinger
Planner/engineer/scientist with an understanding of natural hazards	No	
Personnel skilled in GIS	Yes	Ben Butterfield, LETA
Full time building official	No	
Floodplain manager	No	
Emergency manager	No	County OEM
Grant writer	No	
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Ben Butterfield, LETA
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	Kimberly Culp

Source: Berthoud Fire Protection District planning team

Table B-5 Berthoud Fire Protection District Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	Yes	No	
Capital improvements project funding	Yes	No	
Authority to levy taxes for specific purposes	Yes	Yes	
Fees for water, sewer, gas, or electric services	No	No	
Impact fees for new development	Yes	Yes	As of 2018
Incur debt through general obligation bonds	Yes	No	

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Incur debt through special tax bonds	Yes	Yes	
Incur debt through private activities	Yes	No	
Withhold spending in hazard prone areas	No	No	

Source: Berthoud Fire Protection District planning team

Table B-6 Berthoud Fire Protection District Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	Yes	Annual wildfire meetings w/ residents of west side
Firewise	Yes	
StormReady	No	

Source: Berthoud Fire Protection District planning team

B.5.2 Opportunities for Enhancement

Based on the capability assessment, the District 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 DHSEM. Additional training opportunities will help to inform District staff 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.

The District will explore creating additional contingency plans for specific hazards and updating existing plans where needed.

B.6 Mitigation Strategy

The Berthoud Fire Protection District has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The District had six mitigation actions in the 2016 Plan, and has completed three of them:

- Emergency Operations Plan
- Continuity of Operations Plan
- Burlington Northern Santa Fe Railroad Threat and Risk Assessment and Mitigation Plan.

The remaining three actions have been carried over into the 2021 Plan, along with two new actions. The District has also conducted a wildland fire mitigation project west of Berthoud, consisting of tree cutting and fuel reduction.

The District planning team identified and prioritized the following mitigation actions for the Berthoud Fire Protection District based on the risk assessment. 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.

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Table B-7 Berthoud Fire Protection District 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
B-1	Goals 1,2,3,4,5 Objectives 1,2,3,4,5	Wildfire	**Community Wildfire Protection Plan Update.** The BFPD Community Wildfire Protection Plan (CWPP) was last updated in 2007 and needs to be updated. The purpose of the CWPP is risk analysis, fire behavior analysis and community wildfire hazard rating to provide a more comprehensive, scientifically-based assessment of the wildfire hazards and risk within our jurisdiction.	**Berthoud Fire Protection District**	Staff time	NA	Medium	2023	In progress
B-2	Goals 1,2, Objectives 3,5	Drought, Earthquake, Land Subsidence, Extreme Temperatures, Flood, Severe Storm, Wind & Tornado, Structural and Wildland Fire, Public Health Emergencies, Hazardous Material Releases, Civil Unrest and Terrorist Attacks	**Standard of Cover.** Review current plan, complete a deployment analysis that determines the distribution and concentration of fixed and mobile resources of the District. The Standard of Cover will include, through research, risk assessment, critical task analysis, agency service level objectives, and distribution and concentration measures. The Standard of Cover will also provide documentation of reliability studies and historical performance and conclude with policy recommendations.	**Berthoud Fire Protection District** National Fire Services Office, Sylvania, Georgia	Staff hours 80 / staff cost $4,556 National Fire Services Office cost $3,500 / total cost $8,056	District revenues from property taxes (gas/oil revenue included) and specific ownership taxes / Grants	Medium	Ongoing	Annual Implementation
B-3	Goals 1,2 Objectives 3,4,5	Drought, Earthquake, Land Subsidence, Extreme Temperatures, Flood, Severe Storm, Wind & Tornado, Structural and Wildland Fire, Public Health Emergencies, Hazardous Materials Release, Civil Disturbance	**Operational Response Guidelines & Policy**. Contract with Lexipol, LLC of Aliso Viejo, California to work with staff to develop new operating guidelines.	**Berthoud Fire Protection District** Lexipol, LLC, Aliso Viejo, California	Staff hours 160 hours / staff cost $3,884 / Lexipol, LLC cost $3,836 / total cost $7,720	District revenues from property taxes (gas/oil revenue included) and specific ownership taxes / Grants	Medium	2021	In progress
B-4	Goals1,2,5 Objectives 3,5	Biological, Hazmat, Wildfire	**Operational Response Guidelines and Policies.** Update response guidelines and policies for natural disasters, civil unrest, fires, public health emergencies, hazmat, etc. Improving response times, resource allocation, alarm assignments. Benefits:	**Berthoud Fire** LCSO Berthoud Squad, Town of Berthoud, Lexipol LLC	Lexipol LLC policy developmen t and online database:	General fund property tax revenue	Medium	Ongoing; target dates for Sept. 2020, Dec.	New in 2021

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			injuries/fatalities, property damage, economic losses		$5055. Staff hours $3355			2020, March 2021	
B-5	Goals1,2,3, 4 Objectives 1,4,5	Wildfire	**Roadside Community Chipping Program Grant.** The District will establish a "dead and down" tree litter chipping day to residents on the western edge of the District, which has been identified in the CWPP as the highest wildfire hazard for the District.	**Berthoud Fire** Anchor Point Wildland Fire Solutions	$5000	Grant/ matching funds	High	Spring/ summer 2021	New in 2021

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B.7 Plan Maintenance and Implementation

The Berthoud Fire Protection District has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the District will continue public participation in the plan maintenance process.

B.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The District's implementation strategy included:

- Our mitigation actions will be reviewed by staff and the District's Board of Directors on annual basis.
  - This was accomplished after completion of most recent wildfire mitigation actions in October of 2019.
- Changes to our mitigation actions and priorities will be announced publicly and posted on the District's website for public review and comment.
  - This was not accomplished due to conflicting priorities.
- We will continue to identify specific hazards in our community and address them by completing a risk and vulnerability assessment, policy and/or codes will be adopted to address the issues.
  - This was accomplished through data analysis of response/incident occurrences and participation of our fire marshal and staff in technical review committees with Berthoud Planning Department.
- We've completed a Community Wildfire Protection Plan and an R / A on the Burlington Northern Santa Fe Railroad which transverses our community.
  - This was completed in 2019.

Additionally, the District incorporated information from the 2016 HMP into other plans and processes to include:

- Continuity of Operations Plan
- 2018 International Fire Code
- 2nd Update of the 2011 Burlington Santa Fe Railroad Threat & Risk Assessment
- 2nd Update of the Community Wildfire Protection Plan
- Standard of Cover Updated Annually

B.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the District to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Fire Chief and Operations Chief will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Fire Chief and Operations Chief will also be responsible for representing the District on future Larimer County Planning Team meetings, and for coordination with District staff and departments during plan updates. The District, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the District's Board of Directors.

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Integration Into Other Planning Mechanisms

The Berthoud Fire Protection District will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically:

- The District will incorporate the HMP into its annual review of standards of cover, updates to the District Strategic Plan, Community Wildfire Protection Plan, Technical Review Committee participation, and risk reduction education efforts.
- The District will meet annually with the Division of Fire Prevention and Control, representatives from BNSF Railroad, Anchor Point LLC, and the BlueCell to begin a process of incorporating public education and community awareness.
- Post information on the Town's website and utilize the marketing and communications firm to get information to citizens and businesses.
- Mitigation actions will continue to be incorporated in capital improvement planning.
- Incorporate information from the HMP into the next update of the Town of Berthoud's comprehensive plan/zoning code/etc.]

Continued Public Involvement

The Berthoud Fire Protection District will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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B.8 Letter of Intent to Participate

Berthoud Fire Protection District

LETTER OF INTENT TO PARATICIPATE

September 16, 2014

Larimer County Office of Emergency Management
Lori R. Hodges, Director
300 West Oak Street, 2nd Floor
Fort Collins, CO 80522-1190

Re: "Statement of Intent to Participate" as a participating jurisdiction in Larimer County Office of Emergency Management, Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Director Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6 which specifically identify criteria that allow for multi-jurisdictional mitigation plan, the Berthoud Fire Protection District is submitting this letter of intent to confirm that Larimer County Office of Emergency Management has agreed to participate in the Larimer County's Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, Berthoud Fire Protection District agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to the Larimer County Office of Emergency Management, to complete the plan in conformance with FEMA requirements.

Berthoud Fire Protection District understands that it must engage in the following planning process, as more fully described in FEMA's Local Mitigation Planning Handbook dated March 2013 including but not limited to:

- Identification of hazards unique to the jurisdiction and not addressed in the master planning document;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc);
- Documentation of an effective process, to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Box 570 • 275 Mountain Ave. • Berthoud, CO 80513
(970) 532-2264 Phone • (970) 532-4744 Fax • www.berthoudfire.org

C. Crystal Lakes Fire Protection District

C.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Crystal Lakes Fire Protection District participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section C.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the District on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

C.2 Community Profile

The Crystal Lakes Fire Protection District (CLFPD) covers an area of approximately 4,800 acres and is surrounded by the Roosevelt National Forest fifty miles northwest of Fort Collins. The vegetation at this elevation (8,000 to 9,500 feet) ranges from grassy meadows to stands of aspen and pine and there are several lakes in the area. The District encompasses more than 600 cabins and residences on 1,700 lots, a community center, a small mountain resort (Beaver Meadows and associated land), and approximately 95 miles of unpaved roads. The only road in and out of the District is North County Road 73C, which is in good condition south of the district, but is often difficult to pass to the north-east (it becomes primarily single-lane, gets very rough, and has several hairpin turns). This results in the community having only one viable evacuation route (except for those driving high-clearance 4WD vehicles). There is a private dirt airstrip which is owned by Hank's Flying Service, Inc., north of Ottawa Way at Tami Road.

Error! Reference source not found. shows a map of the Crystal Lake Fire Protection District.

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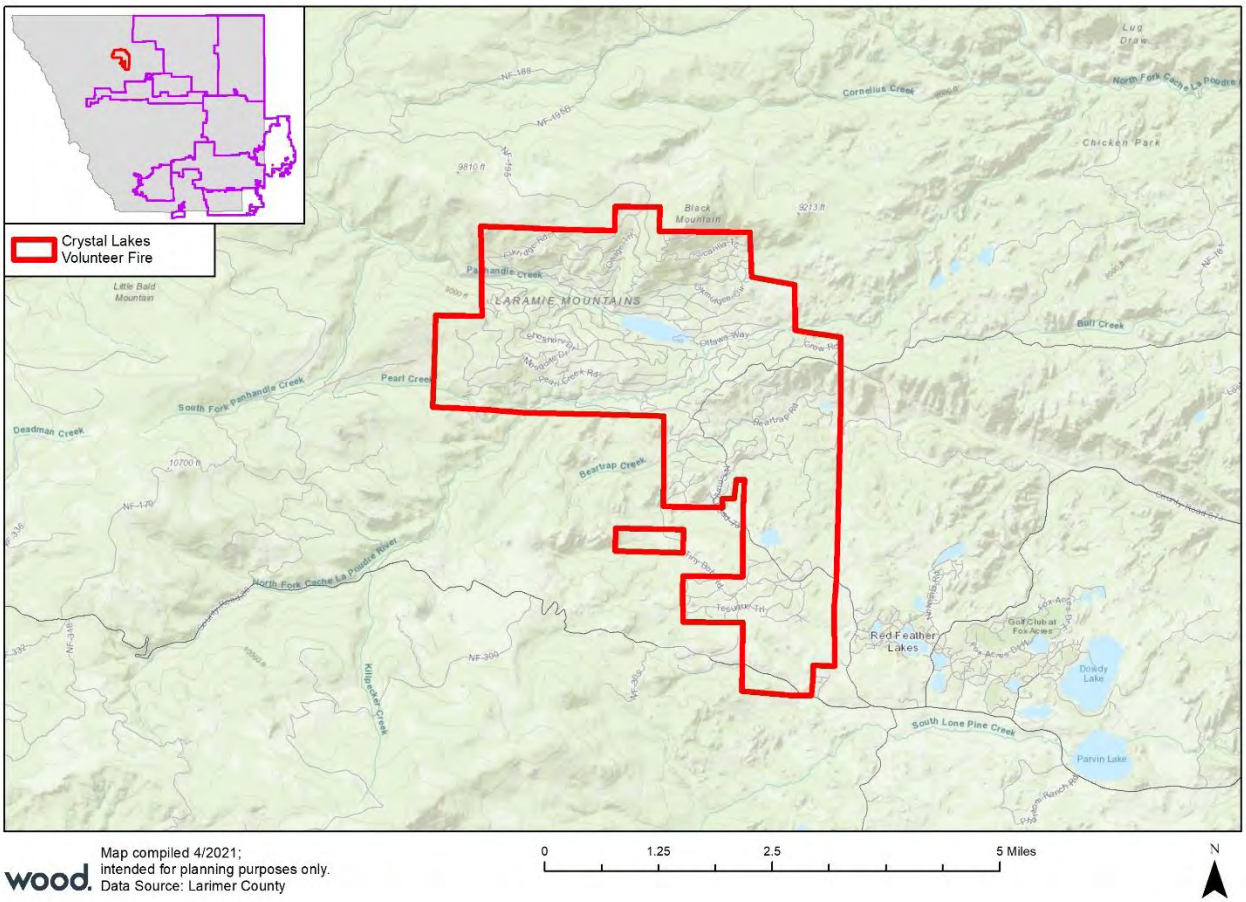
Figure C-1 Map of the Crystal Lakes Fire Protection District



The fire district's community partners are Crystal Lakes Water & Sewer Association and Crystal Lakes Road & Recreation Association. Water & Sewer handles the Water Mitigation Plan for the area, maintaining several man-made lakes and reservoirs. Only a couple of dozen properties in the district have water and sewer-line service. All other properties are on wells/cisterns and septic systems/vaults. There is one hydrant (gravity-fed) near the community center. The primary source of water for firefighting activities is drafting out of the lakes. The large reservoir called Crystal Lakes (aka: Panhandle Reservoir) has an earthen dam, with approximately four dozen properties in the floodplain area below it. The Road & Recreation Association handles snowplowing and maintenance of the community roads, and has opened a slash-disposal depot for property owner use. They also maintain large tracts of community-owned greenbelts, mitigation of which is ongoing. There is a great deal of fire mitigation that needs to be done in this community, both on the publicly owned greenbelts and the privately owned lots. The Crystal Lakes Road & Recreation Association has been an important partner in the implementation of wildfire mitigation. The pine beetle infestation of recent years has killed off a number of trees, and mitigation efforts are ongoing.

Social vulnerability scores for the District can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. Overall, Crystal Lakes Fire Protection District is characterized by medium-low levels of social vulnerability, however it does rank high in housing and transportation vulnerability. For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

C.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table C-1 Hazard Identification and Risk Assessment Summary

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Highly Likely	Extensive	Critical	High
Civil Disturbance	Unlikely	Limited	Negligible	Low
Dam Inundation	Occasional	Significant	Significant	Medium
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Significant	Critical	Medium
Flood	Occasional	Significant	Critical	Medium
Hazardous Materials	Unlikely	Limited	Significant	Low
Landslide/Rockslide	Occasional	Limited	Negligible	Low
Soil Hazards	Occasional	Significant	Significant	Low
Spring/Summer Storm	Likely	Extensive	Significant	Medium
Tornado	Unlikely	Limited	Significant	Low
Utility Disruption	Highly Likely	Significant	Significant	Medium
Wildfire	Likely	Extensive	Critical	High
Winter Storm	Highly Likely	Extensive	Significant	High

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

C.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Crystal Lake Fire Protection District, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the District's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Drought
- Earthquake
- Landslide/Rockslide
- Spring/Summer Storm
- Utility Disruption
- Winter Storm

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

C.4.1 Community Asset Inventory

Table C-2 lists summary information about the two critical facilities identified as important to protect or that provide critical services in the event of a disaster. For additional information on critical facilities, to include the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan.

Table C-2 Crystal Lakes Fire Protection District Critical Facilities and Infrastructure

FEMA Lifeline	Count
Food, Water, Shelter	2
Total	**2**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

C.4.2 Civil Disturbance

There is no significant history of civil disturbance risk in the Crystal Lakes Fire Protection District. The overall significance of this hazard for the District is Low.

C.4.3 Dam Inundation

While there are a number of dams in the Crystal Lakes Fire Protection District, only Crystal Lake/Panhandle Reservoir Dam is ranked as High Hazard. One critical facility (food-water-shelter category) is potentially at risk of dam inundation. The overall significance of this hazard for the District is Medium due to potential property damage and loss of life.

C.4.4 Flood

The Crystal Lakes Fire Protection District has no history of damaging floods, except for road damage due to localized flash and storm-related flooding. There are identified buildings (residences/cabins) in flood areas below Crystal/Panhandle Dam; however, no there are no critical facilities located in identified special flood hazard areas. While localized flash flooding is always possible, the District's flood risk is lower than the County as a whole. The overall significance of this hazard for the District is Medium.

C.4.5 Hazardous Materials Incident

There is no significant history of hazardous materials incidents in the Crystal Lakes Fire Protection District. The overall significance of this hazard for the District is Low.

C.4.6 Soil Hazards

There is no significant history of expansive/collapsible soils or land subsidence in the Crystal Lakes Fire Protection District. Both of the critical facilities identified in Table C-2 are at low risk of soil hazards. The overall significance of this hazard for the District is Low.

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C.4.7 Tornado

There is no significant history of tornadoes in the Crystal Lakes Fire Protection District, although thunderstorm winds exceeding 60-70mph are seasonally common. The overall significance of this hazard for the District is Low.

C.4.8 Wildfire

Crystal Lakes has experienced large wildfire events caused by small plane crashes, both of which took place several decades ago. The most recent substantial wildfire took place in September of 2015, burning approximately twenty acres and no structures. The District did not experience any structure or property damage due to the 2020 Cameron Peak Wildfire; however, District residents faced mandatory evacuation for six weeks and local perimeter properties were mitigated by Department firefighters to minimize the fire's potential impact.

As seen in Section 4.3.13 of the Base Plan, most of the District is classified as being at Low risk of wildfires. One of the two critical facilities identified in Table C-2 is at the lowest risk of wildifre. However, the risk of fires is always present, and the fact that there is only one evacuation route out of the District is of concern. The overall significance of this hazard for the District is High.

C.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Crystal Lakes Fire Protection District to reduce hazard impacts or that could be used to implement hazard mitigation activities.

C.5.1 Existing Capabilities

The following tables summarize the District's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Crystal Lakes FPD is covered under a Community Wildfire Protection Plan (CWPP), which was last updated in 2008; they have submitted an action to update the CWPP.

Table C-3 Crystal Lakes Fire Protection District Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/ No	Comments
Comprehensive Plan	No	
Zoning ordinance	No	
Subdivision ordinance	No	
Growth management ordinance	No	
Floodplain ordinance	No	
Other special purpose ordinance (stormwater, steep slope, wildfire)	No	
Building codes	Yes	Larimer County
Fire department ISO rating	Yes	
Erosion or sediment control program	No	
Stormwater management program	No	
Site plan review requirements	Yes	Architectural Control Committee
Capital improvements plan	Yes	CLRRA & CLWSA Reserve Studies, addition of classroom to fire station
Economic development plan	No	
Local emergency operations plan	Yes	Part of Firewise Community

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Regulatory Tool (ordinances, codes, plans)	Yes/ No	Comments
Other special plans	Yes	Emergency Evacuation Plan
Flood insurance study or other engineering study for streams	No	
Elevation certificates (for floodplain development)	No	

Source: Crystal Lakes Fire Protection District planning team

Table C-4 Crystal Lakes Fire Protection 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	No	
Planner/engineer/scientist with an understanding of natural hazards	No	
Personnel skilled in GIS	Yes	CLVFD member
Full time building official	No	
Floodplain manager	No	Response: CLVFD. CLRRA/CLWSA construction/management
Emergency manager	Yes	Association Manager and District Fire Chief
Grant writer	Yes	Department member
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Architectural Control Committee/CLRRA Board
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	CLRRA owns sirens, monitored and operated by CLVFD
Other key personnel: CLFPD Chief	Yes	

Source: Crystal Lakes Fire Protection District planning team

Table C-5 Crystal Lakes Fire Protection District Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	No	No	
Capital improvements project funding	Yes	Yes	Mil levy revenue
Authority to levy taxes for specific purposes	Yes	Yes	CLFPD with voter approval
Fees for water, sewer, gas, or electric services	Potentially	Yes	Association-related
Impact fees for new development	No	No	
Incur debt through general obligation bonds	Yes	Yes	Fire Station Remodel
Incur debt through special tax bonds	No	No	
Incur debt through private activities	No	No	
Withhold spending in hazard prone areas	No	No	

Source: Crystal Lakes Fire Protection District planning team

Table C-6 Crystal Lakes Fire Protection District Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local citizen groups that communicate hazard risks	Yes	Association Committees and Boards
Firewise	Yes	
StormReady	No	
Series of Department-sponsored seminars	Yes	Presented every summer on topics such as Mitigating your property, when to get out (evacuation), insurance issues

Source: Crystal Lakes Fire Protection District planning team

C.5.2 Opportunities for Enhancement

Based on the capability assessment, Crystal Lakes Fire Protection District 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 DHSEM. Additional training opportunities will help to inform District staff and leadership 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.

C.6 Mitigation Strategy

The Crystal Lakes Fire Protection District has adopted the hazard mitigation goals and objectives developed by the HMPC and described in Section 6.2 of the Base Plan.

The District had five mitigation actions in the 2016 Plan, one of which has been completed:

- Evacuation Routes

The remaining four actions have been carried over into the 2021 Plan, along with three new actions.

Additional mitigation activities completed in cooperation with the Crystal Lakes Road & Recreation Association include:

- Shaded fuel break on east and north development boundaries.
- Thinning of three green belts, clearing 15,000 cubic yards of slash
- Mitigation of Crystal Lakes Base Camp
- Construction of shaded fuel break on north and west upper boundary of development
- Second mitigation of Crystal Lakes Base Camp—the "KOA" area
- Regular fire mitigation inspections for property owners

The local planning team identified and prioritized the following mitigation actions for the Crystal Lakes Fire Protection District based on the risk assessment. 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.

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Table C-7 Crystal Lakes Fire Protection District 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
C-1	Goals 1,2,3,4 Objectives 1,5	Flood, Wildfire	**Community Outreach.** Issue: Property owners in the Crystal Lakes district need education in the most effective fire mitigation steps to take, when and how to safely evacuate in case of flood or fire, how to sign up for LETA, and how to ensure that their insurance is sufficient to allow them to recover from a disaster. Recommendation: Community outreach and education efforts. Action: Hold regular educational meetings covering the subjects of fire mitigation, evacuation, and property insurance. These meetings to take place on multiple occasions during the summer (when more property owners are in the area).	Crystal Lakes Volunteer Fire Department LETA, possibly LCES	$1,500	Crystal Lakes Fire Protection District; possible grants for materials costs.	High	Ongoing	In Progress
C-2	Goals 1,2,3,4 Objectives 1,5	Wildfire	**Fire Mitigation Assessments.** Issue: Property owners in the Crystal Lakes district need education in the most effective fire mitigation steps to take and assistance in determining if they've done all they can to mitigate their property. Recommendation: One-on-one mitigation assessments. Action: Provide fire mitigation assessments to district property owners. At the request of local property owners, teams of two or more members of the fire department will meet with them to tour their property and provide mitigation advice and assessment.	**Crystal Lakes Volunteer Fire Department**, Crystal Lakes Road and Recreation Board	$750	Crystal Lakes Fire Protection District; grants for materials costs.	High	Ongoing	In Progress
C-3	Goals 1,2,3 Objectives 1,3,4,5	Wildfire	**Fire Mitigation of Privately Owned Land.** Issue: Many privately owned areas in the Crystal Lakes community are in serious need of fire mitigation, and funding and resources for mitigation are lacking. The population is older, with half or more of all properties owned by retirees, and many people either lack the ability to mitigate or the money to pay for mitigation work. Recommendation: Property owners need grants and other assistance in their efforts to mitigate their properties. To assist with this effort, the Crystal Lakes Vol. Fire Dept. is in need of resources to identify unmitigated properties vital to the defense of the community and to contact these property owners with the offer of grants or other mitigation assistance needed to encourage them to do necessary mitigation work. Action: Assist property owners in mitigating their properties. The fire district can, if necessary, administer these grants, work to identify the properties most in need of mitigation, and make contact with the property owners to determine (and where possible offer) the resources would encourage mitigation work.	**Crystal Lakes Volunteer Fire Department** Larimer County	$4-5,000	Grants for homeowners ' mitigation	High	Ongoing	In Progress

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
C-4	Goals 1,2,3,5 Objectives 5	Wildfire	**Water Storage Cisterns.** Issue: Crystal Lakes is a community with no community-wide water system and no system of hydrants. Fire services must draft water from ponds and lakes, and many areas in the district are more than two miles from the nearest water source. Recommendation: Buy and install water tanks and cisterns on greenbelt (publicly owned) areas or on private properties (with permanent easement agreed to by the property owner) in areas of the district which are significantly remote from water sources. Action: Install cisterns capable of containing 2500+ gallons underground where possible, and in areas where burial is not possible due to rock substrata, install IBC Tanks capable of containing 330 gallons above ground (these would have to be drained for winter to avoid freezing). The Crystal Lakes Volunteer Fire Department would be responsible for maintaining these cisterns and keeping them filled and accessible (year-round for the underground cisterns, during the fire season for the above- ground tanks).	Crystal Lakes Volunteer Fire Department	$11,000	Grants, Crystal Lakes	Medium	TBD	Not Started
C-5	Goals 1,4 Objectives 1,5	Wildfire	**Homeowner mitigation seminars.** CLVFD presents two seminars each summer to educate home/property owners on how to effectively mitigate their properties, and also offers free mitigation inspections to all district residents.	**Crystal Lakes Volunteer Fire Department** Crystal Lakes Road and Recreation Association, Crystal Lakes Fire Protection District	Staff Time	Department resources	High	8/29/ 2020?	New in 2021
C-6	Goals 2,3,5 Objectives 3,4,5	Wildfire, Flood	**Cameron Peak Wildfire Recovery and Mitigation.** Coordinate with Larimer County, LCSO, USFS, and other partners to identify and implement post-fire recovery and post-fire flooding mitigation projects as a result of the Cameron Peak Wildfire.	**Crystal Lakes Volunteer Fire Department**	Unknown	HMGP, BRIC	Medium	2020-2021	New in 2021
C-7	Goals 1,2,3,4,5 Objectives 1,2,3,4,5	Wildfire	**Community Wildfire Protection Plan Update.** The CLVFD Community Wildfire Protection Plan (CWPP) was last updated in 2008 and needs to be updated. The purpose of the CWPP is risk analysis, fire behavior analysis and community wildfire hazard rating to provide a more comprehensive, scientifically-based assessment of the wildfire hazards and risk within our jurisdiction.	**Crystal Lakes Volunteer Fire Department**	TBD	Staff time, grants	High	2022	New in 2021

C.7 Plan Maintenance and Implementation

The Crystal Lakes Fire Protection District has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the town will continue public participation in the plan maintenance process.

C.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The District's implementation strategy included:

As an all-volunteer fire district, we are limited in our ability to work on these kinds of projects. Community education efforts will continue to be undertaken by the fire department officers and monitored by the district board.

- This was accomplished and has become an ongoing program.

The district has an email list for contacting community members and will work with them and the local homeowners' associations in the planning process.

- This has been partially accomplished. The mailing list has been established and is used at least monthly to electronically transmit "Notes from the Fire Station" newsletter. (That frequency was increased to weekly during the Cameron Peak fire incident.) Detailed planning actions have yet to be developed.

We can incorporate hazard mitigation into community education efforts and encourage community participation in mitigation. We have no authority over local ordinances, community association rules, how community money is spent, etc, so we're limited in our planning options.

- This has been accomplished. CLVFD summer seminars have been successful in raising property owners' mitigation awareness and mitigation techniques. The department also conducts property mitigation inspections free-of-charge and suggests mitigation solutions to property owners when their property is inspected.

Additional ways in which the District incorporated information from the 2016 HMP into other plans and processes include:

- The District completed a long-awaited and needed station remodel program that included a complete rebuild of the apparatus bays, bringing all electrical and plumbing up to code, establishing business office space, a maintenance/work area, an exhaust evacuation system, and a Department responder dressing area.

C.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the District to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Department Assistant Chief will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Assistant Chief will also be responsible for representing the District on future Larimer County Planning Team meetings, and for coordination with District staff and departments during plan updates. The District, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action

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items. All items with budgetary requirements would need to be approved by the District's Board of Directors.

Integration Into Other Planning Mechanisms

The Crystal Lakes Fire Protection District will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the District will:

- Help develop and participate in the construction of fuel breaks on the northeast and southeast boarders of the Crystal Lakes community. (USFS constructed fuel breaks on the south and southwest borders of Crystal Lakes during the Cameron Peak fire incident.)
- The Crystal Lakes VFD Assistant Chief, the designated Crystal Lakes Road and Recreation Association board member, and the designated Crystal Lakes Water and Sewer Association board member will meet annually to discuss items that need to be updated and look at progress of action items.
- Mitigation actions will continue to be incorporated in capital improvement planning, throughout the District.
- CLVFD will continue to incorporate information from the HMP into existing public education & outreach programs.
- CLVFD will continue to post information on the District's website, will continue to utilize the department's newsletter, will continue to utilize local outlets such as NextDoor blogs, and will continue to enlist the assistance of local association publications during appropriate situations and incidents to get information to citizens and businesses.
- Crystal Lakes does not have any major construction projects planned for the foreseeable future, other than private cabin and home constructions. However, existing buildings and facilities will continue to be remodeled and upgraded. HMP information will be included in all future projects.

Continued Public Involvement

The Crystal Lakes Fire Protection District will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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C.8 Letter of Intent to Participate

Crystal Lakes Volunteer Fire Department

237 Blackfoot Rd, Red Feather Lakes, CO 80545
(970) 881-3521

December 14, 2018

Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins CO 80522
Attn: Lori Hodges, Director of Emergency Management

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Crystal Lakes Volunteer Fire Department is submitting this letter of intent to confirm that Crystal Lakes Volunteer Fire Department has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, Crystal Lakes Volunteer Fire Department agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

The Crystal Lakes Volunteer Fire Department understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I, Mark Rode, Chief, commit Crystal Lakes Volunteer Fire Department to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 14th day of December 2018

Sincerely,

Mark Rode

Mark Rode, Chief, Crystal Lakes Volunteer Fire Department

D. Town of Estes Park

"The Mission of the Town of Estes Park is to provide high-quality, reliable services for the benefit of our citizens, guests and employees, while being good stewards of public resources and our natural setting."

– Estes Park 2020 Strategic Plan

D.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Town of Estes Park participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section D.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the Town on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

D.2 Community Profile

The Town of Estes Park is located approximately 70 miles north west of Denver and is bordered to the west by Rocky Mountain National Park. Estes Park receives many visitors as the primary gateway community to Rocky Mountain National Park. The town's elevation is 7,522 feet above sea level and it lies along the Big Thompson River and Fall River. Based on the results of a recent Community Livability Survey, four in five residents of Estes Park rated their overall quality of life as excellent or good. Moreover, 77% of residents would be very or somewhat likely to recommend Estes Park as a place to live to someone who asks. Estes Park's overall appearance and overall image along with the Town as a place to live and retire received high ratings by at least four in five residents. Most of the aspects that contribute to community livability were rated positively and were at least similar to national benchmark comparisons. Additionally, Estes Park scores high in terms of Community Engagement. This metric includes emergency preparedness efforts taken by local residents.

Figure D-1 shows a map of the Town of Estes Park.

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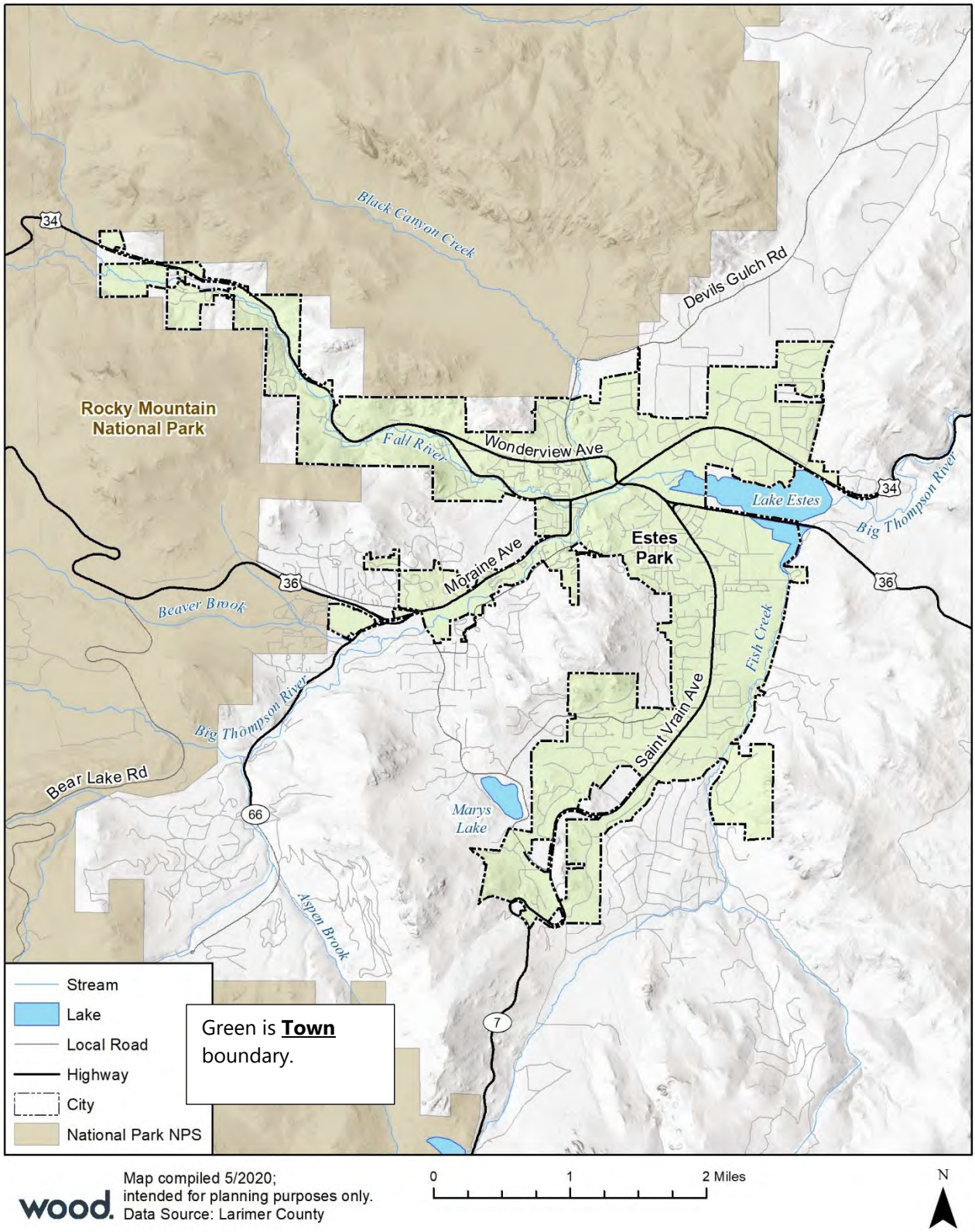
Figure D-1 Map of the Town of Estes Park



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County

D.2.1 Demographics

The following tables and graphs summarize key demographic and social characteristics of the Town of Estes Park.

Table D-1 Town of Estes Park Demographic and Social Characteristics, 2014-2018

Town of Estes Park	2014	2018	% Change
Population	6,022	6,297	4.57%
Median Age	56.8	59.0	3.9%
Total Housing Units	4,227	4,653	10.1%
Housing Occupancy Rate	72.0%	69.0%	-4.2%
% of Housing Units with no Vehicles Available	7.80%	4.60%	-41.0%
Median Home Value	$309,400	$380,800	23.1%
Unemployment Rate	4.4%	5.2%	18.2%
Mean Travel Time to Work (minutes)	17.2	18.9	9.9%
Median Household Income	$56,236	$50,833	-9.6%
Per Capita Income	$36,971	$35,909	-2.9%
% of Individuals Below Poverty Level	9.1%	13.5%	48.4%
% Without Health Insurance	12.7%	12.2%	-3.9%
# of Households	3,044	3,210	5.5%
Average Household Size	2.0	2.0	-1.0%
% of Population Over 25 with High School Diploma	99.2%	96.9%	-2.3%
% of Population Over 25 with bachelor's degree or Higher	44.7%	48.0%	7.4%
% with Disability	13.3%	14.3%	7.5%
% Speak English less than "Very Well"	2.3%	5.5%	139.1%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table D-2 Demographic and Social Characteristics Compared to the County and State

Demographic & Social Characteristics (as of 2018)	Estes Park	County	Colorado
Median Age	59.0	35.9	36.6
Housing Occupancy Rate	69.0%	91.7%	89.8%
% of Housing Units with no Vehicles Available	4.6%	4.1%	5.2%
Median Home Value	$380,800	$336,200	$313,600
Unemployment	5.2%	5.0%	4.7%
Mean Travel Time to Work (minutes)	18.9	23.2	25.5
Median Household Income	$50,833	$67,664	$68,811
Per Capita Income	$35,909	$35,390	$36,415
% of Individuals Below Poverty Level	13.5%	12.0%	10.9%

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Demographic & Social Characteristics (as of 2018)	Estes Park	County	Colorado
% Without Health Insurance	12.2%	6.3%	8.1%
Average Household Size	2.0	2.5	2.6
% of Population Over 25 with High School Diploma	96.9%	95.8%	91.4%
% of Population Over 25 with bachelor's degree or Higher	48.0%	46.3%	40.1%
% with Disability	14.3%	9.8%	10.6%
% Speak English less than "Very Well"	5.5%	2.6%	5.9%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table D-3 Demographics by Race and Sex

Estes Park	Population	%
Total Population	6,297	100%
Male	2,871	45.6%
Female	3,426	54.4%
White, not Hispanic	5,476	87.0%
Hispanic or Latino	731	11.6%
Black	0	0.0%
Asian	14	0.2%
American Indian and Alaska Native	27	0.4%
Native Hawaiian and Other Pacific Islander	10	0.2%
Some other race	6	0.1%
Two or more races	39	0.6%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table D-4 Types and Total Amounts of Housing Units in Estes Park

Type of Housing Units	Total	%
Total housing units	4,653	100%
1-unit detached	2,417	51.9%
1-unit attached	649	13.9%
2 units	265	5.7%
3 or 4 units	484	10.4%
5 to 9 units	437	9.4%
10 to 19 units	263	5.7%
20 or more units	124	2.7%
Mobile home	14	0.3%
Boat, RV, van, etc.	0	0.0%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

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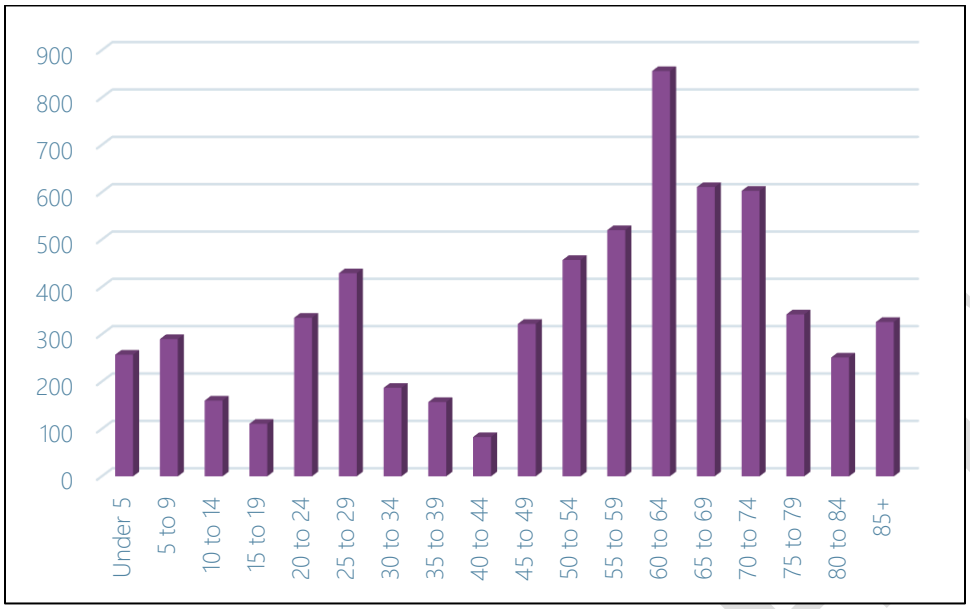
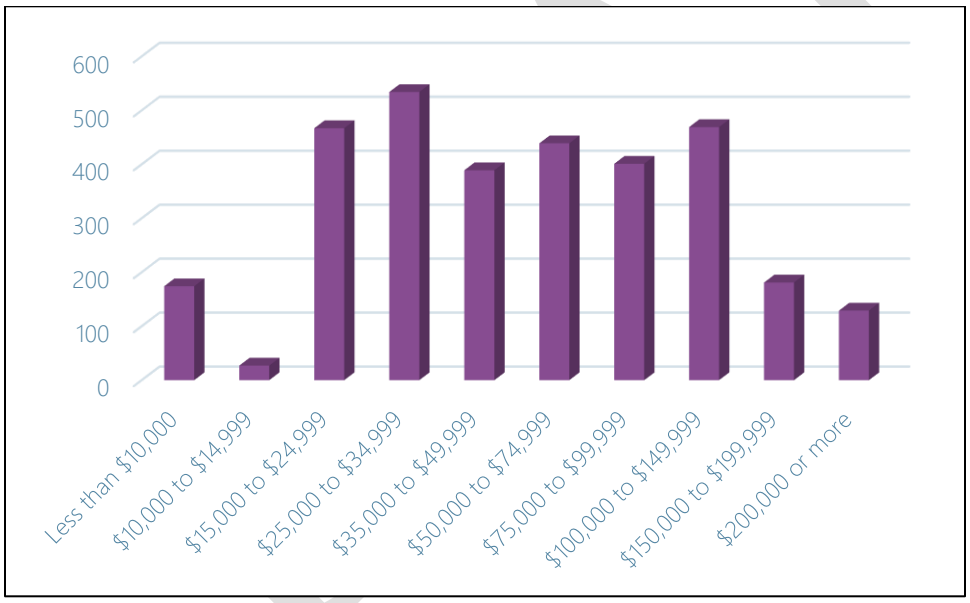
Figure D-2 Town of Estes Park Population Distribution by Age



Source: U.S. Census Bureau American Community Survey, www.census.gov/

Figure D-3 Town of Estes Park Income Distribution



Source: U.S. Census Bureau American Community Survey, www.census.gov/

D.2.2 Social Vulnerability

Social vulnerability scores for the Town of Estes Park can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. Estes Park overall social vulnerability is above average compared to the rest of Larimer County and Colorado as a whole. In particular, Estes Park' ranks high in housing and transportation vulnerability. Estes Park also has a significantly older population compared to the rest of Larimer County. The Town's median age is 59, more than 20 years above that of the County, State, and Nation (35.9, 36.6, and 37.9 respectively). 34% of Estes Park's population is 65 years or older, comapred to 16% for the rest of Larimer County.

Evaluating the individual social vulnerability indicators within the community over time will give local emergency managers, planners, and stakeholders an even clearer picture of why vulnerability to disasters may be higher in the northern region of the town as well as which social vulnerability factors have the largest negative effect on the town and its resiliency.

For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

D.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table D-5 Hazard Identification and Risk Assessment Summary for the Town of Estes Park

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Likely	Significant	Critical	Medium
Civil Disturbance	Unlikely	Significant	Negligible	Low
Dam Inundation	Unlikely	Limited	Significant	Low
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Significant	Critical	Medium
Flood	Likely	Significant	Significant	Medium
Hazardous Materials	Unlikely	Limited	Significant	Medium
Landslide/Rockslide	Occasional	Significant	Significant	Medium
Soil Hazards	Unlikely	Limited	Significant	Low
Spring/Summer Storm	Highly Likely	Significant	Critical	High
Tornado	Unlikely	Limited	Critical	Low
Utility Disruption	Highly Likely	Significant	Critical	Medium
Wildfire	Highly Likely	Significant	Critical	High
Winter Storm	Highly Likely	Extensive	Critical	High

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

D.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Town of Estes Park, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the Town's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Drought
- Spring/Summer Storm
- Utility Disruption
- Winter Storm

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

D.4.1 Community Asset Inventory

Table D-6 shows the total number of improved parcels, properties, and their improvement and content values for the Town of Estes Park. See Section 4.2.2 of the Base Plan for details and methodology.

Table D-6 Total Exposure of Improved Properties within the Town of Estes Park

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value
Commercial	393	647	$266,130,469	$264,901,018	$531,031,487
Exempt	84	357	$61,282,764	$61,282,764	$122,565,528
Industrial	1	1	$356,000	$534,000	$890,000
Multiple Unit	67	161	$20,642,183	$20,642,183	$41,284,366
Residential	3,529	3,684	$1,243,317,355	$621,658,636	$1,864,975,991
Total	**4,074**	**4,850**	**$1,591,728,771**	**$969,018,601**	**$2,560,747,372**

Table D-7 lists summary information about the 21 critical facilities and other community assets identified by the Town as important to protect or that provide critical services in the event of a disaster. These facilities are mapped in Figure D-4. For additional information on the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan.

Table D-7 Town of Estes Park Critical Facilities and Infrastructure Summary

FEMA Lifeline	Count
Energy	3
Food, Water, Shelter	4
Health and Medical	2
Miscellaneous	2
Safety and Security	10
Total	**21**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

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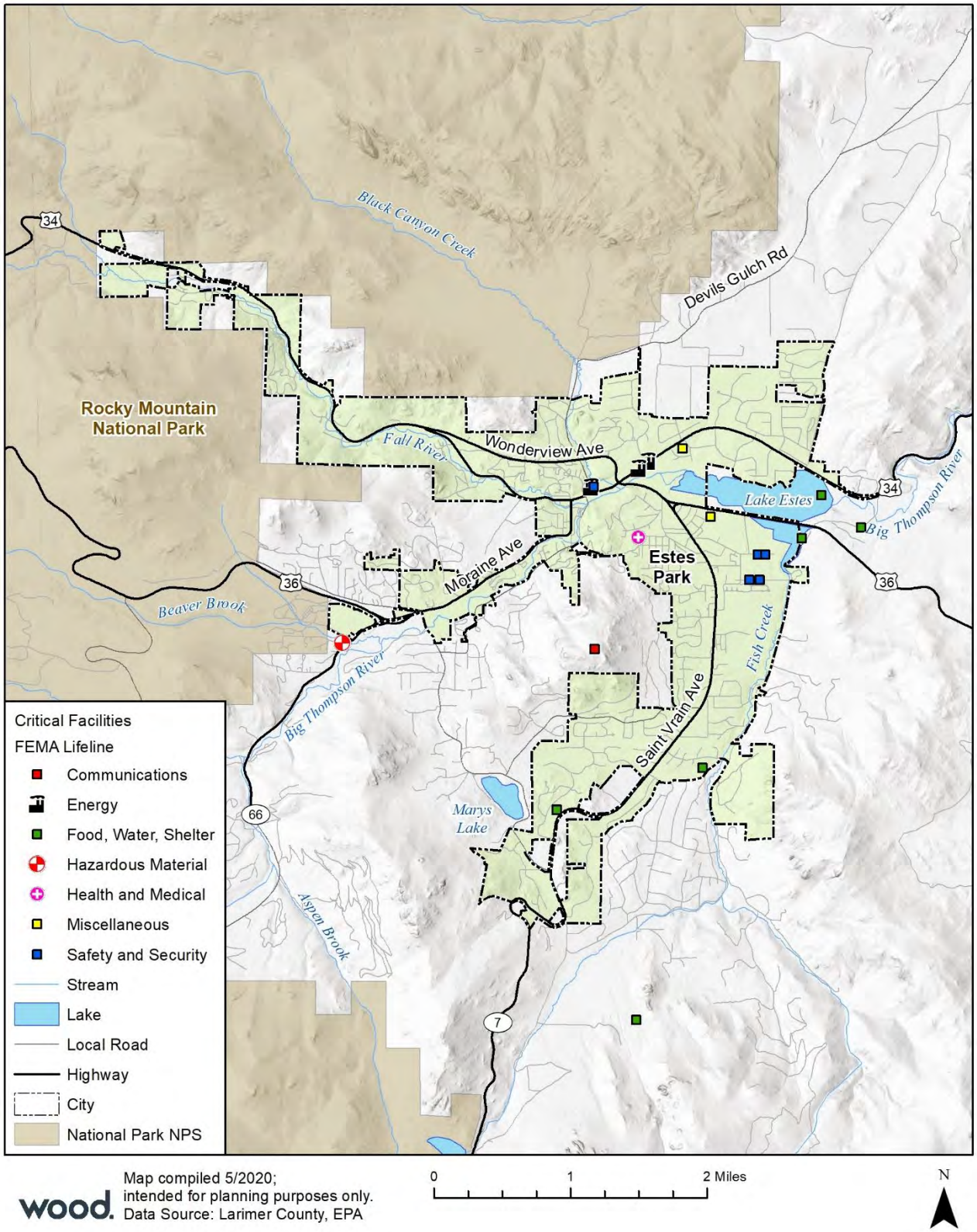
Figure D-4 Town of Estes Park Critical Facilities and Infrastructure



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, EPA

0 1 2 Miles

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D.4.2 Civil Disturbance

There is no significant history of civil disturbance in Estes Park. The overall significance of this hazard for the Town is Low.

D.4.3 Dam Inundation

Potential dam inundation areas in and around the Town of Estes Park are shown in Figure D-5, where data is available.

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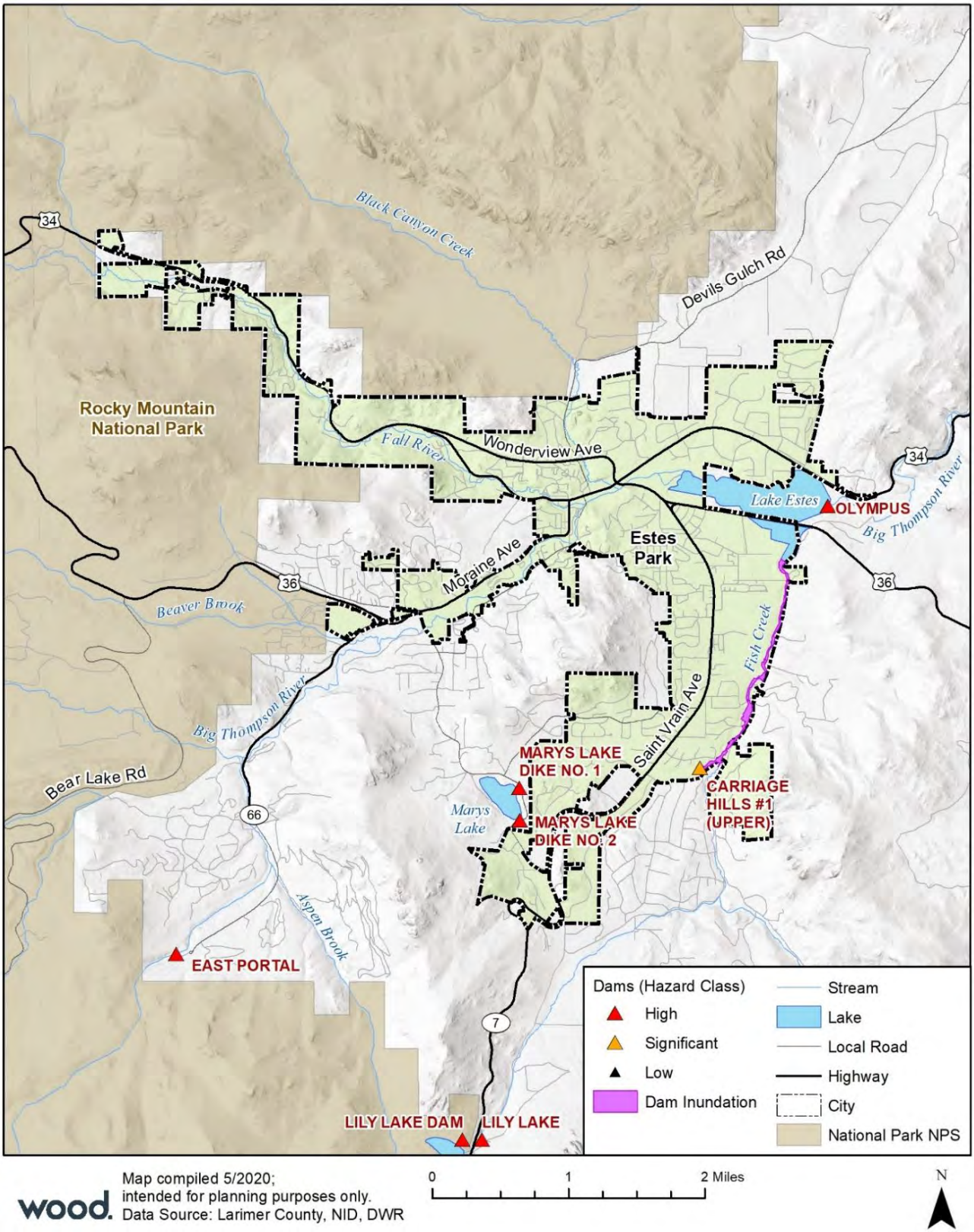
Figure D-5 Dam Inundation Areas for the Town of Estes Park



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, NID, DWR

Table 4-17 in Section 4.3.3 of the Base Plan lists dams of concern for Larimer County. The dams upstream of the Town of Estes Park are Carriage Hills #1 (Upper), Mary's Lake, and Lily Lake.

Table D-8 shows that Estes Park has 4 parcels potentially at risk of dam inundation, valued at $1.7M; an estimated 8 residents live in those parcels.

Table D-8 Town of Estes Park Parcels Potentially at Risk of Dam Inundation

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value	Population
Residential	4	4	$1,154,771	$577,384	$1,732,155	8
Total	**4**	**4**	**$1,154,771**	**$577,384**	**$1,732,155**	**8**

Source: USACE National Inventory of Dams 2018, Colorado Dam Safety Program, Larimer County GIS, U.S. Census Bureau, Wood analysis

One critical facility in the food, water, shelter category has been identified in the Town of Estes Park in an area at risk of dam inundation.

Based on the above analysis, the spatial extent and potential severity of the dam inundation hazard in the Town of Estes Park is considerably lower than that of Larimer County as a whole. The overall significance of this hazard for the Town is Low.

D.4.4 Earthquake

As shown in Figure 4-14 in Section 4.3.5 in the Base Plan, the earthquake risk in Estes Park is slightly higher than that of the municipalities in the eastern part of the County. The overall significance of this hazard for the Town is Medium.

D.4.5 Flood

FEMA mapped floodplains in and around Estes Park are shown in Figure D-6.

As shown in Table 4-34 in Section 4.3.6 of the Base Plan, the Town of Estes Park has 51 parcels, 75 buildings, and 90 residents in areas at 1% annual chance of flooding. Estimated losses from a 1% flood are estimated at $9,949,668; this represents roughly 1% of the Town's estimated total building exposure. Table 4-35 of the Base Plan shows there are an additional 53 parcels, 75 buildings, and 29 residents located in the 0.2% annual chance flood hazard area. Estimated losses from a 0.2% flood are estimated at $12,196,604; this represents an additional 1% of the Town building value.

The Town does not have any critical facilities in 1% or the 0.2% annual chance flood hazard areas, based on current mapping and best available data. However, the Town Hall building (which includes the Police Department) has experienced flooding in the past.

Based on the above analysis, the spatial extent and severity of the flood hazard in the Town of Estes Park is lower than that of Larimer County as a whole. The overall significance of this hazard for the Town is Medium.

National Flood Insurance Program Policy Analysis

The Town of Estes Park has participated in the National Flood Insurance Program (NFIP) since 1979. NFIP insurance data shows that as of January 2021 there are 189 flood insurance policies in force in the Town with $49,976,300 of coverage. There have been 99 historical claims for flood losses, totaling $1,983,498. There are no repetitive loss or severe repetitive loss structures in the Town as defined by the NFIP. The Town of Estes Park does not participate in the Community Rating System (CRS) program.

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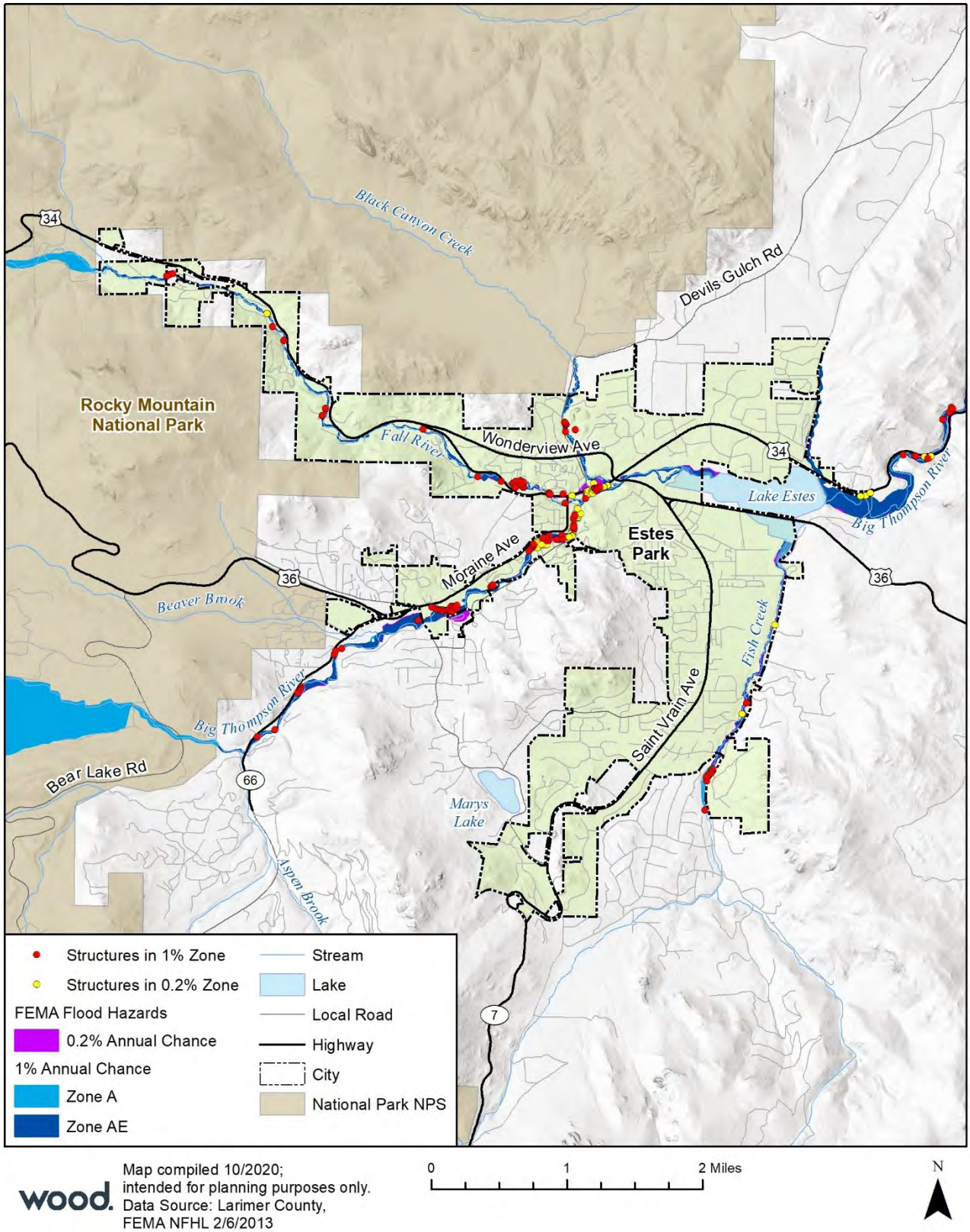
Figure D-6 FEMA Special Flood Hazard Areas for the Town of Estes Park



Map compiled 10/2020;
intended for planning purposes only.
Data Source: Larimer County,
FEMA NFHL 2/6/2013

Previous Occurrences

Estes Park sustained severe damages during the September 2013 Colorado flood event. Evacuations began on September 12, 2013, at approximately 3:00AM and 2,428 contacts were made to warn and evacuate neighborhoods through the LETA911 emergency notification system. The information below was provided by the Town of Estes Park and provides a snapshot of just how many residents were impacted by the flood.

Table D-9 September 2013 Flood Impact

Organization	Data
Red Cross Shelter Support	606 people signed in
	167 people sheltered in the cents
	316 people outsourced to local hotels for varying amounts of time
Salvation Army Support	3571 meals were served
	7000 snacks/drinks were served
	9000 gallons of water distributed
Utilities Outages and Restoration	Estimated $35-40 million in public infrastructure damage in the Estes Valley
	3.25 miles of Fish Creek Road are destroyed or damaged
	Caused outages for electric, water, gas, cable and phones
	Approximately 4,000 sewer taps were non-functional under "No Flush" orders within the Upper Thompson Sanitation District.
Structural Damage Assessments (incorporated Estes Park)	Rapid assessments completed for approximately 3,000 structures in the Estes Valley this week. Approximately 12 red tags were issued for properties that were determined to be unsafe for occupancy due to structural damage or electrical safety.
	2,383 estimated residences affected by water, mud, sewer access, road access
	183 estimated businesses affected by water, mud, sewer access, road access

D.4.6 Hazardous Materials Incident

There are no designated hazardous materials routes passing through the Town of Estes Park. However hazardous materials are still shipped through the Town, primarily along US34 and US36. There are no Risk Management Plan (RMP) facilities located within the Town limits.

The National Response Center (NRC) data cited in Section 4.3.7 of the Base Plan includes 18 hazardous materials incidents in or near the Town of Estes Park from 1987 through 2019. This averages out to one hazardous materials incident every 1-2 years. None of those incidents reported any deaths, injuries, or significant property damage.

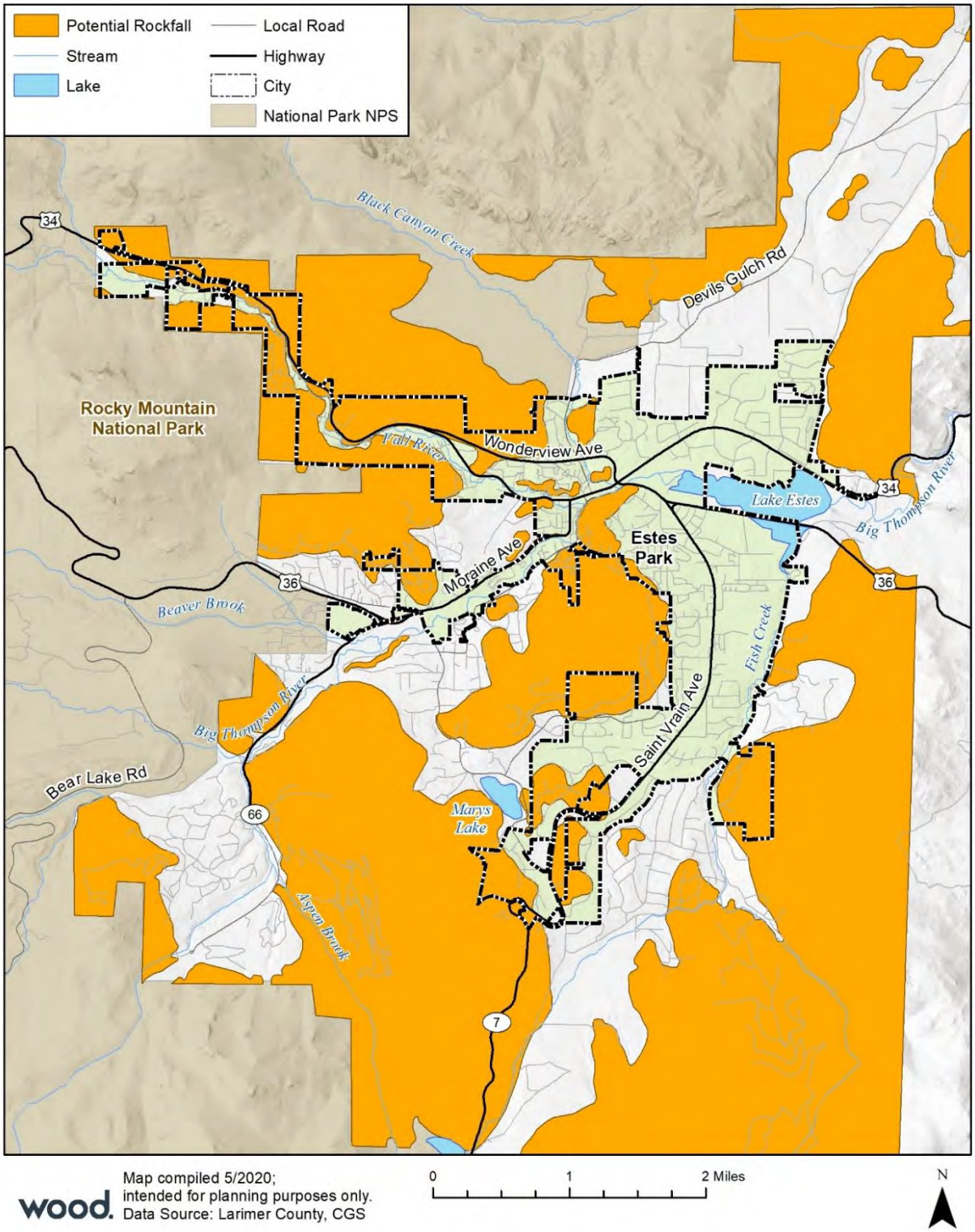
Based on the above analysis, the frequency and spatial extent of hazardous materials incidents in the Town of Estes Park is lower than that of Larimer County as a whole. The overall significance of this hazard for the Town is Medium.

D.4.7 Landslide/Rockslide

There are no identified areas of landslide in the Town of Estes Park. However, there are a total of 613 improved parcels at risk of rockslide in Estes Park. These parcels have a population of 1,164 residents, and

a total value of $431,937,951. There are no critical facilities with potential of landslides or rockslides within the Town of Estes Park. Figure D-7 shows the potential rockfall for Estes Park. The overall significance of this hazard for the Town is Medium.

Figure D-7 Potential Rockfall for the Town of Estes Park



D.4.8 Soil Hazards

There are no identified areas of risk from collapsible or expansive soils or land subsidence in the Town of Estes Park. The overall significance of this hazard for the Town is Low.

D.4.9 Tornado

Due to its mountain setting, the Town of Estes Park is at a much lower risk of experiencing a tornado compared to the other municipalities in Larimer County. The overall significance of this hazard for the Town is Low.

D.4.10 Wildfire

Tables 4-72, 4-73, and 4-74 in the Wildfire profile of the Base Plan shows that the Town has 693 parcels and 785 buildings at moderate, high, or highest risk of wildfire, with a total value of $534,432,248. An estimated 1,321 residents live in these at-risk areas. The Town has 4 critical facilities identified being at risk of wildfires, as shown in Table D-10.

Table D-10 Estes Park Critical Facilities Exposed to Wildfire Risk

FEMA Lifeline	Lowest Risk	Low Risk	Moderate Risk	High Risk	Highest Risk	Total
Food, Water, Shelter	2					**2**
Miscellaneous			1			**1**
Safety and Security		1				**1**
Total	**2**	**1**	**1**	**0**	**0**	**4**

Source: Cascarta, CO-WRAP

Based on the historic data showing hazardous impacts on Estes Park, there is a great potential for wildfire events to occur at any given time. Areas in and around the Town of Estes Park at risk of wildfire, based on CO-WRAP assessment, are shown in Figure D-8. The overall significance of this hazard for the Town is High.

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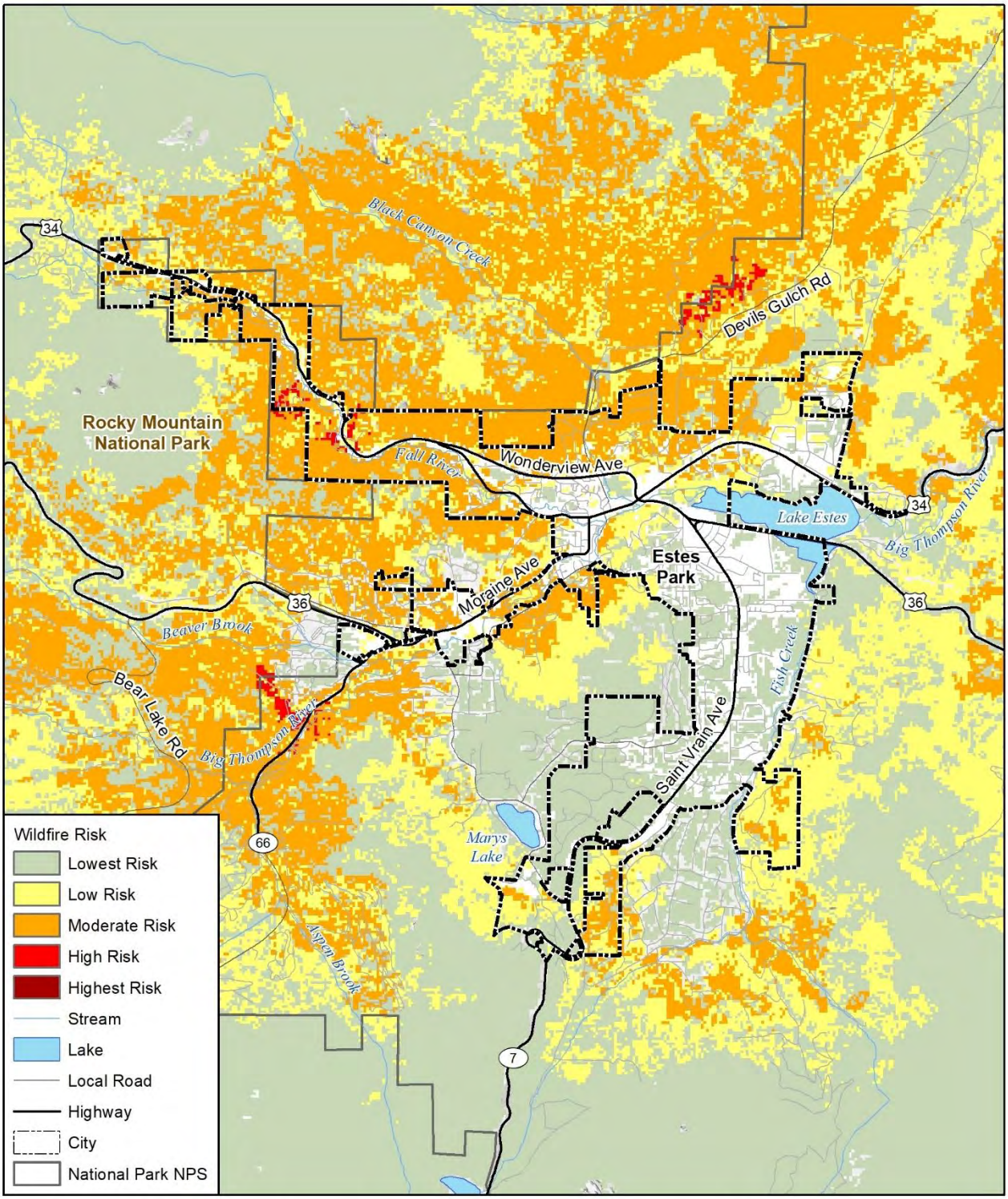
Figure D-8 Town of Estes Park Wildfire Risk



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CO-WRAP

0 1 2 Miles

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D.5 Capabilities Assessment

The capability assessment examines the ability of the Town of Estes Park to implement and manage the comprehensive mitigation strategy laid out in this Plan. The strengths, weaknesses, and resources of the community are identified here as a means for evaluating and maintaining effective and appropriate management of the Town's hazard mitigation program.

D.5.1 Existing Capabilities

The following tables summarize the Town's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Table D-11 Town of Estes Park Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/ No	Comments
Comprehensive plan	Yes	1996 – initiate comp plan & land use code rewrite 2021
Zoning ordinance	Yes	Town Municipal Code
Subdivision ordinance	Yes	
Growth management ordinance	No	
Floodplain ordinance	Yes	https://library.municode.com/co/estes_park/codes/municipal_code?nodeId=TIT18FLDAPR This is Title 18--Flood Damage Prevention
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Wildfire, steep slope, floodplain (no drainage or stormwater)
Building codes	Yes	2015 ICC
BCEGS Rating	Yes	2/2
Fire department ISO rating	Yes	2 or 3
Erosion or sediment control program	No	Estes Valley Development Code, Chapter 7 General Development Standards, Section 7.6 Wetlands and Stream Corridor Protection: https://www.colorado.gov/pacific/townofestespark/developmentcode Includes setback requirements for buildings/structures to limit damage from stream erosion.
Stormwater management program	Yes	Stormwater Master Plan 2019 – no implementation of this except with construction projects
Site plan review requirements	Yes	
Capital improvements plan	Yes	
Economic development plan	No	Estes Park Economic Development Corporation, 2019
Local emergency operations plan	No	
Community Wildfire Protection Plan	Yes	2009 Estes Valley CWPP, update in progress
Other special plans	No	Drought management, 2019. Events Complex Master Plan for emergencies
National Flood Insurance Program	Yes	Joined 1984
Community Rating System	No	
Flood insurance study or other engineering study for streams	Yes	The Town of Estes Park is regulating to the hydrology studies completed in 2014 and 2017, and floodplain regulations revised in 2019. The Town is actively coordinating with the CWCB and the CHAMP team to obtain a revised FEMA Flood Insurance Study and revised Flood Insurance Rate Maps.
Elevation certificates (for floodplain development)	No	The Elevation Certificate is a FEMA form (updated in late 2019). It must be completed by a licensed engineer, surveyor or architect. This is a service purchased when needed by building owners (including homeowners) to satisfy requirements associated with the National

Regulatory Tool (ordinances, codes, plans)	Yes/ No	Comments
		Flood Insurance Program (NFIP). Current form: FEMA Form 086-0-33 (12/19).

Source: Town of Estes Park planning team

Table D-12 Town of Estes Park Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Community Development Senior Planner & Director; Public Works Department, Engineering Manager
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Public Works Department Director and Engineering Manager
Planner/engineer/scientist with an understanding of natural hazards	Yes	Only flood hazard
Transportation Planner	Yes	Traffic Engineer, Parking & Transit Manager
Resiliency Planner	No	
Personnel skilled in GIS	Yes	Community Development, Public Works & contactor
Full time building official	Yes	Contracted position
Floodplain manager	Yes	Public Works Department
Emergency manager	Yes	Police Department
Grant writer	Yes	Public Works Department
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Public Works Dept, Utilities Dept, Community Development Dept, contractor
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	Police Department
Other key personnel	Yes	Utilities (power & water), finance, elected officials, administration

Source: Town of Estes Park planning team

Table D-13 Town of Estes Park Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	Yes	Yes	CDBG-DR 2013 flood
Capital improvements project funding	Yes	Yes	
Authority to levy taxes for specific purposes	Yes	Unknown	With voter approval
Fees for water, sewer, gas, or electric services	Yes	Yes	Water & Power are enterprise funds
Stormwater Service Fees	No	No	
Impact fees for new development	No	No	
Incur debt through general obligation bonds	Yes	No	With a TABOR election
Incur debt through special tax bonds	Yes	No	With a TABOR election
Incur debt through private activities	Yes	No	Private activity bond under state statutes
Withhold spending in hazard prone areas	No	No	

Source: Town of Estes Park planning team

Table D-14 Town of Estes Park Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	Yes	In response to the COVID-19 pandemic, the Estes Valley Resiliency Collaborative was established working closely with the Larimer Recovery Collaborative. Current focus is economic recovery. Expect this group to expand to more community-wide resiliency efforts.
Firewise	Yes	Estes Valley Fire Protection District
StormReady	No	
Electric vehicle infrastructure and readiness plan including clean air and environmental components	Yes	

Source: Town of Estes Park planning team

Local land use plans and building codes are tremendous tools for evaluating local policies related to hazard mitigation and risk reduction. Additionally, comprehensive master plans, capital improvement plans, stormwater plans and zoning ordinances all present opportunities for enhanced local capabilities. The following table outlines the town's current capabilities as they relate to land use planning and codes.

Building codes are one tool that communities use to enhance public safety. For example, they can increase structural integrity, mitigate structure fires, and provide benefits in relation to natural hazard avoidance. In Colorado, land use regulations and building codes are typically implemented at the local level. Even without a statewide mandate, most counties and many municipalities have enacted regulations and codes. The Town of Estes Park has adopted a local building code requirement, demonstrating their understanding of the benefits codes provide, including reduced exposure to hazards.

D.5.2 Opportunities for Enhancement

Based on the capability assessment, the Town of Estes Park has several existing mechanisms in place that already help to mitigate hazards. There are also opportunities for the Town 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 DHSEM. Training could be coordinated with emergency response and the After Action Report from the 2020 wildfires, along with education and information of staff (and public) in fire fuel reduction and new FEMA floodplain maps. Additional training opportunities will help to inform Town staff and Town Trustees on how best to integrate hazard information and mitigation projects into the Town policies and ongoing duties of the Town. Continuing to train Town staff on mitigation and the hazards that pose a risk to the Town will lead to more informed staff members who can better communicate this information to the public.

The Town is also exploring the possibility of joining the CRS, which would require enhancements to the Town's floodplain management program but could provide a discount to flood insurance policy holders; see Section 5.6 of the Base Plan.

Enhancements currently planned or being considered by the Town include:

- Comprehensive Plan update
- Complete rewrite of land use and development codes
- Stormwater utility to support the master plan
- 1-D modeling capabilities for flood flow, and hydrology and hydraulics
- Transportation Master Plan
- Resiliency and sustainability department or division

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- Environmental stewardship
- Participate in the Recovery and Resiliency Roadmap Program, Colorado Resiliency Office, Department of Local Affairs. (2 year program
- Lead agency for the Estes Valley Resiliency Collaborative
- After Action Report following the 2020 wildfires.

D.6 Mitigation Strategy

The Town of Estes Park has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The Town had seven mitigation actions in the 2016 Plan, and has completed four of them:

- Jet Culvert Cleaner and Trailer
- MPEC EOC/Town Hall – Backup Site
- 4th Console for Communications Center
- Basement Electrical Raising/Relocation

One other action was deleted due to changing priorities and failure to secure funding:

- Non-structural Flood proofing for Downtown Estes Park.

The remaining two actions have been carried over into the 2021 Plan, along with five new actions.

The local planning team identified and prioritized the following mitigation actions for the Town of Estes Park based on the risk assessment. 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.

National Flood Insurance Program

Recognizing the importance of the National Flood Insurance Program (NFIP) in mitigating flood losses, the Town of Estes Park will place an emphasis on continued compliance with the NFIP. As an NFIP participant, the Town has and will continue to make every effort to remain in good standing with NFIP. This includes continuing to comply with the NFIP's standards for updating and adopting floodplain maps and maintaining and updating the floodplain zoning ordinance as well as review of any potential development in special flood hazard areas.

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Table D-15 Town of Estes Park 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
D-1	Goals 2,3,4 Objectives 1,2,4,5	Flood, Spring/ Summer Storm, Biological, Hazmat	**Watershed Protection Group.** Avoid duplicating efforts and miscommunication; pool resources and ideas for wiser decision-making. Meet regularly, for collaboration among Town departments and other agencies planning and implementation of projects. Provide a forum to discuss issues/projects involving watershed protection, including but not limited to stormwater management, flood mitigation, floodplain administration, emergency management, public outreach, financial aspects, watershed coalition, and utility providers.	**Estes Valley Watershed Coalition,** Public Works Department, Larimer County	Staff time	Grants, volunteer support and donations	High	Ongoing	In Progress
D-2	Goals 1,2,5 Objectives 3,5	Flood	**Replacement of Undersized Bridges and Widening of River Channels.** Most bridges and river channels within Town have inadequate capacity for flood flows. Replacement of bridges and widening of river channels to accommodate flood flows is a long-term project due to costs and development in these areas. To accomplish this, the Town would have to acquire funding from grants.	**Public Works**, FHWA, FEMA, DHSEM, CDOT, CWCB, Larimer County, other Town Departments	Millions	FEMA, FHWA, CDOT, other state and federal agencies	Mediu m	2050	In Progress. Ivy St Bridge will be replaced in the FHWA CFLHD Downtown Estes Loop project. The Town applied for DOT BUILD grant funds & was not awarded. Researching other funding opportunities including FEMA FMA and BRIC to widen Big Thompson River between Riverside & US 36 bridges & bridge replacement. This is a long term ongoing project.

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
D-3	Goals 1,2,3 Objectives 2,3,5	Dam Failure, Floods, Hazmat, Landslide/ Rockslide, Wildfires, Spring/ Summer Storm, Winter Storm	**Emergency Response,** including Evacuation Planning. Collaborate with partner agencies; Larimer County Sheriff's Office, Rocky Mountain National Park, Colorado State Patrol (CSP), Estes Valley Fire Protection District, Estes Park Emergency Medical Service, Park R3 School District, NGOs and other to continually improve emergency response and evacuation planning. Draft an After Action Report from the 2020 wildfires for response and evacuation improvements. Present to the Town Board of Trustees and use this for police officer and emergency response providers; Town employee training and public information and education.	**Estes Park Police,** Larimer County Sheriff's Office, Rocky Mountain National Park, CSP, Estes Valley Fire District, Estes Park Emergency Medical Service, Park R3 School District, and NGO's	Minimal	Town of Estes Park budget allocation	High	2021–2022, ongoing	New in 2021
D-4	Goals 1,2,3,5 Objectives 2,3,5	Wildfires, Flood, Spring/ Summer Storm, Winter Storm	**Design Review Standards Improvements**. The Town of Estes Park 2021 Strategic Plan adopted by the Board of Trustees includes the following: Evaluation and improve the Development Review Process (multi-year goal) and evaluation the development review process and identify opportunities for improvement (1 year objective).	**Public Works and Community Development Departments**	Staff time & effort, included	General Funds	Mediu m	2021 to meet objective	New in 2021
D-5	Goals 1,2,3,4 Objectives 1,2,3,4,5	Wildfires	**Forest Fire Fuel Reduction**. Homes located in the Wildland-Urban Interface (WUI) are at greater risk of wildfire. As development continues to encroach into these areas, we need to find ways to protect people and properties. Estes Valley Fire Protection District participates in the FireWise program and with the 2020 record-breaking wildfires in this area, this program reaches new levels of need and interest. This will be coordinated with public information and education.	**Estes Valley Fire Protection District,** Town Emergency Management, others	Time & effort for agency staff to plan	Various	Mediu m	Planning 2021-2022	New in 2021
D-6	Goals 1,2,3,4,5 Objectives 1,2,3,4,5	Floods, Spring/ Summer Storm, Wildfires, Winter Storm	**Public Education and Outreach Programs.** In anticipation of presenting to the Town Administration and Board of Trustees the After Action Report from the East Troublesome and Cameron Peak Fires, we expect to provide information and education to property owners, business owners, and tenants on fire safety coordinating with EVFPD and their FireWise Program. In anticipation of new FEMA floodplain maps for the Estes Park area presented in 2021, public information will be necessary for educating property owners and business owners of risks as the floodplain area changes.	**PIO,** Police, Public Works, Community Development, EVFPD, Watershed Coalition	Staff & volunteer time	Variety	Mediu m	2021 – 2023, ongoing	New in 2021

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
D-7	Goals 1,2,3,4,5 Objectives 1,2,3,4,5	Drought, Wildfire	**Revise Landscaping Requirements in Development Code.** Revising the Town's landscaping requirements to better align with NFPA FireWise guidelines and requirements would help encouraging the creation of cleared defensible space around buildings. Additionally, the current landscaping requirements do not acknowledge that the Town is in a semi-arid climate and basically requires irrigation to fulfill Code. That is contrary to preserving the water resource, and could make a drought worse, as experience shows that requiring a lot of expensive landscaping (as we do) leads owners to want to water it, even if watering restrictions prohibit it.	**Community Development**	Unknown	Unknown	High	TBD	New in 2021. This is referenced as a high priority because the Town is planning a complete rewrite its land use codes starting in 2022.

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D.7 Plan Maintenance and Implementation

The Town of Estes Park has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the town will continue public participation in the plan maintenance process.

D.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The Town of Estes Park's implementation strategy included:

- Our Emergency Manager working close closely with the Executive Leadership Team (Department Directors) will manage the mitigation actions scheduling and progress by reviewing the plan annually.
  - This was accomplished with the Town's Emergency Manager taking the lead in reviewing the plan, sharing relevant information with the Town's leadership team and providing education through emergency scenarios. Appropriate members of the leadership team reviewed the FEMA portal.
- Our PIO will manage and distribute informational releases to the public regarding mitigation actions, progress, and opportunities for public involvement.
  - This was accomplished by the Town's PIO, who manages communication during disasters.
- Our mitigation actions will be incorporated in our capital improvement planning.
  - This was accomplished. The CIP is for all capital projects, including any that are related to mitigation. Departments identified projects, enter these into the GIS database, enter their estimates and then complete other required/ requested data. Mitigation projects are included as identified by departments.
- We have created a floodplain management team comprising of citizens, Town staff and consultants. Additional mitigation actions will form from this team and incorporate into future planning.
  - Rather than establish a specific floodplain management team, the Town established a broader more inclusive team that includes representatives addressing additional hazards (not just those created by the floodplain). This includes Town Planning, Building and Engineering Divisions, as well as the community individuals and organizations as appropriate and relevant including but not limited to the Estes Valley Watershed Coalition.
- Additional ways in which the Town incorporated information from the 2016 HMP into other plans and processes include:
  - The Town completed the Brodie Avenue Safe Routes to School construction project in 2019, which included stormwater drainage, and curb and gutter work.
  - The Town was successful in being awarded another Safe Routes to School grant through CDOT for Graves Avenue. Construction could occur as early as 2021 and will include stormwater drainage work and curb and gutter work.

D.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the Town to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

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The Town's emergency manager, administration and the executive leadership team will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Emergency Manager or designee will also be responsible for representing the Town on future Larimer County Planning Team meetings, and for coordination with town staff and departments during plan updates. The Town, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the Town Board of Trustees.

Integration into Other Planning Mechanisms

The Town of Estes Park will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the Town will:

- Through the Executive Leadership Team, the Emergency Manager, or designee which could include members of the Estes Valley Resiliency Collaborative, will present this Mitigation Plan annually to discuss items that need to be updated and look at progress of action items.
- Through the Executive Leadership Team which consists of the Town Administrator, Assistant Town Administrator, department directors and the PIO, when plans and studies are conducted, they will be reminded to incorporate information from the HMP into their plans. Departments will include mitigation as part of the public education and outreach effort with appropriate projects.
- Mitigation actions will be incorporated in capital improvement planning on appropriate projects.
- Incorporate information from the HMP into the next update of the Town's comprehensive plan which is planned for 2021 and in the new land use codes.
- Integrate mitigation information and education with the Estes Valley Resiliency Collaborative.
- Include mitigation and resiliency efforts as appropriate in procurement of professional services such as engineering and design, and construction projects; requests for proposals and invitation to bid.

Continued Public Involvement

The Town of Estes Park will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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D.8 Letter of Intent to Participate

TOWN OF ESTES PARK
TOWN ADMINISTRATOR

Frank Lancaster
Town Administrator
970.577.3705
flancaster@estes.org

November 21, 2018

RECEIVED NOV 27 2018

Lori Hodges
Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins, CO 80522

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Town of Estes Park is submitting this letter of intent to confirm that the Town of Estes Park has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, the Town of Estes Park agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

The Town of Estes Park understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I Frank Lancaster, Town Administrator, commit the Town of Estes Park to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Sincerely,

Frank Lancaster

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E. Estes Park Health

"To make a positive difference in the health and wellbeing of all we serve."

– Estes Park Health Mission Statement

E.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. Estes Park Health participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section E.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the hospital on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

E.2 Community Profile

Estes Park Health (EPH) – formerly known as Estes Park Medical Center – is a 23-bed critical access hospital with a 24-hour emergency department, 24-hour Advanced Life Support Ambulance Service, medical/surgical services, obstetrics, and home health and hospice services. Their service area includes Estes Park, Allenspark, Glen Haven, Drake, and Pinewood Springs; EPH's ambulance service also provides some support in mountainous areas in Boulder County under an intergovernmental agreement. Emergency air transport services are available from their healthcare associates in a number of Colorado Front Range communities. EPH's physicians are board-certified in many different areas and specialties. EPH has served the Estes Valley and surrounding areas since 1975, and is designated as a Level IV Trauma Center.

Note that when evaluating the potential spatial extent of a hazard, this annex considers not only the hospital itself, but EPH's service district.

E.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

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Table E-1 Hazard Identification and Risk Assessment Summary for the Estes Park Health

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Highly Likely	Extensive	Critical	High
Civil Disturbance	Unlikely	Significant	Negligible	Low
Dam Inundation	Unlikely	Limited	Negligible	Low
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Extensive	Critical	Medium
Flood	Likely	Significant	Critical	Medium
Hazardous Materials	Occasional	Limited	Significant	Low
Landslide/Rockslide	Occasional	Significant	Significant	Medium
Soil Hazards	Unlikely	Limited	Negligible	Low
Spring/Summer Storm	Highly Likely	Extensive	Negligible	Low
Tornado	Unlikely	Limited	Critical	Low
Utility Disruption	Highly Likely	Extensive	Critical	Medium
Wildfire	Highly Likely	Significant	Catastrophic	High
Winter Storm	Highly Likely	Extensive	Significant	Medium

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

E.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for Estes Park Health, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the hospital's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Hazardous Materials
- Spring/Summer Storm
- Tornado
- Utility Disruption
- Winter Storm

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

E.4.1 Dam Inundation

Estes Park Health is not located in a potential dam inundation area. The overall significance of this hazard for EPH is Low.

E.4.2 Flood

Estes Park Health is not located in a mapped floodplain. While localized flash flooding in the EPH service area is possible, the flood risk is lower than the County as a whole. The overall significance of this hazard for EPH is Medium.

E.4.3 Landslide / Rockslide

Figure D-7 in Annex D (Town of Estes Park) shows significant rockfall potential in the EPH service area, to include the hospital itself. The overall significance of this hazard for EPH is Medium.

E.4.4 Soil Hazards

There are no identified areas of risk from collapsible or expansive soils or land subsidence in the Town of Estes Park. The overall significance of this hazard for EPH is Low.

E.4.5 Wildfire

Figure D-8 in Annex D (Town of Estes Park) shows significant wildfire risk in the EPH service area, to include the area near hospital itself. The overall significance of this hazard for EPH is High.

E.5 Capabilities Assessment

This section profiles the programs and policies currently in use by Estes Park Health to reduce hazard impacts or that could be used to implement hazard mitigation activities.

E.5.1 Existing Capabilities

The following tables summarize the hospital's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Table E-2 Estes Park Health Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	NA	
Zoning ordinance	NA	Town of Estes Park
Subdivision ordinance	NA	Town of Estes Park
Growth management ordinance	NA	Town of Estes Park
Floodplain ordinance	NA	Town of Estes Park/Larimer County
Other special purpose ordinance (stormwater, steep slope, wildfire)	NA	Town of Estes Park
Building codes	NA	Town of Estes Park
Fire department ISO rating	NA	Estes Valley Fire Protection District
Erosion or sediment control program	NA	
Stormwater management program	NA	

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Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Site plan review requirements	NA	
Capital improvements plan	Yes	
Economic development plan	NA	Town of Estes Park
Local emergency operations plan	Yes	
Other special plans	No	
Flood insurance study or other engineering study for streams	No	
Elevation certificates (for floodplain development)	NA	Town of Estes Park/Larimer County

Source: Estes Park Health planning team

Table E-3 Estes Park Health Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer with knowledge of land development/land management practices	NA	
Engineer/professional trained in construction practices related to buildings and/or infrastructure	NA	
Planner/engineer/scientist with an understanding of natural hazards	NA	
Personnel skilled in GIS	NA	
Full time building official	NA	
Floodplain manager	NA	
Emergency manager	Yes	Gary Hall, Chairman Emergency Preparedness Committee
Grant writer	Yes	Kaci Yoh, Estes Park Health Foundation Grant Writer
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	NA	
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	NA	Managed by Town of Estes Park
Other key personnel	Yes	Catherine Cornell, Emergency Preparedness Liaison

Source: Estes Park Health planning team

Table E-4 Estes Park Health Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	No	No	
Capital improvements project funding	Yes	Yes	
Authority to levy taxes for specific purposes	No	No	
Fees for water, sewer, gas, or electric services	No	No	
Impact fees for new development	No	No	
Incur debt through general obligation bonds	No	No	
Incur debt through special tax bonds	No	No	
Incur debt through private activities	No	No	

Withhold spending in hazard prone areas	No	No	
Other	Yes	Yes	EPH foundation supports projects at the hospital

Source: Estes Park Health planning team

Table E-5 Estes Park Health Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	No	Handled by Town & Fire District
Firewise	No	
StormReady	No	

Source: Estes Park Health planning team

E.5.2 Opportunities for Enhancement

Based on the capability assessment, EPH has several existing mechanisms in place that already help to mitigate hazards. There are also opportunities for EPH 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 Town, County, and DHSEM. Additional training opportunities will help to inform EPH staff on how best to integrate hazard information and mitigation projects into the EPH policies and ongoing duties of the hospital. Continuing to train EPH staff on mitigation and the hazards that pose a risk to the hospital will lead to more informed staff members who can better communicate this information to the public.

E.6 Mitigation Strategy

Estes Park Health has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The hospital had two mitigation actions in the 2016 Plan, and has completed one of them:

- Water supply for Medical Center during loss of domestic water.

The remaining action has been carried over into the 2021 Plan, along with two new actions.

The EPH planning team identified and prioritized the following mitigation actions for Estes Park Health based on the risk assessment. 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.

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Table E-6 Estes Park Health 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
E-1	Goals 1,2,4,5 Objectives 2,3,5	Flood	**Medical Center Flood Mitigation.** The 2013 Flood in Estes Park illustrated the need to ensure critical facilities, such as the Estes Park Health and associated properties, are protected against flooding. Follow techniques outlined in the FEMA resource guide, "Mitigation Ideas, A Resource for Reducing Risk to Natural Hazards," to protect critical facilities from flood events. Upgrade facilities to mitigate against future flood impacts, including 1) implementation of a stormwater management plan and 2) design and construction of a rain gauge system to provide early warning lead time to implement flood protection measures throughout the facility.	**Estes Park Health**, Larimer Office of Emergency Management	$300,000	Town of Estes Park Resources, EPH resources, grant funding	High	2022	In Progress. The Town of Estes Park has worked extensively on flood control and mitigation. While EPH is not in a flood plain nor at risk of flooding, any issues would arise from damage to the Town's infrastructure (power, water, sewer, broadband, etc.) EPH continues to be highly vulnerable if any of the Town's infrastructure was to be damaged, but the risk has dropped some due to the Town's, County's, and State's mitigation efforts to date.
E-2	Goals 1,2,4,5 Objectives 2,3,5	Biological, Earthquake, Spring/ Summer Storm, Utility Disruption, Wildfire, Winter Storm	**Increase Generator Capacity:** Appropriate capital in 2021, if possible, to upgrade so that all three fixed emergency generators have 96 hours capacity without a refill. Benefits: Patient safety, avoidance of evacuation of much of the building, retention of services and income.	**Estes Park Health**, our contractors who provide generator work and fuel (Cummins, primarily)	$140,000	Internal capital from hospital cash stores, no external sources	High	2021 3Q	New in 2021
E-3	Goals 1,2 Objectives 5	Winter Storm	**Expand heated walkways and parking lots.** The hospital's front lot is angled and dangerous in winter storms and their aftermath. While some walkways are heated, more need to be heated to improve access and minimize injuries during winter storms.	**Estes Park Health**	$750,000 to $1M	Grants	Low	2031	New in 2021

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E.7 Plan Maintenance and Implementation

EPH has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how EPH will continue public participation in the plan maintenance process.

E.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. EPH's implementation strategy included:

- We will attend group meetings and will participate in the annual evaluation of the plan.
  - EPH re-formed its emergency preparedness team in 2017 and has maintained regular meetings of that team since that time. The EPH emergency operations manual was updated and reworked to provide for easy annual updating. An emergency administration plan was written in 2018 as part of our DNV accreditation efforts, and both the e ops and e admin plans are required to be reviewed annually by the appropriate EPH authorities, and updated as appropriate. EPH understands that for broad disasters impacting the entire Estes area, management of the broader emergency response will fall to the Town of EP, Larimer County, the State of CO, and the federal government as appropriate to the crisis and the resource needs. So, EPH's emergency plans are geared toward how the EPH resources will be managed, when to set up our internal IC, when and how to shelter in place, when and how to evacuate, and so on. In years where events don't force real disasters, EPH maintains the proper cycle of drills and tabletop exercises to ensure readiness for a crisis. EPH used the Larimer County HMP from 2016 as the launching point for all of these localized efforts. This documentation and team effort lo fed our work to become accredited through DNV (in which we were successful in our first year in 2018).
- Post information on facility web page and leverage social media.
  - EPH maintains the eph.org site, a Facebook page, a stakeholders email list, an employee Everbridge account, relationships with the two town papers, and other methods of information dissemination as needed. For example, EPH created a broad and helpful COVID page at the start of the pandemic with links and information about EPH's COVID hotline, etc. With the small size of Estes Park, our methods of local communication via various online tools gets the word out quickly as needed.
- We will include hazard mitigation in our emergency planning, including updating out hazard assessment.
  - As part of EPH's regular emergency preparedness team's work, issues are identified regarding how we will deal with emergency events that impact the hospital, and actions are assigned and taken to address those. However, we rely on the Town and County to perform most hazard mitigation that would involve infrastructure (dams, redundancy of resources, fire prevention work, etc.).

Additionally, EPH's overall e prep efforts (above) include much more detail in regard to being ready for all and any hazards.

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E.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the hospital to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Chief Operating Officer (who also serves as the Emergency Preparedness Committee Chair) will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Chief Operating Officer will also be responsible for representing the hospital on future Larimer County Planning Team meetings, and for coordination with District staff and departments during plan updates, although this may be supplemented by other members of the EPH staff as needed. The hospital, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the hospital's Board of Directors.

Integration into Other Planning Mechanisms

EPH will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the hospital will:

- Continue to manage the Emergency Preparedness Committee on at least a quarterly basis (including all drills and exercises needed when real events don't take precedence);
- Perform annual review of the EPH E Ops and E Admin plans and update as appropriate;
- Maintain appropriate contact with Town and county resources to ensure good liaison and communication paths;
- Study the Larimer County 2021 HMP in draft and final publication to advise any additional efforts needed by EPH.

Continued Public Involvement

EPH will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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E.8 Letter of Intent to Participate

Estes Park Medical Center

555 Prospect Avenue
PO Box 240
Estes Park, Colorado 80517
(970) 586-2317

LETTER OF INTENT TO PARTICIPATE

November 4, 2015

Lori R. Hodges
Larimer County Emergency Management
200 West Oak Street
Fort Collins, CO 80526

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Estes Park Medical Center (EPMC) is submitting this letter of intent to confirm that Estes Park medical Center has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, EPMC agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County OEM to complete the plan in conformance with FEMA requirements.

EPMC understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction and not addressed in the master planning document;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I Mark Gregson, interim Chief Executive Officer, commit Estes Park medical Center to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 4th day of November: _____

Member of American Hospital Association • Member of Colorado Hospital Association • Member of Voluntary Hospitals of America, Inc.

F. Estes Valley Fire Protection District

"The Mission of the Estes Valley Fire Protection District is to provide the citizens of and visitors to the Estes Valley with superior fire prevention, fire protection and emergency services in a safe and efficient manner."

—Mission, Estes Valley Fire Protection District

F.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Estes Valley Fire Protection District participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section F.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the District on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

F.2 Community Profile

The Estes Valley Fire Protection District (EVFPD) was established in 2009 and became autonomous on January 1, 2010. The EVFPD is comprised of 5 District Board Members, volunteer firefighting membership, the Fire Chief, Operations Division Chief, Prevention Division Chief-Fire Marshal, Fire Inspector II, Training Lieutenant, and an Office Manager.

The Estes Valley Fire Protection District is located in southwestern Larimer County and is composed of a portion of unincorporated Larimer County and the Town of Estes Park, encompassing a 66.3 square mile area. There are 2 Fire Stations and a regional training center that serve the Estes Valley community:

- Station 71 - Dannels Fire Station at 901 N. St. Vrain Ave.
- Station 72 - 1600 Mills Drive.
- Regional Training Center – 640 Elm Road

Social vulnerability scores for the District can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. Overall, the District's social vulnerability varies from above average in Town to below average in the rural areas. For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

F.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

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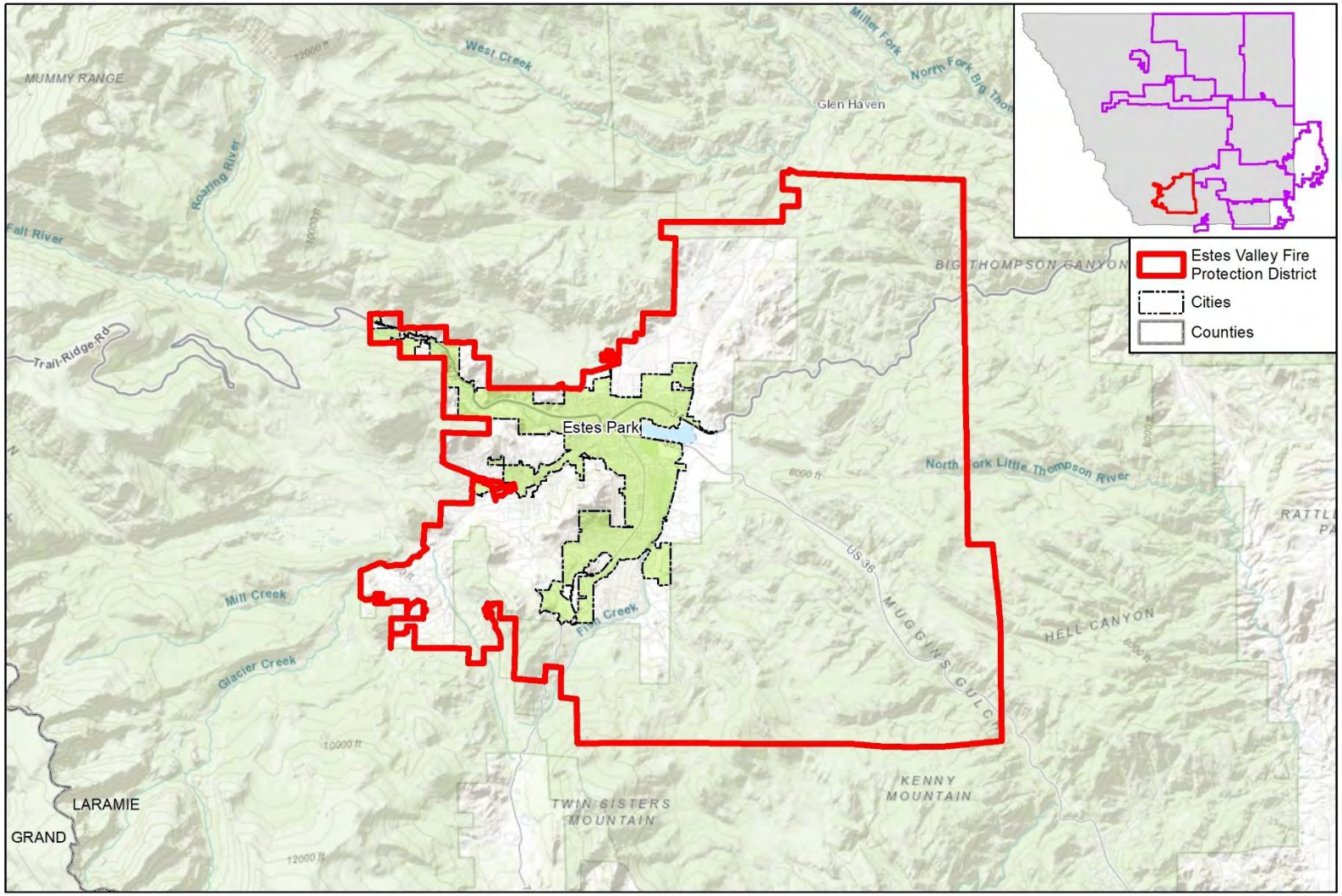
Figure F-1 Map of the Estes Valley Fire Protection District



Map compiled 4/2021;
intended for planning purposes only.
Data Source: Larimer County

0 1.25 2.5 5 Miles

N

Table F-1 Hazard Identification and Risk Assessment Summary for the Estes Valley Fire Protection District

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Highly Likely	Extensive	Critical	High
Civil Disturbance	Unlikely	Limited	Negligible	Low
Dam Inundation	Occasional	Limited	Significant	Low
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Significant	Critical	Medium
Flood	Likely	Significant	Significant	Medium
Hazardous Materials	Unlikely	Limited	Significant	Medium
Landslide/Rockslide	Likely	Limited	Significant	Low
Soil Hazards	Unlikely	Limited	Significant	Low
Spring/Summer Storm	Highly Likely	Extensive	Critical	High
Tornado	Unlikely	Limited	Critical	Low
Utility Disruption	Likely	Significant	Critical	Medium
Wildfire	Highly Likely	Significant	Critical	High
Winter Storm	Highly Likely	Extensive	Critical	High

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Limited: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

F.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Estes Valley Fire Protection District, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the District's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Hazardous Materials
- Spring/Summer Storm
- Tornado
- Utility Disruption

- Winter Storm

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

F.4.1 Community Asset Inventory

Table F-2 lists summary information about the 28 critical facilities identified as important to protect or that provide critical services in the event of a disaster. For additional information on critical facilities, to include the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan and Annex D Town of Estes Park.

Table F-2 Estes Valley Fire Protection District Critical Facilities and Infrastructure

FEMA Lifeline	Count
Communications	1
Energy	3
Food, Water, Shelter	9
Hazardous Material	1
Health and Medical	2
Miscellaneous	2
Safety and Security	10
Total	**28**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

F.4.2 Dam Inundation

Figure D-5 in Annex D (Town of Estes Park) shows potential dam inundation areas in the Estes Valley Fire Protection District. One critical facility (food-water-shelter category) is potentially at risk of dam inundation. The overall significance of this hazard for the District is Medium.

F.4.3 Flood

Figure D-6 in Annex D (Town of Estes Park) shows mapped flood hazard areas in the Estes Valley Fire Protection District. None of the critical facilities in Table F-2 are located in mapped floodplains. The overall significance of this hazard for the District is Medium.

F.4.4 Landslide / Rockslide

Figure D-7 in Annex D (Town of Estes Park) shows significant rockfall potential in the Estes Valley Fire Protection District. One critical facility (communications category) has been identified as at risk of rockslide; none are at risk of landslide. The overall significance of this hazard for the District is Medium.

F.4.5 Soil Hazards

There are no identified areas of risk from collapsible or expansive soils or land subsidence in the Estes Valley Fire Protection District. The overall significance of this hazard for the District is Low.

F.4.6 Wildfire

Figure D-8 in Annex D (Town of Estes Park) shows significant wildfire risk in the Estes Valley Fire Protection District. Of the critical facilities identified in Table F-2, two are at Moderate risk of wildfires (one

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food-water-shelter, one miscellaneous), and five are at low or lowest risk (three food-water-shelter, one communications, and one safety & security). The overall significance of this hazard for the District is High.

F.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Estes Valley Fire Protection District to reduce hazard impacts or that could be used to implement hazard mitigation activities.

F.5.1 Existing Capabilities

The following tables summarize the District's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Estes Valley FPD is covered under a Community Wildfire Protection Plan (CWPP), which was last updated in 2009; they have submitted an action to update the CWPP.

Table F-3 Estes Valley Fire Protection District Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	Yes	Town & County Planning & Building
Zoning ordinance	Yes	Town & County Planning & Building
Subdivision ordinance	Yes	Town & County Planning & Building
Growth management ordinance	No	
Floodplain ordinance	Yes	Larimer County
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Larimer County
Building codes	Yes	Town & County Planning & Building
Fire District ISO rating	Yes	ISO Rating 3/10
Erosion or sediment control program	No	
Stormwater management program	Yes	Larimer County Public Works
Site plan review requirements	Yes	Town & County Planning & Building
Capital improvements plan	Yes	Agency Level / Every Budget Year
Economic development plan	Yes	Agency Level / Every Budget Year
Local emergency operations plan	No	
Other special plans	Yes	District Fire Code Adoption / Burning Regulations
Flood insurance study or other engineering study for streams	Yes	Larimer County Flood Control District
Elevation certificates (for floodplain development)	Yes	Larimer County Planning & Building

Source: Estes Valley Fire Protection District planning team

Table F-4 Estes Valley Fire Protection District Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Town & County Planning & Building
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Town & County Planning & Building
Planner/engineer/scientist with an understanding of natural hazards	No	

Personnel Resources	Yes/No	Department/Position/Comments
Personnel skilled in GIS	Yes	Larimer Emergency Telephone Authority
Full time building official	Yes	Town & County Planning & Building
Floodplain manager	Yes	Town & County Planning & Building
Emergency manager	Yes	Town & County
Grant writer	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)	Yes	Larimer Emergency Telephone Authority
Other key personnel	Yes	District has a full time Fire Inspector II whose responsibilities include FireWise inspections to reduce risk to homeowners from wildfires.

Source: Estes Valley Fire Protection District planning team

Table F-5 Estes Valley Fire Protection District Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	No	No	
Capital improvements project funding	Yes	Yes	Agency Level
Authority to levy taxes for specific purposes	Yes	Yes	Agency Level
Fees for water, sewer, gas, or electric services	Yes	Yes	Town & County
Impact fees for new development	Yes	Yes	Agency Level
Incur debt through general obligation bonds	Yes	No	Agency Level
Incur debt through special tax bonds	Yes	No	Agency Level
Incur debt through private activities	Yes	No	Agency Level
Withhold spending in hazard prone areas	No	No	

Source: Estes Valley Fire Protection District planning team

Table F-6 Estes Valley Fire Protection District Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	Yes	Estes Valley Watershed Coalition
Firewise	No	Firewise Communities Assessor Certification
StormReady	No	
Community wildfire preparedness and prevention programs.	Yes	Recent grant recipient for the Ready Set Go! Wildfire preparedness and prevention campaign.

Source: Estes Valley Fire Protection District planning team

F.5.2 Opportunities for Enhancement

Based on the capability assessment, Estes Valley 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 DHSEM. Additional training opportunities will help to inform District staff 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.

The Estes Valley Fire Protection District will continue to expand wildfire-specific educational outreach platforms and materials, and continue to build stakeholder partnerships and coalitions for community action. Additionally, the District will work to improve internal staffing capabilities to address these identified hazards and challenges.

F.6 Mitigation Strategy

The Estes Valley Fire Protection District has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The District had one mitigation action in the 2016 Plan, which was completed. Additionally, the District has completed several past wildfire mitigation fuel reduction projects. Three new actions have been added for the 2021 Plan.

The District planning team identified and prioritized the following mitigation actions for the Estes Valley Fire Protection District based on the risk assessment. 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.

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Table F-7 Estes Valley Fire Protection District 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
F-1	Goals 1,2,3,4,5 Objectives 3,4,5	Wildfire	**Wildland Urban Interface (WUI) Fuels Reduction Project.** A grant recipient of the 2020-2021 Ready-Set-Go wildfire prevention and preparedness program, the Estes Valley Fire Protection District will be coordinating the following: (1) Development of wildfire education materials. This project entails guidance from nationally recognized subject matter experts to develop printed and digitally delivered action guides for residents at the personal residence and subdivision levels. (2) Wildfire education kiosks will be developed and placed within the Town of Estes Park. (3) Conducting an evacuation tabletop exercise in partnership with local and regional stakeholders.	**Estes Valley Fire Protection District.** Town of Estes Park; International Association of Fire Chiefs; Ready-Set-Go national wildfire campaign partners.	$15,000	Ready-Set-Go Grant	High	2021	New in 2021
F-2	Goals 2,3,5 Objectives 3,4,5	Wildfire, Flood	**Cameron Peak Fire Recovery and Mitigation.** Coordinate with Larimer County, LCSO, USFS, and other partners to identify and implement post-fire recovery and post-fire flooding mitigation projects as a result of the Cameron Peak & East Troublesome Wildfires	**Estes Valley Fire Protection District**, Larimer County OEM	Unknown	HMGP, BRIC	Low	2020-2021	New in 2021
F-3	Goals 1,2,3,4,5 Objectives 1,2,3,4,5	Wildfire	**Community Wildfire Protection Plan Update.** The District's CWPP was last updated in 2009 and needs to be updated. The purpose of the CWPP is risk analysis, fire behavior analysis and community wildfire hazard rating (WHR) to provide a more comprehensive, scientifically-based assessment of the wildfire hazards and risk within our jurisdiction.	**Estes Valley Fire Protection District,** Estes Valley Watershed Coalition	$40,000	TOEP, EVFPD, EVWC, private grants	High	2022	New in 2021.

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F.7 Plan Maintenance and Implementation

The Estes Valley Fire Protection District has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the district will continue public participation in the plan maintenance process.

F.7.1 Implementation and Maintenance of the 2016 Plan

The fuels reduction project noted in the 2016 Plan was not completed, nor is it continued for the 2021 Plan. The impact relative to cost was determined to be low and unsustainable.

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The District's implementation strategy included:

- Our mitigation efforts will be directed and maintained through the Fire Chief and/or the Fire Marshal of the District.
  - This was accomplished.
- The District's website provides information and announcements of our mitigation efforts and plans. Any changes will be provided through our website and in the local newspapers.
  - This was accomplished.
- The District will integrate the hazard mitigation actions into the Community Wildfire Preparedness Plan (CWPP) and also see how it interfaces with the adopted fire codes and our emergency operations plan. Any hazard mitigation actions should coincide with our adopted CWPP and its identified high risk areas.
  - This is proposed to be accomplished in 2021. The District is currently working with the Estes Valley Watershed Coalition and other partners and stakeholders to update the CWPP.

F.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the Fire District to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Fire Chief or their designee will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Fire Chief or their designee will also be responsible for representing the District on future Larimer County Planning Team meetings, and for coordination with District staff and departments during plan updates. The Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the District's Board of Directors.

Integration into Other Planning Mechanisms

The Estes Valley Fire Protection District will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the District will:

- The Fire District will meet annually to discuss items that need to be updated and to look at progress of action items with the Town of Estes Park and with local and regional emergency management partners.

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- The Fire District will Incorporate information from the HMP into existing public education & outreach programs, such as their 2021 Community Risk Reduction (CRR) Plan.
- The Fire District will post and distribute information on their website to get information to citizens and businesses through Community Information Guides.
- Staffing and other resources necessary for mitigation will be incorporated in capital improvement planning and budgeting.
- The Fire District will advocate for and utilize information from the HMP when adopting the Fire Code.

The Estes Valley Fire Protection District will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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F.8 Letter of Intent to Participate

ESTES VALLEY
FIRE PROTECTION DISTRICT
Serving the Residents and Visitors of the Estes Valley with Superior Fire and Safety Services

LETTER OF INTENT TO PARTICIPATE

August 22, 2014

Larimer County Government
200 W. Oak St.
Fort Collins, CO 80522

Re: 'Statement of Intent to Participate' as a participating jurisdiction in Larimer County's Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Lori Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Estes Valley Fire Protection District (EVFPD) is submitting this letter of intent to confirm that EVFPD has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, EVFPD agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

The EVFPD understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction and not addressed in the master planning document;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Larimer County and the Participating Jurisdiction, I Scott Dorman, Fire Chief, commit the Estes Valley Fire Protection District to the Larimer County's Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 22nd day of August

[Signature of Chief Elected Official or Authorized Agent]

901 N. Saint Vrain Avenue • Estes Park, CO 80517 • P-970-577-0900 • F-970-577-0923

G. Estes Valley Recreation and Park District

"The mission of the Estes Valley Recreation and Park District is to plan, direct, organize, and implement recreational programs, manage facilities, and provide public park and recreation opportunities for residents of the District and visitors to the community. The District will implement programs that offer a wide variety of recreational opportunities for all age groups, including both active and passive experiences. The District will provide recreational services and facilities within the financial limitations and scope of the District."

-- Mission Statement, Estes Valley Recreation and Park District

G.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Estes Valley Recreation & Park District participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section G.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the District on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

G.2 Community Profile

Estes Valley Recreation & Park District (EVRPD) is a public agency providing parks and recreation programs for members of the community and visitors to Estes Park. The District provides golf, marina, boat rentals, fishing, tennis, swimming, softball, baseball, playgrounds, picnicking, youth center, and many more recreational programs.

The District encompasses approximately 320 square miles in southwestern Larimer County and northern Boulder County, and includes within its boundaries primarily unincorporated land and the Town of Estes Park. The permanent population of the Recreation District varies between 10,800 and 11,600 in any given year. The District's boundaries have remained unchanged since its organization.

G.3 Hazard Identification and Risk Assessment

Estes Valley Recreation & Park District covers parts of both Larimer and Boulder Counties. For the purpose of this plan, spatially analyzed hazard risks have been assessed for the areas of the District that lie specifically within Larimer County.

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

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Figure G-1 Map of the Estes Valley Recreation & Park District

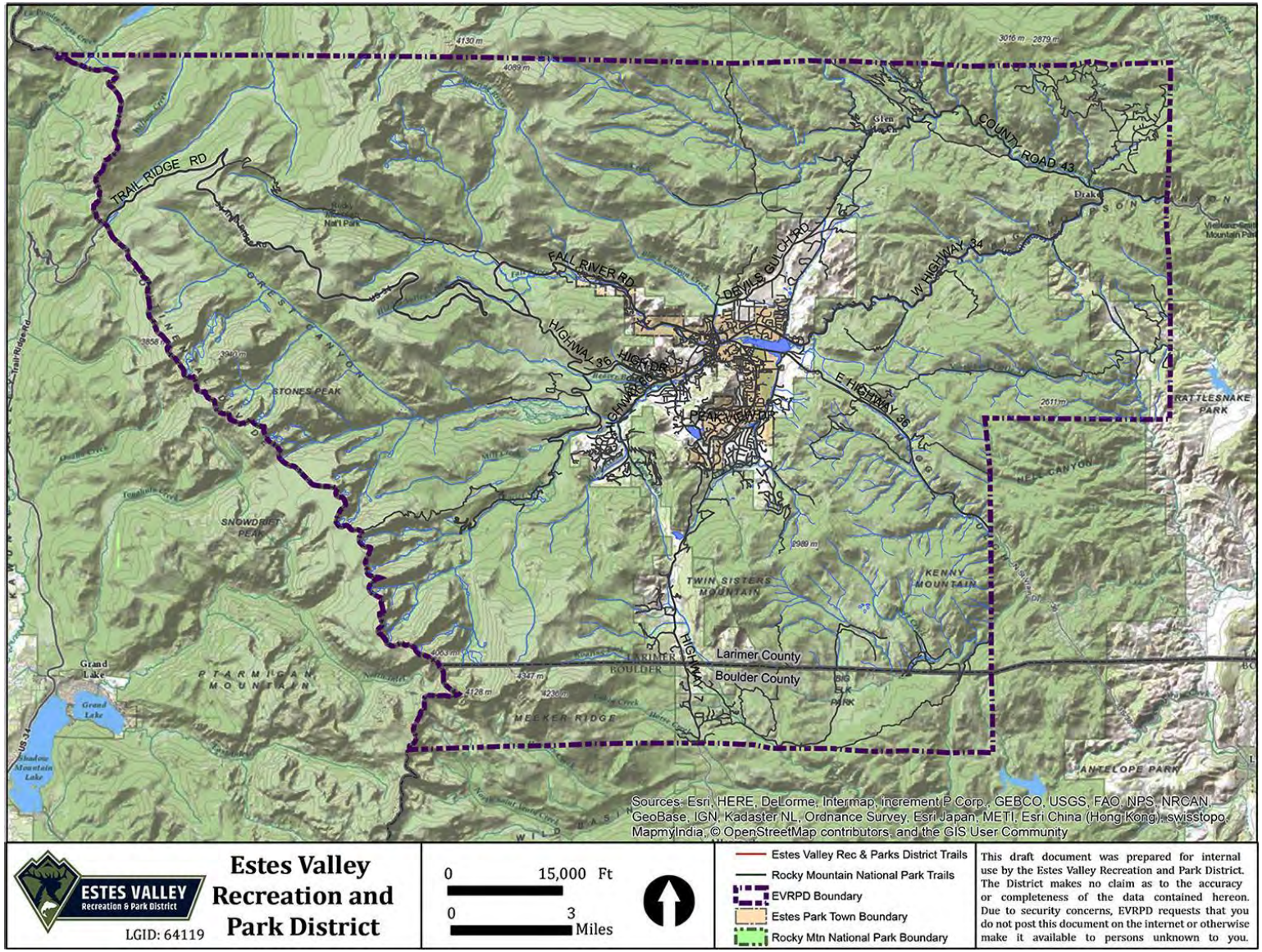

Table G-1 Hazard Identification and Risk Assessment Summary for the Estes Valley Recreation & Park District

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Likely	Extensive	Critical	High
Civil Disturbance	Occasional	Limited	Negligible	Low
Dam Inundation	Occasional	Limited	Significant	Medium
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Limited	Critical	Low
Flood	Likely	Significant	Significant	Medium
Hazardous Materials	Occasional	Limited	Significant	Low
Landslide/Rockslide	Likely	Limited	Significant	Low
Soil Hazards	Occasional	Limited	Significant	Low
Spring/Summer Storm	Highly Likely	Extensive	Significant	Low
Tornado	Occasional	Limited	Significant	Low
Utility Disruption	Likely	Limited	Negligible	Low
Wildfire	Likely	Significant	Significant	Medium
Winter Storm	Highly Likely	Extensive	Significant	Medium

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

G.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Estes Valley Recreation & Park District, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the District's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Hazardous Materials Incident
- Spring/Summer Storm
- Tornado
- Utility Disruption
- Winter Storm

For the purpose of this plan, only the parts of the District that lie specifically within Larimer County have been assessed for vulnerability data. For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

G.4.1 Community Asset Inventory

Table G-2 lists summary information about the 28 critical facilities identified as important to protect or that provide critical services in the event of a disaster. For additional information on critical facilities, to include the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan and Annex D Town of Estes Park.

Table G-2 Estes Valley Recreation & Park District Critical Facilities and Infrastructure

FEMA Lifeline	Count
Communications	1
Energy	3
Food, Water, Shelter	9
Hazardous Material	1
Health and Medical	2
Miscellaneous	2
Safety and Security	10
Total	**28**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

Table G-3 lists other assets owned by EVRPD that need to be protected from hazards.

Table G-3 Estes Valley Recreation & Park District Assets

Name of Asset	Replacement Value	Hazard Specific issues
Recreation/Community/Aquatic Center	$30,000,000	None identified.
18-Hole Golf Course (clubhouse, maint facility, storage facility, irrigation system, course engineering/landscaping, carts, turf and maintenance equipment)	$8,000,000	None identified.
9-Hole Golf Course (same as 18H)	$4,000,000	None identified.
Lake Estes Trail (hard surface approx. 4 miles; incl day-use restrooms and picnic shelters)	$7,000,000	None identified.
Lake Estes Marina (store and adj restrooms, rental equip & docks)	$2,500,000	None identified.
Stanley Park (incl ballfields, skate park, tennis, basketball, pickleball courts, shelters, restrooms, bike park, dog park, playground, indoor gun range)	$12,000,000	None identified.
Campground – Mary's Lake (store, showerhouses/restrooms, site improvements, utilities, roads, etc.)	$4,000,000	None identified.
Campground – East Portal (same as Mary's Lake)	$2,500,000	None identified.
Common Point Shooting Range (includes road to range, range improvements)	$1,000,000	None identified.
Fish Creek & Homer Rouse Trails (soft surface, doesn't include town portion of FCT)	$2,500,000	None identified.

Source: HMPC.

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G.4.2 Dam Inundation

Figure D-5 in Annex D (Town of Estes Park) and Figure 4-5 in Section 4.3.3 of the Base Plan show potential dam inundation areas in the Estes Valley Recreation & Park District. One critical facility (food-water-shelter category) is potentially at risk of dam inundation. The overall significance of this hazard for the District is Medium.

G.4.3 Flood

Figure D-6 in Annex D (Town of Estes Park) and Figure 4-5 in Section 4.3.6 of the Base Plan show mapped flood hazard areas in the Estes Valley Recreation & Park District. None of the critical facilities in Table G-2 are located in mapped floodplains. The overall significance of this hazard for the District is Medium.

G.4.4 Landslide / Rockslide

Figure D-7 in Annex D (Town of Estes Park) and Figures 4-26 and 4-27 in Section 4.3.6 of the Base Plan show landslide and rockfall potential in the Estes Valley Recreation & Park District. One critical facility (communications category) has been identified as at risk of rockslide; none are at risk of landslide. The overall significance of this hazard for the District is Medium.

G.4.5 Soil Hazards

There are no identified areas of risk from collapsible or expansive soils or land subsidence in the Estes Valley Recreation & Park District. The overall significance of this hazard for the District is Low.

G.4.6 Wildfire

Figure D-8 in Annex D (Town of Estes Park) and Figure 4-43 in Section 4.3.6 of the Base Plan show significant wildfire risk in the Estes Valley Recreation & Park District. Of the critical facilities identified in Table G-2, two are at Moderate risk of wildfires (one food-water-shelter, one miscellaneous), and five are at low or lowest risk (three food-water-shelter, one communications, and one safety & security). The overall significance of this hazard for the District is High.

G.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Estes Valley Recreation and Park District to reduce hazard impacts or that could be used to implement hazard mitigation activities.

G.5.1 Existing Capabilities

The following tables summarize the District's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Table G-4 Estes Valley Recreation and Park District Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	No	Town/County
Zoning ordinance	No	Town/County
Subdivision ordinance	No	Town/County
Growth management ordinance	No	Town/County
Floodplain ordinance	No	Town/County
Other special purpose ordinance (stormwater, steep slope, wildfire)	No	Town/County
Building codes	No	Town/County

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Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Fire department ISO rating	NA	Town/County
Erosion or sediment control program	No	Town/County
Stormwater management program	No	Town/County
Site plan review requirements	No	Town/County
Capital improvements plan	Yes	Town/County
Economic development plan	No	Town/County
Local emergency operations plan	No	Town/County
Community Wildfire Protection Plan (CWPP),	Yes	Estes Valley FPD CWPP
Other special plans	Yes	Regional Trails Master Plan, Stanley Park Master Plan
Flood insurance study or other engineering study for streams	No	Town/County
Elevation certificates (for floodplain development)	No	Town/County

Source: Estes Valley Recreation and Park District planning team

Table G-5 Estes Valley Recreation and Park District Administrative and Technical Mitigation Capabilities

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

Source: Estes Valley Recreation and Park District planning team

Table G-6 Estes Valley Recreation and Park District Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	Yes	Yes	
Capital improvements project funding	Yes	Yes	
Authority to levy taxes for specific purposes	Yes	Yes	
Fees for water, sewer, gas, or electric services	No	No	
Impact fees for new development	No	No	
Incur debt through general obligation bonds	Yes	Yes	
Incur debt through special tax bonds	Yes	Yes	

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Incur debt through private activities	No	No	
Withhold spending in hazard prone areas	No	No	
Other: Federal, state and regional grants aimed at Parks and Recreation Development	Yes	Yes	

Source: Estes Valley Recreation and Park District planning team

Table G-7 Estes Valley Recreation and Park District Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	Yes	The Estes Valley Trails Committee is an advisory committee which provides feedback on trail network and adjacent area conditions on a regular basis. Estes Valley Community Center occasionally serves as a forum for other entities to administer seminars, training sessions and other programming related to education and mitigation. Annual Safety Fair covers a variety or preparedness measures
Firewise	Yes	Big Elk Meadows, which lies within the EVRPD boundary, received Firewise certification in 2017.
StormReady	No	

Source: Estes Valley Recreation and Park District planning team

G.5.2 Opportunities for Enhancement

Based on the capability assessment, the Estes Valley Recreation and Park District 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 DHSEM. Additional training opportunities will help to inform District staff 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.

Due to the current COVID-19 pandemic, the District's primary focus is re-evaluation of current policies, operations and programming, as well as new policy/operation and program development to offset future losses due to future contagions.

G.6 Mitigation Strategy

The Estes Valley Recreation and Park District has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The District had one mitigation action in the 2016 Plan, which was completed.

- Fish Creek Trail rebuilding

Additional flood-mitigation measures such as drainage, bank stabilization, and retention pond improvements at the Lake Estes Golf Course were also completed in 2016. Two new actions have been added for the 2021 Plan.

The District planning team identified and prioritized the following mitigation actions for the Estes Valley Recreation and Park District based on the risk assessment. 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.

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Table G-8 Estes Valley Recreation and Park District 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
G-1	Goals 2,3,4,5 Objectives 1,3,5	Flood, Wildfire	**Evacuation Shelter.** Develop protocols to enable the Estes Valley Community Center to serve as an evacuation shelter. The Estes Valley Community Center is a 70,000 square foot facility equipped for recreation/sports programming, but also offers several thousand square feet (15,000+) of flex space, a commercial-grade kitchen, several restroom and shower facilities, as well as high-speed Internet/Wi-Fi. Due to its location above the floodplain/zone and its location - which poses a nominal risk factor during a wildfire - it will be able to serve as an evacuation center for at-risk citizens during the next flood or fire event.	Estes Valley Recreation and Park District, Town of Estes Park, Estes Valley Fire Protection District, Estes Park Hospital District	Nominal - primarily staff time to coordinate with other agencies and put basic protocols in place; $5,000.	General Fund and/or matching funds through the pursuit of relevant grant opportunities.	Medium	2022	New in 2021
G-2	Goals 1,2,3,5 Objectives 1,3,4,5	Wildfire	**East Portal Campground Reclamation.** East Portal Campground is immediately adjacent to Rocky Mountain National Park and was threatened by the recent East Troublesome Fire. We are partnering with the Bureau of Reclamation to perform thinning operations at the campground and the surrounding land.	Estes Valley Recreation and Park District, U.S. Bureau of Reclamation	TBD	BOR	High	2023	New in 2021

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G.7 Plan Maintenance and Implementation

The Estes Valley Recreation and Park District has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the district will continue public participation in the plan maintenance process.

G.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The District's implementation strategy included:

- Our Board of Directors will review our mitigation plan on an annual basis.
  - This was accomplished by the Board of Directors during budget review/planning each year and in concert with guidance from the U.S. Bureau of Reclamation (specifically for federal properties managed by the District).
- We will post our updates on the EVRPD website.
  - Updates were occasionally posted on social media if/when there were any temporary or permanent changes to the status of elements in the plan which could affect public safety (trail closures, river conditions, etc.).
- We will base the priority of projects on the actions in our hazard mitigation plan.
  - This process is ongoing on an annual basis.

Additional ways in which the District incorporated information from the 2016 HMP into other plans and processes include using the plan as a reference tool for large capital projects such as trail planning/construction and the development of master plans for parks and other public facilities.

G.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the District to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Executive Director will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Executive Director will also be responsible for representing the District on future Larimer County Planning Team meetings, and for coordination with District staff and departments during plan updates. The District, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the District's Board of Directors and be subject to annual appropriations.

Integration into Other Planning Mechanisms

The Estes Valley Recreation and Park District will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the District will:

- The District will meet annually with other interested agencies to discuss items that need to be updated and look at progress of action items.
- Incorporate information from the HMP into existing public education & outreach programs.

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- Post information on the District's website and other social/digital media platforms to get information to citizens and businesses.
- Mitigation actions will be incorporated in capital improvement planning.

Continued Public Involvement

The Estes Valley Recreation and Park District will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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G.8 Letter of Intent to Participate

ESTES VALLEY RECREATION and PARK DISTRICT

LETTER OF INTENT TO PARTICIPATE

July 21, 2015

Lori R. Hodges
Larimer County Emergency Management
200 West Oak Street
Fort Collins, CO 80526

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,
In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Estes Valley Recreation and Park District (EVRPD) is submitting this letter of intent to confirm that EVRPD has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, EVRPD agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County OEM to complete the plan in conformance with FEMA requirements.

EVRPD understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction and not addressed in the master planning document;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I Kathy Asche, commit EVRPD to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 21st day of July

Kathy Asche, Board President

P.O. Box 1379, 890 Big Thompson Avenue
Estes Park, CO 80517

info@evrpd.com
http://www.evrpd.com

970-586-3191 Phone
970-586-8123 Fax

H. City of Fort Collins

"Three major themes of Plan Fort Collins provide direction for the vision for the next 25 years and beyond: Innovate, Sustain, and Connect."

– Plan Fort Collins, 2011

H.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The City of Fort Collins participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section A.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the City on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

H.2 Community Profile

The City of Fort Collins is located in northern Colorado at the base of the foothills to the Rocky Mountains at approximately 5,000 feet above sea level. The City experiences on average 300 days of sunshine and approximately 14.5 inches of precipitation per year. Fort Collins was founded as a military fort in 1864 and was referred to "Camp Collins." The city is home to Colorado State University with an enrollment in 2019 of approximately 34,166 students.

There are approximately 1,600 faculty members and 4,800 additional employees at CSU, making it the largest employer in Fort Collins. The CSU campuses include the main campus in the center of Fort Collins, the Foothills Campus on the west side of town and the CSU Veterinary Teaching Hospital just south of the main campus.

Fort Collins has a mix of manufacturing and service-related businesses. Many high-tech businesses have relocated to Fort Collins because of the resources of Colorado State University and its research facilities. In addition, Fort Collins is home to many small business and entrepreneurial ventures. The brewery industry is significant in Fort Collins, ranging from small craft breweries to large national breweries, such as Anheuser Busch.

Fort Collins was incorporated in 1873. Not long ago Fort Collins was a small community, centered on Old Town and its neighborhoods. In the last 58 years the city has grown from 25,000 people in 1960 to over 162,511 people in 2018.

Figure H-1 shows a map of the City of Fort Collins.

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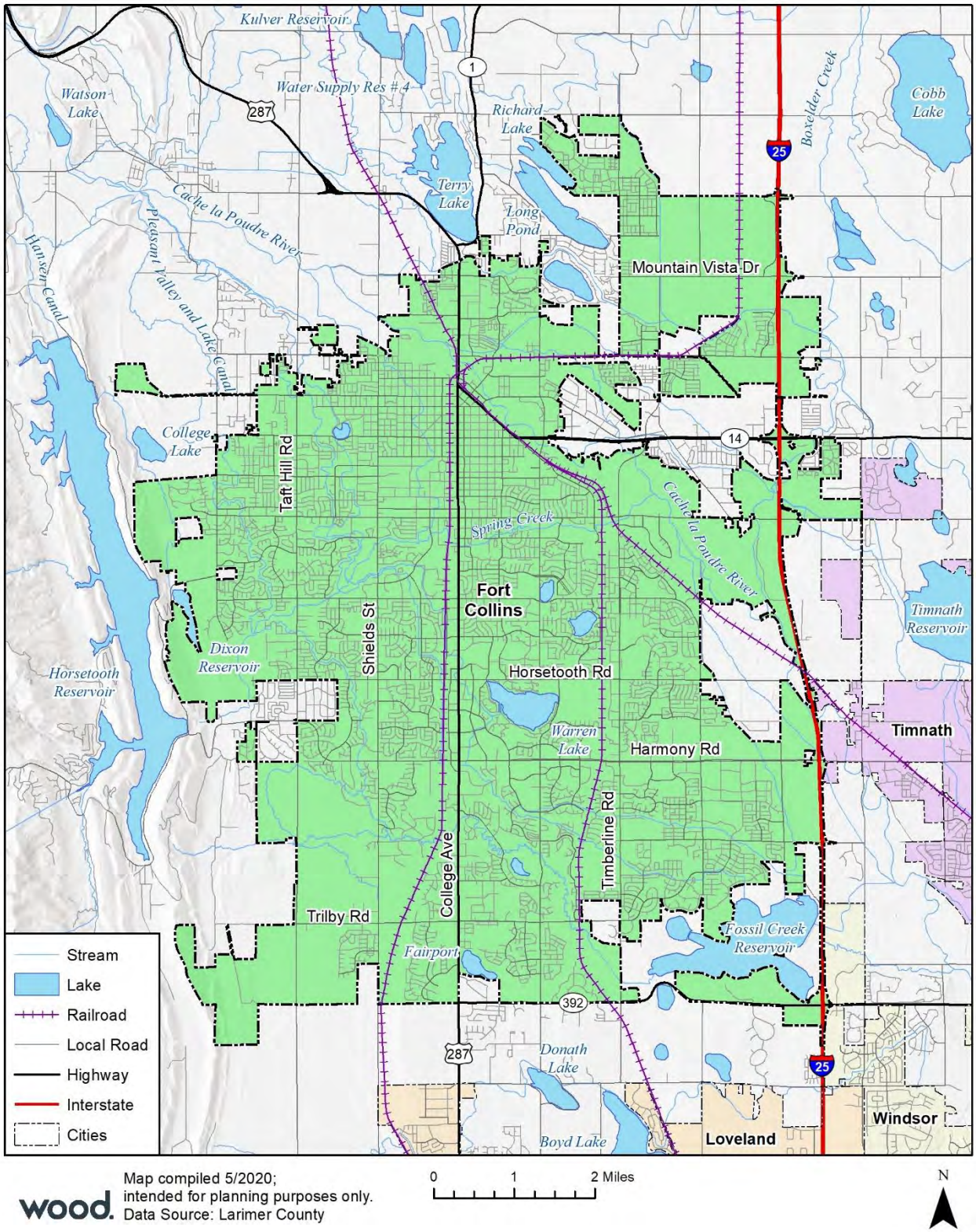
Figure H-1 Map of the City of Fort Collins



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County

H.2.1 Demographics

The following tables and graphs summarize key demographic and social characteristics of the City of Fort Collins.

Table H-1 City of Fort Collins Demographic and Social Characteristics, 2014-2018

City of Fort Collins	2014	2018	% Change
Population	149,627	162,511	8.61%
Median Age	29.3	29.1	-0.7%
Total Housing Units	59,518	65,874	10.7%
Housing Occupancy Rate	96.0%	95.3%	-0.7%
% of Housing Units with no Vehicles Available	5.30%	5.00%	-5.7%
Median Home Value	$253,200	$338,100	33.5%
Unemployment Rate	7.9%	5.9%	-25.3%
Mean Travel Time to Work (minutes)	19.5	20.1	3.1%
Median Household Income	$53,775	$62,132	15.5%
Per Capita Income	$28,921	$32,440	12.2%
% of Individuals Below Poverty Level	18.4%	16.8%	-8.7%
% Without Health Insurance	10.2%	6.2%	-39.2%
# of Households	57,146	62,796	9.9%
Average Household Size	2.5	2.5	-0.8%
% of Population Over 25 with High School Diploma	95.8%	96.5%	0.7%
% of Population Over 25 with bachelor's degree or Higher	51.6%	54.5%	5.6%
% with Disability	7.4%	8.3%	12.2%
% Speak English less than "Very Well"	2.3%	2.9%	26.1%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table H-2 Demographic and Social Characteristics Compared to the County and State

Demographic & Social Characteristics (as of 2018)	Fort Collins	County	Colorado
Median Age	29.1	35.9	36.6
Housing Occupancy Rate	95.3%	91.7%	89.8%
% of Housing Units with no Vehicles Available	5.0%	4.1%	5.2%
Median Home Value	$338,100	$336,200	$313,600
Unemployment	5.9%	5.0%	4.7%
Mean Travel Time to Work (minutes)	20.1	23.2	25.5
Median Household Income	$62,132	$67,664	$68,811
Per Capita Income	$32,440	$35,390	$36,415
% of Individuals Below Poverty Level	16.8%	12.0%	10.9%

Demographic & Social Characteristics (as of 2018)	Fort Collins	County	Colorado
% Without Health Insurance	6.2%	6.3%	8.1%
Average Household Size	2.5	2.5	2.6
% of Population Over 25 with High School Diploma	96.5%	95.8%	91.4%
% of Population Over 25 with bachelor's degree or Higher	54.5%	46.3%	40.1%
% with Disability	8.3%	9.8%	10.6%
% Speak English less than "Very Well"	2.9%	2.6%	5.9%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table H-3 Demographics by Race and Sex

Fort Collins	Population	%
Total Population	162,511	100%
Male	81,575	50.2%
Female	80,936	49.8%
White, not Hispanic	129,931	80.0%
Hispanic or Latino	19,736	12.1%
Black	2579	1.6%
Asian	5578	3.4%
American Indian and Alaska Native	1383	0.9%
Native Hawaiian and Other Pacific Islander	167	0.1%
Some other race	2572	1.6%
Two or more races	5699	3.5%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table H-4 Types and Total Amounts of Housing Units in Fort Collins

Type of Housing Units	Total	%
Total housing units	65,874	100%
1-unit detached	37,053	56.2%
1-unit attached	5,262	8.0%
2 units	1,505	2.3%
3 or 4 units	3,640	5.5%
5 to 9 units	5,030	7.6%
10 to 19 units	5,273	8.0%
20 or more units	6,579	10.0%
Mobile home	1,532	2.3%
Boat, RV, van, etc.	0	0.0%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

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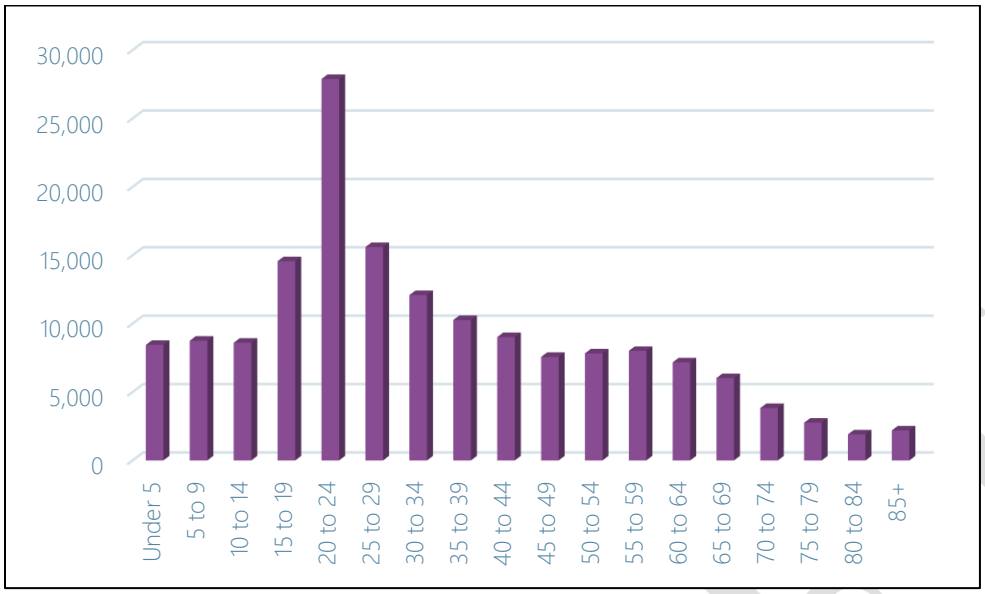
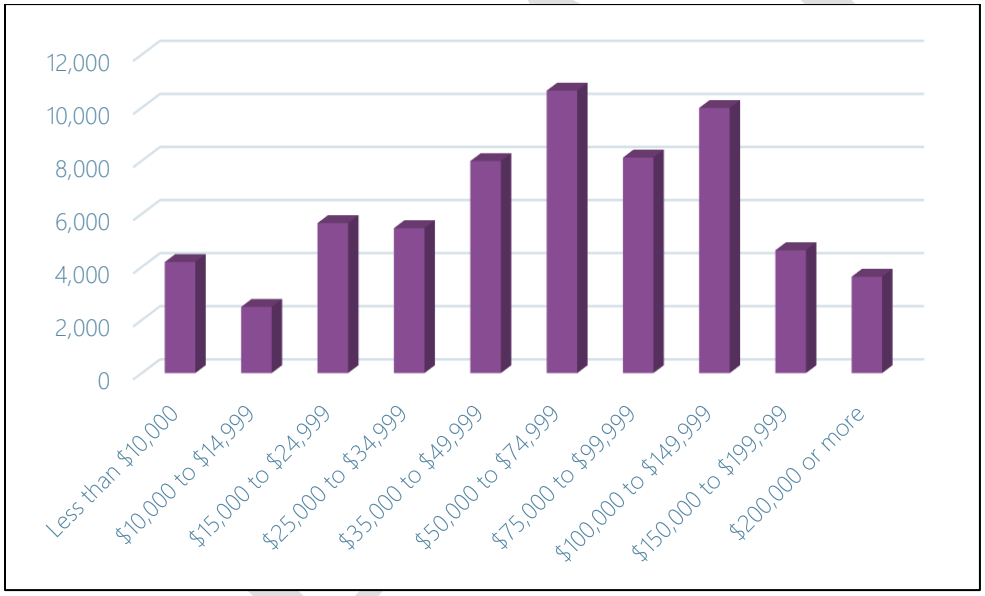
Figure H-2 City of Fort Collins Population Distribution by Age



Source: U.S. Census Bureau American Community Survey, www.census.gov/

Figure H-3 City of Fort Collins Income Distribution



Source: U.S. Census Bureau American Community Survey, www.census.gov/

H.2.2 Social Vulnerability

Social vulnerability scores for the City of Fort Collins can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. The City of Fort Collins is characterized by a mix of low (bottom 20% in the county) to high (top 20% in the county) levels of social vulnerability. The highly socially vulnerable areas are clustered in the northern part of the community. Resources and measures to reduce the social determinates of disasters may be most effectively allocated to these areas. Moreover, it is critical that the city analyze the individual social vulnerability indicators that make the northern part of the community stand out. Through ongoing evaluation, the City of Fort Collins will be able to more effectively reduce local social vulnerability and increase their resilience to hazard events.

H.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table H-5 Hazard Identification and Risk Assessment Summary for the City of Ford Collins

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Occasional	Extensive	Catastrophic	Medium
Civil Disturbance	Occasional	Limited	Significant	Medium
Dam Inundation	Occasional	Extensive	Catastrophic	High
Drought	Likely	Extensive	Significant	Medium
Earthquake	Unlikely	Significant	Critical	Low
Flood	Likely	Significant	Significant	High
Hazardous Materials	Highly Likely	Significant	Significant	Medium
Landslide/Rockslide	Unlikely	Limited	Negligible	Low
Soil Hazards	Unlikely	Limited	Negligible	Low
Spring/Summer Storm	Highly Likely	Extensive	Negligible	Medium
Tornado	Unlikely	Significant	Catastrophic	Low
Utility Disruption	Likely	Limited	Negligible	Low
Wildfire	Likely	Limited	Negligible	Medium
Winter Storm	Highly Likely	Extensive	Significant	Medium

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

H.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the City of Fort Collins, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the City's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Tornado
- Utility Disruption
- Winter Storm

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

H.4.1 Community Asset Inventory

Table H-6 shows the total number of improved parcels, properties, and their improvement and content values for the City of Fort Collins. See Section 4.2.2 of the Base Plan for details and methodology.

Table H-6 Total Exposure of Improved Properties within the City of Fort Collins

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value
Agricultural	29	36	$9,864,419	$9,864,419	$19,728,838
Commercial	2,107	4,414	$2,077,934,347	$2,077,934,347	$4,155,868,694
Exempt	626	4,809	$1,825,194,938	$1,825,194,938	$3,650,389,876
Industrial	30	55	$266,330,618	$399,495,927	$665,826,545
Mobile Home	21	1,413	$111,062,467	$55,531,233	$166,593,700
Multiple Unit	982	9,821	$2,074,214,734	$2,074,214,734	$4,148,429,468
Residential	48,211	49,858	$17,300,749,856	$8,650,375,056	$25,951,124,912
Total	**52,006**	**70,406**	**$23,665,351,379**	**$15,092,610,654**	**$38,757,962,033**

Source: Larimer County GIS/Assessor's Office, Wood analysis.

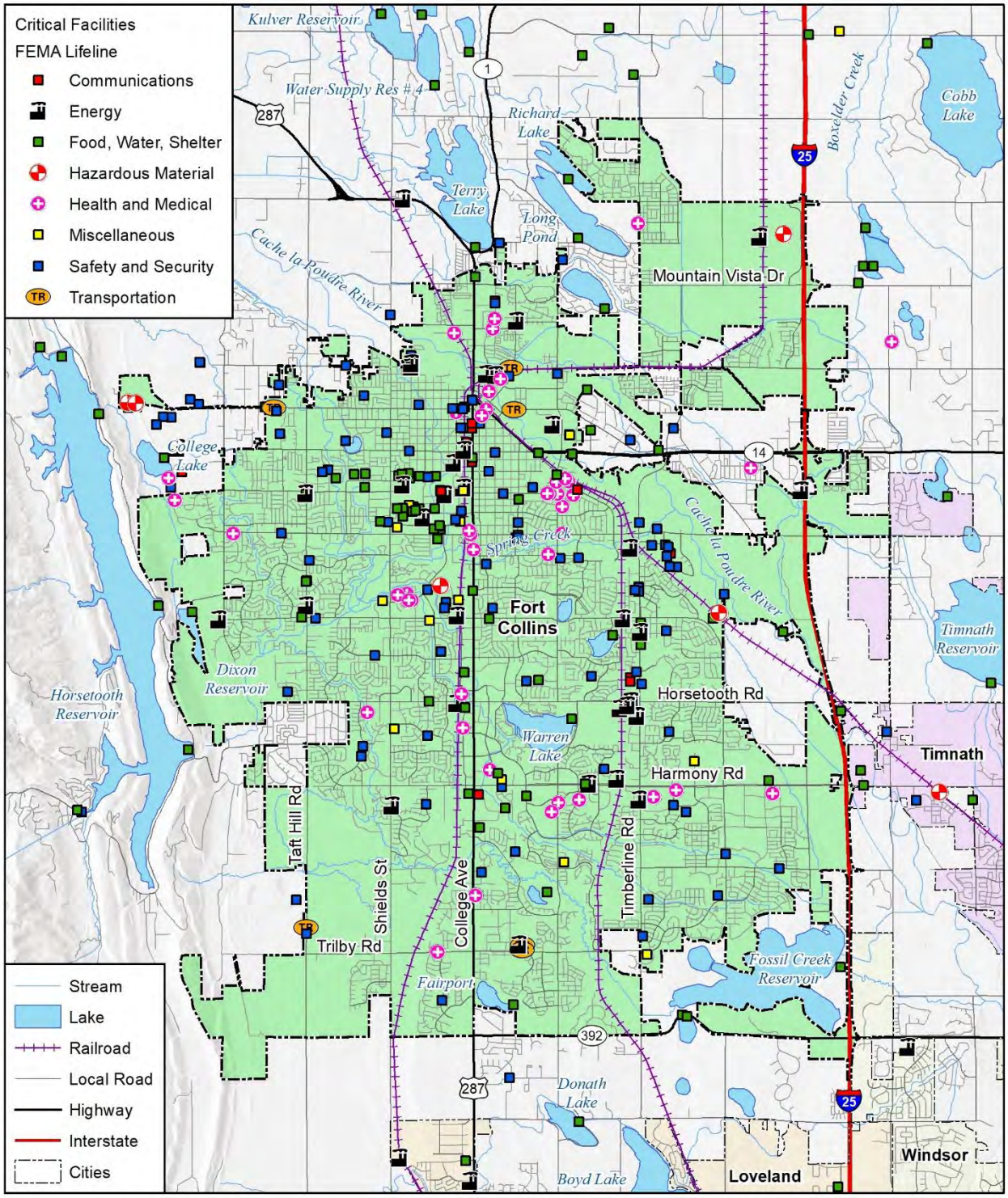
Table H-7 lists summary information about the 268 critical facilities and other community assets identified by the City as important to protect or that provide critical services in the event of a disaster. These facilities are mapped in Figure H-4. For additional information on the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan.

Table H-7 City of Fort Collins Critical Facilities and Infrastructure Summary

FEMA Lifeline	Count
Communications	16
Energy	31
Food, Water, Shelter	57
Hazardous Material	5
Health and Medical	46
Miscellaneous	13
Safety and Security	94
Transportation	6
Total	**268**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

Figure H-4 City of Fort Collins Critical Facilities and Infrastructure



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, EPA

0 1 2 Miles

N

H.4.2 Dam Inundation

Potential dam inundation areas from multiple dams near the City of Fort Collins are shown in Figure H-5.

Figure H-5 Dam Inundation Areas for the City of Fort Collins

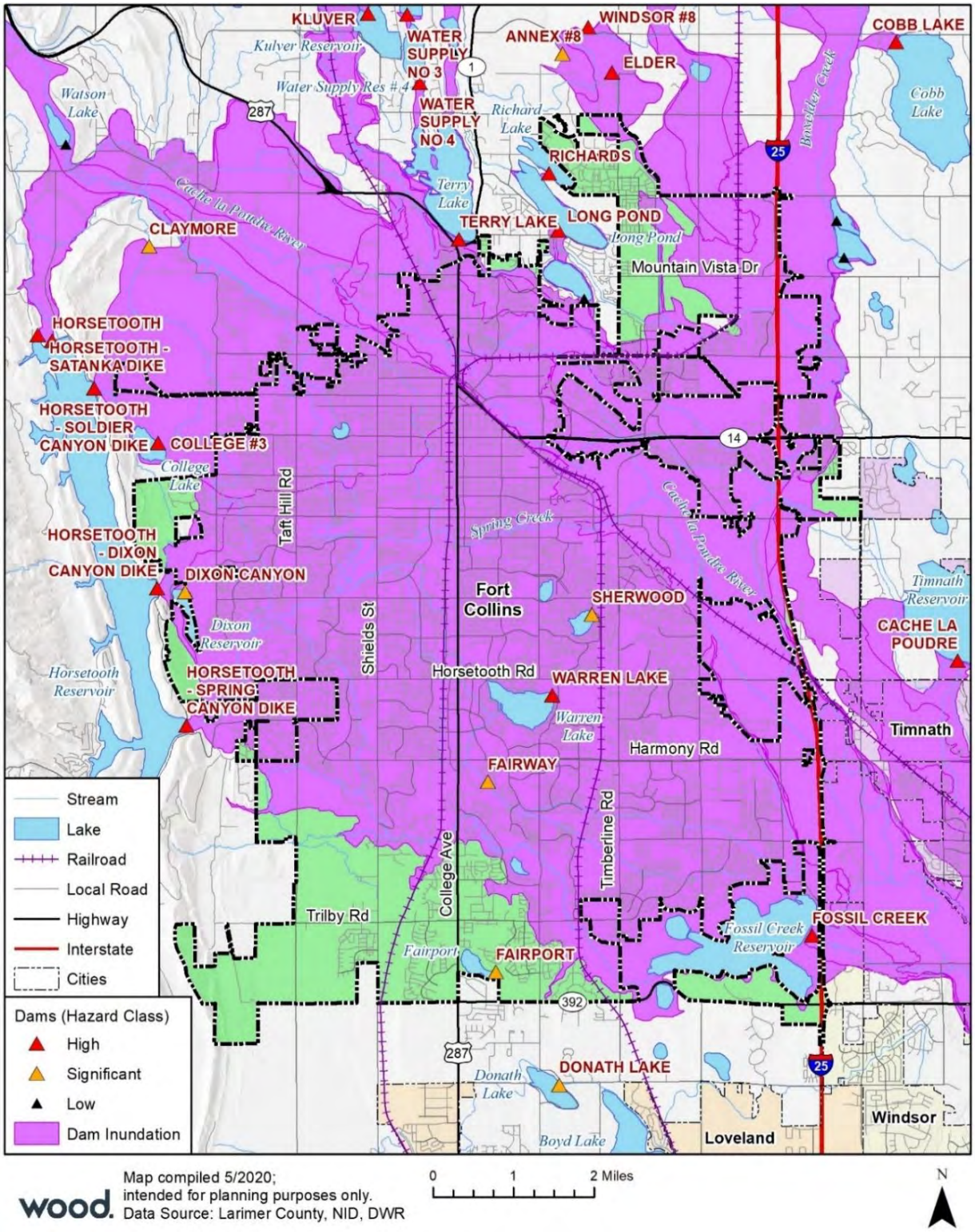


Table 4-17 in Section 4.3.3 of the Base Plan lists dams of concern for Larimer County. Dams upstream of the City of Fort Collins are shown in Table H-8.

Table H-8 Dams Upstream of the City of Fort Collins

Dams Upstream of the City of Fort Collins		
High Hazard Dams		**Significant Hazard Dams**
Barnes Meadow	Long Pond	Annex #8
Chambers Lake	Milton Seaman	Claymore
College #3	North Poudre #2	Curtis Lake
Comanche	North Poudre #3	Dixon Canyon
Douglas	North Poudre #5	Dowdy Lake
Elder	North Poudre #6	Fairport
Flood Control Basin No. 1	North Poudre #15	Fairway
Floodwater Ret. B-2	Panhandle	Floodwater Ret. B-5
Floodwater Ret. B-3	Park Creek	Floodwater Ret. B-6
Halligan	Peterson Lake	Hiawatha
Horsetooth	Rawhide	North Poudre #1
Horsetooth - Dixon Canyon Dike	Richards	North Poudre #4
Horsetooth - Satanka Dike	Rocky Ridge	Parvin
Horsetooth - Soldier Canyon Dike	Terry Lake	Sherwood
Horsetooth - Spring Canyon Dike	Warren Lake	Twin Lakes Reservoir
Hourglass	Water Supply No 3	Worster
Kluver	Water Supply No 4	
Long Draw	Windsor #8	

Source: NID

Table H-9 shows that Fort Collins has 46,938 parcels potentially at risk of dam inundation, valued at $35.7B; an estimated 113,266 residents live in those parcels.

Table H-9 City of Fort Collins Parcels Potentially at Risk of Dam Inundation

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value	Population
Agricultural	23	29	$7,982,102	$7,982,102	$15,964,204	
Commercial	2,018	4,283	$2,023,208,735	$2,023,208,735	$4,046,417,470	
Exempt	599	4,465	$1,771,843,455	$1,771,843,455	$3,543,686,910	
Industrial	28	53	$265,607,514	$398,411,271	$664,018,785	
Mobile Home	18	1,292	$102,155,358	$51,077,679	$153,233,037	3,178
Multiple Unit	981	9,817	$2,073,934,644	$2,073,934,644	$4,147,869,288	
Residential	43,271	44,751	$15,462,841,171	$7,731,420,739	$23,194,261,910	110,087
Total	**46,938**	**64,690**	**$21,707,572,979**	**$14,057,878,625**	**$35,765,451,604**	**113,266**

Source: USACE National Inventory of Dams 2018, Colorado Dam Safety Program, Larimer County GIS, U.S. Census Bureau, Wood analysis

There are 25 critical facilities identified in areas at risk of dam inundation in the City of Loveland, shown in Table H-10.

Table H-10 City of Fort Collins Critical Facilities Potentially at Risk of Dam Inundation

FEMA Lifeline	Count
Communications	16
Energy	30
Food, Water, Shelter	56
Hazardous Material	5
Health and Medical	40
Miscellaneous	14
Safety and Security	92
Transportation	3
Total	**256**

Source: USACE National Inventory of Dams 2018, Colorado Dam Safety Program, Cascarta, Larimer County GIS, U.S. Census Bureau, Wood analysis

Based on the above analysis, the spatial extent and severity of dam inundation in the City of Fort Collins is higher than that of Larimer County as a whole. The overall significance of this hazard for the City is High.

H.4.3 Flood

FEMA mapped floodplains in and around the City of Fort Collins are shown in Figure H-6.

As shown in Table 4-34 in Section 4.3.6 of the Base Plan, the City of Fort Collins has 120 improved parcels, 164 buildings, and an estimated 216 residents in areas at 1% annual chance of flooding, with estimated losses of $25,963,779. There are an additional 208 parcels, 292 buildings, and 499 residents located in the 0.2% annual chance flood hazard area, with estimated losses of $66,207,086. The City also has 430 parcels, 665 buildings, and 585 residents in areas protected by levees, with a potential loss estimate of $92,948,412.

There are three levees located along the Poudre River in Fort Collins:

Oxbow Levee - Located between Lincoln and Linden Street. This levee protects the Buckingham Neighborhood and businesses along the north side of Lincoln Avenue.

RPATH Levee – This levee keeps water in the main channel and protects business along Timberline Road near Prospect Road.

Drake Water Reclamation Facility Levee – Protects the City's Drake Water Reclamation Facility and is located along the north and west side of the facility.

The City has twelve critical facility identified in FEMA mapped floodplains, as shown in Table 4-75. The Mulberry Water Reclamation Facility is located in parts of the mapped 0.2% annual flood risk area.

Table H-11 Fort Collins Critical Facilities Exposed to Risk of Flooding

FEMA Lifeline	1% Annual Flood Risk	0.2% Annual Flood Risk	Protected by Levee	Total
Energy	1			1
Food, Water, Shelter		2	1	3
Hazardous Material		1		1
Health and Medical	1		1	2
Miscellaneous			1	1

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FEMA Lifeline	1% Annual Flood Risk	0.2% Annual Flood Risk	Protected by Levee	Total
Safety and Security		1	3	4
Transportation			1	1
Total	**2**	**4**	**7**	**12**

Source: Cascarta

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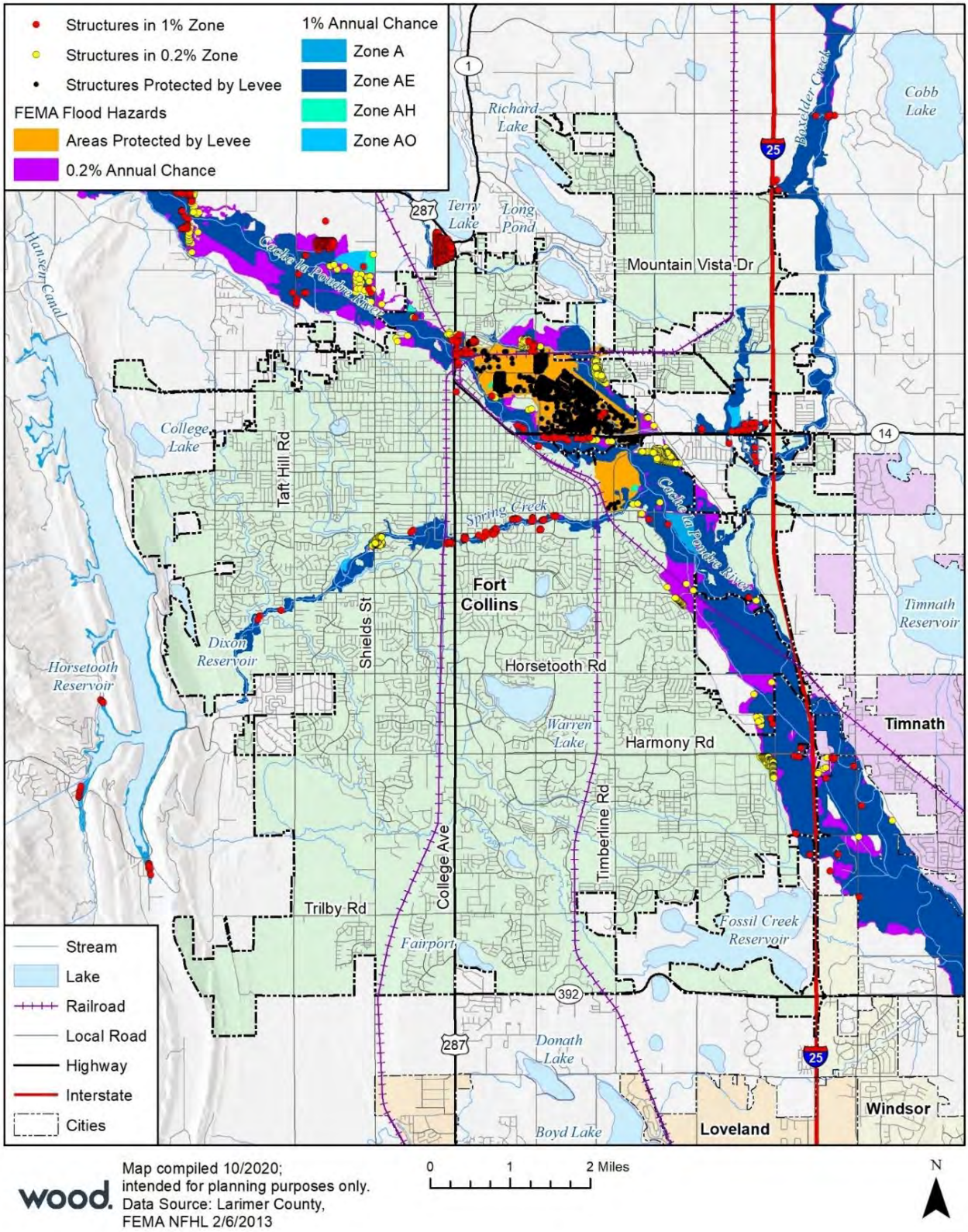
Figure H-6 FEMA Special Flood Hazard Areas for the City of Fort Collins



Map compiled 10/2020; intended for planning purposes only. Data Source: Larimer County, FEMA NFHL 2/6/2013

Drainage Basin Master Plan

The City of Fort Collins has 12 drainage basins: the Cache la Poudre, Dry Creek, Cooper Slough/Boxelder, West Vine, Old Town, Canal Importation, Spring Creek, Foothills, Mail Creek, Fox Meadows, McClellands and Fossil Creek. All have flooded in the past for various reasons. Each basin is characterized by unique features that must be taken into account when considering hazard mitigation and flood safety. The Drainage Basin Master Plan, approved by City Council in June 2004, describes the flooding history of each basin, identifies potential problem areas and recommends improvements. The Master Plan is updated regularly to reflect changes.

Flood Warning and Response System

The City of Fort Collins operates an advanced flood warning and response system comprising 82 gage locations within the City and upstream parts of Larimer County, which are monitored 24/7 from April through September. Low, medium, and high thresholds have been established with individual emergency action plans for each gage used to monitor flooding risk. Because of the nature of flash flooding, there is little time for flood warning, and evacuation is often not the recommended or even feasible option. Notifications can be sent via an auto-dialer system (LETA911.org). The City also uses social media, a local cable TV channel, and the website to provide information to the public either directly, or by partnering with Larimer County via the Integrated Public Alert and Warning System (IPAWS). The City has a focused public outreach effort to help residents and businesses know in advance the steps that need to be taken when a flood happens.

Natural and Beneficial Functions of the Floodplain

The City of Fort Collins recognizes the natural and beneficial functions of the floodplain. For example, 66% of the Poudre River 1% annual chance floodplain has been preserved as open space. Much of that area is managed by the City's Natural Areas program to provide beneficial habitat. These large open areas were extremely helpful in the September 2013 flood where flood water could spread out, slow down and not cause damage. The City continues to acquire new open space properties and rehabilitate areas to further augment low-impact flood water storage in the basin floodplains.

National Flood Insurance Program Policy Analysis

The City of Fort Collins has participated in the National Flood Insurance Program (NFIP) since 1979. NFIP insurance data shows that as of September 2020 there are 353 flood insurance policies in force in the City providing $108,494,500 of coverage; the majority of these are Preferred Risk policies. There have been 64 historical claims for flood losses, totaling $687,909. There are three repetitive loss structures in the City, two of which are single family residential and one of which is other-nonresidential; there are no severe repetitive loss structures as defined by the NFIP. The City's participation in the Community Rating System (CRS) program is described in H.5.2 below.

Summary

Elements of the "Flood Mitigation Appendix" of the Fort Collins Stormwater Master Plan is included in Appendix E of this plan as a supplement to the risk assessment. Figure H-7 illustrates the history of flooding events in the City of Fort Collins.

Based on the above analysis, Fort Collins experiences lower frequency and a reduced spatial extent of flooding than Larimer County as a whole, largely as a result of the extensive mitigation work that has been done to date. The overall significance of this hazard for the City is Medium.

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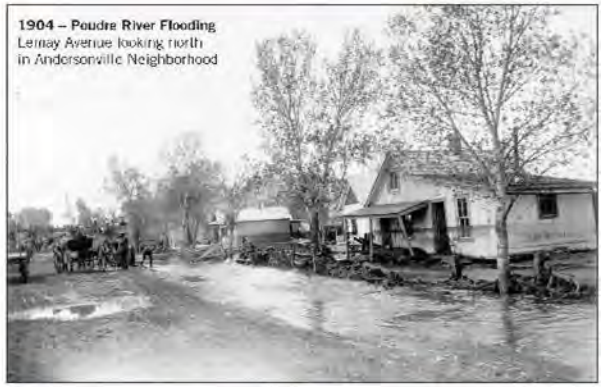
Figure H-7 Fort Collins Flood History Information

Drainage Basins	Dates	Descriptions
Cache la Poudre River	1844, 1864, 1891, 1904, 1923, 1930, 1976, 1983, 1999, 2010, 2011, 2013 and 2014	The three largest floods occurred in 1864, 1891 and 1904, with peaks of approximately 21,000 cubic feet per second (cfs). For comparison, the discharge of the Poudre River at "flood stage" is about 4,000 cfs. Flooding on the Poudre is primarily from snowmelt in late May and June. However, flash flooding can occur at any time. A severe flood has not occurred in more than 100 years.
Spring Creek	1902, 1904, 1938, 1949, 1951, 1961, 1977, 1983 and 1997	The 1997 flood resulted in five deaths, destruction of 120 mobile homes and damage to 2,000 homes and businesses. This flood was considered to be greater than a 500-year event.
Dry Creek	No serious flooding since about 1950	The absence of even minor flooding is generally attributed to the network of irrigation canals that have some capacity for intercepting small to moderate Dry Creek flows.
Fossil Creek	1902, 1938, 1965, 1977, 1979, 1997, 1999 and 2007	Fossil Creek is relatively undeveloped and past floods have gone unnoticed. In addition to flooding hazards, Fossil Creek also is susceptible to bank erosion.
Boxelder Creek/ Cooper Slough	1909, 1922, 1930, 1937, 1947, 1963, 1967, 1969 and 2007	Boxelder Creek has a drainage area of 251 square miles and 176 square miles now are controlled by Soil Conservation Service flood control dams near Wellington.
Old Town Basin	1904, 1933, 1938, 1951, 1977, 1983, 1988, 1992, 1997, 2009 and 2018	Street flooding is the primary problem in this basin.
Canal Importation Basin	1938, 1951, 1975, 1992, 1997, 1999 and 2009	There are several small drainage areas in this basin. Development prior to drainage criteria encroached on the channels, reduced the flow capacity and caused flooding. The irrigation canals also overflow their banks and cause flooding.
West Vine Basin	1980, 1997 and 1999 (Past floods were not well documented.)	Localized flooding occurs due to encroachment on drainages and from irrigation ditch spills.

1992 – Old Town Flooding
Shields and Elizabeth Street looking toward Moby Arena


1904 – Poudre River Flooding
Lemay Avenue looking north in Andersonville Neighborhood

1997 – Spring Creek
Creekside Park along College Avenue

H.4.4 Hazardous Materials Incident

Designated hazardous materials routes passing through the City of Fort Collins include I-25 and several rail lines. Five of the County's 10 Risk Management Plan (RMP) facilities are located within the City limits.

The National Response Center (NRC) data cited in Section 4.3.7 of the Base Plan includes 155 hazardous materials incidents in or near the City of Fort Collins from 1987 through 2019. This represents 54% of all reported incidents in the County, and an average of four to five hazardous materials incidents per year. Seven evacuations are associated with these incidents, along with three deaths and eighteen injuries. As noted in the Base Plan, it is likely, however, that the majority of those injuries came from the physical impacts of the accident that caused the release, rather from exposure to hazardous materials themselves.

Based on the above analysis, the frequency and spatial extent of hazardous materials incidents in the City of Fort Collins is higher than that of Larimer County as a whole. The overall significance of this hazard for the City is Medium.

H.4.5 Landslide/Rockslide

There are 26 parcels and 30 buildings at risk of landslide in the City of Fort Collins. The total value of these buildings is $20,768,607, and an estimated 74 residents would be affected. There are no parcels or buildings at risk of rockslide. There is one Health and Medical critical facility at risk of landslide. Figure H-8 shows the potential landslide hazards for the City of Fort Collins. Based on the analysis above, the overall significance of this hazard for the City is Low.

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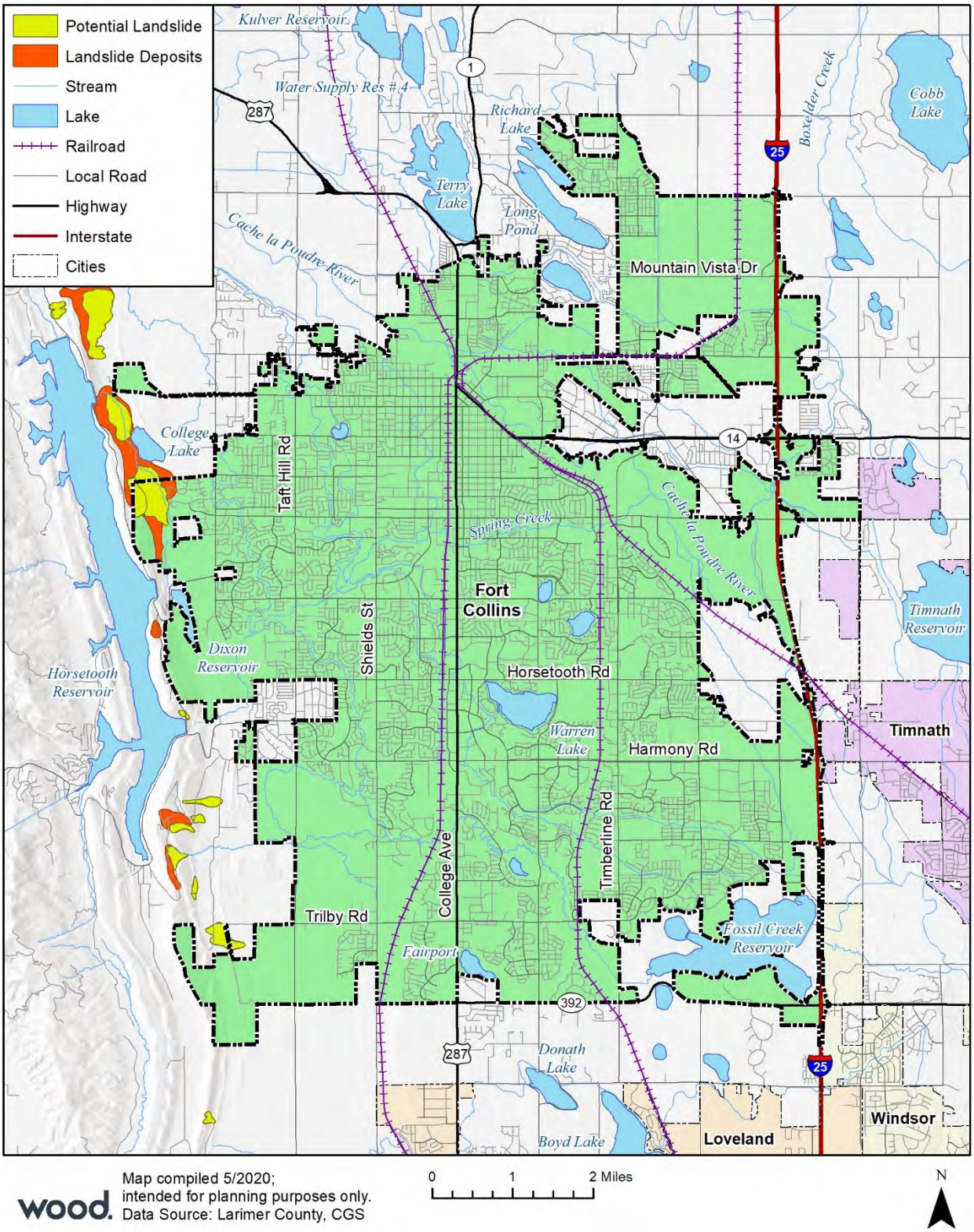
Figure H-8 City of Fort Collins Landslide Hazards



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

0 1 2 Miles

N

H.4.6 Soil Hazards

No historically undermined areas or areas at risk of land subsidence have been identified in the City of Fort Collins. However significant portions of the City are at risk of collapsible or expansive soils, as shown in Figure H-9 and Figure H-10.

Table 4-49 in Section 4.3.9 of the Base Plan shows 23,067 parcels and 29,502 buildings potentially exposed to collapsible soils, with a total value of $18,678,848,247. This represents more than 81% of all parcels in the City.

Similarly, Table 4-50 in Section 4.3.9 of the Base Plan shows 32,320 parcels and 44,773 buildings at risk to expansive soils, with a total value of $25,798,882,438. An estimated 78,329 residents are also at risk.

The overall significance of this hazard for the City is Medium.

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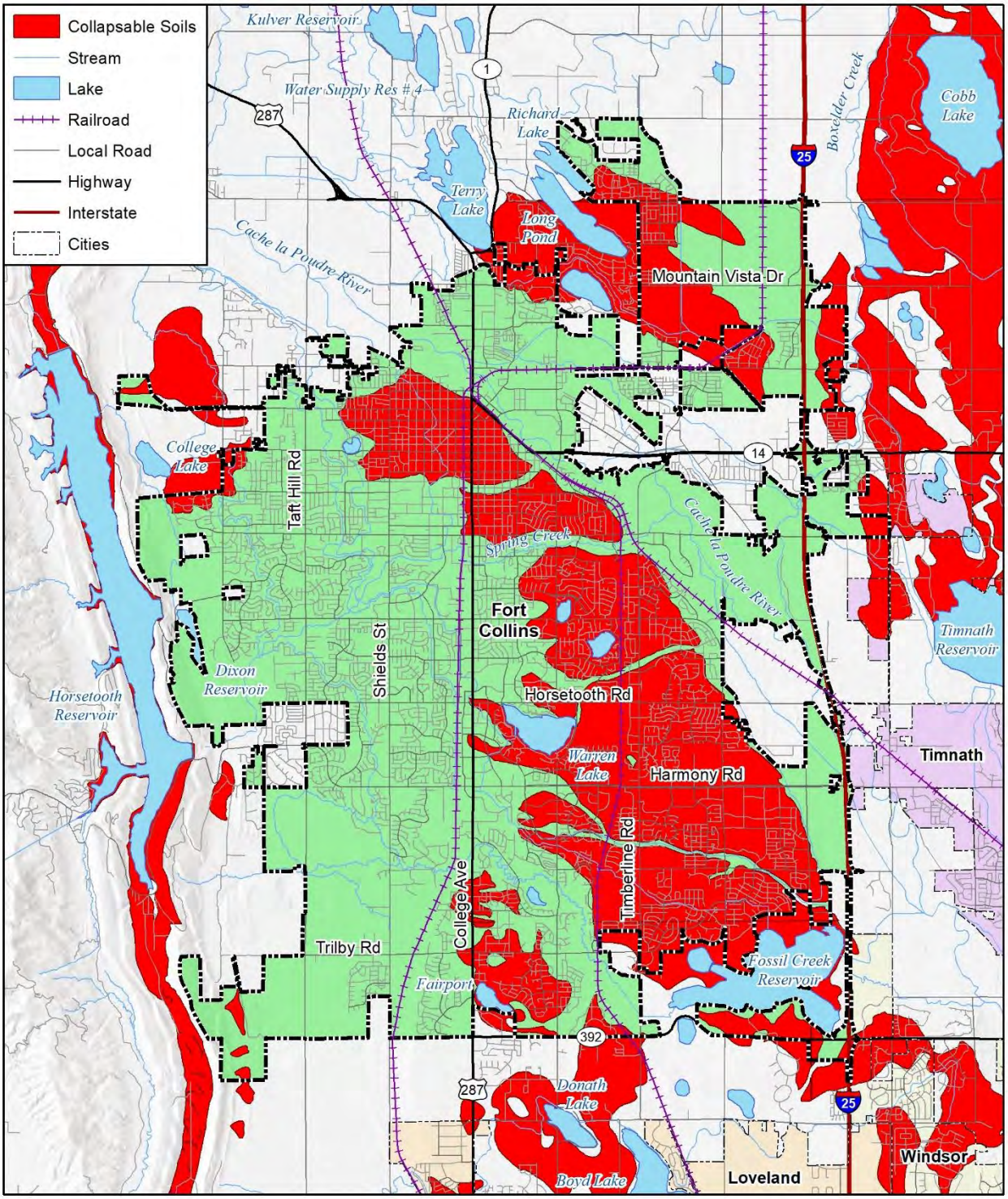
Figure H-9 Potential Collapsible Soils Areas – City of Fort Collins

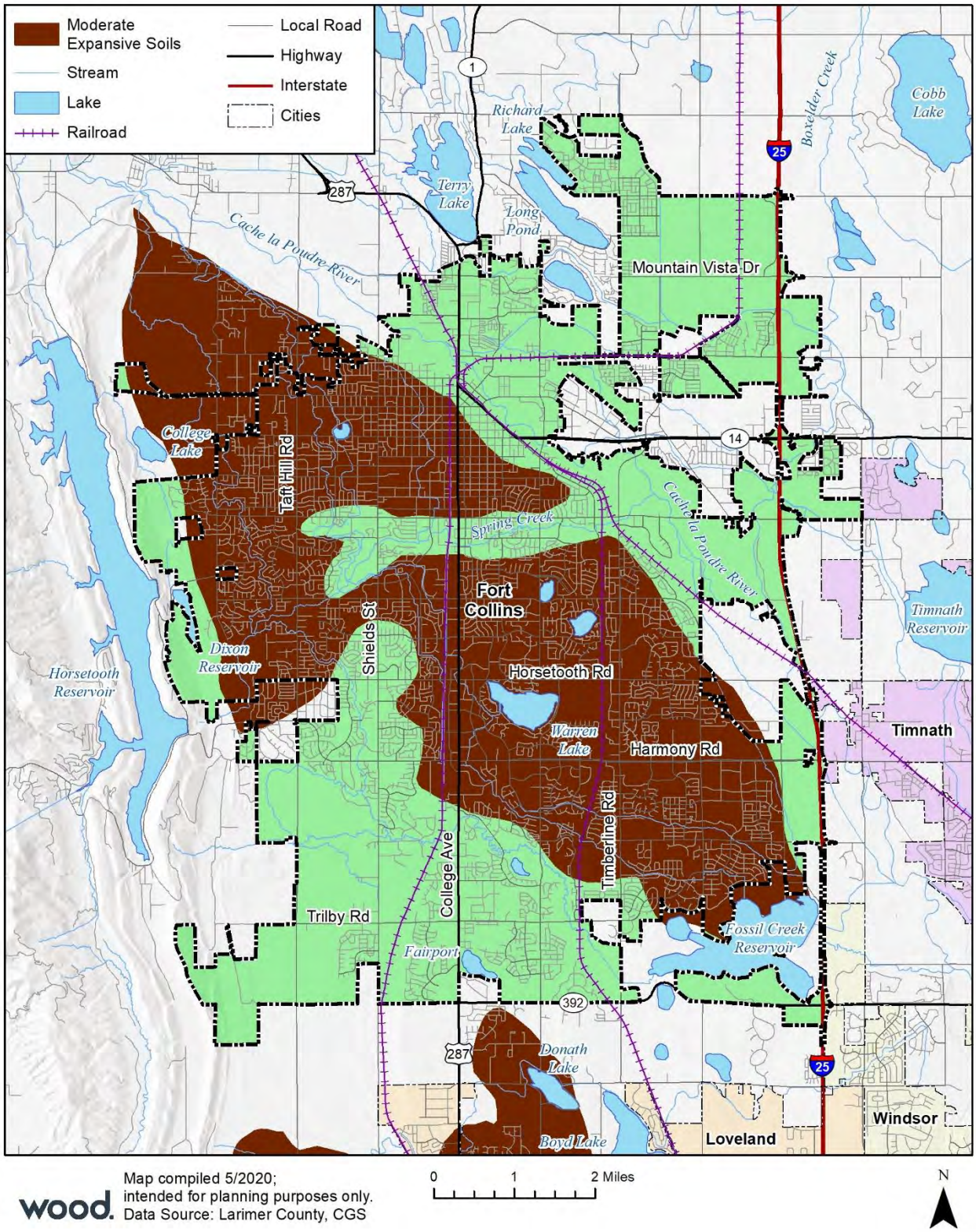


Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

0 1 2 Miles

N

Figure H-10 Potential Expansive Soils Areas – City of Fort Collins



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

0 1 2 Miles

N

The critical facility exposure analysis shows 99 critical facilities in Fort Collins exposed to potentially collapsible soils and 171 at risk of expansive soils, as shown in the following table.

Table H-12 Fort Collins Critical Facilities with Potential Collapsible Soil Hazards

FEMA Lifeline	Collapsible Soil	Expansive Soil	Total
Communications	9	11	20
Energy	12	20	32
Food, Water, Shelter	13	46	59
Hazardous Materials	0	1	1
Health and Medical	20	23	43
Miscellaneous	3	9	12
Safety and Security	41	59	100
Transportation	1	1	2
Total	**99**	**171**	**270**

Source: Cascarta

While the City is at low risk of land subsidence or undermined areas, significant portions of the City are exposed to expansive or collapsible soils compared to Larimer County as a whole. The overall significance of this hazard for the City is High.

H.4.7 Wildfire

The City of Fort Collins has a history of wildfire activity in and adjacent to the City. Areas in and around the City of Fort Collins at risk of wildfire, based on CO-WRAP assessment, are shown in Figure H-11.

Tables 4-72, 4-73, and 4-74 in the Wildfire profile of the Base Plan shows that the City has 298 parcels and 305 buildings at moderate or high risk of wildfire, with a total value of $211,669,903. An estimated 736 residents live in these at-risk areas.

The City has 16 critical facilities identified at being at risk of wildfires, as shown in Table H-13.

Table H-13 Fort Collins Critical Facilities Exposed to Wildfire Risk

FEMA Lifeline	Lowest Risk	Low Risk	Moderate Risk	High Risk	Highest Risk	Total
Energy	4					4
Food, Water, Shelter	4	1				5
Hazardous Materials		1				1
Miscellaneous	1					1
Safety and Security	3		1			4
Transportation			1			1
Total	**12**	**2**	**2**	**0**	**0**	**16**

Source: Cascarta, CO-WRAP

While a relatively low percentage of the City's total parcels and structures is at direct risk of wildfire, a look at Figure H-11 shows a significant portion of the land immediately west of the City are at moderate or high wildfire risk. The overall significance of this hazard for the City is Medium.

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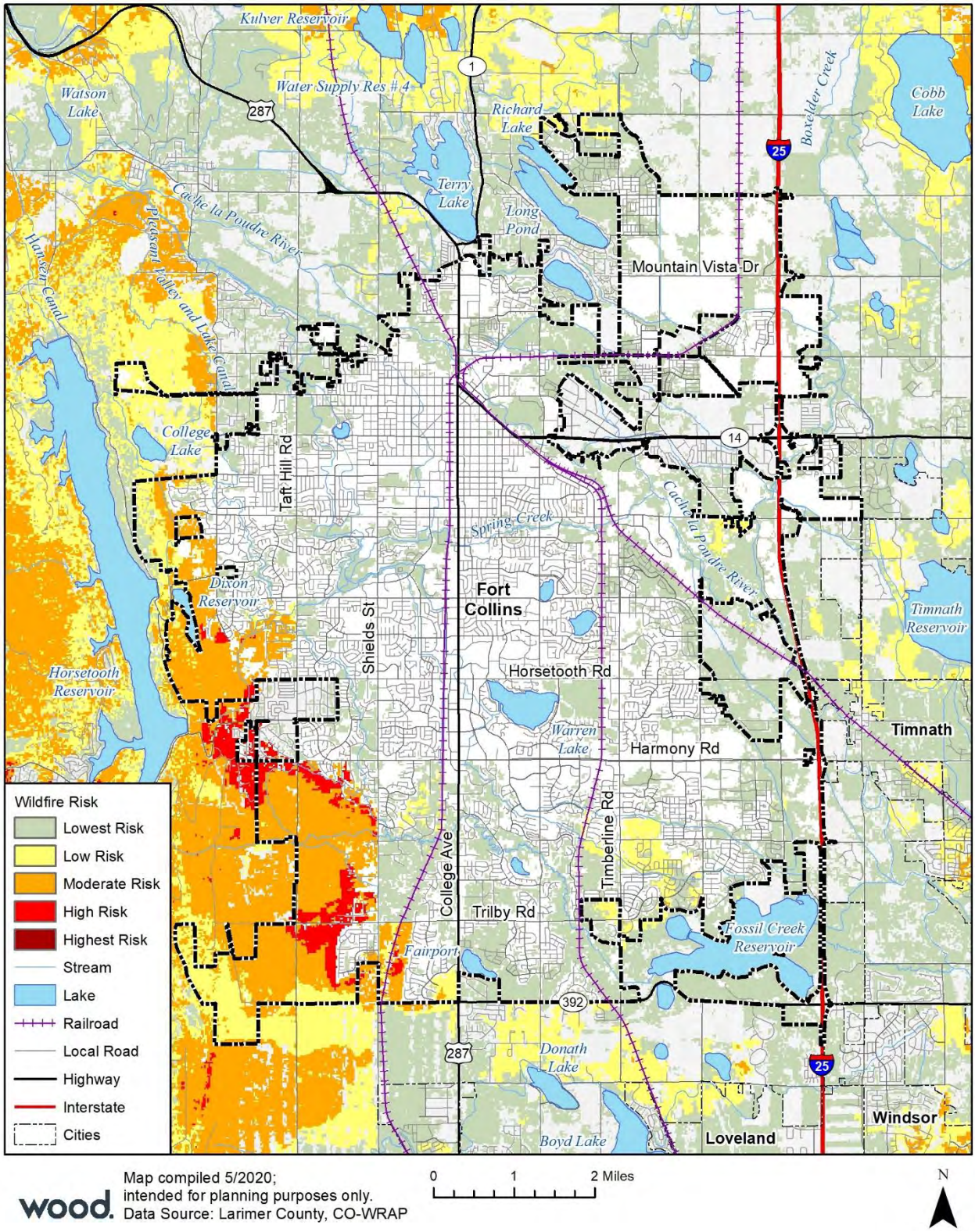
Figure H-11 Fort Collins Wildfire Risk



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CO-WRAP

0 1 2 Miles

N

H.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the City of Fort Collins to reduce hazard impacts or that could be used to implement hazard mitigation activities.

H.5.1 Existing Capabilities

The following tables summarize the City's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Table H-14 City of Fort Collins Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	Yes	https://www.fcgov.com/cityplan/
Zoning ordinance	Yes	City of Fort Collins Land Use Code https://library.municode.com/co/fort_collins/codes/land_use?nodeId=CITY_FORT_COLLINS_LAND_USE_CODE
Subdivision ordinance	Yes	https://www.fcgov.com/developmentreview/applications
Growth management ordinance	Yes	https://library.municode.com/co/fort_collins/codes/land_use?nodeId=ART3GEDEST_DIV3.7COURGRST_3.7.1GE
Floodplain ordinance	Yes	City Code, Chapter 10, Article II https://library.municode.com/co/fort_collins/codes/municipal_code?nodeId=CH10FLPRPR_ARTIIFLHAAR
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Chapter 26 of City Code; Fort Collins Stormwater Criteria Manual https://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_Stormwater_Criteria_Manual_-DRAFT_for_Council.pdf
Building codes	Yes	2018 International Building Code and 2018 International Residential Code
BCEGS Rating	Yes	3/2
Fire department ISO rating	Yes	https://www.poudre-fire.org/online-services/iso-resources
Erosion or sediment control program	Yes	Fort Collins Municipal Code and Charter - Chapter 10, Division 7 - Erosion Buffer Zones, Sec. 10-201 https://library.municode.com/co/fort_collins/codes/municipal_code?nodeId=CH10FLPRPR_ARTIIFLHAAR_DIV7ERBUZO Fort Collins Stormwater Criteria Manual https://www.fcgov.com/utilities/img/site_specific/uploads/Fort_Collins_Stormwater_Criteria_Manual_-DRAFT_for_Council.pdf
Stormwater management program	Yes	https://www.fcgov.com/utilities/what-we-do/stormwater
Site plan review requirements	Yes	https://www.fcgov.com/developmentreview/applications.php
Capital improvements plan	Yes	https://www.fcgov.com/planfortcollins/pdf/cip-doc-2012.pdf?1415894773
Economic development plan	Yes	https://www.fcgov.com/cityplan/
Local emergency operations plan	Yes	Furnished upon request
Community Wildfire Protection Plan	Yes	2011 Poudre Fire Authority CWPP
Other special plans	No	

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
National Flood Insurance Program	Yes	Joined 1984
Community Rating System	Yes	Class 2
Flood insurance study or other engineering study for streams	Yes	https://www.fcgov.com/utilities/what-we-do/stormwater/flooding/floodplain-maps-documents
Elevation certificates (for floodplain development)	Yes	https://www.fcgov.com/utilities//img/site_specific/uploads/ff086033_elevcert_re_11feb2020.pdf?1586365905 https://library.municode.com/co/fort_collins/codes/municipal_code?nodeId=CH10FLPRPR_ARTIIFLHAAR_DIV3GESTFLHAANRE_S10-37GEPRREELST
Other?	Yes	Sourcewater Spill Response Plan Harmful Algae Bloom Monitoring and Treatment Plans

Source: City of Fort Collins planning team

Table H-15 City of Fort Collins Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer with knowledge of land development/land management practices	Yes	CDNS – City Planning
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	CDNS – Building Services
Planner/engineer/scientist with an understanding of natural hazards	Yes	CDNS - City Planning
Transportation Planner	Yes	FC Moves
Resiliency Planner	Yes	Social Sustainability – Lead Climate Specialist
Personnel skilled in GIS	Yes	Information Technology – GIS Department
Full time building official	Yes	CDNS - Building Services
Floodplain manager	Yes	Utilities – Water Engineering Field Services
Emergency manager	Yes	Emergency Preparedness and Security
Grant writer	No	Finds grants, does not develop
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Information Technology – GIS Department
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	FCTV (cable override), and LETA911/FC911 (reverse 911)

Source: City of Fort Collins planning team

Table H-16 City of Fort Collins Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	Yes	Unknown	May require a project update to Housing and Urban Development
Capital improvements project funding	Yes	Yes	
Authority to levy taxes for specific purposes	Yes	No	
Fees for water, sewer, gas, or electric services	Yes	Yes	
Stormwater Service Fees	Yes	Yes	
Impact fees for new development	Yes	Yes	

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Incur debt through general obligation bonds	Yes	No	Requires a vote from Residents
Incur debt through special tax bonds	Yes	Unknown	Requires a vote from Residents
Incur debt through private activities	Yes	Yes	
Withhold spending in hazard prone areas	Yes	No	

Source: City of Fort Collins planning team

Table H-17 Education and Outreach Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	Yes	See below
Firewise	No	
StormReady	Yes	

Source: City of Fort Collins planning team

Local land use plans and building codes are tremendous tools for evaluating local policies related to hazard mitigation and risk reduction. Additionally, comprehensive master plans, capital improvement plans, stormwater plans and zoning ordinances all present opportunities for enhanced local capabilities.

The Fort Collins Municipal Code and Charter were established in 1986 and includes provisions for erosion setbacks under Chapter 10 Flood Protection and Prevention, Article II Flood Hazard Areas, Division 7 Erosion Buffer Zones. The erosion buffer zones for the Fossil Creek, Boxelder Creek, Mail Creek and McClellands Creek basins have been mapped and are available in GIS form from the City. The total erosion buffer zone acreage for these four basins is 243.4 acres. There are specific development standards outlined in the code associated with the erosion buffer zones to limit damage from stream erosion.

Building codes are another tool that communities use to enhance public safety. For example, they can increase structural integrity, mitigate structure fires, and provide benefits in relation to natural hazard avoidance. In Colorado, land use regulations and building codes are typically implemented at the local level. Even without a statewide mandate, most counties and many municipalities have enacted regulations and codes. The City of Fort Collins has adopted a local building code requirement, demonstrating their understanding of the benefits codes provide, including reduced exposure to hazards.

Past or ongoing public education or information programs include:

- EPS hosted CERT Classes, which is currently on hold due to re-evaluation of the program.
- Utilities offers educational sessions of a variety of topics. Can be found at https://www.fcgov.com/utilities/community-outreach and https://www.fcgov.com/utilities/education-programs.
- Environmental Services offers regular educational programs on reducing climate footprint and sustainability efforts.
- The Fort Collins Floodplain Management Public Information Committee has been in place since 2014 and produces an annual report.

H.5.2 Participation in the Community Rating System

The Community Rating System (CRS) is a voluntary national program developed by FEMA that provides flood insurance premium reductions based on a participating community's implementation of floodplain management programs that exceed the minimum requirements established by the National Flood

Insurance Program (NFIP). Credit points for the CRS floodplain management activities determine a community's CRS Class.

Fort Collins is currently a Class 2 CRS community and works hard to implement policies and education campaigns that help reduce flood risk in and around the community. Appendix E contains additional information on the City's CRS participation and its floodplain management program.

H.5.3 Opportunities for Enhancement

Based on the capability assessment, Fort Collins has several existing mechanisms in place that already help to mitigate hazards. There are also opportunities for the City 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 DHSEM. Additional training will help to inform City staff and City Council on how to optimize integrating hazard information with mitigation projects, so City policies and duties continue to improve. Increasing City staff awareness of hazards and mitigation strategies will result in a better-informed cadre of professionals that can better communicate this information to the public.

H.6 Mitigation Strategy

The City of Fort Collins has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The City had 32 mitigation actions in the 2016 Plan. Ten of these actions have been completed.

- Boxelder Basin Regional Stormwater Improvements
- Flood Warning System (FWS) Enhancements
- East Vine Drive Property Acquisition.
- Water Reclamation and Biosolids- Improvement in Processes and Infrastructure
- Water Reclamation and Biosolids- Improvement in Technology
- Downtown River District Storm Sewer Improvements
- Comprehensive Plan (City Plan) Update
- Mulberry-Riverside Stormwater Project
- North East College Corridor Outfall
- Training in Disaster Management Large Scale Incidents

The remaining 22 actions have been carried over into the 2021 Plan, along with 13 new actions.

The local planning team identified and prioritized the following mitigation actions for the City of Fort Collins based on the risk assessment. 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.

National Flood Insurance Program

Recognizing the importance of the National Flood Insurance Program (NFIP) in mitigating flood losses, the City of Fort Collins will place an emphasis on continued compliance with the NFIP. As an NFIP participant, the City has and will continue to make every effort to remain in good standing with NFIP. This includes continuing to comply with the NFIP's standards for updating and adopting floodplain maps and maintaining and updating the floodplain zoning ordinance as well as review of any potential development in special flood hazard areas.

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Table H-18 City of Fort Collins 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
H1*	1, 4	Flooding	**Green Infrastructure policies and outreach.** Issue: Reduce Flooding by widening the policies that require green infrastructure, improving technologies used, increasing alternatives that can be used, improving available incentives, increasing awareness and mitigation by City agencies and the public. Recommendation: Improved specifications, better technical details, easier access. Action: Enhancement of Green Infrastructure policies through incentives, outreach, and technical support for implementation.	**City of Fort Collins - Stormwater Utility** City of Fort Collins Customer Connections Department	$300,000/yr.	Fort Collins Utilities, EPA, Grants	Medium	Ongoing	Annual Implementation. Policies have been updated and a new Green Infrastructure Implementation Manual has been adopted by the Fort Collins Council. Green Infrastructure policies will continue to be updated as need arises as part of the City's continual improvement process.
H2	1, 2	Flooding	**Low Impact Development Retrofits.** Issue: Improve water quality, Reduce Urban Flooding and Enhance community resiliency by retrofitting green infrastructure into existing City regional drainage facilities. Recommendation: Incorporated into Drainage Master Plan Updates approved by Water Board and City Council. Action: Retrofitting of Green Infrastructure facilities into existing regional facilities pub.	**City of Fort Collins - Stormwater Utility** City of Fort Collins Parks, City of Fort Collins Natural Areas	Varies from project to project can range from S25K to $200K	Fort Collins Utilities, City of Fort Collins Parks and Recreation, Fort Collins Sustainability Services, Grants	Low	Ongoing	In Progress. We continue to implement retrofits to existing infrastructure as the City builds Capital projects where Green Infrastructure is incorporated into project design and construction.
H3	1,2,3	All	**Training in Disaster Management Large Scale Incidents.** Issue: City Emergency Management and Security has assumed responsibility for disaster management training (outside of fire and wildland which remains with PFA) for community hazard response. As an emergency response organization, expanding their scope in areas other than response will increase the community's capability to be more resilient. Recommendation: Increase training and knowledge in disaster management. Action: Additional training in ICS (Command Staff Positions), Additional training in EOC Operations G775, Additional training in	**PFA Training Division Fire and Wildland Fire and Rescue** City Emergency Preparedness and Security – Non-Fire Hazards	$5,000	Annual Budget, EMPG	Medium	Ongoing	In Progress. On track with education and outreach for drought, flood, severe storm, severe winter weather, and wildfire. More coordination on extreme temperatures is needed due to staff turnover.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			Disaster Management Operations MGT 317, 343, 345, Command and Control of Major Emergency Operations.						
H4	1, 3, 4	Drought, Extreme Temperatures, Flood, Severe Storm, Severe Winter Weather, Wildfire	**Public Education and Awareness**. Issue: To enhance our overall preparedness, City staff and the residential and business community members need access to ongoing education through awareness campaigns, events, public outreach, website, social media, and education workshops. Recommendation: Continue to identify, promote, and present education workshops, awareness campaigns and training opportunities for City staff, residents, non-profit organizations, and business owners. Promote web programmable thermostats for remote control of heat to prevent frozen pipes See Action Worksheet for additional details.	**City of Fort Collins.** Larimer County, Poudre Fire Authority, Fort Collins Police, LETA, United Way, American Red Cross, FEMA and other identified stakeholders and community response agencies as required to enhance overall knowledge and preparedness.	Most costs will be absorbed within existing annual budgeted line items, which currently supports 24 x 7 on-call communications support.	Annual budgets and mitigation grant opportunities.	Medium	Ongoing	In Progress. On track with education and outreach for drought, flood, severe storm, severe winter weather, and wildfire. More coordination on extreme temperatures is needed due to staff turnover.
H5	1, 2	Flood	**Magnolia Storm Sewer.** Location: Old Town Fort Collins area along Magnolia Street to the Cache la Poudre River. Issue: This area of Fort Collins has old undersized storm sewers that do not meet current drainage standards nor have a proper outfall to the River. Recommendation: Install a new storm sewer system to improve the drainage and reduce flooding for storms up to and including the 100-year event and improve water quality for smaller more frequent storm events (2-year a d below). Action: Design and construct new storm sewer.	**City of Fort Collins – Stormwater Utility.** CDOT, CWCB, FEMA	$22M	Stormwater Utility Fee, Grants	Medium	5-10 years	In Progress. Magnolia Street Stormwater Outfall was the City's highest priority project, but now it is the fifth priority based on the 2019 Old Town Optimized Plan.
H6	1, 2, 5	Flood	**Stormwater Master Planning.** Issue: The majority of the City's Master Plans were modeled using MODSWM software. This software is outdated and does provide robust dynamic hydrologic modeling. Recommendation: The City is updating the	**City of Fort Collins – Stormwater Utility.** Larimer County	$1M over a 5 year period	Stormwater Utility Fee	High	Ongoing	In Progress. Updated the plan to update two stormwater master plans per year for the next 10 years.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			hydrology in all the Master Plans to be converted to EPA SWM. Action: Update master plans to EPA SWM.						
H7	1, 2, 3, 4, 5	Utility Disruption, Drought, Earthquake, Land Subsidence, Extreme Temperatures, Flood, Severe Storm, Wind & Tornado, Fire, Public Health, Hazmat	**Electric Supply.** Issue: Communication and Information shared with citizens within the area. Recommendation: Utilize banners hanging in cities and surrounding area to spread the information of potential risks. Also utilize vehicles such as buses and work trucks to spread the word. Information could contain things such as where to go to get information on suggested items for a "Go Bag", (banners are hung in Fort Collins yearly for reminders such as "Flood Awareness Week", "Mosquitos", other potential risks could be advertised to make people aware. Action: Coordination of hanging of banners in different areas and/or making of signs for use on vehicles.	**Larimer County.** City of Loveland, City of Estes Park, City of Fort Collins, Wellington, Timnath, Red Feather	$50,000	Grants, future budgets.	Medium	Ongoing	In Progress. Will be updating in 2021.
H8	1, 2	Utility Disruption, Drought, Earthquake, Land Subsidence, Extreme Temperatures, Flood, Severe Storm, Wind & Tornado, Fire, Public Health, Hazmat	**Electric Distribution.** Issue: Enhanced coverage of infrastructure maintenance of the City of Fort Collins L&P. (Add another full-time maintenance crew). Recommendation: Fully staff another full-time maintenance crew within L&P to perform maintenance and follow up to resolve issues encountered. Action: Request through BFO within the city another crew and equipment to perform maintenance of the electric infrastructure.	City of Fort Collins L&P	$200,000	Within L&P budget	High	Unknown	In Progress. Will be updating in 2021.
H9	1	Flood, Severe Storm	**Drainage System Maintenance.** Issue: Ongoing maintenance of the City drainage system to prevent failures. Recommendation: Annual assessment and maintenance plan with projects prioritized by need and funding availability. Action: Replacing and repairing sections of the City drainage system as necessary.	City of Fort Collins – Stormwater Utility	$1.45M/yr.	Residential and Business Stormwater Rates	High	Ongoing	Annual Implementation. Stormwater maintenance continues to be funded for $1.5M per year to construct small capital stormwater improvement projects.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
H 10	1, 2	Flood	**Open Space Preservation.** Issue: Ideal use of the floodplain allows for natural flooding while limiting development to protect people and property. Recommendation: Protect as much of the floodplain as possible by preserving it as open space. Work to protect and maintain the quality of streams, rivers and other vital water resources. Action: Floodplain parcels owned and acquired by the City will be permanently preserved as riparian open space to reduce the flood hazard in the City.	**City of Fort Collins - Natural Areas** City of Fort Collins- Stormwater Utility	$4M over 5 years	Natural Areas Budget; Grants	Medium	Ongoing	In Progress. Since 2016, Natural Areas acquired a 70+/- acre conservation easement in the floodplain next to Shields. Natural Areas is currently under contract to acquire a 5.4 acre parcel adjacent to the Poudre River and Kingfisher Point NA. In the same time period, Parks acquired four properties on East Vine along the Poudre River. Both departments are still actively seeking additional lands along the river from willing sellers.
H 11	1, 3, 4	Flood, Severe Storm	**Public Outreach.** Issue: Lack of public awareness concerning flood hazards. Recommendation: A comprehensive public outreach program outlined by the City's Program for Public Information (PPI) Committee to provide targeted outreach for flood hazards in the community. Action: Utilizing the eleven Community Message Topics developed by the PPI committee the City will continue implementing numerous public information and education projects to increase the community's awareness of flood hazards and safety.	**City of Fort Collins – Stormwater Utility** FEMA, Red Cross, LETA911. OEM	$15,000/yr.	Commercial and Residential Stormwater Rates, OEM Budget, Grants	Medium	Ongoing	Annual Implementation. The City will continue implementing numerous public information and education projects to increase the community's awareness of flood hazards and safety. In 2020 the City redid their Program for Public Information (PPI) plan with the cooperation of stakeholders and other departments. Meetings will continue to be held annually.
H 12	1, 3, 5	Flood	**Regulatory Programs.** Issue: Unregulated development in the floodplain is unsafe for people and structures. Recommendation: Develop and enforce safe development in the floodplain. Action: Enforce current regulations for development in the floodplain and update regulations, as necessary.	**City of Fort Collins – Stormwater Utility** FEMA, CWCB	$300,000/ yr.	Utilities – Stormwater Budget	High	Ongoing	Annual Implementation. The City continues to enforce development regulations in the 100-year floodplain.
H 13	1, 2	Flood	**Myrtle Street Stormwater Outfall.** Issue: Properties and structures are flooded in the vicinity of Myrtle Street. Recommendation: This project involves the enlargement of the existing storm sewer along Myrtle Street from Remington Street west to Sherwood Street, and directing this storm sewer into	**City of Fort Collins – Stormwater Utility** CDOT	$15M	Stormwater Utility Fee, Grants	High	TBD	In Progress. Magnolia Street Stormwater Outfall was the City's highest priority project, but now it is the fifth priority based on the 2019 Old Town Optimized Plan.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			the proposed Magnolia Street Outfall at Remington and Magnolia. Action: This project will reduce flood flows along Myrtle Street east of Sherwood Street, including overtopping of College Avenue. This reduction in flows along Myrtle Street will also serve to reduce surface flow diversions that direct runoff north to Mulberry Street along Peterson Street.						
H 14	1, 2	Flood, Severe Storm	**Stream Rehabilitation and Enhancement Program.** Issue: In 2012, The City of Fort Collins' Stormwater Master Plan was updated to include stormwater quality and stream restoration projects. The Master Plan update utilized results and information obtained from the Stormwater Utility Repurposing program in conjunction with basin- and stream- specific recommendations obtained from the following two program efforts: A.Basin-Specific Stormwater Quality Best Management Practices (BMP) Selected Plans; and, B.Stream Restoration and Stability Study and Prioritization with the Multi Criteria Decision Analysis (MCDA) Tool. Recommendation: Stream restoration projects were identified in an extensive study by Colorado State University (CSU). The study indicated that many of the City's streams suffer from severe bank erosion, impediments to fish passage, and have poor aquatic habitat. A Multi Criteria Decision Analysis (MCDA) Tool was utilized to prioritize the identified stream reaches for future restoration. The results of the MCDA Tool analysis are presented below for the 2nd through the 6th ranked stream reaches. The 1st ranked stream reach, Fossil Creek at Lemay Avenue is currently under construction. Action: Install WQ BMPs and construction stream enhancements throughout the City.	**City of Fort Collins – Stormwater Utility** Larimer County	$9M over a 5-year period	Stormwater Utility Fee, Grants	High	Ongoing	In Progress. Updated the action plan.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
H 15	1, 2	Flood	**West Vine – Forney Pond.** Issue: This area of Fort Collins was the historic flow path of Solider Creek that has been covered up or redirected by development over the years. Recommendation: This detention pond will capture runoff from upstream contributing area and detain it so reduced flooding downstream. Action: Flooding in downstream properties and homes.	**City of Fort Collins – Stormwater Utility** Larimer County	$4M	Stormwater Utility Fee, Grants	Medium	5-10years	The City purchased this property, and it is on the 5-year master plan priority list
H 16	1	Drought, Flood, Fire, Public Health	**Water Treatment Utilities-Water Treatment Process Improvements.** Issue: Additional treated water storage is required to serve the citizens of Fort Collins in case of drought, flood, fires, or public health emergencies. Recommendation: Improvements to the water treatment process. Action: Construct a new 10-million-gallon treated water storage tank at the Water Treatment Facility.	**City of Fort Collins: Water Treatment Utilities** CDPHE	$14M	Utilities reserves, State DWRF	Medium	2030	Continue - Not completed. This is a long-term Capital Project that will be implemented within the next 10 years, depending upon funding.
H 17	1, 2	Drought, Public Health, Hazmat	**Water Treatment Utilities-Water Treatment Process Improvements.** Issue: The Water Treatment Facility currently provides secondary disinfection to the City's water supply through the addition of chlorine. The chlorine is delivered to the Water Treatment Facility via truck on a weekly basis. The chlorine supply is extremely hazardous and is a threat to public safety in the event of an accident during transportation or in the case of a leak at the Water Treatment Facility. The City's water supply is also vulnerable to contamination due to an interruption in the delivery of chlorine. A mitigation strategy is to construct a sodium hypochlorite generation facility at the Water Treatment Facility in lieu of chlorine gas. This will ensure a safe and reliable supply of bleach with which to disinfect the City's drinking water supply. Recommendation: Improvements to the reliability and safety of the water treatment	**City of Fort Collins: Water Treatment Utilities.** CDPHE	$12M	Utilities reserves, State DWRF	Medium	2024	Continue - Not completed. This is a long-term Capital Project that will be implemented within the next 10 years, depending upon funding.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			process. Action: Replacement of Chlorine gas with on-site generation of Sodium hypochlorite						
H 18	1, 2	Drought, Earthquake, Land Subsidence, Extreme Temperatures, Flood, Severe Storm, Wind & Tornado, Fire, Public Health, Hazmat	**Water Treatment Utilities-Water Treatment Process Improvements.** Issue: Rehabilitation of the existing Poudre River 24" Pipeline. This pipeline serves the City of Fort Collins with the majority of its drinking water. The line is almost 100 years old is a potential weakness in the City's supply system. The line is susceptible to failure from forest fires, land subsidence, and hazmat spills in the river. Recommendation: Improvements to the drinking water supply process. Action: Rehabilitate the Poudre River 24" water supply line.	**City of Fort Collins: Water Treatment Utilities.** CDPHE	$12M	Utilities reserves, State DWRF	Medium	2024	Continue - Not completed. This is a long-term Capital Project that will be implemented within the next 10 years, depending upon funding.
H 19	1	Drought, Earthquake, Land Subsidence, Extreme Temperatures, Flood, Severe Storm, Wind & Tornado, Fire, Public Health, Hazmat	**Water Treatment Utilities-Water Treatment Process Improvements.** Issue: Water Quality in the Cache la Poudre River watershed and the Colorado-Big Thompson water system can be degraded due to Fires (drought and extreme high temperatures create a potential for fire hazards) and Pine Beetle deforestation. Recommendation: Improvements to the water treatment process. Action: Installation of a UV Disinfection system, Installation of Granular Activated Carbon filters, Installation of Biologically Active Carbon filtration.	**City of Fort Collins: Water Treatment Utilities** CDPHE	$27 million-$100 million depending on the severity of the degradation in source water quality	Utilities Reserves, State DWRF	Medium	2030	Continue - Not completed. This is a long-term Capital Project that will be implemented within the next 10 years, depending upon funding.
H 20	1	Drought, Extreme Temperatures, Flood, Fire, Public Health	**Water Treatment Utilities: Redundant Second Outlet Installation.** Issue: A second outlet from Horsetooth Reservoir to the Water Treatment Facility would provide an alternate drinking water supply to the City of Fort Collins in the case of a wildfire or a flood in the Colorado-Big Thompson watershed. The City currently has an outlet from the Reservoir at a single depth. The new outlet would allow for diversion for a different location and at multiple depths to mitigate the water quality effects of a fire in	**City of Fort Collins: Water Treatment Utilities** Bureau of Reclamation, Northern Colorado Water Conservancy District	The City of Fort Collin's Cost share would be ~$5 million	State of Colorado Drinking Water Revolving Fund, Fort Collins Utilities Reserves	Medium	2025	Continue - Not completed. This is a long-term Capital Project that will be implemented within the next 10 years, depending upon funding.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			the watershed. Recommendation: Redundant second outlet form Horsetooth Reservoir to the Water Treatment Facility. Action: Installing a new outlet and pipeline (redundant second outlet) from Horsetooth Reservoir to the Water Treatment Facility. This would need to be a joint project working with Bureau of Reclamation and the Northern Colorado Water Conservancy District.						
H 21	1	Earthquake, Land Subsidence, Extreme Temperatures, Flood, Severe Storm, Wind & Tornado, Fire, Public Health, Hazmat	**Wastewater Collection, Sewer By-Pass Pumping.** Issue: A second outlet from Horsetooth Reservoir to the Water Treatment Facility would provide an alternate drinking water supply to the City of Fort Collins in the case of a wildfire or a flood in the Colorado-Big Thompson watershed. The City currently has an outlet from the Reservoir at a single depth. The new outlet would allow for diversion for a different location and at multiple depths to mitigate the water quality effects of a fire in the watershed. Recommendation: Redundant second outlet form Horsetooth Reservoir to the Water Treatment Facility. Action: Installing a new outlet and pipeline (redundant second outlet) from Horsetooth Reservoir to the Water Treatment Facility. This would need to be a joint project working with Bureau of Reclamation and the Northern Colorado Water Conservancy District.	City of Fort Collins: Wastewater Collection City of Fort Collins Traffic Operations; Other Wastewater Districts (Boxelder and South Fort Collins)	The City of Fort Collin's Cost share would be ~$100,000	Potential Federal Grants.	Medium	TBD	This project is on track from the standpoint that in an emergency we are prepared to rent/hire the assembly or placement of emergency bypass.
H 22	1, 2	Earthquake, Land Subsidence, Extreme Temperatures, Flood, Severe Storm, Wind &	**Water Distribution: Temporary Water System.** Issue: Loss of a portion of the water distribution system. Recommendation: Temporary water system. Action: Construct up to a mile of temporary water main with services until permanent service is restored. Temporary system would be constructed on the surface and connected to a fire hydrant located outside of the damaged zone.	City of Fort Collins: Water Distribution City of Fort Collins Traffic Operations; Other Water Districts (ELCO,	The City of Fort Collin's Cost share would be ~$100,000	Potential Federal Grants.	Low	TBD	Temporary water distribution line can be constructed in the event of an emergency.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
		Tornado, Fire, Public Health, Hazmat		North Weld, FCLWD)					
H 23	1,2,3	Dam Failure/Incident	**Boxelder Creek Watershed Dams.** A series of flood control dams were built in the 1970s and 1980s to protect agricultural lands from flooding and erosion damage. At the time, the North Poudre Irrigation Company (NPIC) acted as the local partner with the Soil Conservation Service (SCS), now the Natural Resources Conservation Service (NRCS), and with the United States Department of Agricultural (USDA) to build the dams. NPIC currently operates and maintains the dams. In 2014, the State Engineer's Office (SEO) completed a routine review of the dams for certification. The land use changes downstream of Dams B-2, B-3 and B-4 from agricultural use to suburban and urban development required a change in the dam classification from "moderate" to "high hazard". This change in classification of the dams could require expensive rehabilitation and/or reconstruction of the dam emergency spillways and embankments. The SEO Division of Dam Safety recently updated its regulations governing dams of this type to allow for a Risk and Consequence analysis approach. This approach is different than prior prescriptive regulations and introduces the determination of "potential failure modes" and characterizes the "likelihood" of the failure mode within a risk context. This analysis has been completed for the Boxelder Creek Watershed Dams using recently updated technical information. It was concluded that no major reconstruction or rehabilitation of Dams B-2, B-3 and B-4 is needed at this time (given the probability of a major event is exceptionally low) if the following recommended improvements and	**City of Fort Collins, Larimer County, Town of Wellington, Town of Timnath** North Poudre Irrigation Company, State Engineer's Office Division of Dam Safety, Natural Resources Conservation Service	There are no external construction costs associated with updating the EAP's. There would be potential consulting costs (no estimate yet) to develop the updated EAP plans and documents. The conceptual costs for the monitoring systems are expected to range from $225,000 to $325,000.	City of Fort Collins, Larimer County, Town of Wellington, Town of Timnath budgets	High	0-5 years	New in 2021.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			actions are implemented for each of these dams: 1. Update the EAPs for Dams B-2, B-3 and B-4; and, 2. Install water level monitoring and warning systems at Dams B-2, B-3 and B-4. Implementing these recommendations would change the Consequence Levels from Level 4 to Level 3 for each dam. The risk assessment documented damages and the potential for significant loss of life. If this approach is not implemented, potential improvements to the dams could cost between $3 and $25 million.						
H 24	1,2,3,4,5	Flooding	**Flood Walk App.** Launched in June of 2019, the groundbreaking FloodWalk mobile application uses augmented reality (AR) technology and storytelling to bring flood risk to life and demonstrate the benefits of mitigation. In the FloodWalk application, AR casts 3D visualizations of flooding onto the real world. What was once a familiar location is overtaken by dangerously high waters as a narrator recounts the impact of historic flooding and what has been done to make the area safer. Research shows that it's difficult for people to conceptualize future risk. We also know that those who have experienced flooding are far more likely to take action to prepare. The FloodWalk app allows users to see risk in a way that isn't possible from data and maps alone. By bringing the experience of flooding directly to the hands of the public, flood risk becomes something people can see, feel, and become motivated to reduce. The app can also help users visualize risk reduction projects that mitigate the risk of flooding in the community. Through AR, users can see how mitigation has transformed the land	**City of Fort Collins Stormwater Utility,** FEMA	$200,000	City of Fort Collins Stormwater Fund	Medium	End of 2021	New in 2021.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			around them and learn how these critical projects help protect their homes and keep their families safe from disaster. Fort Collins has been selected as the second location to be showcased in the app. Locations along Spring Creek, the Poudre River and on the CSU Campus will be included. Past flood events such as the 1997 Spring Creek flood and the 2013 flood on the Poudre River will demonstrated using the AR technology. Past and future mitigation projects will also be included.						
H 25	1,2,3,4,5	Flooding	**Flood Warning System Enhancement.** The City's Flood Warning System is in the process of replacing 60 of the older ALERT transmitters used in the 82-gage local network. The new transmitters meet the National Hydrologic Warning Council's ALERT2 protocol. Much of the existing system was installed in the early 2000's and the equipment is in need of renewal to ensure the City can continue to meet its public safety mission for early detection and warning of flood-inducing rainfall and stream flooding. Benefits: Loss of Life, Property & Infrastructure Damage.	**City of Fort Collins Stormwater Utility**	$200,000	City of Fort Collins Stormwater Fund	Medium	End 2021	New in 2021.
H 27	1,2,4	Flooding	**Lincoln-Willow Phase 2 Stormwater Project.** Issue: This area of Fort Collins has old undersized storm sewers that do not meet current drainage standards. The Lincoln-Willow Outfall was completed in 2015 and has not been extend up to Jefferson per the Downtown Stormwater Improvement Plan (DISP). Recommendation: Install a new storm sewer system to improve the drainage and reduce flooding for storms up to and including the 100-year event and improve water quality for smaller more frequent storm events (2-year and below. Overall benefits are to protect people, property, and natural resources; Improve	**City of Fort Collins - Stormwater Utility** and PDT	$7M	City Stormwater Utility Fees	Medium	Within the next 20 years	New in 2021.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			capability to reduce disaster losses; Integrate hazard mitigation into other planning mechanisms						
H 29	1,2,5	Flooding	**Oak St Extension Stormwater Project.** This area of Fort Collins has old undersized storm sewers that do not meet current drainage standards. The Oak Street Outfall was completed in 2001 and has not been extend up to Shields per the Downtown Stormwater Improvement Plan (DISP). Install a new storm sewer system to improve the drainage and reduce flooding for storms up to and including the 100-year event and improve water quality for smaller more frequent storm events (2-year and below.	**City of Fort Collins Utility** PDT	$20M	City Stormwater Utility Fees	High	Design: 2021-22; Construction: 2023-24	New in 2021.
H 30	1,2	Flooding, Severe Storm	**Drainage System Maintenance.** Ongoing maintenance of the City drainage system to prevent failures. Annual assessment and maintenance plan with projects prioritized by need and funding availability. Benefits: Reduce the vulnerability of local assets to the impact of hazards	**City of Fort Collins Utility**	$1.45 M/ year	Residential and Business Stormwater Fees	High	Ongoing	New in 2021.
H 31	1,2,3,4,5	Flooding	**Floodplain Regulatory Program.** Enforce current regulations for development in the floodplain and update regulations as necessary to protect people and structures.	**City of Fort Collins Utility**	$300,000/ year	Utilities - Stormwater Budget	High	Ongoing	New in 2021.
H 33	1,2,3,4	Flood, Severe Storm	**Stormwater Utility, Parks and Recreation, Sustainability Services, Grants.** A comprehensive public outreach program outlined by the City's Program for Public Information (PPI) Committee to provide targeted outreach for flood hazards in the community. Utilizing the Community Message Topics developed by the PPI committee, the City will continue implementing numerous public information and education projects to increase the community's awareness of flood hazards and safety. Benefits: Public awareness concerning flood hazards	**City of Fort Collins Utility**	$15,000/ year	Commercial and Residential Stormwater Fees, OEM Budget, Grants	Medium	Ongoing	New in 2021.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
H 35		Drought	**Drought Planning.** • Develop and use water budgets to manage indoor and outdoor water use. • Update the Fort Collins Utilities Water Shortage Action Plan in 2025. • Develop a regional water shortage approach • Update Fort Collins Utilities Water Supply and Demand Management Policy and Water Efficiency Plan to incorporate drought mitigation efforts, as applicable. • Acquire additional storage (e.g., Halligan) or agreements for short-term water supply (raw water users who can transfer Horsetooth water rights for municipal use). • Code review and amendments to reduce water use year-round and into the future by keeping reservoirs full (e.g. update the land use code, building/plumbing codes, and others that can improve water use efficiency and reduce waste). • Incorporate risk reduction principles into code, policy documents and initiatives; Reduce the vulnerability of local assets to the impact of hazards; Reduce the severity and duration of drought and associated impacts.	**City of Fort Collins – Utilities/Water Conservation**	$0 to >$1million per project	Utilities – Water Fund Colorado Water Conservation Board grant funding Bureau of Reclamation – WaterSmart grant funding Norther Water grant funding	High	Ongoing	New in 2021.

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H.7 Plan Implementation and Maintenance

Fort Collins has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the City will continue public participation in the plan maintenance process.

H.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The City of Fort Collins' implementation strategy included:

- The plan will have an annual report that is made public and presented to the City Council.
  - This was accomplished.
- As part of the City's Budgeting for Outcomes process, priorities will be reviewed and any new mitigation strategies will be incorporated.
  - This was accomplished.
- Annual review of the HMP as part of Utilities Director Work Plan. Partnership with Office of Emergency Management for presentment to City Council
  - This was accomplished.
- Any changes to the Plan will include public meetings and postings on various websites to keep the public informed and to allow for public review and comment.
  - This was accomplished.
- The City of Fort Collins continually produces reports on many of the programs that occur within our jurisdiction. These annual reports, workshops and other meetings allow for the opportunity to educate the public on the plans and actions; as well as allow the opportunity for public input.
  - This was accomplished. An annual report for the PPI was prepared each year and the 5-year update report was prepared in 2020.
- As part of any mitigation project there is an extensive public outreach process including public open houses, newsletters, web pages, etc. Public awareness outreach related to flooding is an ongoing project that provides an opportunity for the public to be more informed on the risks, property protection measures, life-safety issues, etc.
  - This was accomplished. Flood Awareness Week was held annually. Numerous outreach events such as Earth Day, Poudre River Fest, CSU Housing Fair, etc. were held and there was a booth related to Flooding in Fort Collins. Some of these were held virtually in 2020 and 2021.
- The City of Fort Collins has a variety of plans that overlap with the HMP. This includes the Social Sustainability Strategic Plan, Economic Health Strategic Plan, Debris Management Plans, Evacuation Plans and other emergency operation plans to name a few. When the HMP is approved by Colorado, FEMA and the City of Fort Collins, these action items will be cross referenced with the other appropriate plans and incorporated into them.
  - This was accomplished.
- We will continue to review our mitigation actions as part of the Budgeting for Outcomes process that prioritized projects. Public outreach related to flooding is reviewed annually as part do the City's

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Program for Public Information. Hazard mitigation is the key focus of any Stormwater Master Plan updates that will take place during the next 5 years.

- This was accomplished. An annual report for the PPI was prepared each year and the 5-year update report was prepared in 2020.

Additional ways in which the City incorporated information from the 2016 HMP into other plans and processes include:

H.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the Town to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

Fort Collins Emergency Preparedness and Security will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. Fort Collins Emergency Preparedness and Security will also be responsible for representing the City on future Larimer County Planning Team meetings, and for coordination with town staff and departments during plan updates. The City, Fire District and Police Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by City Council.

Integration into Other Planning Mechanisms

The City of Fort Collins will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the City will:

- The plan will have an annual report that is made public and presented to the City Council.
- Any changes to the Plan will include public meetings and postings on various websites to keep the public informed and to allow for public review and comment.
- The City of Fort Collins will continue to produce reports on the programs within our jurisdiction, to educate the public on the plans and actions and allow opportunity for public input.
- As part of any mitigation project there is an extensive public outreach process including public open houses, newsletters, web pages, etc. Public awareness outreach related to flooding is an ongoing project that provides an opportunity for the public to be more informed on the risks, property protection measures, life-safety issues, etc.
- The City of Fort Collins has a variety of plans that overlap with the HMP. This includes the Social Sustainability Strategic Plan, Economic Health Strategic Plan, Debris Management Plans, Evacuation Plans and other emergency operation plans to name a few. When the HMP is approved by Colorado, FEMA and the City of Fort Collins, these action items will be cross referenced with the other appropriate plans and incorporated into them.
- We will continue to review our mitigation actions as part of the Budgeting for Outcomes process that prioritized projects. Public outreach related to flooding is reviewed annually as part do the City's Program for Public Information. Hazard mitigation is the key focus of any Stormwater Master Plan updates that will take place during the next 5 years.

Continued Public Involvement

The City of Fort Collins will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize marketing and communications to get information to citizens and businesses.

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H.8 Letter of Intent to Participate

City of Fort Collins

Office of Emergency Management
City Hall West, 300 Laporte Ave
PO Box 580
Fort Collins, 80522

November 30, 2018

Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins CO 80522
Attn: Lori Hodges, Director of Emergency Management

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the City of Fort Collins is submitting this letter of intent to confirm that the City of Fort Collins has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, the City of Fort Collins agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

The City of Fort Collins understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I Darin Atteberry, City Manager of the City of Fort Collins, commit the City of Fort Collins to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 30th day of November, 2018

Darin Atteberry, City Manager

11/30/18
Date

I. Glacier View Fire Protection District

I.1 Background and Planning Process

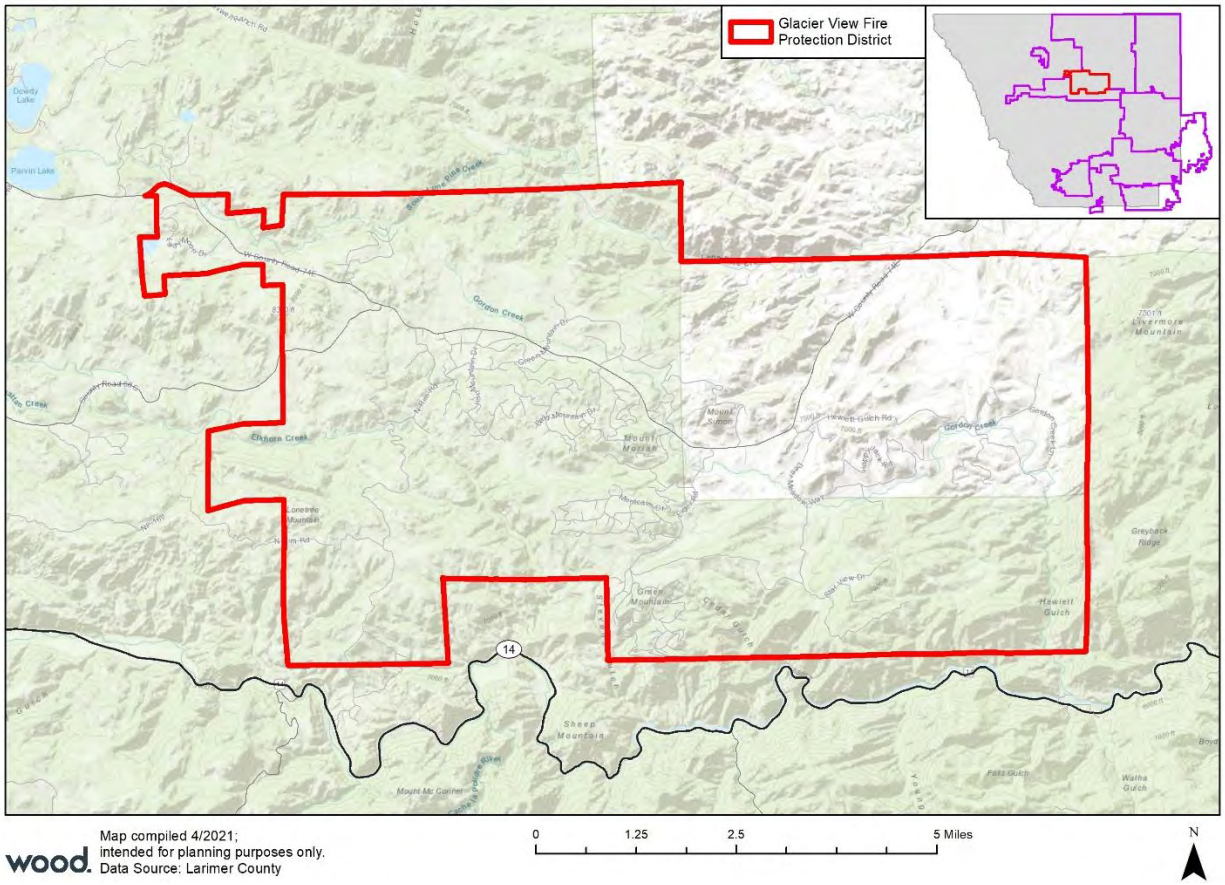
This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Glacier View Fire Protection District participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section I.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the District on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

I.2 Community Profile

Glacier View Fire Protection District (GVFPD) is a volunteer department with over 20 firefighters, covering approximately 56 miles. GVFPD responds to all emergencies within the district, except for strictly law enforcement calls. GVFPD is located in central portion of Larimer County in the mountains northwest of Fort Collins.

Figure I-1 Map of the Glacier View Fire Protection District



Social vulnerability scores for the District can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. Overall, the District is characterized by medium-low levels of social vulnerability, however it does

rank high in housing and transportation vulnerability. For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

I.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table I-1 Hazard Identification and Risk Assessment Summary for the Glacier View Fire Protection District

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Highly Likely	Extensive	Significant	High
Civil Disturbance	Unlikely	Limited	Negligible	Low
Dam Inundation	Occasional	Limited	Negligible	Low
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Limited	Significant	Low
Flood	Occasional	Limited	Significant	Low
Hazardous Materials	Occasional	Limited	Significant	Low
Landslide/Rockslide	Unlikely	Significant	Significant	Medium
Soil Hazards	Occasional	Limited	Negligible	Low
Spring/Summer Storm	Likely	Extensive	Significant	Medium
Tornado	Unlikely	Limited	Significant	Low
Utility Disruption	Highly Likely	Extensive	Significant	Medium
Wildfire	Highly Likely	Extensive	Catastrophic	High
Winter Storm	Highly Likely	Extensive	Significant	High

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

I.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Glacier View Fire Protection District, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the District's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Drought
- Earthquake
- Spring/Summer Storm
- Utility Disruption
- Winter Storm

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

I.4.1 Community Asset Inventory

Table I-2 lists summary information about the six critical facilities identified as important to protect or that provide critical services in the event of a disaster. For additional information on critical facilities, to include the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan.

Table I-2 Glacier View Fire Protection District Critical Facilities and Infrastructure

FEMA Lifeline	Count
Food, Water, Shelter	5
Miscellaneous	1
Total	**6**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

I.4.2 Civil Disturbance

There is no significant history of civil disturbance risk in the Glacier View Fire Protection District. The overall significance of this hazard for the District is Low.

I.4.3 Dam Inundation

Figure 4-5 in Section 4.3.3 of the Base Plan shows potential dam inundation areas in the Glacier View Fire Protection District, primarily along Lone Pine Creek. While there are a number of dams upstream of the District, none of them are ranked as High Hazard. None of the critical facilities identified above are at risk of dam inundation. The overall significance of this hazard for the District is Low.

I.4.4 Flood

The Glacier View Fire Protection District has little history of damaging floods, and has no identified buildings or critical facilities located in identified special flood hazard areas. While localized flash flooding is always possible, the District's flood risk is lower than the County as a whole. The overall significance of this hazard for the District is Low.

I.4.5 Hazardous Materials Incident

There is no significant history of hazardous materials incidents in the Glacier View Fire Protection District. The overall significance of this hazard for the District is Low.

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I.4.6 Landslide/Rockslide

Figure 4-27 in Section 4.3.8 of the Base Plan shows potential rockslide areas in the Glacier View Fire Protection District. None of the critical facilities identified above are at risk of landslide or rockfall. However, this may need to be reevaluated in the aftermath of the Cameron Peak Fire. The overall significance of this hazard for the District is Medium.

I.4.7 Soil Hazards

There is no significant history of expansive/collapsible soils or land subsidence in the Glacier View Fire Protection District. None of the critical facilities identified above are at risk of soil hazards. The overall significance of this hazard for the District is Low.

I.4.8 Tornado

There is no significant history of tornadoes in the Glacier View Fire Protection District. The overall significance of this hazard for the District is Low.

I.4.9 Wildfire

As seen in Section 4.3.13 of the Base Plan, significant portions of the Glacier View Fire Protection District are classified as being at high or moderate risk of wildfires. None of the critical facilities identified above are at high or moderate risk of wildfires; one food-water-shelter facility is in an area at lowest risk. The District was directly impacted by the 2020 Cameron Peak Wildfire. The overall significance of this hazard for the District is High.

I.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Glacier View Fire Protection District to reduce hazard impacts or that could be used to implement hazard mitigation activities.

I.5.1 Existing Capabilities

The following tables summarize the District's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Glacier View FPD does not currently have a Community Wildfire Protection Plan (CWPP) in place but has submitted a new action to create one.

Table I-3 Glacier View Fire Protection District Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	Yes	Larimer County, HOAs
Zoning ordinance	Yes	Larimer County
Subdivision ordinance	Yes	Larimer County
Growth management ordinance	NA	
Floodplain ordinance	Yes	Larimer County
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Wildfire
Building codes	Yes	Larimer County
Fire department ISO rating	Yes	8B
Erosion or sediment control program	NA	
Stormwater management program	NA	

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Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Site plan review requirements	Yes	Larimer County, HOAs
Capital improvements plan	Yes	Fire apparatus replacement plan starting in 2021
Economic development plan	NA	
Local emergency operations plan	No	
Other special plans	No	
Flood insurance study or other engineering study for streams	NA	
Elevation certificates (for floodplain development)	NA	

Source: Glacier View Fire Protection District planning team

Table I-4 Glacier View Fire Protection District Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Larimer County
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Larimer County, Limited local
Planner/engineer/scientist with an understanding of natural hazards	Yes	Larimer County, Limited local
Personnel skilled in GIS	Yes	Larimer County
Full time building official	Yes	Larimer County
Floodplain manager	Yes	Larimer County
Emergency manager	Yes	Larimer County, Volunteer position in FD starting 2021
Grant writer	No	
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Larimer County
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	Larimer County, LETA
Other key personnel		

Source: Glacier View Fire Protection District planning team

Table I-5 Glacier View Fire Protection District Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	No	No	
Capital improvements project funding	Yes	No	Major fire apparatus replacement starting in 2021
Authority to levy taxes for specific purposes	Yes	Yes	
Fees for water, sewer, gas, or electric services	No	No	
Impact fees for new development	No	No	Allowed but not currently used
Incur debt through general obligation bonds	Yes	No	Not currently used
Incur debt through special tax bonds	Yes	No	Not currently used

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Incur debt through private activities	No	No	
Withhold spending in hazard prone areas	No	No	

Source: Glacier View Fire Protection District planning team

Table I-6 Glacier View Fire Protection District Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	Yes	
Firewise	Yes	
StormReady	No	
Fuel mitigation grant 2012-2013, cooperation with community groups on slash removal, annual Firewise education program.	Yes	

Source: Glacier View Fire Protection District planning team

I.5.2 Opportunities for Enhancement

Based on the capability assessment, Glacier View 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 DHSEM. Additional training opportunities will help to inform District staff 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.

Enhancements currently planned or being considered by the District include:

- New emergency preparedness program in 2021.
- Community wildfire protection plan.
- Cooperation with North 40 Mountain Alliance.
- Replace emergency generator.
- Installation of emergency call box on fire station.
- Promote NOCO Alert system.

I.6 Mitigation Strategy

The Glacier View Fire Protection District has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The District had three mitigation action in the 2016 Plan, none of which were completed. They have been carried over to the 2021 Plan along with three new actions. Additionally, the District has cooperated with a variety of community groups in fuel mitigation.

The District planning team identified and prioritized the following mitigation actions for the Glacier View Fire Protection District based on the risk assessment. 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.

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Table I-7 Glacier View Fire Protection District 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
I-1	Goals 1,2,3,4,5 Objective 1,2,3,4,5	Wildfire	**Community Wildfire Protection Plan.** The Glacier View Fire Protection District is not covered by a Community Wildfire Protection Plan (CWPP) but intends to develop one. The purpose of the Community Wildfire Protection Plan is risk analysis, fire behavior analysis and community wildfire hazard rating (WHR). The result of the Community Wildfire Protection Plan is to provide a comprehensive, scientifically-based assessment of the wildfire hazards and risk within our jurisdiction.	**Glacier View Fire Prevention District,** Larimer County Sheriff's Office, Emergency Services	$36,000; funded by 2021 District budget supplemented by donations related to the Cameron Peak Fire.	District revenues from property taxes (gas/oil revenue included) and specific ownership taxes	High	Spring 2022	In Progress. Funding has been secured and a contractor has been hired to assist with developing a full CWPP.
I-2	Goals 2,4 Objective 1,2	Flood, Wildfire	**Community Outreach.** Property owners in the Glacier View Fire Protection district need education in the most effective fire mitigation steps to take, when and how to safely evacuate in case of flood or fire, how to sign up for LETA, and how to ensure that their insurance is sufficient to allow them to recover from a disaster. Hold regular educational meetings covering the subjects of fire mitigation, evacuation, and property insurance. These meetings to take place on multiple occasions during the summer (when more property owners are in the area).	**Glacier View Fire Prevention District,** LETA, possibly LCES	Staffing for each meeting (all volunteer): Cost: funding for copying and purchase of educational handouts and refreshments. $2000	Glacier View Fire Protection District; possible grants for materials costs.	Medium	Ongoing	Annual Implementation. We have expanded our community awareness by having two Firewise events. We will have presentations and speakers to educate citizens on several topics of mitigation and fire prevention. The second event is our Annual Slash & Haul Day for citizens to have someone come pick up slash from their properties.
I-3	Goals 2,4 Objective 1,2,5	Wildfire	**Fire Mitigation Assessments**. Property owners in the Glacier View Fire Protection district need education in the most effective fire mitigation steps to take and assistance in determining if they've done all they can to mitigate their property. Provide fire mitigation assessments to district property owners. At the request of local property owners, teams of two or more members of the fire department will meet with them to tour their property and provide mitigation advice and assessment.	**Glacier View Fire Protection District**	Staffing (all volunteer). Funding for copying and purchasing educational handouts. $1500	Glacier View Fire Protection District; grants for materials costs.	Medium	2022	In Progress. Due to recent fires in our district we are taking a more detailed look at current fuel loads and the most effective way to mitigate those particular areas for overall improvement of our fire district's risk.

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
I-4	Goals 2,3,4 Objective 1,4	Wildfire	**Implement an emergency preparedness program** with emphasis on cooperation with the North 40 Mountain Alliance.	**Glacier View Fire Protection District**, North 40 Mountain Alliance	No New Cost	Department Funds	High	2021	New in 2021
I-5	Goals 1,2 Objective 5	Spring/ Summer Storm, Utility Disruption Winter Storm	**Replace old emergency generator.** Current generator is installed in the VFD equipment yard. However it is old, unreliable, and requires manual operation. Replacing this with a new generator will ensure the GVFD retains emergency power during an outage.	**Glacier View Fire Protection District**	$40,000	Grant funding, Homeland Security and local grants	Low	2022	New in 2021
I-6	Goals 1,2,3,4,5 Objective 1,4,5	Wildfire	**Add fuel reduction chipping program.** In cooperation with HOAs provide a chipper for disposal of vegetation removed for fuel mitigation.	**Glacier View Fire Protection District**, HOAs	$10,000	District budget, grants, donations	Low	2022	New in 2021

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I.7 Plan Maintenance and Implementation

Glacier View Fire Protection District has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the district will continue public participation in the plan maintenance process.

I.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The District's implementation strategy included:

- Annually, the district will review the plan and determine mitigation action progress.
  - This was accomplished.
- Monthly Board meetings will be open to public where the plan can be discussed. Additionally we have a website that information can be posted for viewing.
  - These were both accomplished.
- We will conduct community outreach program where we advise residents on how to mitigate their own properties. Glacier does have community slash piles. In our annual review of fire codes we'll look for opportunities to integrate and strengthen our fire codes with mitigation actions.
  - This was accomplished and resulted in the implementation of the Firewise program in 2016.

Additional ways in which the District incorporated information from the 2016 HMP into other plans and processes include:

I.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the District to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Fire Chief will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Fire Chief will also be responsible for representing the District on future Larimer County Planning Team meetings, and for coordination with District staff and departments during plan updates. The District, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the District's Board of Directors.

Integration into Other Planning Mechanisms

The Glacier View Fire Protection District will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the District will:

- GVFD Board and members will meet annually to discuss items that need to be updated and look at progress of action items.
- Incorporate information from the HMP into existing public education & outreach programs.
- Post information on the District's website and utilize the marketing and communications firm to get information to citizens and businesses.
- Mitigation actions will be incorporated in capital improvement planning.

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Continued Public Involvement

The Glacier View Fire Protection District will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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I.8 Letter of Intent to Participate

GLACIER VIEW
FIRE PROTECTION DISTRICT

LETTER OF INTENT TO PARTICIPATE

December 15, 2014

Lori R. Hodges
Larimer County Emergency Management
200 West Oak Street
Fort Collins, CO 80526

Re: 'Statement of Intent to Participate' as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Glacier View Fire Protection District is submitting this letter of intent to confirm that Glacier View Fire Protection District has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, Glacier View Fire Protection District agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County OEM to complete the plan in conformance with FEMA requirements.

Glacier View Fire Protection District understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction and not addressed in the master planning document;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction I David Burk, commit Glacier View Fire Protection District to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 15 day of December 2014

David Burk
Board President

1414 Green Mountain Drive
Livermore, CO 80536

Office 970.493.3353
Fax 970.493.3376

J. TOWN OF JOHNSTOWN

J.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Town of Johnstown participated in the 2016 Larimer County Hazard Mitigation Plan and has been active in Johnstown that plan as described in Section J.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the Town on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

J.2 Community Profile

The Town of Johnstown is located in both Larimer and Weld Counties along I-25 approximately 41 miles north of Denver. The town was incorporated in 1907, and in 2020 had an area of approximately 13.52 square miles. Johnstown was built along the Great West Railroad.

The 2006 Johnstown Vision states that as Johnstown evolves, the community desires to preserve:

- The qualities of a small town
- Available neighborhoods
- Its open feel, wide streets, parks, agricultural areas, and open space
- The social atmosphere of an inclusive community, and
- The heart of the community – Downtown

This vision "confidently states that the Town of Johnstown will be a community that cherishes its small town roots, its history as a service center for a large agricultural industry and a social center to the area's farm families. The Vision also looks to the future, by visualizing improvements where families of all sizes and types will live and work. The vision for the community is clear." – Johnstown Area Comprehensive Plan (2006)

The Johnstown community has experienced rapid growth in recent years. The growth presents challenges related to infrastructure, services, and community character. It also represents opportunities, as the fiscal resources of the Town have been increasing as well.

Figure J-1 shows a map of the Town of Johnstown.

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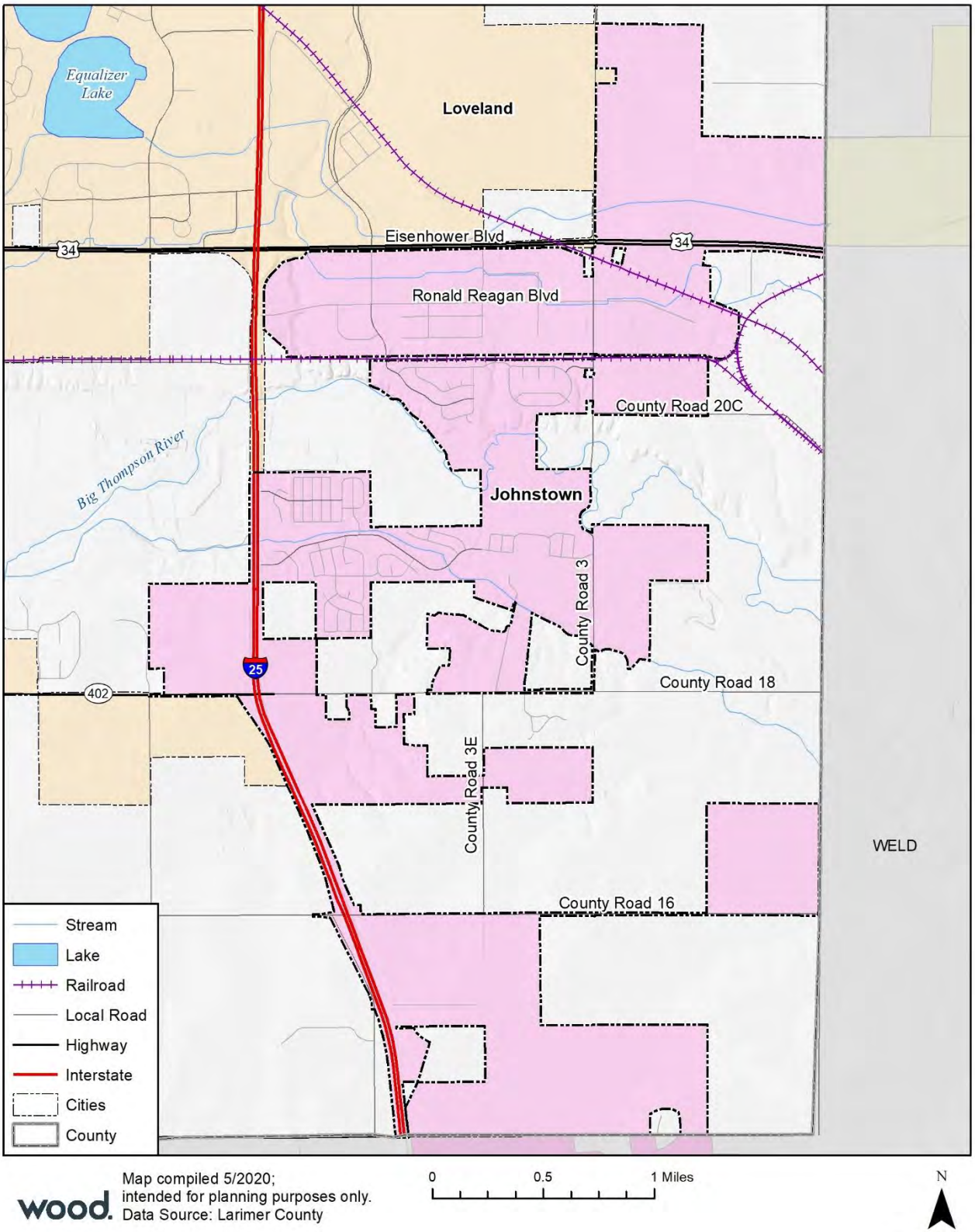
Figure J-1 Map of the Town of Johnstown



J.2.1 Demographics

The following tables and graphs summarize key demographic and social characteristics of the Town of Johnstown.

Table J-1 Town of Johnstown Demographic and Social Characteristics, 2014-2018

Town of Johnstown	2014	2018	% Change
Population	11,639	14,278	22.67%
Median Age	32.8	35.3	7.6%
Total Housing Units	3,996	5,063	26.7%
Housing Occupancy Rate	96.1%	98.4%	2.4%
% of Housing Units with no Vehicles Available	0.90%	3.10%	244.4%
Median Home Value	$229,900	$308,700	34.3%
Unemployment Rate	5.3%	5.0%	-5.7%
Mean Travel Time to Work (minutes)	37	32.6	-11.9%
Median Household Income	$78,298	$90,240	15.3%
Per Capita Income	$31,913	$39,383	23.4%
% of Individuals Below Poverty Level	3.4%	1.3%	-61.8%
% Without Health Insurance	7.0%	3.2%	-54.3%
# of Households	3,842	4,982	29.7%
Average Household Size	3.0	2.9	-5.3%
% of Population Over 25 with High School Diploma	94.3%	95.8%	1.6%
% of Population Over 25 with bachelor's degree or Higher	27.5%	33.0%	20.0%
% with Disability	7.7%	7.4%	-3.9%
% Speak English less than "Very Well"	3.0%	5.4%	80.0%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table J-2 Demographic and Social Characteristics Compared to the County and State

Demographic & Social Characteristics (as of 2018)	Johnstown	County	Colorado
Median Age	35.3	35.9	36.6
Housing Occupancy Rate	98.4%	91.7%	89.8%
% of Housing Units with no Vehicles Available	3.1%	4.1%	5.2%
Median Home Value	$308,700	$336,200	$313,600
Unemployment	5.0%	5.0%	4.7%
Mean Travel Time to Work (minutes)	32.6	23.2	25.5
Median Household Income	$90,240	$67,664	$68,811
Per Capita Income	$39,383	$35,390	$36,415
% of Individuals Below Poverty Level	1.3%	12.0%	10.9%

Demographic & Social Characteristics (as of 2018)	Johnstown	County	Colorado
% Without Health Insurance	3.2%	6.3%	8.1%
Average Household Size	2.9	2.5	2.6
% of Population Over 25 with High School Diploma	95.8%	95.8%	91.4%
% of Population Over 25 with bachelor's degree or Higher	33.0%	46.3%	40.1%
% with Disability	7.4%	9.8%	10.6%
% Speak English less than "Very Well"	5.4%	2.6%	5.9%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table J-3 Demographics by Race and Sex

Johnstown	Population	%
Total Population	14,278	100%
Male	7,439	52.1%
Female	6,839	47.9%
White, not Hispanic	11,115	77.8%
Hispanic or Latino	2,390	16.7%
Black	83	0.6%
Asian	384	2.7%
American Indian and Alaska Native	42	0.3%
Native Hawaiian and Other Pacific Islander	0	0.0%
Some other race	197	1.4%
Two or more races	375	2.6%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table J-4 Types and Total Amounts of Housing Units in Johnstown

Type of Housing Units	Total	%
Total housing units	4,557	100%
1-unit detached	177	3.9%
1-unit attached	0	0.0%
2 units	121	2.7%
3 or 4 units	13	0.3%
5 to 9 units	35	0.8%
10 to 19 units	94	2.1%
20 or more units	66	1.4%
Mobile home	0	0.0%
Boat, RV, van, etc.	0	0.0%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

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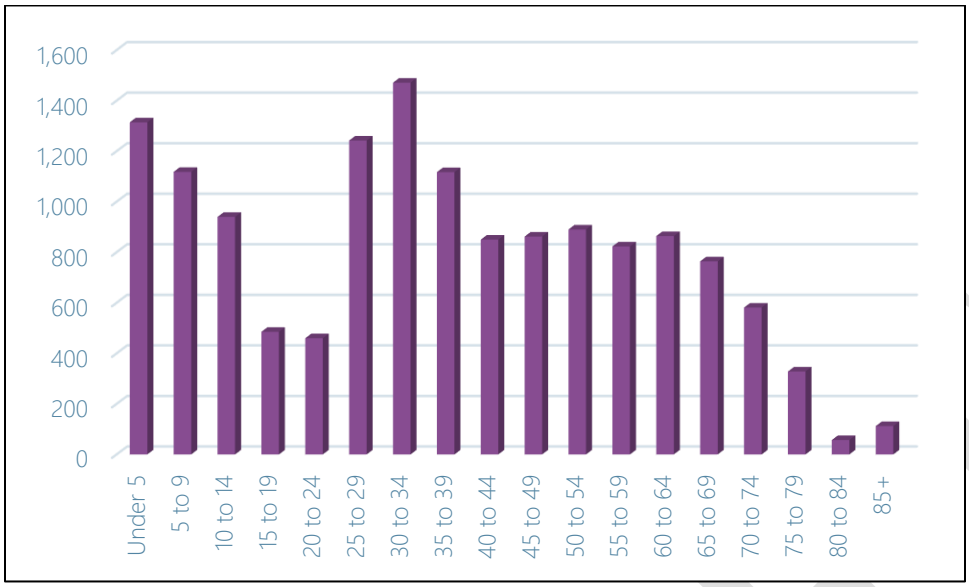
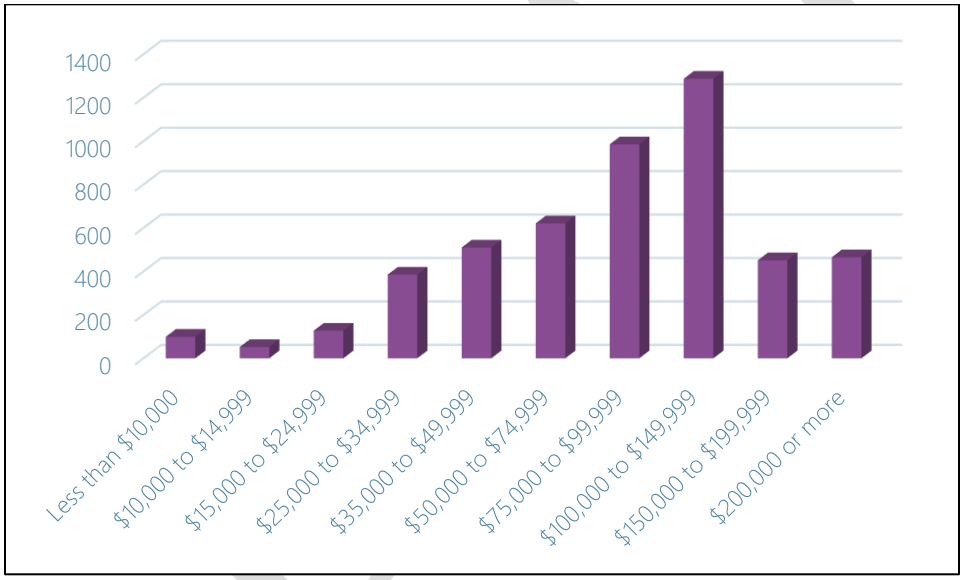
Figure J-2 Town of Johnstown Population Distribution by Age



Source: U.S. Census Bureau American Community Survey, www.census.gov/

Figure J-3 Town of Johnstown Income Distribution



Source: U.S. Census Bureau American Community Survey, www.census.gov/

J.2.2 Social Vulnerability

Social vulnerability scores for the Town of Johnstown can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. Johnstown overall social vulnerability is low, similar to the rest of Larimer County and Colorado as a whole. Close analysis of the individual social vulnerability indicators within the community will give local emergency managers, planners, and stakeholders a clearer picture of which social vulnerability factors threaten the community the most and where social and economic resources should be allocated in order to reduce vulnerability. Over time, the town should continue to monitor their local social vulnerability as demographic, economic, and housing related conditions change.

For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

J.3 Hazard Identification and Risk Assessment

The Town of Johnstown is situated in both Larimer and Weld Counties. For the purpose of this plan, spatially analyzed hazard risks have been assessed for the areas of the town that lie specifically within Larimer County.

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table J-5 Hazard Identification and Risk Assessment Summary for the Town of Johnstown

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Likely	Extensive	Critical	High
Civil Disturbance	Unlikely	Limited	Significant	Low
Dam Inundation	Occasional	Limited	Significant	Low
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Limited	Significant	Low
Flood	Occasional	Limited	Significant	Medium
Hazardous Materials	Occasional	Limited	Significant	Medium
Landslide/Rockslide	Unlikely	Limited	Significant	Low
Soil Hazards	Unlikely	Limited	Significant	Low
Spring/Summer Storm	Likely	Limited	Negligible	Low
Tornado	Unlikely	Significant	Significant	Low
Utility Disruption	Unlikely	Limited	Significant	Low
Wildfire	Occasional	Limited	Significant	Low
Winter Storm	Likely	Limited	Significant	Low

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

J.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Town of Johnstown, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the Town's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Spring/Summer Storm
- Tornado
- Utility Disruption
- Winter Storm

For the purpose of this plan, only the parts of the Town that lie specifically within Larimer County have been assessed for vulnerability data. For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

J.4.1 Community Asset Inventory

Table J-6 shows the total number of improved parcels, properties, and their improvement and content values for the Town of Johnstown. See Section 4.2.2 of the Base Plan for details and methodology.

Table J-6 Total Exposure of Improved Properties within the Town of Johnstown

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value
Agricultural	8	11	$3,880,055	$3,880,055	$7,760,110
Commercial	1,241	3,016	$1,581,987,128	$1,581,987,128	$3,163,974,256
Exempt	395	3,082	$1,329,824,514	$1,329,824,514	$2,659,649,028
Industrial	14	24	$124,354,664	$186,531,996	$310,886,660
Mobile Home	8	713	$61,804,881	$30,902,441	$92,707,322
Multiple Unit	550	6,799	$1,577,356,935	$1,577,356,935	$3,154,713,870
Residential	30,104	31,128	$10,939,460,732	$5,469,730,460	$16,409,191,192
Total	**32,320**	**44,773**	**$15,618,668,909**	**$10,180,213,529**	**$25,798,882,438**

Source: Larimer County GIS/Assessor's Office, Wood analysis.

Table J-7 lists summary information about the 4 critical facilities and other community assets identified by the Town as important to protect or that provide critical services in the event of a disaster. These facilities are mapped in Figure J-4. For additional information on the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan.

Table J-7 Town of Johnstown Critical Facilities and Infrastructure Summary

FEMA Lifeline	Count
Energy	2
Health and Medical	2
Total	**4**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

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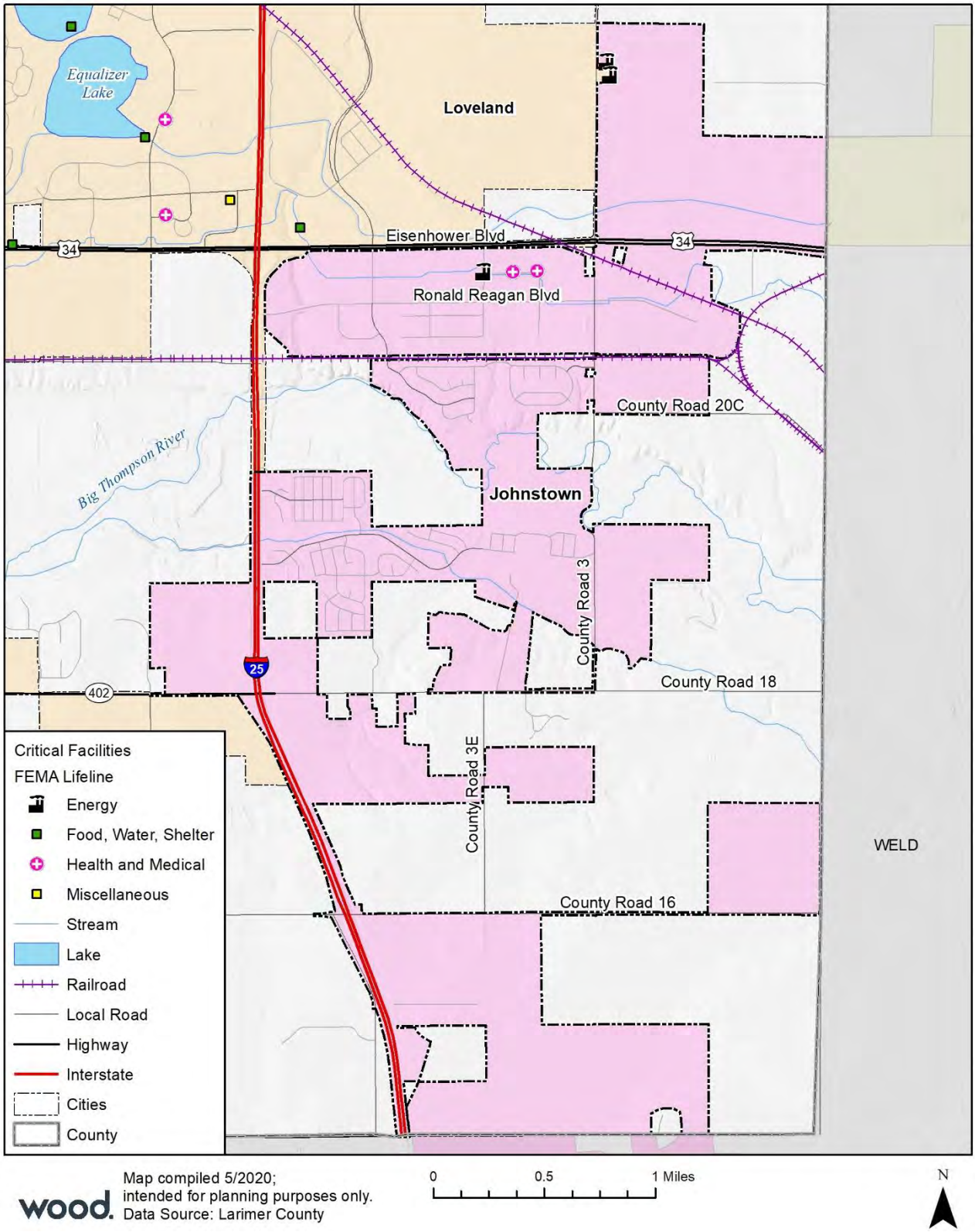
Figure J-4 Town of Johnstown Critical Facilities and Infrastructure



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County

0 0.5 1 Miles

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J.4.2 Dam Inundation

Potential dam inundation areas in and around the Town of Johnstown are shown in Figure J-5.

Figure J-5 Dam Inundation Areas for the Town of Johnstown

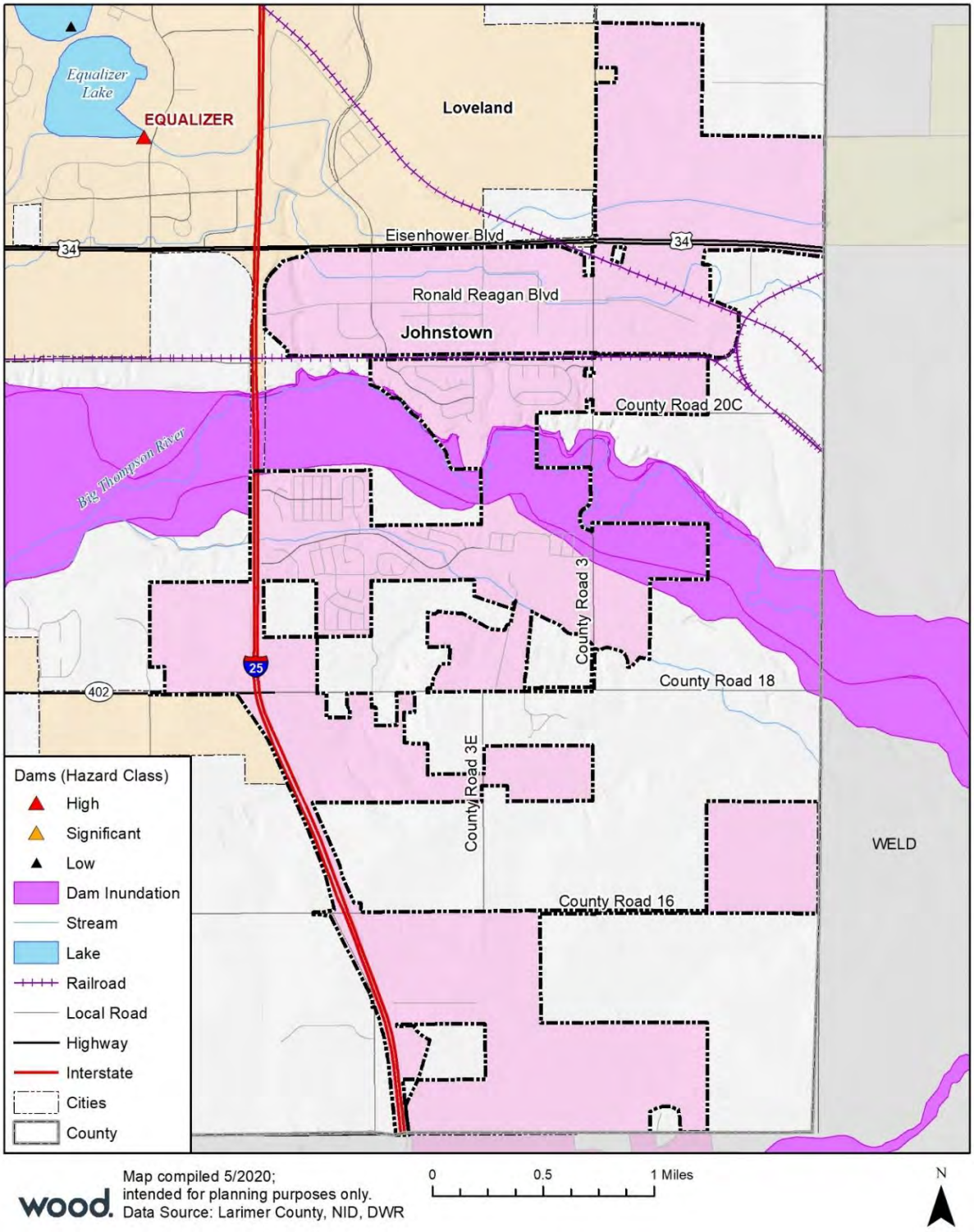

Table 4-17 in Section 4.3.3 of the Base Plan lists dams of concern for Larimer County. The only dam upstream of the Town of Johnstown is Lone Tree Dam.

Table J-8 shows that Johnstown has 21 parcels potentially at risk of dam inundation, valued at $9.8M; an estimated 60 residents live in those parcels.

Table J-8 Town of Johnstown Parcels Potentially at Risk of Dam Inundation

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value	Population
Residential	21	21	$6,567,126	$3,283,562	$9,850,688	60
Total	**21**	**21**	**$6,567,126**	**$3,283,562**	**$9,850,688**	**60**

Source: USACE National Inventory of Dams 2018, Colorado Dam Safety Program, Larimer County GIS, U.S. Census Bureau, Wood analysis

None of the critical facilities identified in the Town of Johnstown are located in areas at risk of dam inundation.

Based on the above analysis, the spatial extent and severity of the dam inundation hazard in the Town of Johnstown is lower than that of Larimer County as a whole. The overall significance of this hazard for the Town is Low.

J.4.3 Flood

FEMA mapped floodplains in and around the Town of Johnstown are shown in Figure J-6.

The Town of Johnstown does not have any improved parcels in areas at 1% annual chance of flooding. As shown in Table 4-35 in Section 4.3.6 of the Base Plan, there are an estimated 32 parcels and 92 residents located in the 0.2% annual chance flood hazard area, with a total value of $14,317,163 and estimated losses of $3,579,291. The Town does not have any critical facilities in 1% or the 0.2% annual chance flood hazard areas.

Based on the above analysis, the spatial extent and severity of the flood hazard in the Town of Johnstown is lower than that of Larimer County as a whole. The overall significance of this hazard for the Town is Medium.

National Flood Insurance Program Policy Analysis

The Town of Johnstown has participated in the National Flood Insurance Program (NFIP) since 2006. NFIP insurance data shows that as of January 2021 there are 15 flood insurance policies in force in the Town with $4,411,000 of coverage. There has only been 1 historical claim for flood losses, for $9,971. There are no repetitive or severe repetitive loss structures as defined by the NFIP. The Town of Johnstown does not participate in the Community Rating System (CRS) program.

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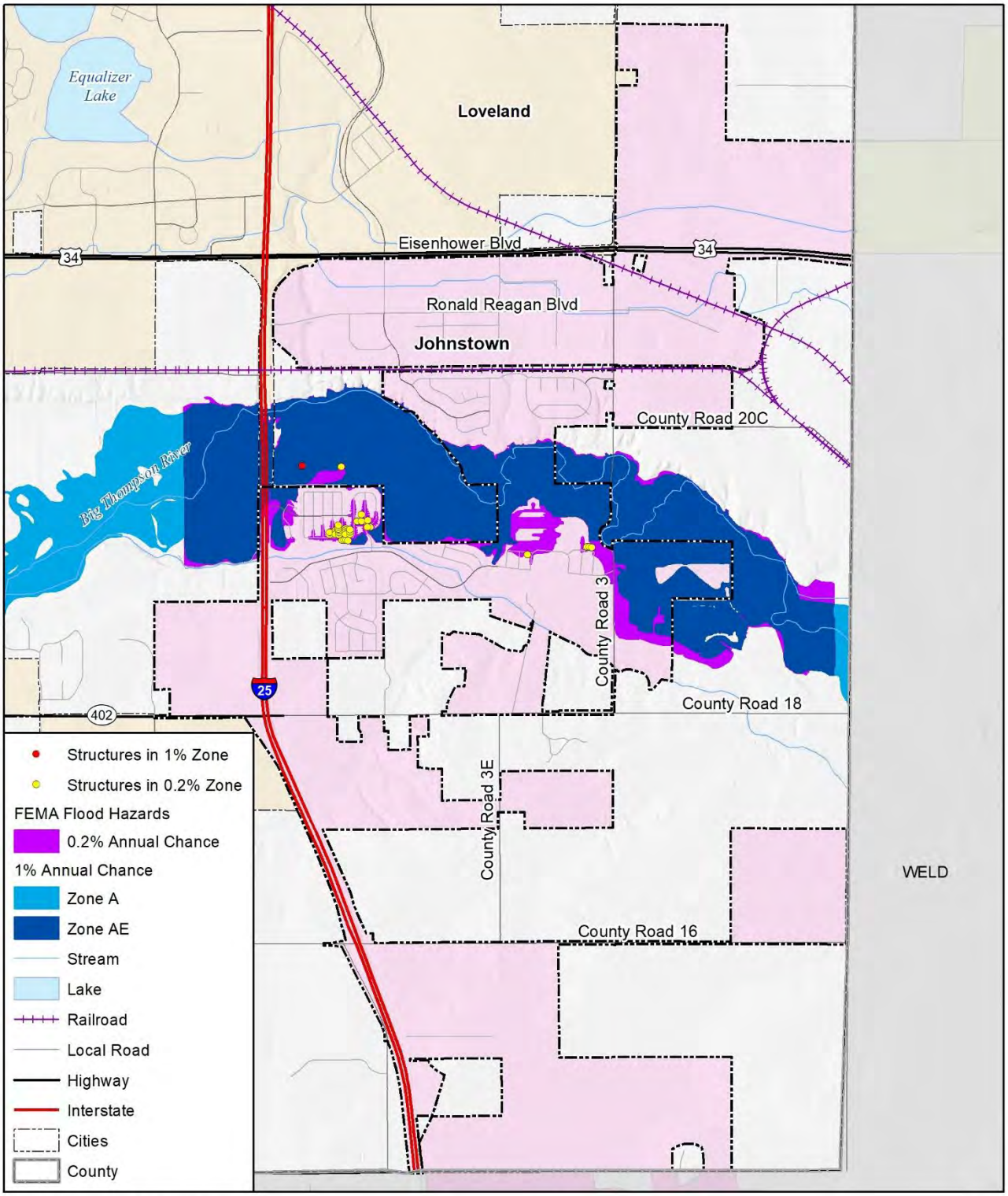
Figure J-6 FEMA Special Flood Hazard Areas for the Town of Johnstown



Map compiled 10/2020;
intended for planning purposes only.
Data Source: Larimer County,
FEMA NFHL 2/6/2013

J.4.4 Hazardous Materials Incident

Designated hazardous materials routes passing through the Town of Johnstown include I-25 and several rail lines. None of the County's Risk Management Plan (RMP) facilities are located within the Town limits.

The National Response Center (NRC) data cited in Section 4.3.7 of the Base Plan includes 5 hazardous materials incidents in or near the Town of Berthoud from 1987 through 2019. This averages out to one hazardous materials incident every 6-7 years. None of those incidents reported any deaths, injuries, or significant property damage.

Based on the above analysis, the frequency and spatial extent of hazardous materials incidents in the Town of Johnstown is lower than that of Larimer County as a whole. The overall significance of this hazard for the Town is Medium.

J.4.5 Landslide/Rockslide

There are no identified areas of landslide or rockslide risk in the Town of Johnstown. The overall significance of this hazard for the Town is Low.

J.4.6 Soil Hazards

No historically undermined areas or areas at risk of land subsidence or collapsible soil have been identified in the Town of Johnstown, as shown in Figure J-7. However, portions of the Town are at risk of expansive soils, as shown in Figure J-8.

Table 4-50 in Section 4.3.9 of the Base Plan shows 72 parcels and 94 buildings potentially at risk to expansive soils, with a total value of $650,959,404. The overall significance of this hazard for the Town is Low.

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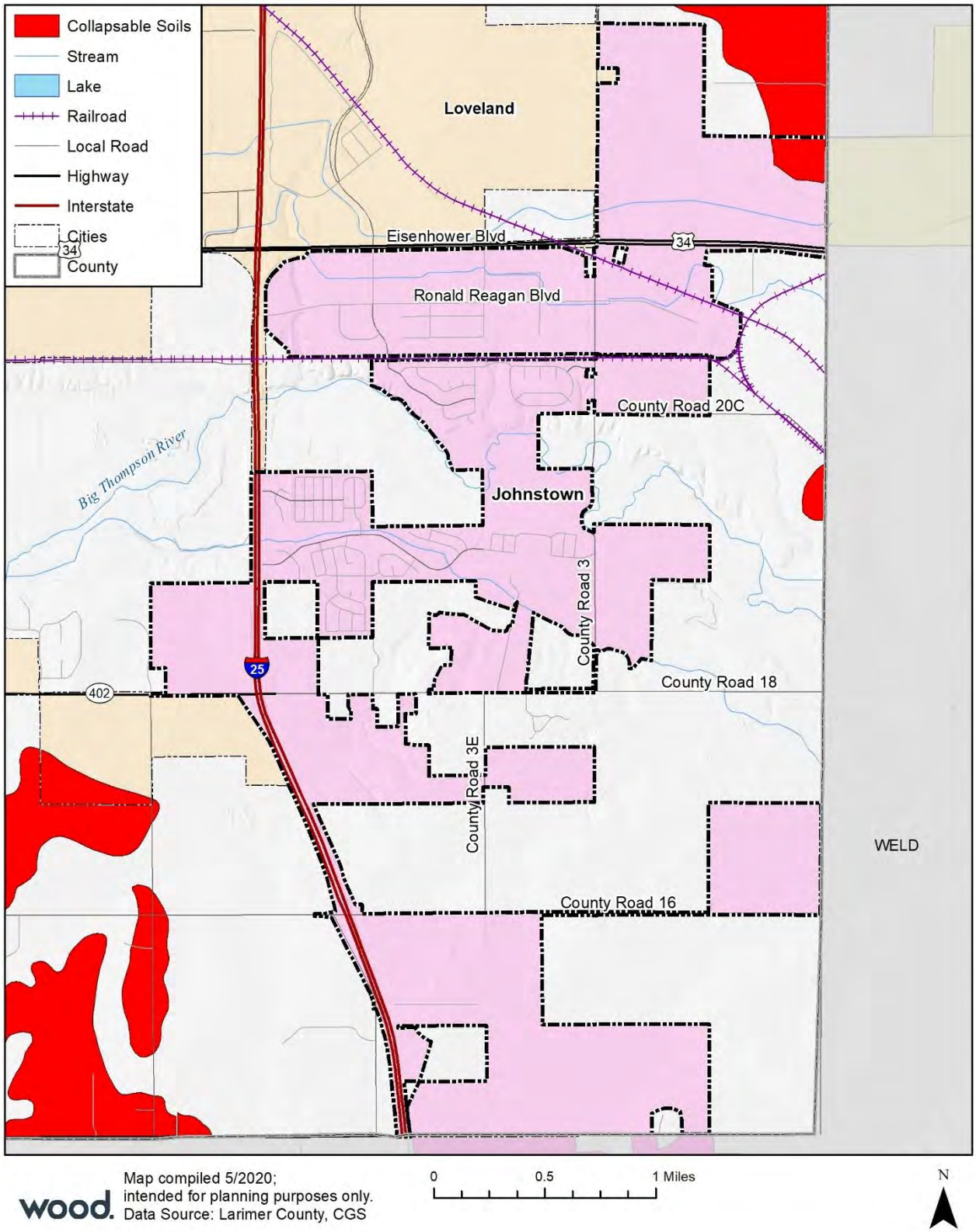
Figure J-7 Potential Collapsible Soils Areas – Town of Johnstown

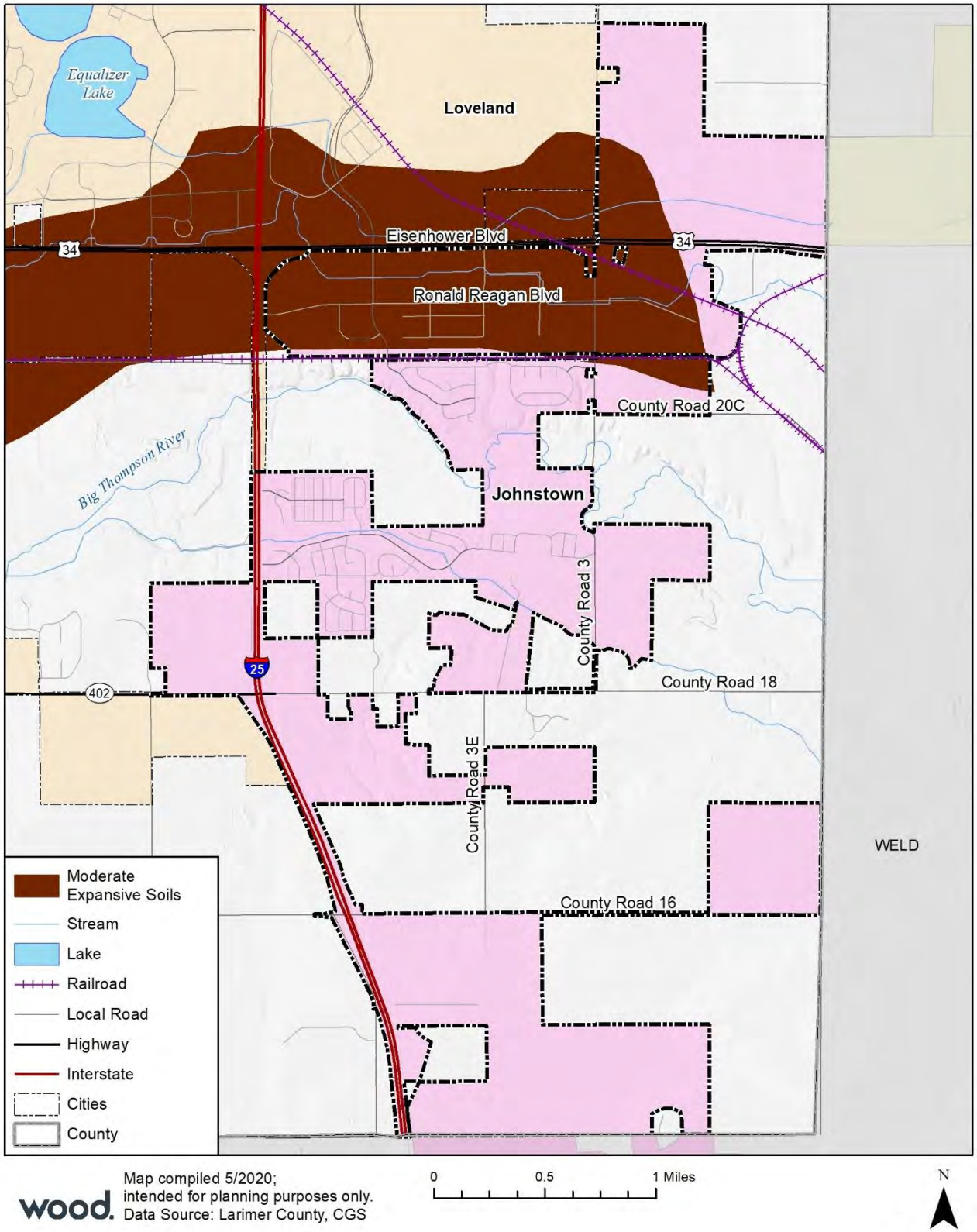


Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

0 0.5 1 Miles

N

Figure J-8 Potential Expansive Soils Areas – Town of Johnstown



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

0 0.5 1 Miles

N

The critical facility exposure analysis shows no critical facilities in Johnstown at risk of collapsible soils, but 3 potentially at risk of expansive soils, as shown in the following table.

Table J-9 Johnstown Critical Facilities with Potential Expansive Soil Hazards

FEMA Lifeline	Count
Energy	1
Health and Medical	2
Total	**3**

Source: Cascarta

While the Town is at low risk of land subsidence and collapsible soils, portions of the Town are exposed to expansive soils. The overall significance of this hazard for the Town is Low.

J.4.7 Wildfire

The Town of Johnstown has not had a significant history of wildfire activity in or adjacent to the Town. Areas in and around the Town of Johnstown at risk of wildfire, based on CO-WRAP assessment, are shown in Figure J-9.

Tables 4-72, 4-73, and 4-74 in the Wildfire profile of the Base Plan shows that the Town has no parcels or buildings at moderate, high, or highest risk of wildfire.

The Town has one critical facility identified at being at risk of wildfires, as shown in Table J-10.

Table J-10 Johnstown Critical Facilities Exposed to Wildfire Risk

FEMA Lifeline	Lowest Risk	Low Risk	Moderate Risk	High Risk	Highest Risk	Total
Energy	1					1
Total	**1**	**0**	**0**	**0**	**0**	**1**

Source: Cascarta, CO-WRAP

The overall significance of this hazard for the Town is Low.

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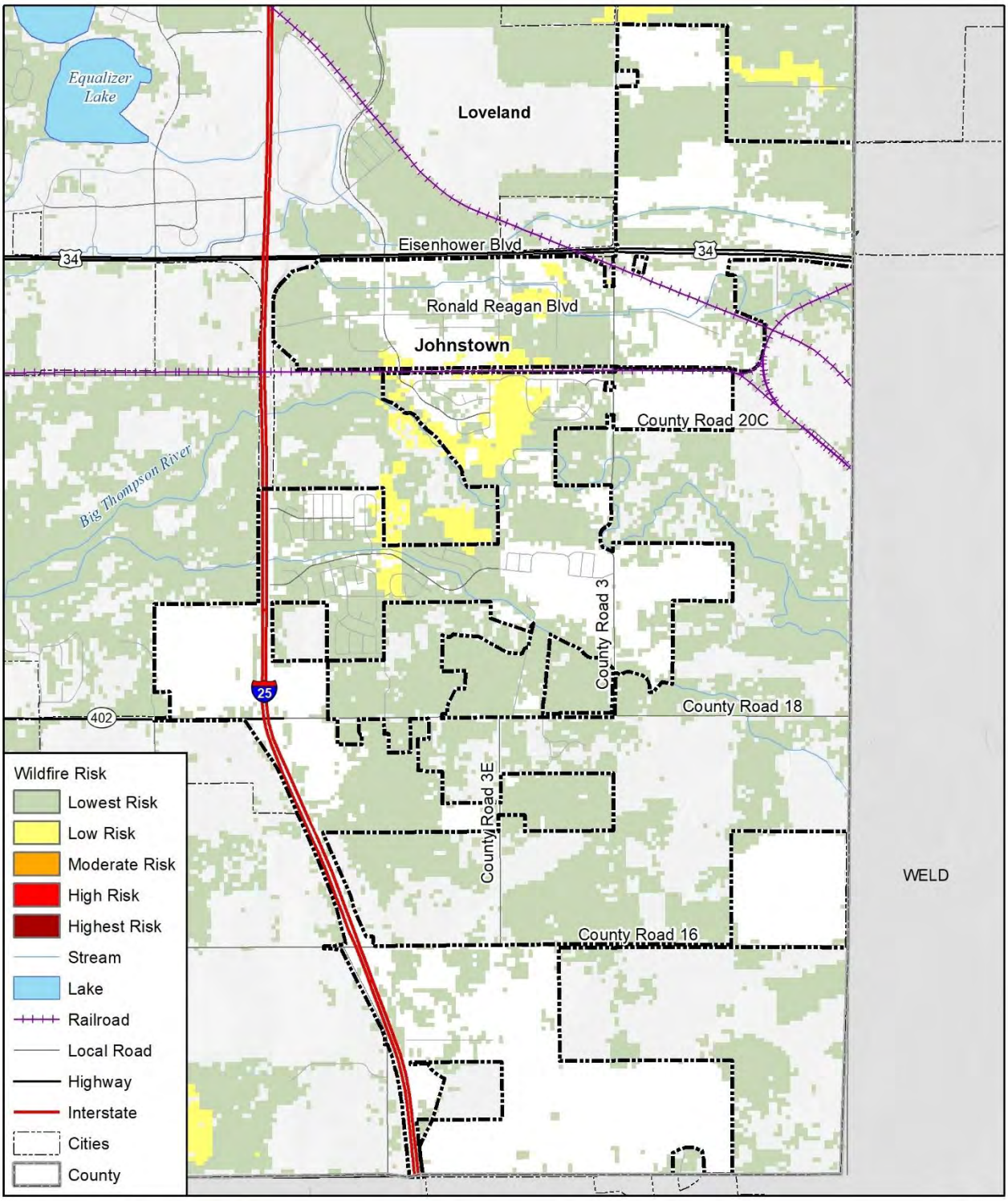
Figure J-9 Johnstown Wildfire Risk



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CO-WRAP

0 0.5 1 Miles

N

J.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Town of Johnstown to reduce hazard impacts or that could be used to implement hazard mitigation activities.

J.5.1 Existing Capabilities

The following tables summarize the Town's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Table J-11 Town of Johnstown Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	Yes	
Zoning ordinance	Yes	
Subdivision ordinance	Yes	
Growth management ordinance	Yes	
Floodplain ordinance	Yes	
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	
Building codes	Yes	2018 IBC
BCEGS Rating	Yes	4/4
Fire department ISO rating	Unk	
Erosion or sediment control program	Yes	
Stormwater management program	Yes	
Site plan review requirements	Yes	
Capital improvements plan	Yes	
Economic development plan	No	
Local emergency operations plan	Yes	
Community Wildfire Protection Plan	No	
Other special plans	No	
National Flood Insurance Program	Yes	Joined 2006
Community Rating System	No	
Flood insurance study or other engineering study for streams	Yes	
Elevation certificates (for floodplain development)	Yes	

Source: Town of Johnstown planning team

Table J-12 Town of Johnstown Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Planning Development Director, Planner 1 and 2
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Contracted Town Engineer IMEG
Planner/engineer/scientist with an understanding of natural hazards	No	
Transportation Planner	Yes	Contract position
Resiliency Planner	No	
Personnel skilled in GIS	Yes	Planning and Development

Personnel Resources	Yes/No	Department/Position/Comments
Full time building official	No	Contracted ProCode
Floodplain manager	Yes	Planning and Development Director
Emergency manager	Yes	Manager/Police Chief
Grant writer	No	
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Planning and Development, New program-building capacity
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	Manager/Police Chief

Source: Town of Johnstown planning team

In Johnstown the Police Chief serves as the Emergency Manger as needed during an event.

Table J-13 Town of Johnstown Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	Yes	Unknown	
Capital improvements project funding	Yes	Yes	
Authority to levy taxes for specific purposes	Yes	Yes	
Fees for water, sewer, gas, or electric services	Yes	Yes	
Stormwater Service Fees	Yes	No	
Impact fees for new development	Yes	Yes	
Incur debt through general obligation bonds	Yes	No	
Incur debt through special tax bonds	Yes	No	
Incur debt through private activities	No	No	
Withhold spending in hazard prone areas	No	No	

Source: Town of Johnstown planning team

Table J-14 Education and Outreach Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	No	
Firewise	No	
StormReady	No	
Other?	No	

Source: Town of Johnstown planning team

Local land use plans and building codes are tremendous tools for evaluating local policies related to hazard mitigation and risk reduction. Additionally, comprehensive master plans, capital improvement plans, stormwater plans and zoning ordinances all present opportunities for enhanced local capabilities.

Building codes are another tool that communities use to enhance public safety. For example, they can increase structural integrity, mitigate structure fires, and provide benefits in relation to natural hazard avoidance. In Colorado, land use regulations and building codes are typically implemented at the local level. Even without a statewide mandate, most counties and many municipalities have enacted regulations and codes. The Town of Johnstown has adopted a local building code requirement, demonstrating their understanding of the benefits codes provide, including reduced exposure to hazards.

J.5.2 Opportunities for Enhancement

Based on the capability assessment, Johnstown has several existing mechanisms in place that already help to mitigate hazards. There are also opportunities for the Town 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 DHSEM. Additional training opportunities will help to inform Town staff and Town Council on how best to integrate hazard information and mitigation projects into the Town policies and ongoing duties of the Town. Continuing to train Town staff on mitigation and the hazards that pose a risk to the Town will lead to more informed staff members who can better communicate this information to the public.

Another capability enhancement would be to consider joining the CRS, which would require enhancements to the Town's floodplain management program; however the low number and value of flood insurance policies in the Town of Johnstown means this would not significantly affect flood insurance affordability in the Town.

Other enhancements underway or being considered by the Town include updating the Town Comprehensive plan and land use code, and pursuing CFM certification for the floodplain manager.

J.6 Mitigation Strategy

The Town of Johnstown has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The Town had two mitigation actions in the 2016 Plan, which were not completed and have been carried over into the 2021 Plan, along with two new actions.

The local planning team identified and prioritized the following mitigation actions for the Town of Johnstown based on the risk assessment. 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. These actions are also captured in Table 6-2 in the Base Plan.

National Flood Insurance Program

Recognizing the importance of the National Flood Insurance Program (NFIP) in mitigating flood losses, the Town of Johnstown will place an emphasis on continued compliance with the NFIP. As an NFIP participant, the Town has and will continue to make every effort to remain in good standing with NFIP. This includes continuing to comply with the NFIP's standards for updating and adopting floodplain maps and maintaining and updating the floodplain zoning ordinance as well as review of any potential development in special flood hazard areas.

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Table J-15 Town of Johnstown 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
J-1	Goals 1,4 Objectives 1	Biological Hazards, Civil Disturbance, Soil Hazards, Dam Inundation, Spring/Summer Storm, Drought, Tornado, Earthquake, Utility Disruption, Flood, Wildfire, Hazmat, Winter Storm	**Community Outreach Project.** After the 2013 Floods, it became apparent that more outreach is needed to citizens regarding the hazards in our town and surrounding areas and how best to respond. In partnership with Larimer County, we would like to enhance our public outreach program for the Town of Johnstown. We will use existing educational materials as well as develop materials specific to the Town of Johnstown to increase hazard and risk preparedness, response to educate our citizens. Provide additional information using our Town web site and Facebook page as a part of our ongoing social media program.	**Town of Johnstown**, Larimer County OEM	$5,000	Town general fund, Larimer County outreach materials.	High	2021	In Progress.
J-2	Goals 1 Objectives 3,5	Flood	**NFIP Promotion and Administration.** As participants in the NFIP the Community will continue to promote wise use of floodplains through ordinance administration and periodic update, promotion of flood insurance and staff training, including encouragement of Certified Floodplain Manager status. The benefits are to flood-prone building owners who choose to insure against flood losses, and to taxpayers who no longer would be faced with subsidizing those potential losses. Continued administration of floodplain regulations and updates to town ordinances.	**Floodplain Manager,** Public Works Department	Can be accomplished within existing budgets	N/A	High	Ongoing	In Progress. Town staff is actively working on this.
J-3	Goals 1,2 Objectives 3,5	Flood	**High Plains Blvd Updates and Reconstruction.** Design updates and reconstruction of portions of Larimer County Rd 3 (High Plains Blvd.) within Town Limits, north of CR 18 (Freedom Parkway). This project smooths-out tight curves on the road next to the river, as well as incorporates better water quality on the road and adjacent areas via curb and gutter in "ultimate" areas that divert water to WQ ponds, in this flood prone/floodplain area adjacent to the Big Thompson River.	**Town of Johnstown Public Works**	TBD	Developer funded	Mediu m	June 2021	New in 2021

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
J-4	Goals 1,2,3,5 Objectives 3,4,5	Dam Failure, Drought, Flood, Soil Hazards, Spring/Summer Storms, Tornado, Wildfire, Winter Storm	**Land Use Code Update.** Massive overhaul of our land use code – including floodplain, stormwater, density controls, open space requirements, special use permits (USR), design guidelines, town tree and landscaping standards, wetlands, etc.	**Town of Johnstown Public Works**	$155K	Town funds	Low	June 2022	New in 2021

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J.7 Plan Maintenance and Implementation

Johnstown has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the town will continue public participation in the plan maintenance process.

J.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The Town of Johnstown's implementation strategy included:

- Annual review of HMP and mitigation actions by Town Council.
  - With significant changes in Town staff in the past few years, it is unknown if this level of review and action was discussed with Town Council since the 2016 plan.
- Provision of public information on website.
  - The towns floodplain ordinance is provided on the Town's website, however, additional links and map information were not provided.
- We will maintain our floodplain regulations and update as needed so that they align with the HMP.
  - This is being accomplished in 2020-21, with effective date January 2021, per updated FIRM mapping and studies.

J.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the Town to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Police Chief will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Police Chief will also be responsible for representing the Town on future Larimer County Planning Team meetings, and for coordination with town staff and departments during plan updates. The Town, Fire District and Police Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the Town Board of Trustees.

Integration into Other Planning Mechanisms

The Town of Johnstown will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the Town will:

- Reference Hazard Mitigation Plans in the updated Comprehensive Plan, to be adopted in January 2021.
- These action items will be audited annually, along with actions related to the Comprehensive Plan to assess progress and needed resources. Town Staff will meet annually to discuss items that need to be updated and look at progress of action items.
- Ongoing updates to a new website will provide better information to residents on floodplain concerns.
- Mitigation actions will be incorporated in capital improvement planning.
- Incorporate information from the HMP into the next update of the Town's comprehensive plan/zoning code/etc.] Land use and zoning code rewrite is planned in 2021-22 and will review and discuss modifications to hazard management ordinances.

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Continued Public Involvement

The Town of Johnstown will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website to get information to citizens and businesses.

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J.8 Letter of Intent to Participate

Town of Johnstown

450 South Parish Avenue • P.O. Box 609
Johnstown, CO 80535
Phone: 970.587.4664 • Fax: 970.587.0141
www.townofjohnstown.com

December 10, 2018

Ms. Lori Hodges
Director of Emergency Management
Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins CO 80522

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Town of Johnstown is submitting this letter of intent to confirm that the Town of Johnstown has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, the Town of Johnstown agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

The Town of Johnstown understands that it must engage in the following planning process and will do so based on the availability of resources, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

The Community That Cares

K. LIVERMORE FIRE PROTECTION DISTRICT

"To provide quality and compassionate services to the Community of the Livermore Fire Protection District, and those traveling through, in the event of medical, rescue, and fire emergencies."

– Mission Statement, Livermore Fire Protection District

K.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Livermore Fire Protection District participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section K.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the District on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

K.2 Community Profile

The Livermore Fire Department was incorporated in 1991 as an all-volunteer, privately funded fire department. In 1997, by general election, Livermore Fire Protection District was formed as a Special Fire District, funded by landowner property taxes in unincorporated Larimer County and tax deductible donations from the community.

Livermore Fire Protection District (LFPD) serves one of the largest fire protection districts and covers roughly 310 square miles. This includes 28 miles of US Highway 287. LFPD currently has two stations:

- Station 1 on 311 Red Feather Lakes Road or County Road 74E
- Station 2 on 8017 W. Cherokee Park or W. County Road 80C.

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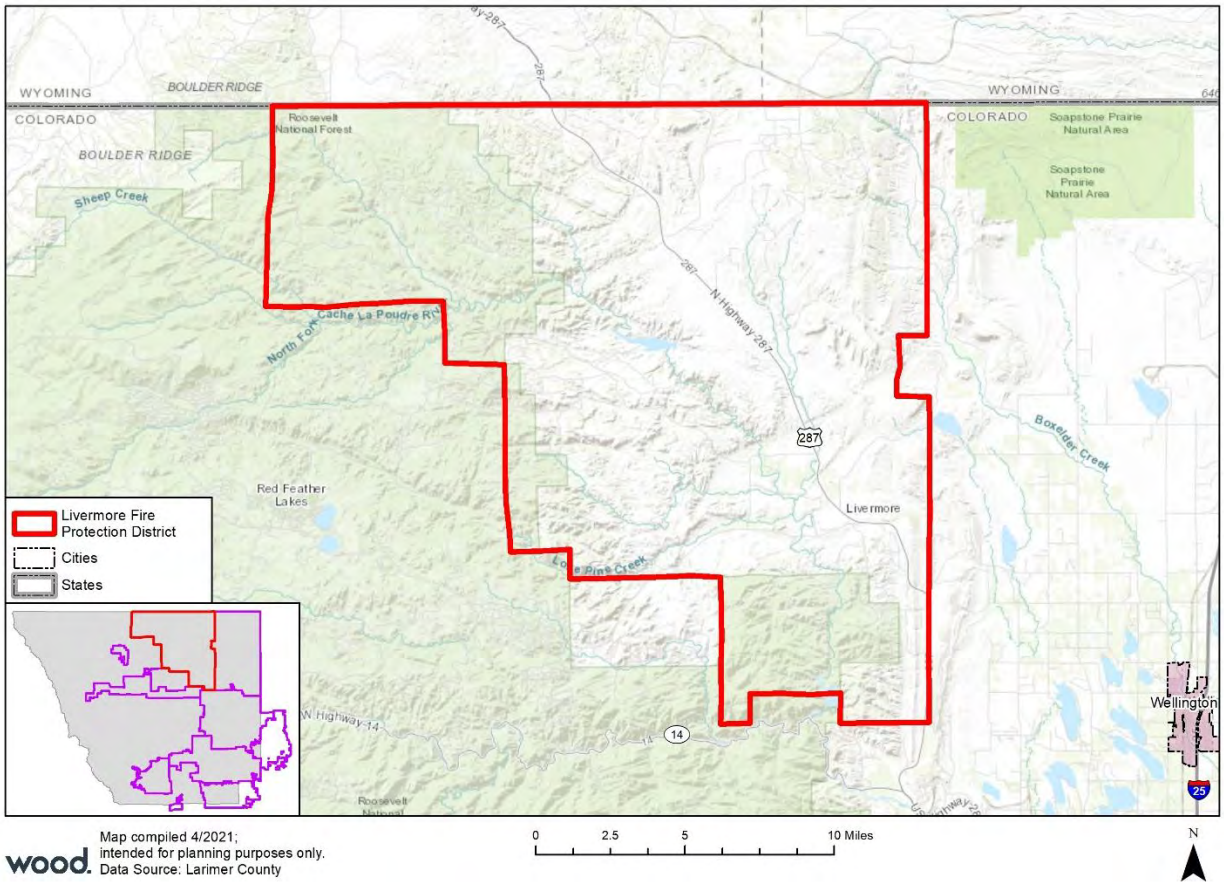
Figure K-1 Map of the Livermore Fire Protection District



LFPD is the local responding agency for 911 emergency calls including: wildland fire, structure fire, vehicle accidents, medical emergencies, and smoke reports within our district. LFPD also responds to surrounding districts with mutual aid agreements. The district has a budget of about $120,000/year with an operations budget of about $70,000.

Highway 287 greatly impacts the LFPD and affects its need for equipment and training. The highway is a source of severe accidents including hazmat incidents and vehicle fires. Obviously, as an important part of the US DOT infrastructure, it is an important consideration of LPFD's HMP and emergency responses. Accidents, storms, fires, hazmat; all potentially close this highway. Every year citizens die on this road due to bad weather. Many thousands of dollars in property are lost as well as lost time in shipping products over the road.

Social vulnerability scores for the District can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. Overall the District is characterized by medium-low levels of social vulnerability, however it does rank high in housing and transportation vulnerability. For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

K.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table K-1 Hazard Identification and Risk Assessment Summary for the Livermore Fire Protection District

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Highly Likely	Extensive	Catastrophic	High
Civil Disturbance	Unlikely	Limited	Negligible	Low
Dam Inundation	Occasional	Significant	Critical	Medium
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Significant	Catastrophic	Medium
Flood	Unlikely	Limited	Critical	Low
Hazardous Materials	Occasional	Limited	Significant	Medium
Landslide/Rockslide	Likely	Significant	Negligible	Medium
Soil Hazards	Unlikely	Limited	Significant	Low
Spring/Summer Storm	Highly Likely	Extensive	Critical	High
Tornado	Unlikely	Limited	Significant	Low
Utility Disruption	Likely	Significant	Critical	Medium
Wildfire	Highly Likely	Significant	Critical	High
Winter Storm	Highly Likely	Extensive	Critical	High

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

K.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Livermore Fire Protection District, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the District's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Drought
- Earthquake
- Spring/Summer Storm
- Tornado
- Utility Disruption
- Winter Storm

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

K.4.1 Community Asset Inventory

Table K-2 lists summary information about the five critical facilities identified as important to protect or that provide critical services in the event of a disaster. For additional information on critical facilities, to include the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan.

Table K-2 Livermore Fire Protection District Critical Facilities and Infrastructure

FEMA Lifeline	Count
Food, Water, Shelter	4
Safety and Security	1
Total	**5**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

K.4.2 Civil Disturbance

There is no significant history of civil disturbance risk in the Livermore Fire Protection District. The overall significance of this hazard for the District is Low.

K.4.3 Dam Inundation

Figure 4-5 in Section 4.3.3 of the Base Plan shows potential dam inundation areas in the Livermore Fire Protection District, primarily along the North Fork Cache la Poudre River, Meadow Creek, and Lone Pine Creek. While there are a number of dams upstream of the District, none of them are ranked as High Hazard. One critical facility (food-water-shelter category) has been identified as at risk of dam inundation. The overall significance of this hazard for the District is Low.

K.4.4 Flood

Figure 4-19 in Section 4.3.6 of the Base Plan shows mapped flood hazard areas within the Livermore Fire Protection District boundaries, primarily along the North Fork Cache la Poudre River. Additionally smaller waterways can flood having significant impact in local area, i.e. – Rabbit Creek, Stonewall Creek, Willow Creek, Mill Creek, Trail Creek, Devils Creek, Fish Creek, and others. None of the critical facilities identified above are located in mapped floodplains. The overall significance of this hazard for the District is Low.

K.4.5 Hazardous Materials Incident

There is a significant history of hazardous materials incidents in the Livermore Fire Protection District along US287. The overall significance of this hazard for the District is Medium.

K.4.6 Landslide/Rockslide

Figure 4-27 in Section 4.3.8 of the Base Plan shows potential rockslide areas in the Livermore Fire Protection District. None of the critical facilities identified above are in areas identified as being at risk of landslides or rockfalls; however this may need to be reevaluated following the Cameron Peak Wildfire. The overall significance of this hazard for the District is Medium.

K.4.7 Soil Hazards

There is no significant history of expansive/collapsible soils or land subsidence in the Livermore Fire Protection District. None of the critical facilities identified above are at risk of soil hazards. The overall significance of this hazard for the District is Low.

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K.4.8 Tornado

There is no significant history of tornadoes in the Livermore Fire Protection District. The overall significance of this hazard for the District is Low.

K.4.9 Wildfire

The Livermore Fire Protection District was directly impacted by the 2020 Cameron Peak Wildfire. LFPD units were tasked with life safety assignments to include firefighting, evacuations, tender assistance. Additionally LFPD Units have been called upon to assist with the Mullen Fire which started in Wyoming and has moved to Colorado.

As seen in Section 4.3.13 of the Base Plan, significant portions of the District are classified as being at high or moderate risk of wildfires. Of the critical facilities identified above, three food-water-shelter facilities are in areas at risk of wildfire: two at moderate risk and one at lowest risk. The overall significance of this hazard for the District is High.

K.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Livermore Fire Protection District to reduce hazard impacts or that could be used to implement hazard mitigation activities.

K.5.1 Existing Capabilities

The following tables summarize the District's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Livermore FPD does not currently have a district-wide Community Wildfire Protection Plan (CWPP) in place, although the communities of Cherokee Meadows and Bonner Peak have their own CWPPs.

Table K-3 Livermore Fire Protection District Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	Yes	Regulated by County
Zoning ordinance	Yes	By County
Subdivision ordinance	No	
Growth management ordinance	No	Regulated by County
Floodplain ordinance	No	Regulated by County
Other special purpose ordinance (stormwater, steep slope, wildfire)	No	Regulated by County
Building codes	No	Regulated by County
Fire department ISO rating	Yes	8.5
Erosion or sediment control program	No	Regulated by County
Stormwater management program	No	Regulated by County
Site plan review requirements	No	Regulated by County
Capital improvements plan	Yes	Growth Management and Response Levels
Economic development plan	No	Regulated by County
Local emergency operations plan	Yes	Partnership with County ICS
Other special plans		
Flood insurance study or other engineering study for streams	No	

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Elevation certificates (for floodplain development)	No	Regulated by County

Source: Livermore Fire Protection District planning team

Table K-4 Livermore Fire Protection District Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer with knowledge of land development/land management practices	No	Regulated by County
Engineer/professional trained in construction practices related to buildings and/or infrastructure	No	
Planner/engineer/scientist with an understanding of natural hazards	No	
Personnel skilled in GIS	No	Assistance from County
Full time building official	No	
Floodplain manager	No	
Emergency manager	No	Utilize County EM
Grant writer	Yes	2 LFPD Grant Managers
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	No	Larimer County
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	County LETA and 911

Source: Livermore Fire Protection District planning team

Table K-5 Livermore Fire Protection District Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	Yes	No	
Capital improvements project funding	Yes	Yes	FEMA/Larimer Co.
Authority to levy taxes for specific purposes	Yes	No	
Fees for water, sewer, gas, or electric services	No	No	
Impact fees for new development	No	No	
Incur debt through general obligation bonds	No	No	
Incur debt through special tax bonds	No	No	
Incur debt through private activities	No	No	
Withhold spending in hazard prone areas	Yes	Yes	FEMA/ Larimer Co.

Source: Livermore Fire Protection District planning team

Table K-6 Livermore Fire Protection District Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	Yes	Social Media Platforms
Firewise	Yes	
StormReady	No	

Source: Livermore Fire Protection District planning team

K.5.2 Opportunities for Enhancement

Based on the capability assessment, Livermore Fire Protection District 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 DHSEM. Additional training opportunities will help to inform District staff 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. Development of a district-wide Community Wildfire Protection Plan (CWPP) should also be considered.

K.6 Mitigation Strategy

The Livermore Fire Protection District has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The District had five mitigation actions in the 2016 Plan, and has completed four of them:

- Cistern Mitigation
- New Fire Station
- Private Land Wildfire Mitigation
- State and Federal Land Wildfire Mitigation

LFPD has also been awarded a grant, supported by both County and Federal funding, to install an emergency generator at Station 1 to support sheltering and emergency operation as well as communications in the area.

The remaining action has been carried over into the 2021 Plan, along with three new actions. The District planning team identified and prioritized the following mitigation actions for the Livermore Fire Protection District based on the risk assessment. 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.

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Table K-7 Livermore Fire Protection District 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
K-1	Goals 1,2,3 Objectives 4,5	Winter Storm, Wildfire	**Snow Rescue Vehicle**. In severe weather, particularly snowstorms; there are many miles of public and private roads which will not be cleared. Any emergency response (Law, Fire, EMS) may be delayed for hours or days until roads can be cleared. Many residential roads are not maintained and can be impassable until a contractor can remove snow. Some of these roads are miles long. Obtain a vehicle which is capable to transporting responders and supplies/equipment into a scene, and be capable of removing citizens trapped or in distress when over the road vehicles are not able to make access. Determine vehicle configurations adaptable to fire and EMS situations that can travel off- road or over snow-closed road. Obtain trailer for such vehicle, if needed, obtain storage location which will be accessible to Livermore Fire Protection Members when roads are impassable. Train members on the use operation, use, and driving. Livermore Fire would maintain and repair this vehicle. We would also make other agencies aware of this capability and of its availability for situations in their district. We would also make this available for organizations providing essential services for our area. (REA, Verizon, etc.)	**Livermore Fire Protection District**	$110,000	Livermore Fire Protection District, fund raising, grants.	Medium	2023	In Progress.
K-2	Goals 1,2 Objectives 5	Wildfire	**Cistern Mitigation.** The Livermore Fire Protection District has no municipal water system. Water for fire protection must be obtained from a few existing cisterns or from natural water bodies. Access, distance, and reliability to water sources are a problem. Some of our areas are many miles from an accessible water source. Benefits: This would provide needed water to areas of population and those that are more susceptible to wildfire. The location assessment would be based on values to be protected, population, distance to reliable water, and risk of fire damage. Having a reliable water source will reduce loss of property (homes) as well as our forest resource. Our target would be to add four Mitigation Cisterns to selected areas of our Fire District.	**Livermore Fire Protection District,** HOAs, homeowners	$4,000 per tank $16,000 total project	Grants, HOAs, Fund Raising	High	2024	New in 2021

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
K-3	Goals 1,2,3 Objectives	Wildfire	**Station 4 Red Mountain.** The Livermore Fire Protection District serves one of the largest fire protection districts covering 310 square miles. This includes 28 miles of US Highway 287 seeing an average of 7200 vehicles pass through daily and 400 miles of county road. In our effort to provide quality fire and rescue service we need to add at station to a high fire call area where response time is over 30 minutes. We have determined the best location for the additional station by doing an assessment of risks and call loads. This data has shown the need for a station in the Red Mountain area of our district. The land has been acquired for this project. The building will accommodate at least one structural engine, one water tender, two brush trucks and one rescue. Additionally, a minimum of 4000 gallon cistern and a well for fire use. Benefits: This station will reduce response times and save lives and property. Swift Fire apparatus arrival will reduce loss of structures and prevent the spread of wildfire. Timely rescue arrival will help save lives.	**Livermore Fire Protection District,** Larimer County	$400,000.00	Grants, Fund Raising, Community Support	High	2024	New in 2021
K-4	Goals 2,3,5 Objectives 3,4,5	Wildfire, Flood	**Cameron Peak Wildfire Recovery and Mitigation.** Coordinate with Larimer County, LCSO, USFS, and other partners to identify and implement post-fire recovery and post-fire flooding mitigation projects as a result of the Cameron Peak Wildfire.	**Livermore Fire Protection District**, LCSO, USFS	Unknown	HMGP, BRIC	High	2020-2021	New in 2021

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K.7 Plan Maintenance and Implementation

The Livermore Fire Protection District has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the district will continue public participation in the plan maintenance process.

K.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The District's implementation strategy included:

- Our Fire District Board will help review plans in cooperation with County resources.
  - This was accomplished; the Board is apprised of all aspects of the LFPD.
- We have a newsletter which can be used to reach most homeowner and landowners. We can also use LFPD's web site and (possibly) Larimer County's web site.
  - This was accomplished and is ongoing.
- We will continue to conduct outreach to the community HOAs and ROAs to encourage mitigation for wildfire, structure fire, and be an advocate for road safety, first aid training. We will continue to work with the county when they request assistance for reviewing development plans as they pertain to fire issues.
  - This was accomplished and is ongoing as part of LFPD's education process and information sharing on social media platforms.

Additional ways in which the District incorporated information from the 2016 HMP into other plans and processes include:

- The 2016 Plan was used as a guiding roadmap to accomplish the goals set forth and was used as the basis for grants that the District applied for.

K.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the District to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan. LFPD will use this plan to guide projects and search for possible funding to obtain set goals.

The Fire Chief or designee will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Fire Chief or designee will also be responsible for representing the District on future Larimer County Planning Team meetings, and for coordination with District staff and departments during plan updates. The District, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the District's Board of Directors.

Integration into Other Planning Mechanisms

The Livermore Fire Protection District will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the District will:

- The Fire Chief and Assistant Chiefs along with the grant manager and a board designee will meet regularly to evaluate overall progress.
- Incorporate information from the HMP into existing public education & outreach programs via social media platforms and citizen meetings.

Continued Public Involvement

The Livermore Fire Protection District will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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K.8 Letter of Intent to Participate

LIVERMORE Fire Protection District

P.O. Box 28 · Livermore · Colorado 80536

Letter of Intent to Participate

June 12, 2015

Lori R. Hodges
Larimer County Emergency Management
200 West Oak Street
Fort Collins, Co 80526

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR 201.6, which specifically identify criteria that allow for multi-jurisdiction mitigation plans, the Livermore Fire Protection District is submitting this letter of intent to confirm that Livermore Fire Protection District has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, Livermore Fire Protection District agrees to meet the requirements for mitigation plans identified in 44 CFR 201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County OEM to complete the plan in conformance with FEMA requirements.

Livermore Fire Protection District understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction and not addressed in the master planning document;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction.;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan)

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I Donn Maynard, commit Livermore Fire Protection District to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 15 day of June, 2015

Donn Maynard/Chief LFPD

L. City of Loveland and Loveland Fire Rescue Authority

"A vibrant community – surrounded by natural beauty – where you belong."

– Community Vision, Create Loveland Comprehensive Plan, 2015

L.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The City of Loveland and Loveland Fire Rescue Authority participated in the 2016 Larimer County Hazard Mitigation Plan and have been active in implementing that plan as described in Section L.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the City and LFRA on the Planning Team are listed in Appendix B.

The City of Loveland has partnered with Loveland Fire Rescue Authority (LFRA) in the update of this Plan and the development of this joint Annex. The City and LFRA have a combined emergency management program and have previously partnered on the 2016 Larimer County HMP as well as the 2016 Mitigation Master Plan (MMP). Both the City and LFRA have met all participation requirements for this plan update.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

L.2 Community Profile

Loveland is located south of Fort Collins. Both cities have expanded steadily toward each other over the last several decades and are considered a single metropolitan area by the U.S. government. The establishment of county-owned open space between the two communities in the 1990s was intended to create a permanent buffer between them. Currently, Loveland's northeastern city limits are now contiguous with those of Windsor, which has expanded westward from Weld County across Interstate 25.

Loveland has aggressively expanded its incorporated limits eastward to capitalize on the interchange of Interstate 25 and U.S. Highway 34, and is currently developing the area. In the last decade, the intersection has become a primary commercial hub of northern Colorado, with the construction of shopping centers and the Budweiser Events Center. A new medical center and mall have also been built on the Interstate 25 and U.S. Highway 34 interchange area, known as Centerra. The interchange area is shared with its smaller neighbor Johnstown.

The Loveland Fire Rescue Authority is a combination department which utilizes both career and volunteer firefighters. LFRA staff consists of 126 total staff, including a volunteer battalion that serves the Big Thompson Canyon and the Town of Drake. These department members operate under the leadership of a career Fire Chief. The department receives valuable citizen input from the Fire & Rescue Advisory Commission. LFRA provides fire and rescue services in an area totaling approximately 190 square miles, serving residents within the City of Loveland, and residents living within the Loveland Rural Fire Protection District, for a combined population of approximately 104,000.

Figure L-1 shows a map of the City of Loveland. Figure L-2 shows a map of Loveland Fire Rescue Authority's response area.

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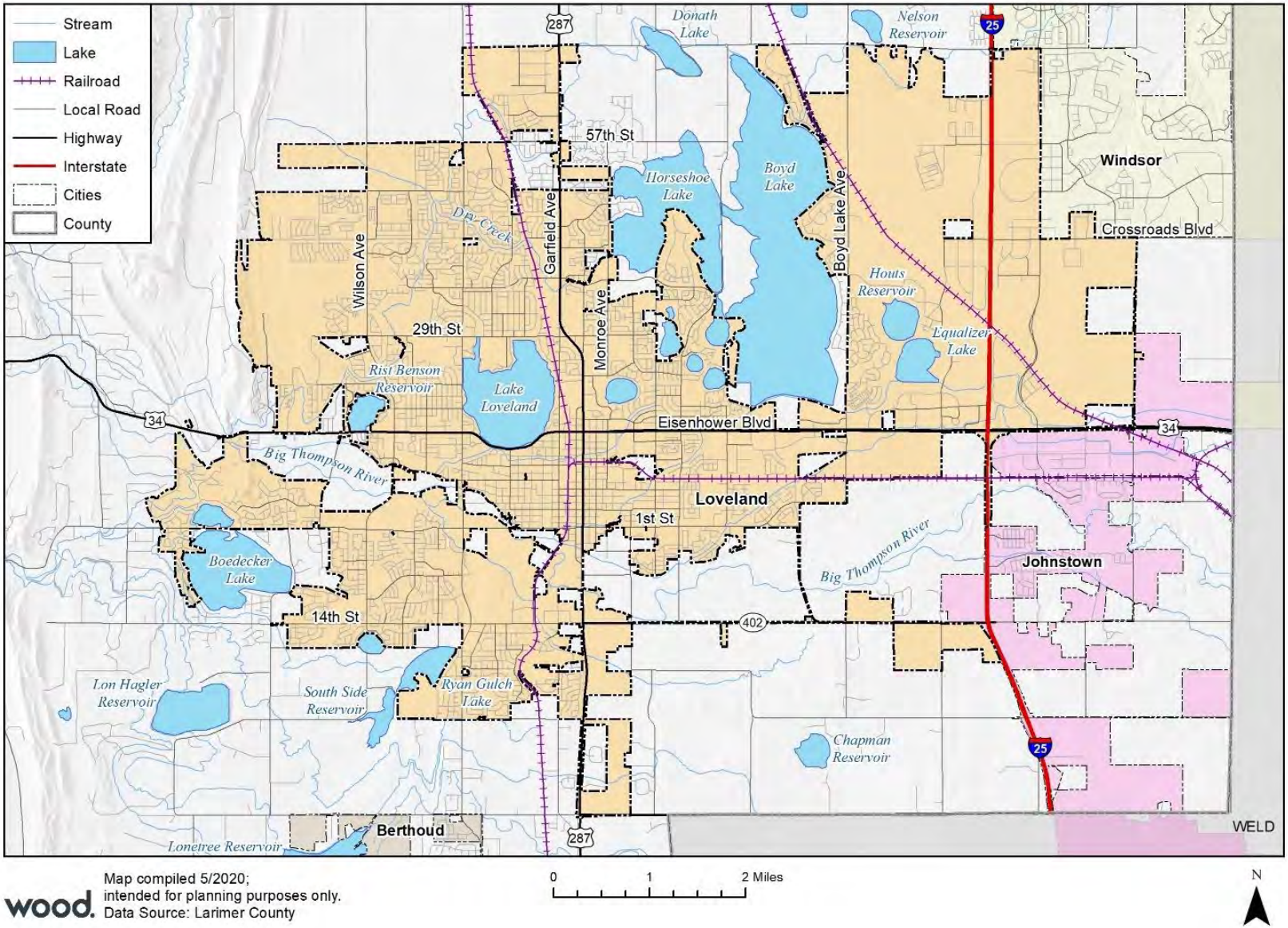
Figure L-1 Map of the City of Loveland



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County

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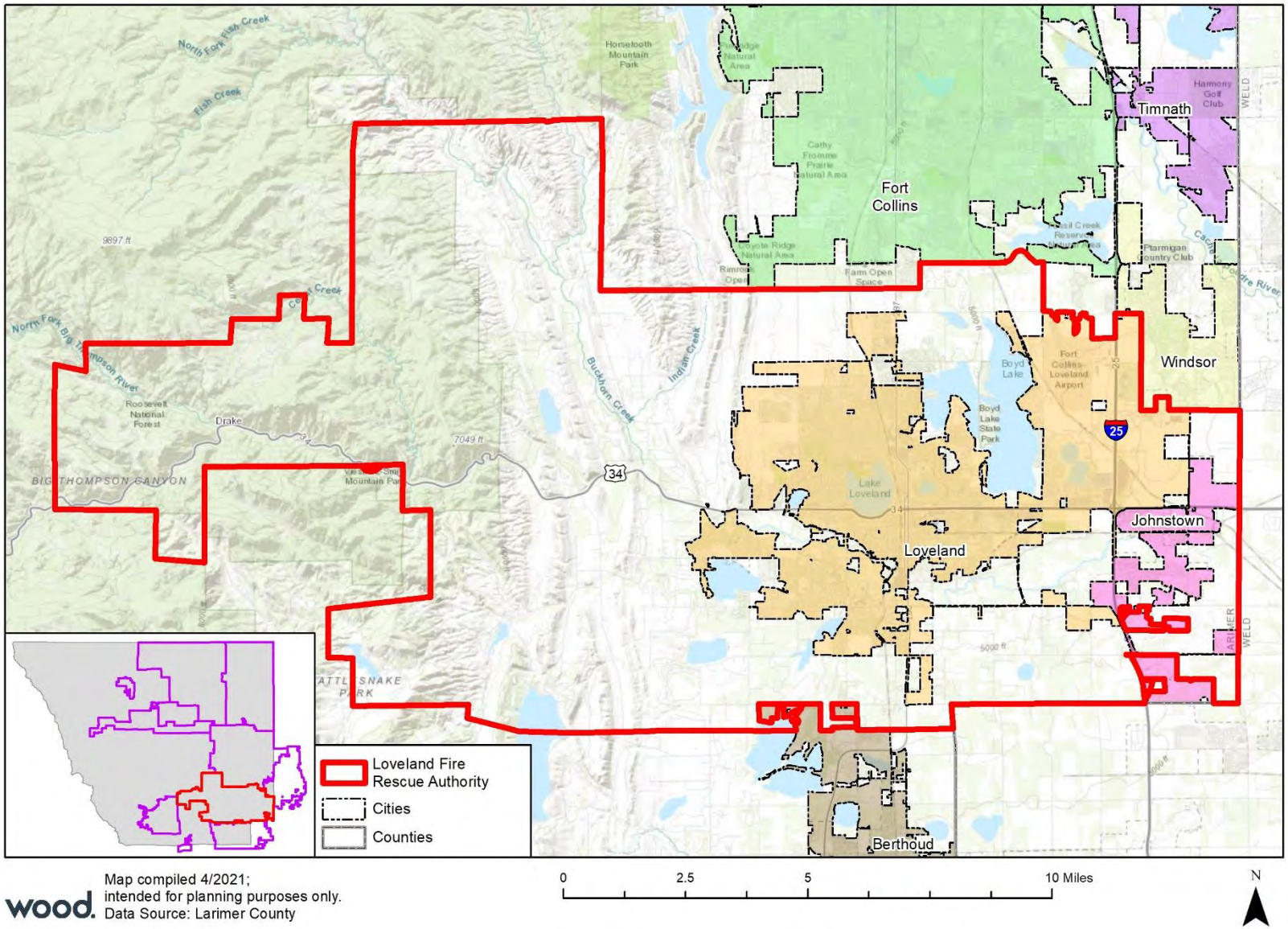
Figure L-2 Map of the Loveland Fire Rescue Authority



Map compiled 4/2021;
intended for planning purposes only.
Data Source: Larimer County

L.2.1 Demographics

The following tables and graphs summarize key demographic and social characteristics of the City of Loveland.

Table L-1 City of Loveland Demographic and Social Characteristics, 2014-2018

City of Loveland	2014	2018	% Change
Population	70,093	75,395	7.56%
Median Age	38.4	40.5	5.5%
Total Housing Units	30,752	32,735	6.4%
Housing Occupancy Rate	95.0%	95.6%	0.6%
% of Housing Units with no Vehicles Available	5.10%	4.40%	-13.7%
Median Home Value	$218,200	$286,500	31.3%
Unemployment Rate	7.5%	4.3%	-42.7%
Mean Travel Time to Work (minutes)	24.2	25.1	3.7%
Median Household Income	$55,580	$64,209	15.5%
Per Capita Income	$28,705	$33,778	17.7%
% of Individuals Below Poverty Level	9.7%	7.9%	-18.6%
% Without Health Insurance	13.8%	6.5%	-52.9%
# of Households	29,227	31,285	7.0%
Average Household Size	2.38	2.39	0.4%
% of Population Over 25 with High School Diploma	93.6%	95.9%	2.5%
% of Population Over 25 with bachelor's degree or Higher	34.0%	36.1%	6.2%
% with Disability	11.1%	12.2%	9.9%
% Speak English less than "Very Well"	2.3%	2.1%	-8.7%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table L-2 Demographic and Social Characteristics Compared to the County and State

Demographic & Social Characteristics (as of 2018)	Loveland	County	Colorado
Median Age	40.5	35.9	36.6
Housing Occupancy Rate	95.6%	91.7%	89.8%
% of Housing Units with no Vehicles Available	4.4%	4.1%	5.2%
Median Home Value	$286,500	$336,200	$313,600
Unemployment	4.3%	5.0%	4.7%
Mean Travel Time to Work (minutes)	25.1	23.2	25.5
Median Household Income	$64,209	$67,664	$68,811
Per Capita Income	$33,778	$35,390	$36,415

Demographic & Social Characteristics (as of 2018)	Loveland	County	Colorado
% of Individuals Below Poverty Level	7.9%	12.0%	10.9%
% Without Health Insurance	6.5%	6.3%	8.1%
Average Household Size	2.4	2.5	2.6
% of Population Over 25 with High School Diploma	95.9%	95.8%	91.4%
% of Population Over 25 with bachelor's degree or Higher	36.1%	46.3%	40.1%
% with Disability	12.2%	9.8%	10.6%
% Speak English less than "Very Well"	2.1%	2.6%	5.9%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table L-3 Demographics by Race and Sex

Loveland	Population	%
Total Population	75,395	100%
Male	36,772	48.8%
Female	38,623	51.2%
White, not Hispanic	63,932	84.8%
Hispanic or Latino	8,578	11.4%
Black	344	0.5%
Asian	691	0.9%
American Indian and Alaska Native	487	0.6%
Native Hawaiian and Other Pacific Islander	106	0.1%
Some other race	923	1.2%
Two or more races	2327	3.1%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table L-4 Types and Total Amounts of Housing Units in Loveland

Type of Housing Units	Total	%
Total housing units	32,735	100%
1-unit detached	21,191	64.7%
1-unit attached	3,250	9.9%
2 units	756	2.3%
3 or 4 units	1,270	3.9%
5 to 9 units	1,535	4.7%
10 to 19 units	1,853	5.7%
20 or more units	2,405	7.3%
Mobile home	475	1.5%
Boat, RV, van, etc.	0	0.0%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

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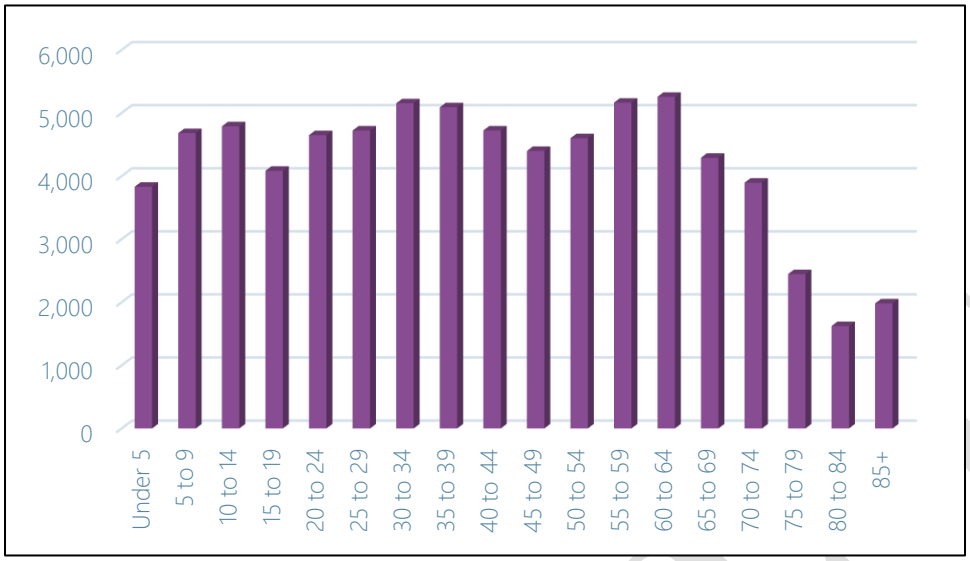
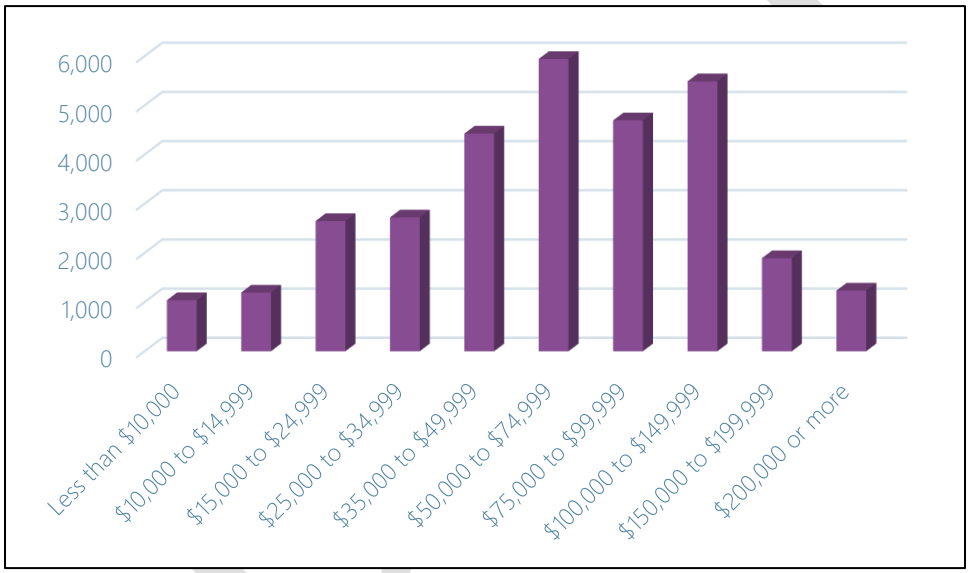
Figure L-3 City of Loveland Population Distribution by Age



Source: U.S. Census Bureau American Community Survey, www.census.gov/

Figure L-4 City of Loveland Income Distribution



Source: U.S. Census Bureau American Community Survey, www.census.gov/

L.2.2 Social Vulnerability

Loveland is characterized by a mix of low to medium-high levels of social vulnerability. The south eastern area of the City has higher levels of social vulnerability to disasters than the rest of the community. There is also a pocket of highly socially vulnerable residents in the south west portion of the City. Social vulnerability in the LFRA coverage area outside the City is generally lower than that in the City itself. A closer look at the individual social vulnerability indicators within Loveland will give local emergency managers, planners, and stakeholders an even clearer picture of where resources should be prioritized in order to reduce vulnerability in the community. Over time, Loveland should continue to monitor their social vulnerability as demographic, economic, and housing related conditions change.

For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

L.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

The hazard rankings in Table L-5 reflect the risk to both the City of Loveland and LFRA. LFRA's facilities are addressed in the Vulnerability Assessment that follows; details on the hazards and vulnerabilities in LFRA's response area outside the City limits are covered in the unincorporated County portion of Section 4 of the Base Plan.

Table L-5 Hazard Identification and Risk Assessment Summary for the City of Loveland and Loveland Fire Rescue Authority

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Highly Likely	Extensive	Catastrophic	High
Civil Disturbance	Likely	Limited	Negligible	Medium
Dam Inundation	Occasional	Significant	Critical	Medium
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Significant	Catastrophic	Medium
Flood	Occasional	Limited	Significant	Medium
Hazardous Materials	Likely	Limited	Critical	High
Landslide/Rockslide	Unlikely	Limited	Negligible	Low
Soil Hazards	Likely	Significant	Negligible	Medium
Spring/Summer Storm	Highly Likely	Extensive	Critical	High
Tornado	Likely	Limited	Critical	High
Utility Disruption	Likely	Significant	Critical	Medium
Wildfire	Likely	Significant	Critical	Medium
Winter Storm	Highly Likely	Extensive	Critical	High

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

L.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the City of Loveland and Loveland Fire Rescue Authority, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the risk for the City/LFRA does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Tornado
- Utility Disruption

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

L.4.1 Community Asset Inventory

Table L-6 shows the total number of improved parcels, properties, and their improvement and content values for the City of Loveland. See Section 4.2.2 of the Base Plan for details and methodology.

Table L-6 Total Exposure of Improved Properties within the City of Loveland

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value
Agricultural	11	15	$1,964,884	$1,964,884	$3,929,768
Commercial	1,514	2,780	$1,427,281,615	$1,427,281,615	$2,854,563,230
Exempt	257	2,547	$573,231,499	$573,231,499	$1,146,462,998
Industrial	45	74	$134,366,765	$201,550,147	$335,916,912
Mobile Home	28	811	$67,926,949	$33,963,475	$101,890,424
Multiple Unit	377	3,742	$592,265,659	$592,265,659	$1,184,531,318
Residential	25,476	26,312	$7,843,231,929	$3,921,615,930	$11,764,847,859
Total	**27,708**	**36,281**	**$10,640,269,300**	**$6,751,873,209**	**$17,392,142,509**

Source: Larimer County GIS/Assessor's Office, Wood analysis.

Parcel analysis for the LFRA response was not conducted due to a lack of data.

Table L-7 lists summary information about the 115 critical facilities and other community assets identified by the City and LFRA as important to protect or that provide critical services in the event of a disaster. These facilities are mapped in Figure L-5. Note that the LFRA facility numbers include those in the City of Loveland. For additional information on the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan.

Table L-7 City of Loveland & Loveland Fire Rescue Authority Critical Facilities & Infrastructure

FEMA Lifeline	City of Loveland	LFRA (inc. City)
Communications	3	0
Energy	13	17
Food, Water, Shelter	40	73
Hazardous Material	1	3
Health and Medical	9	11
Miscellaneous	7	8

FEMA Lifeline	City of Loveland	LFRA (inc. City)
Safety and Security	40	42
Transportation	2	2
Total	**115**	**159**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

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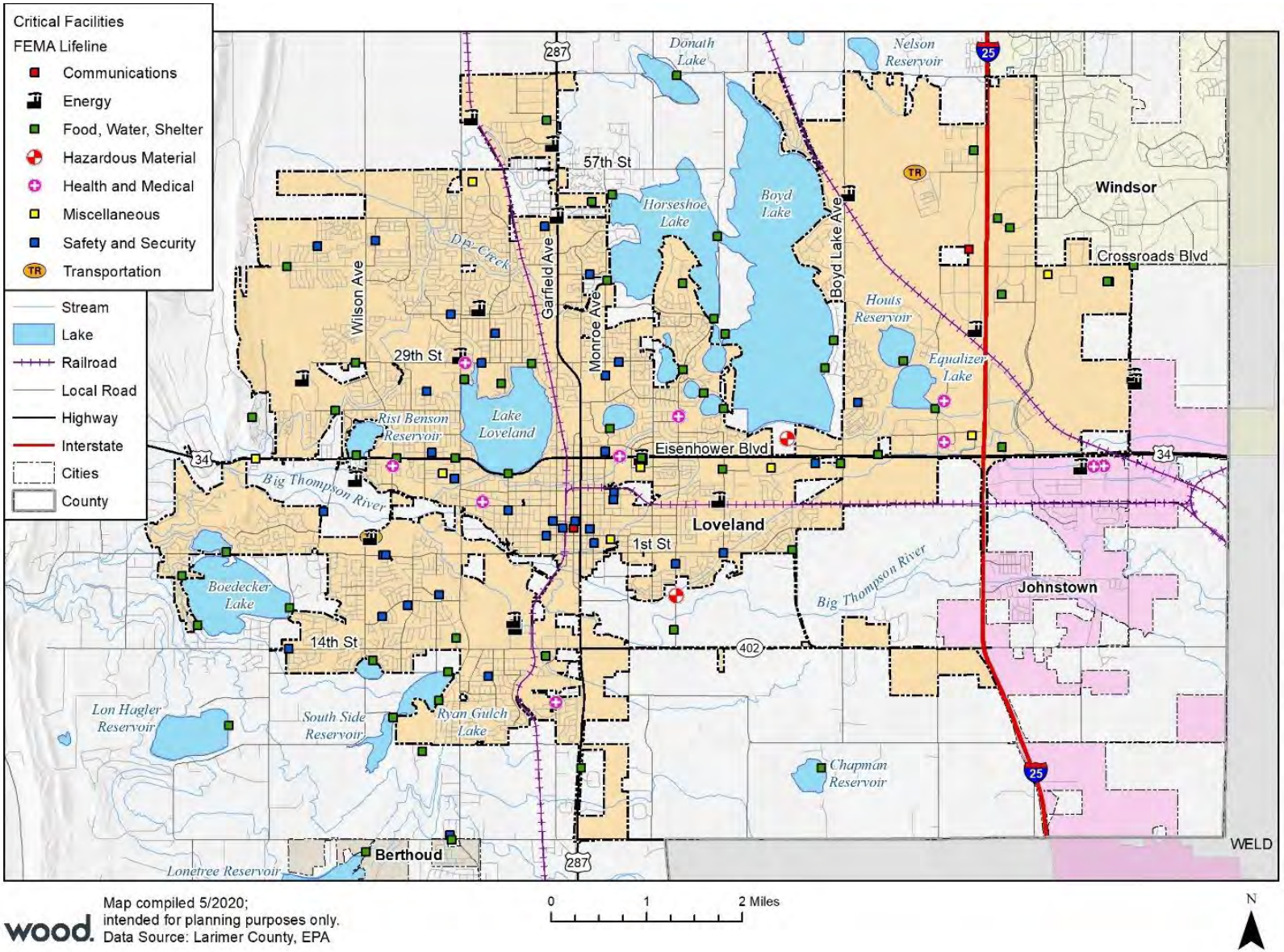
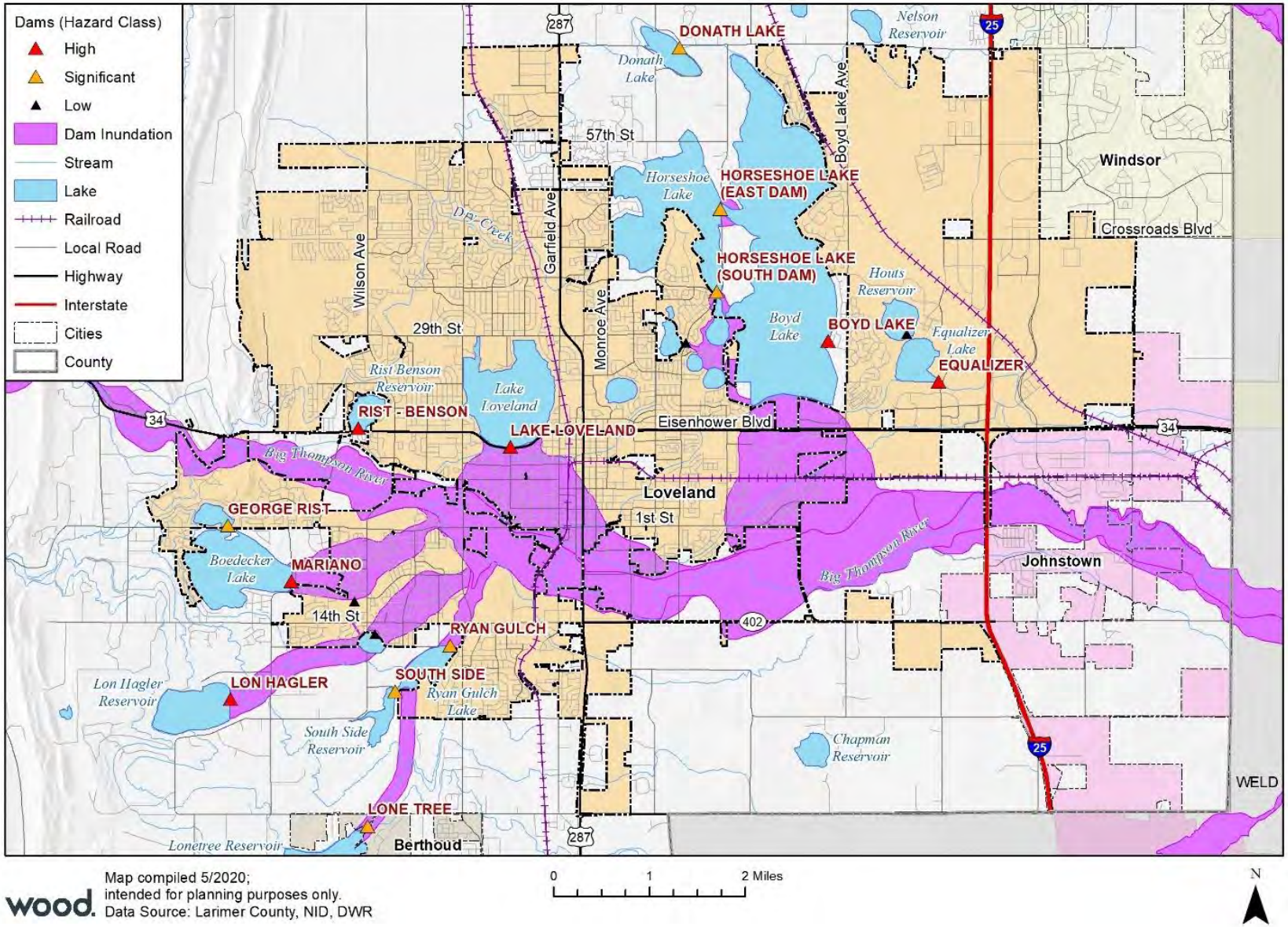
Figure L-5 City of Loveland and Loveland Fire Rescue Authority Critical Facilities and Infrastructure



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, EPA

Figure L-6 Dam Inundation Areas for the City of Loveland and Loveland Fire Rescue Authority



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, NID, DWR

L.4.1 Dam Inundation

Potential dam inundation areas in and around the City of Loveland are shown in Figure L-6. For dam inundation areas in the LFRA response area outside the City, refer to Figure 4-5 in the Base plan.

Table 4-17 in Section 4.3.3 of the Base Plan lists dams of concern for Larimer County. High Hazard dams upstream of the City of Loveland are:

- Boyd Lake
- Carter Lake Dam #3
- Flatiron
- Lake Loveland
- Lon Hagler
- Loveland Water Storage
- Mariano
- Horseshoe Lake (East Dam)
- Horseshoe Lake (South Dam)
- Olympus
- Rist - Benson

Table L-8 shows that Loveland has 110 parcels potentially at risk of dam inundation, valued at $50M; an estimated 275 residents live in those parcels.

Table L-8 City of Loveland Parcels Potentially at Risk of Dam Inundation

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value	Population
Agricultural	2	4	$188,066	$188,066	$376,132	
Commercial	249	448	$234,373,338	$234,373,338	$468,746,676	
Exempt	105	760	$184,031,933	$184,031,933	$368,063,866	
Industrial	4	6	$2,930,698	$4,396,047	$7,326,745	
Mobile Home	1	1	$22,400	$11,200	$33,600	2
Multiple Unit	110	677	$154,828,997	$154,828,997	$309,657,994	
Residential	4,588	4,777	$1,345,166,813	$672,583,354	$2,017,750,167	11,417
Total	**5,059**	**6,673**	**$1,921,542,245**	**$1,250,412,935**	**$3,171,955,180**	**11,419**

Source: USACE National Inventory of Dams 2018, Colorado Dam Safety Program, Larimer County GIS, U.S. Census Bureau, Wood analysis

There are 25 critical facilities identified in areas at risk of dam inundation in the City of Loveland, and 42 in the full FRA response area, as shown in Table L-9.

Table L-9 City of Loveland and Loveland Fire Rescue Authority Critical Facilities Potentially at Risk of Dam Inundation

FEMA Lifeline	City of Loveland	LFRA (inc. City)
Communications	2	2
Energy	1	2
Food, Water, Shelter	7	20
Hazardous Material	1	3
Health and Medical	1	1
Miscellaneous	1	1
Safety and Security	11	12
Transportation	1	1
Total	**25**	**42**

Source: USACE National Inventory of Dams 2018, Colorado Dam Safety Program, Cascarta, Larimer County GIS, U.S. Census Bureau, Wood analysis

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Based on the above analysis, the spatial extent and severity of the dam inundation hazard, the City of Loveland is comparable to that of Larimer County as a whole. The overall significance of this hazard for the City/LFRA is Medium.

L.4.2 Flood

FEMA mapped floodplains in and around the City of Loveland are shown in Figure L-7. For dam inundation areas in the LFRA response area outside the City, refer to Figure 4-19 and 4-20 in the Base plan.

As shown in Table 4-34 in Section 4.3.6 of the Base Plan, the City of Loveland has 64 parcels, 86 buildings, and an estimated 45 residents in areas at 1% annual chance of flooding, with an estimated loss value of $14,545,890. There are an additional 72 parcels, 380 buildings, and 105 residents located in the 0.2% annual chance flood hazard area, with a total value of $121,425,906, and estimated losses of $30,356,477.

The City has one critical facility (Safety and Security) identified in the 1% floodplain. The LFRA response area includes two additional critical facilities (Food, Water, Shelter) also in the 1% floodplain.

As of March 1st, 2021, the City is in the process of adopting updated and expanded floodplain mapping in cooperation with FEMA.

The overall significance of this hazard for the City/LFRA is Medium.

National Flood Insurance Program Policy Analysis

Loveland has participated in the National Flood Insurance Program (NFIP) since 1978. NFIP insurance data shows that as of September 2020 there are 124 flood insurance policies in force in the City with $41,560,800 of coverage. There have been 28 historical claims for flood losses, totaling $1,450,959. There are no repetitive or severe repetitive loss structures as defined by the NFIP. The City of Loveland participates in the Community Rating System (CRS) program; its current Class 6 CRS rating saves NFIP policy holders $11,624 per year.

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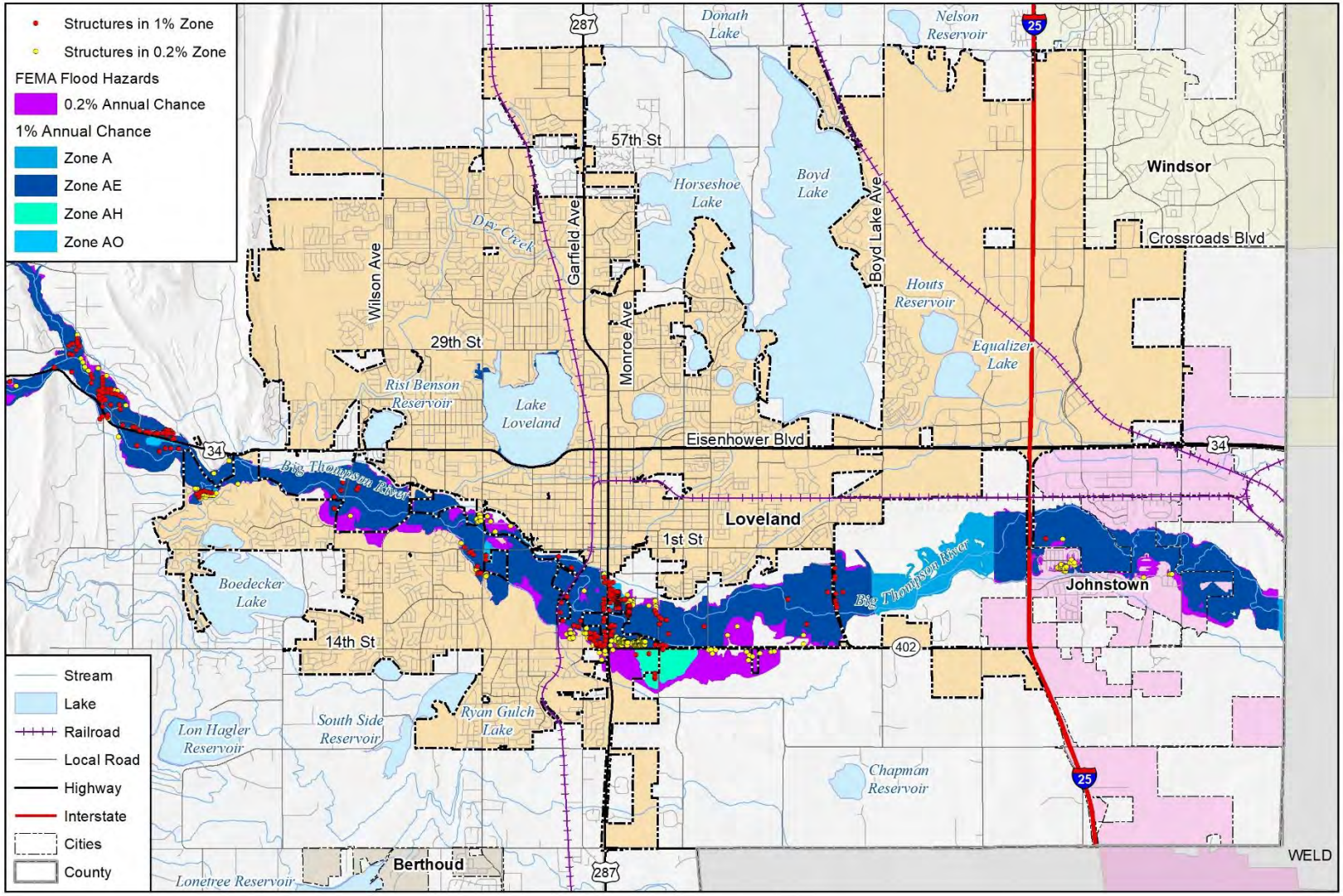
Figure L-7 FEMA Special Flood Hazard Areas for the City of Loveland and Loveland Fire Rescue Authority



Map compiled 10/2020;
intended for planning purposes only.
Data Source: Larimer County,
FEMA NFHL 2/6/2013

0 1 2 Miles

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L.4.3 Hazardous Materials Incident

The City of Loveland successfully collaborated with CDOT and Weld County to re-route the Interstate 25 emergency traffic primary route out of downtown Loveland and onto Weld County Road 17. This effort greatly reduced the risk of hazardous materials accidents occurring within the vital downtown Loveland area or en route/departure from that area.

Three of the County's ten Risk Management Plan (RMP) facilities are located within the City limits. The LFRA response area includes both I-25 and US 34.

The National Response Center (NRC) data cited in Section 4.3.7 of the Base Plan includes 67 hazardous materials incidents in or near the City of Loveland from 1987 through 2019. This equal 23% of the incidents in Larimer County, and averages out to two hazardous materials incident a year. Five evacuations are associated with these incidents, along with one deaths and two injuries; however as noted in the Base Plan, it is likely that the majority of those injuries came from the physical impacts of the accident that caused the release, rather from exposure to hazardous materials themselves.

Based on the above analysis, the frequency of reported hazardous materials incidents in the City of Loveland is higher than that of Larimer County as a whole. This is most likely due to the higher concentration of fixed facilities combined with the City's proximity to multiple transportation routes. The overall significance of this hazard for the City/LFRA is High.

L.4.4 Landslide/Rockslide

There are 6 parcels and 8 buildings at risk of landslide in the City of Loveland. The total value of these buildings is $4,341,833, and an estimated 12 residents would be affected.

There are 10 parcels and 10 buildings at risk of rockslide, with a total value of $6,832,751, and an estimated population of 24 residents.

No critical facilities are at risk of landslide and/or rockslide hazards in the City or LFRA response area.

Figure L-9 and Figure L-10 show the potential landslide and rockfall hazards for the City of Loveland. For potential landslide and rockfall areas in the LFRA response area outside the City, refer to Figure 4-27 and Figure 4-28 in the Base plan, which do show some potential rockfall areas in the LFRA area west of the City.

Based on the analysis above, the overall significance of this hazard for the City/LFRA is Low. See Section 4.3.8 of the Base Plan for further details.

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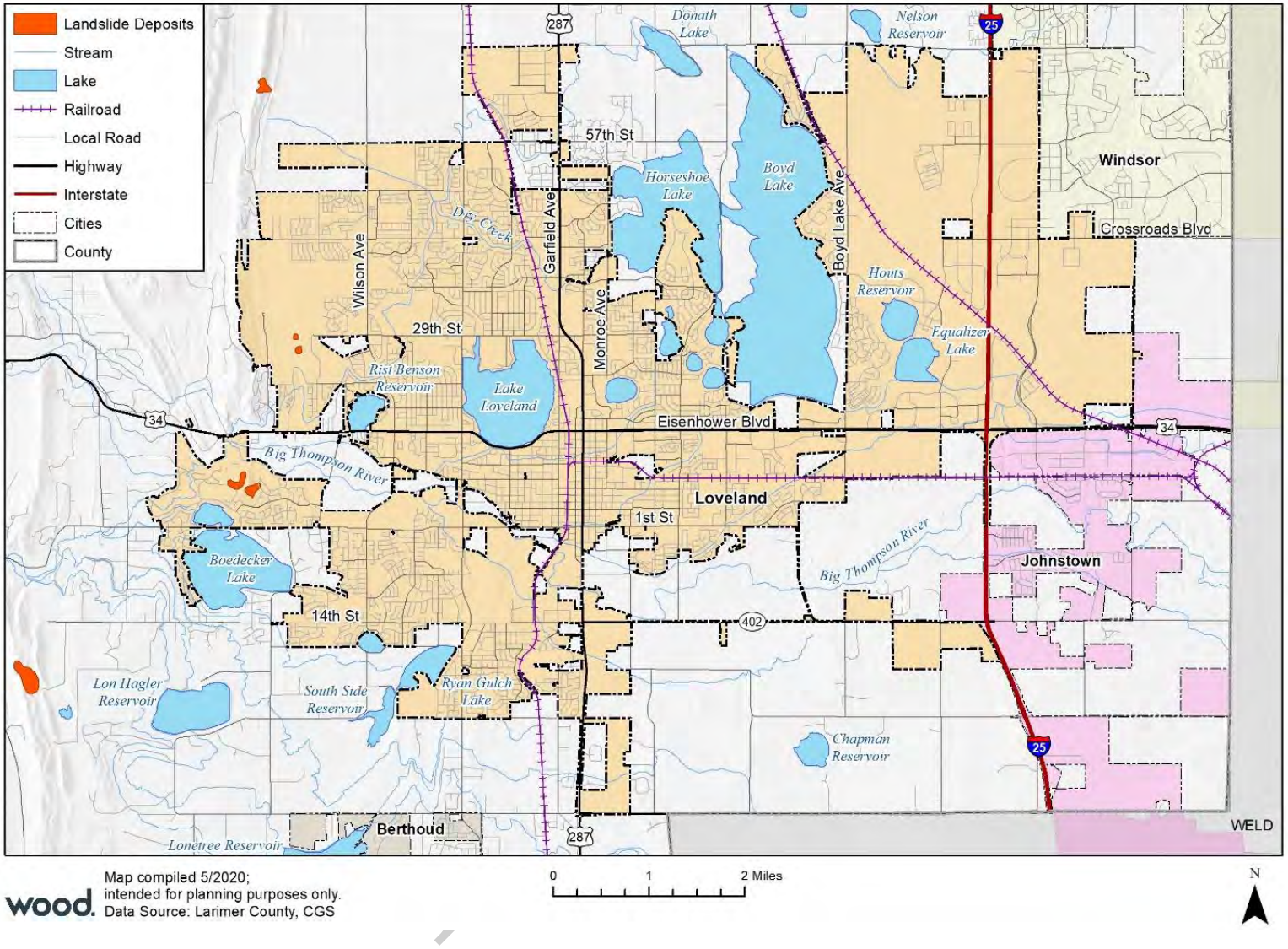
Figure L-8 Landslide Deposits in the City of Loveland and Loveland Fire Rescue Authority



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

0 1 2 Miles

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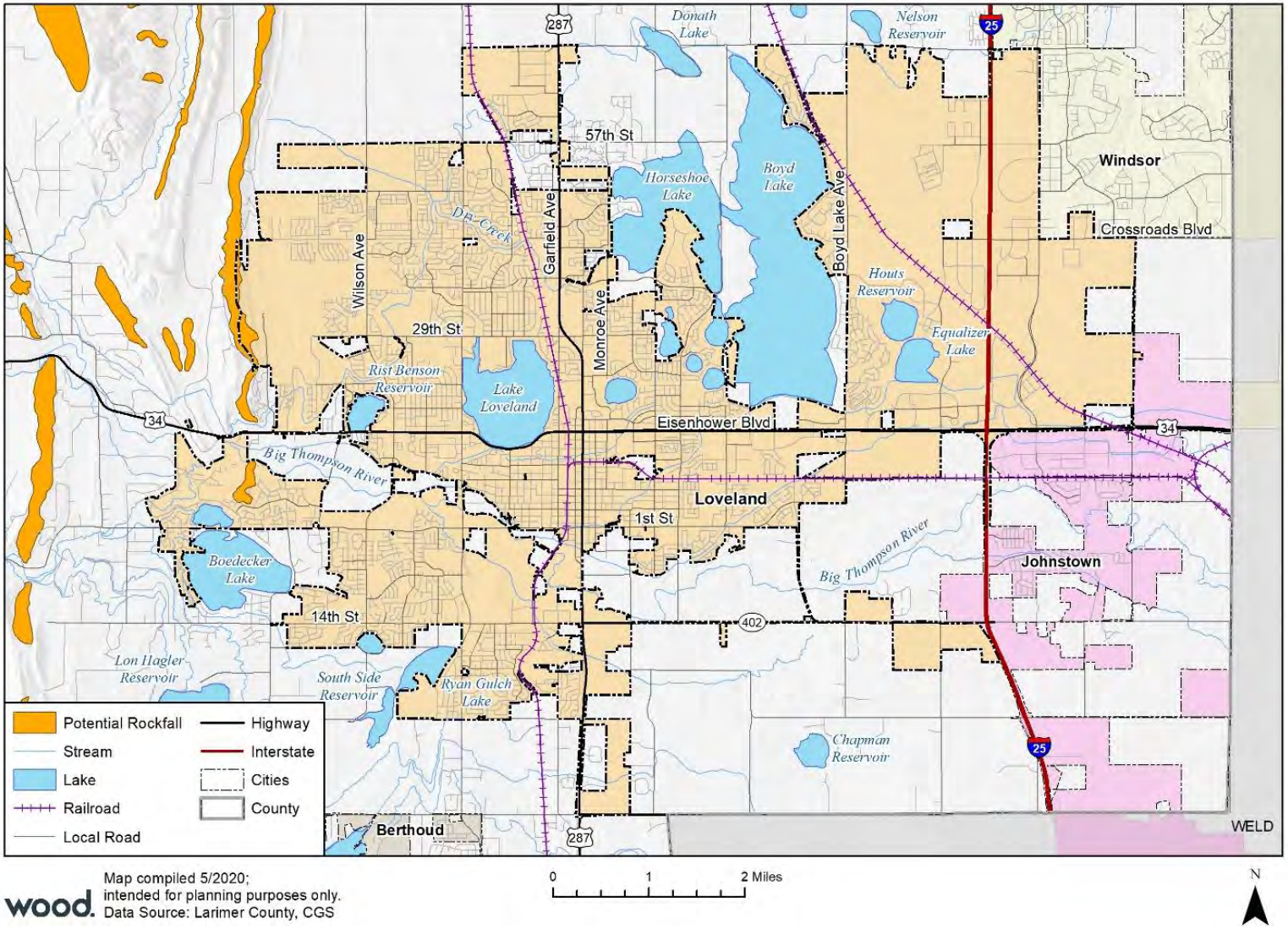
Figure L-9 Potential Rockfall in the City of Loveland and Loveland Fire Rescue Authority



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

L.4.5 Soil Hazards

While no historically undermined areas or areas at risk of land subsidence have been identified in the City of Loveland, the area to the northwest in the LFRA response area shows small areas of subsidence, shown in Figure L-10. Significant portions of the City and LFRA response area are however at risk of collapsible or expansive soils, as shown in Figure L-11 and Figure L-12. The City has had one occurrence of a major sink hole related to a water pipe leak.

Table 4-49 in Section 4.3.9 of the Base Plan shows 1,015 parcels and 1,640 buildings potentially at risk to collapsible soils, with a total value of $704,017,522.

Similarly, Table 4-50 in Section 4.3.9 of the Base Plan shows 17,961 parcels and 22,976 buildings potentially at risk to expansive soils, with a total value of $10,615,498,819. The overall significance of this hazard for the City is Medium.

The critical facility exposure analysis shows 5 critical facilities in Loveland at risk of collapsible soils in the City and 7 in the full LFRA response area; there are 71 facilities in the City and 83 in the full LFRA response area potentially at risk of expansive soils, as shown in the following tables.

Table L-10 Loveland Critical Facilities with Potential Collapsible Soil Hazards

FEMA Lifeline	City of Loveland	LFRA (inc. City)
Communications		
Energy	1	1
Food, Water, Shelter	2	4
Health and Medical	1	1
Miscellaneous		
Safety and Security	1	1
Total	**5**	**7**

Source: Cascarta

Table L-11 Loveland Critical Facilities with Potential Expansive Soil Hazards

FEMA Lifeline	City of Loveland	LFRA (inc. City)
Communications	2	2
Energy	6	9
Food, Water, Shelter	23	29
Health and Medical	8	10
Miscellaneous	5	5
Safety and Security	27	28
Total	**71**	**83**

Source: Cascarta

While the City is at low risk of land subsidence or undermined areas, significant portions of the City are exposed to expansive or collapsible soils compared to Larimer County as a whole. The overall significance of this hazard for the City/LFRA is Medium.

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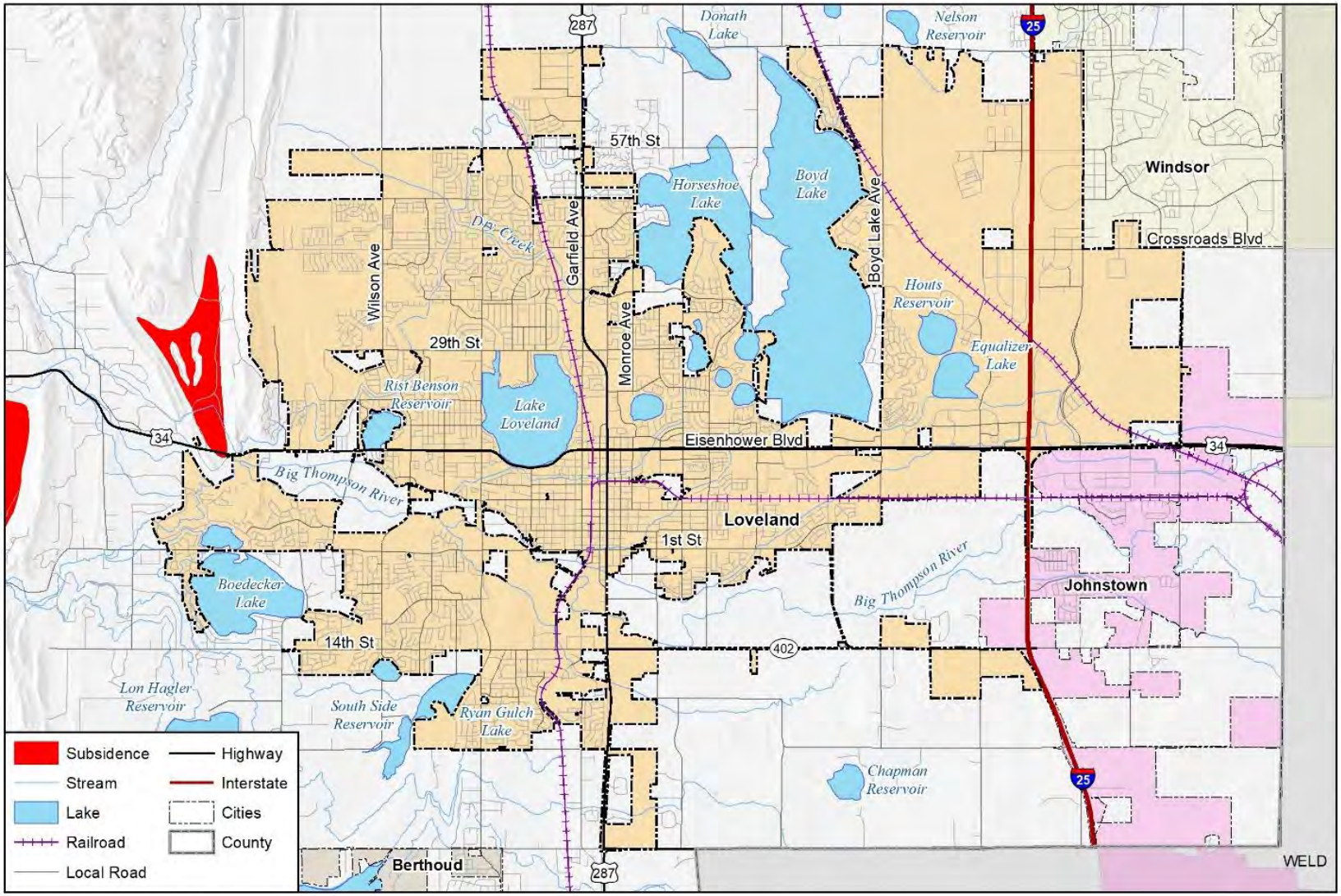
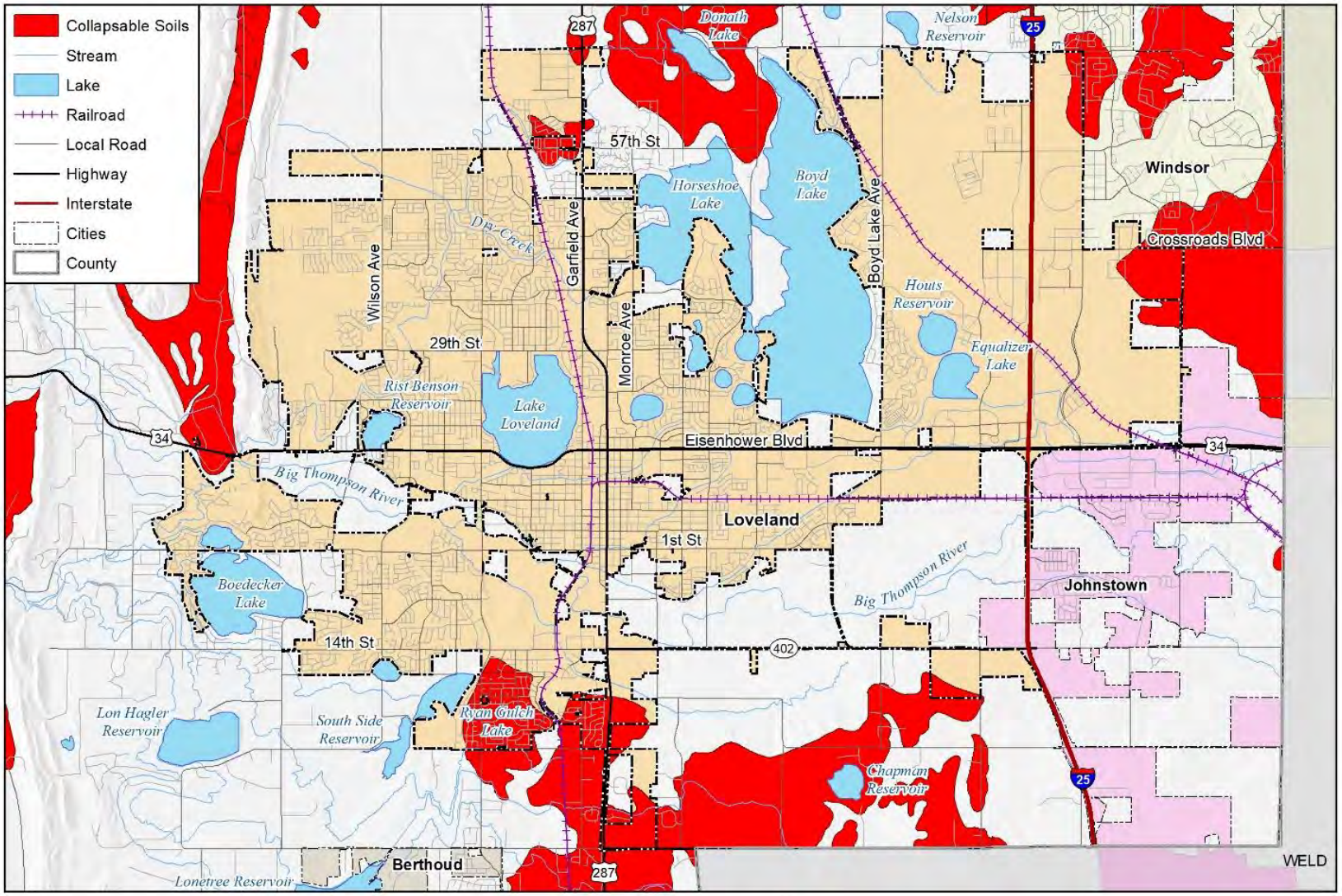
Figure L-10 Land Subsidence in the City of Loveland and Loveland Fire Rescue Authority



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

Figure L-11 Potential Collapsible Soils Areas in the City of Loveland and Loveland Fire Rescue Authority

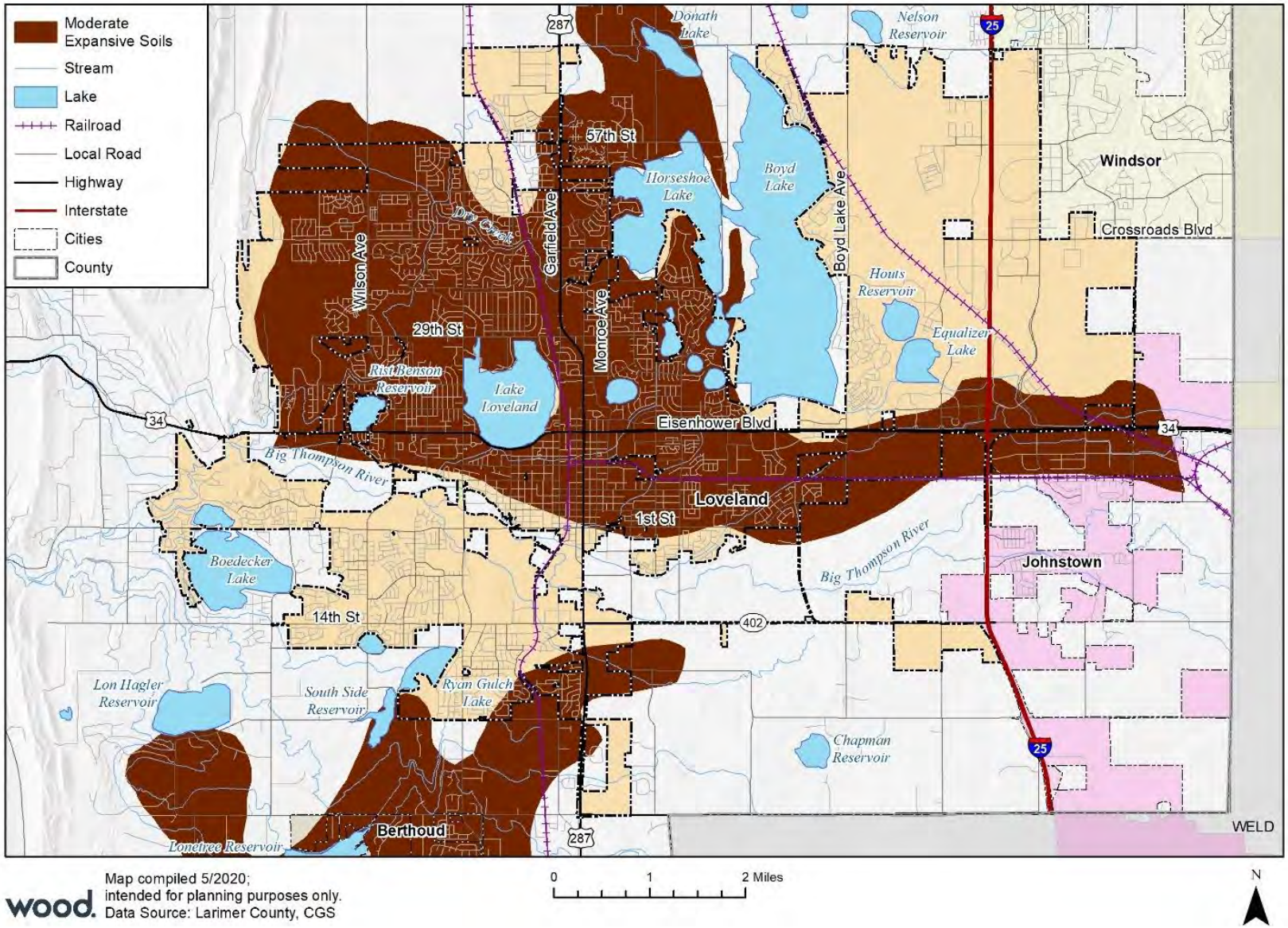


Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

0 1 2 Miles

N

Figure L-12 Potential Expansive Soils Areas in the City of Loveland and Loveland Fire Rescue Authority



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

0 1 2 Miles

N

L.4.6 Wildfire

The City of Loveland has not had a significant history of wildfire activity in or directly adjacent to the City, although the City has felt impacts from wildfires in other areas of the County. In 2020, the City was significantly impacted by the effects and hazards created by the Cameron Peak Fire and adjacent East Troublesome Fire. In addition to being directly impacted by fire ash showers and smoke clouds, the City released emergency notifications for the evaluation orders within city limits, a first for Loveland. The Loveland Fire Rescue Authority worked with the Larimer County Emergency services and Federal resources to extinguish the fire and manage the community impacts.

Areas in and around the City of Loveland at risk of wildfire, based on CO-WRAP assessment, are shown in Figure L-13. Note that the risk to the NE quadrant of the City is lower in part because that area has recently burned, reducing fuel loads.

Tables 4-72, 4-73, and 4-74 in the Wildfire profile of the Base Plan shows that the City has only 104 parcels and 104 buildings at moderate, high, or highest risk of wildfire, with a total value of $52,414,867. An estimated 249 residents live in these at-risk areas.

The City has 13 critical facilities identified at being at risk of wildfires, with 32 facilities in the full LFRA response area, as shown in the following tables.

Table L-12 Loveland Critical Facilities Exposed to Wildfire Risk

FEMA Lifeline	Lowest Risk	Low Risk	Moderate Risk	High Risk	Highest Risk	Total
Energy	5					5
Food, Water, Shelter	6			1		7
Safety and Security	1					1
Total	**12**	**0**	**0**	**1**	**0**	**13**

Source: Cascarta, CO-WRAP

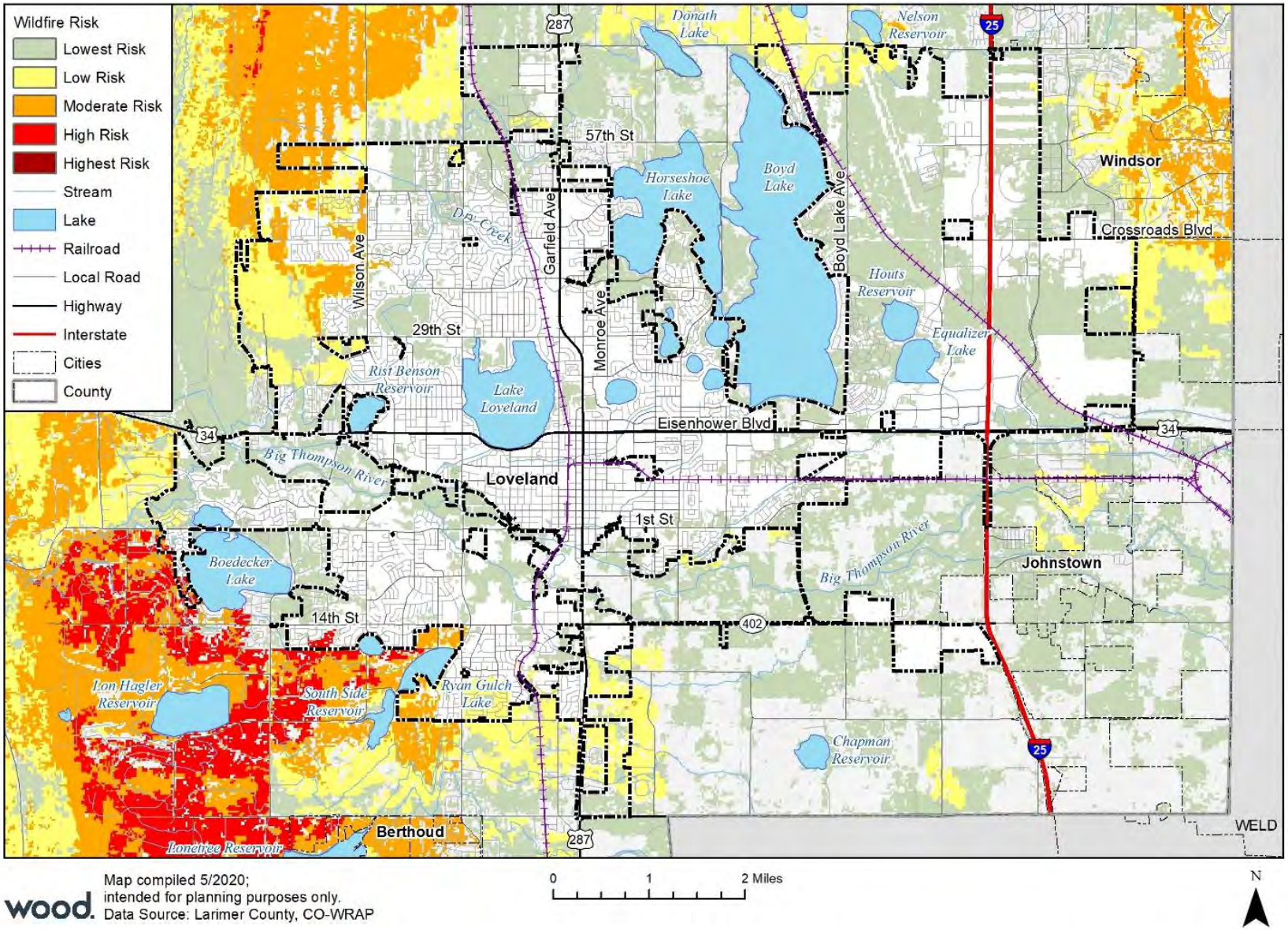
Table L-13 Loveland Fire Rescue Authority Critical Facilities Exposed to Wildfire Risk

FEMA Lifeline	Lowest Risk	Low Risk	Moderate Risk	High Risk	Highest Risk	Total
Energy	7					7
Food, Water, Shelter	13	6	2	2		23
Hazardous Material		1				1
Safety and Security	1					1
Total	**21**	**7**	**2**	**2**	**0**	**32**

Source: Cascarta, CO-WRAP

A relatively low percentage of the City's total parcels and structures is at direct risk of wildfire. However, a look at Figure L-13, as well as Figures 4-44 and 4-45 in the Base Plan, shows a significant portion of the land immediately west and southwest of the City are at moderate or high wildfire risk, much of which falls within LFRA's service area. The overall significance of this hazard for the City/LFRA is Medium.

Figure L-13 Wildfire Risk in the City of Loveland and Loveland Fire Rescue Authority



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CO-WRAP

L.5 Capabilities Assessment

The capability assessment examines the ability of the City of Loveland and Loveland Fire Rescue Authority to implement and manage the comprehensive mitigation strategy laid out in this Plan. The strengths, weaknesses, and resources of the community are identified here as a means for evaluating and maintaining effective and appropriate management of the City's hazard mitigation program.

L.5.1 Existing Capabilities

The following tables summarize the City and LFRA's current abilities to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Table L-14 City of Loveland and LFRA Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	Yes	Municipal Code
Zoning ordinance	Yes	Municipal Code
Subdivision ordinance	Yes	Municipal Code
Growth management ordinance	No	
Floodplain ordinance	Yes	Municipal Code
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Storm Drainage Criteria
Building codes	Yes	2018
BCEGS Rating	Yes	5/4
Fire department ISO rating	Yes	LFRA
Erosion or sediment control program	Yes	Storm Drainage Criteria
Stormwater management program	Yes	Storm Drainage Criteria
Site plan review requirements	Yes	Municipal Code, shared by LFRA
Capital improvements plan	Yes	Storm Drainage Master Plan
Economic development plan	Yes	
Local emergency operations plan	Yes	City & LFRA joint EOP
Community Wildfire Protection Plan	No	New CWPP in development by LFRA & City
Other special plans	Yes	Mitigation Master Plan, joint City & LFRA
National Flood Insurance Program	Yes	Joined 1978
Community Rating System	Yes	Class 6
Flood insurance study or other engineering study for streams	Yes	Larimer County FIS
Elevation certificates (for floodplain development)	Yes	Limited

Source: City of Loveland planning team

Table L-15 City of Loveland and LFRA Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Public Works/Stormwater Utility
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Public Works/Stormwater & Transportation

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer/scientist with an understanding of natural hazards	Yes	Public Works/Stormwater
Transportation Planner	Yes	Public Works
Resiliency Planner	No	
Personnel skilled in GIS	Yes	Public Works/GIS
Full time building official	Yes	Development Services/Building Department
Floodplain manager	Yes	Public Works/Stormwater Utility
Emergency manager	Yes	Fire/Emergency Manager, joint City & LFRA
Grant writer	Yes	Full time grant administrator
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Public Works/GIS
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	Used by City & LFRA

Source: City of Loveland planning team

Table L-16 City of Loveland and LFRA Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	Yes	Yes	
Capital improvements project funding	Yes	Yes	
Authority to levy taxes for specific purposes	Yes	Yes	City & LFRA
Fees for water, sewer, gas, or electric services	Yes	Yes	
Stormwater Service Fees	No	No	
Impact fees for new development	Yes	Yes	
Incur debt through general obligation bonds	Yes	Yes	
Incur debt through special tax bonds	No	No	
Incur debt through private activities	No	No	
Withhold spending in hazard prone areas	No	No	

Source: City of Loveland planning team

Table L-17 City of Loveland and LFRA Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	Yes	Both City & LFRA participate in LEPC
Firewise	Yes	LFRA
StormReady	Yes	Joint City & LFRA

Source: City of Loveland planning team

Local land use plans and building codes are tremendous tools for evaluating local policies related to hazard mitigation and risk reduction. Additionally, comprehensive master plans, capital improvement plans, stormwater plans and zoning ordinances all present opportunities for enhanced local capabilities.

Building codes are another tool that communities use to enhance public safety. For example, they can increase structural integrity, mitigate structure fires, and provide benefits in relation to natural hazard avoidance. In Colorado, land use regulations and building codes are typically implemented at the local level. Even without a statewide mandate, most counties and many municipalities have enacted regulations and codes. The City of Loveland has adopted a local building code requirement, demonstrating their understanding of the benefits codes provide, including reduced exposure to hazards.

L.5.2 Opportunities for Enhancement

Based on the capability assessment, Loveland and LFRA have several existing mechanisms in place that already help to mitigate hazards. There are also opportunities 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 DHSEM. Internal training and exercises are always based on local risks and mitigation gaps. Additional training opportunities may help to inform City/LFRA staff and City Council on how best to integrate hazard information and mitigation projects into the policies and ongoing duties of the City and LFRA. Continuing to train staff on mitigation and the hazards that pose a risk to the area will lead to more informed staff members who can better communicate this information to the public. Improving the City's Community Rating System rating is also a possibility that should be considered; as shown in Table 5-8 in the Base Plan, each step increase in the City's CRS rating would result in an additional $2,700 discount on flood insurance premiums.

L.6 Mitigation Strategy

The City of Loveland and LFRA have adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The City had seven mitigation actions in the 2016 Plan, and has completed five of them:

- Sodium Hypo Chlorite for Water Treatment
- Install Staff Gages
- Foothills Solar Facility Construction
- Foothills Substation Construction
- CWPP Development (pending approval)

The remaining actions have been carried over into the 2021 Plan, along with 24 new actions.

Recognizing the importance of mitigation in reducing losses from natural and human-caused hazards, the City of Loveland developed their own Mitigation Master Plan (MMP) for the City in 2016. The MMP built on the work done during the 2016 update of the Larimer County HMP and is meant to be an extension of the County HMP rather than a standalone HMP under DMA2000. The MMP includes 167 mitigation projects organized into three categories:

- Planning projects: 49
- Policy and Procedure Projects: 46
- Purchase, Install, or Construct Projects: 72

Of these 167 projects, 14 of the higher-priority projects from the MMP have been included in this HMP update among the 24 new actions, but to avoid duplication or confusion the City has decided not to include all MMP projects in the County HMP. Once the 2021 Larimer County HMP update has been completed, the City will use the updated HMP to inform an update of the MMP and the projects listed therein.

The local planning team identified and prioritized the following mitigation actions for the City of Loveland based on the risk assessment. 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.

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National Flood Insurance Program

Recognizing the importance of the National Flood Insurance Program (NFIP) in mitigating flood losses, the City of Loveland will place an emphasis on continued compliance with the NFIP. As an NFIP participant, the City has and will continue to make every effort to remain in good standing with NFIP. This includes continuing to comply with the NFIP's standards for updating and adopting floodplain maps and maintaining and updating the floodplain zoning ordinance as well as review of any potential development in special flood hazard areas. The City's participation in the CRS is evidence of this commitment to go beyond the minimum standards of the NFIP.

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Table L-18 City of Loveland 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
L1	Goals 1,2 Objectives 5	Flood, Spring/Summer Storm	**Railroad Ave Improvements.** During the 2013 and the 1976 Floods, Railroad Ave on both sides of the bridge flooded. During both events, all of the North-South routes across the Big Thompson river were cut off by flood waters. Motorists were forced to drive more than 30 miles east to find a viable river crossing. Emergency vehicles that were on one side of the river were unable to respond to the opposite side for emergencies. Railroad Ave elevation change on both sides of the bridge and add second bridge. The base height of Railroad Ave roadway will be raised on both sides of the bridge and a second bridge will be added. This project will provide better flood management along Railroad Ave. It will also provide the City, County, and State with an open route over the Big Thompson River during 50-year and smaller storm events.	**City Public Works,** Storm Water, Engineering, FHWA, CDOT, Larimer County	$3.3M	FHWA, city internal budget	High	2021	In Progress. Construction has been completed. City staff are currently working on a FEMA LOMR to amend the Big Thompson River floodplain in order to incorporate the recently constructed improvements.
L2	Goals 1,2,3 Objectives 3,4,5	Flood, Severe Storm, Wind & Tornado, Wildfire, Biological, Hazmat	**Fleet Tracking & Communications.** During daily operations or emergencies, not all personnel or vehicles in the field have radios for communications and there is no means to have a snapshot perspective of where a city vehicle is at any given time. Add an 800 MHz radio and GPS tracking to priority vehicles. Determine which and how many city vehicles should have GPS locators and have them installed. Install 800 MHz radios in all city vehicles.	**City Fleet Management**, Public Works, Emergency Communications, WAC, GPS vendor, NCRCN	$500,000	City internal budget, grants	Medium	2025	In Progress. Partial funding was placed in 2019 budget and seeking grant funds.
L3	Goals 1,2,5 Objectives 5	Flood	**South Loveland Outfall Phase 3.** Phase 3 of a 3-phase project to reduce flooding problems within the residential neighborhood located between 14th Street SW and 23rd Street SW, and from Colorado Avenue to Taft Avenue. This project includes the installation of an underground storm drainage system and regional detention pond.	**City Public Works**	$7M	City CIP budget, grants	Medium	2025	New in 2021.

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
L4	Goals 1,2,5 Objectives 5	Flood	**Madison Ave. Outfall (Outlet Redirection).** A project to replace a failing storm drainage outfall into the Big Thompson River. This project will include the installation of a new non-erosive outfall route into the Big Thompson River along with Stormwater quality treatment for the tributary basin.	**City Public Works**	$650,000	City CIP budget, grants	Medium	2023	New in 2021.
L5	Goals 1,2,5 Objectives 5	Flood	**Silver Lake Improvements.** A project to reduce flooding problems along Highway 287 and along 23rd Street. This project includes the installation of an underground storm drainage system.	**City Public Works**	$125,000	City CIP budget, grants	Medium	2023	New in 2021.
L6	Goals 1,2,5 Objectives 5	Flood	**Boyd Lake Outlet Ditch Improvements.** A project to mitigate existing erosion problems within the Boyd Lake Outlet Ditch between Eisenhower Blvd. and 5th Street, directly east of Kohl's. We jointly utilize this irrigation return flow ditch to convey storm water runoff to the Big Thompson River. In accordance with the 1984 agreement between the City and the Greeley & Loveland Irrigation Company, we are required to make necessary improvements to the ditch in order to convey storm water to the river.	**City Public Works**	$1.5M	City CIP budget, grants	Medium	2023	New in 2021.
L7	Goals 1,2,5 Objectives 5	Flood	**Garfield and Harrison Outfall.** A project to reduce flooding problems within the residential neighborhood located between Garfield Avenue, Taft Avenue, 1st Street, and Eisenhower Boulevard. This project includes the installation of an underground storm drainage system which will outlet into the Big Thompson River.	**City Public Works**	$11.6M	City CIP budget, grants	Medium	2027	New in 2021.
L8	Goals 1,2,5 Objectives 5	Flood	**South Rist Benson Lake Outfall. A** project to reduce flooding problems within the residential neighborhood located between Eisenhower Boulevard, the Big Barnes Ditch, Wilson Avenue, and Namaqua Avenue. This project includes the installation of an underground storm drainage system which will outlet into the Big Thompson River.	**City Public Works**	$1.7M	City CIP budget, grants	Medium	2030	New in 2021.

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
L9	Goals 1,2,5 Objectives 5	Flood	**16th Street Storm Sewer System.** A project to reduce flooding problems within the residential neighborhood located between Eisenhower Boulevard, 16th Street, Boise Avenue, and Cheyenne Avenue. This project includes the installation of an underground storm drainage system which will outlet into the Greeley & Loveland irrigation canal.	**City Public Works**	$100,000	City CIP budget, grants	Medium	2022	New in 2021.
L10	Goals 1,2,5 Objectives 5	Flood	**Wilson & Eisenhower Improvements.** A project to reduce flooding problems along Wilson Avenue between Eisenhower Boulevard and 17th Street. This project includes the installation of an underground storm drainage system which will outlet into the Big Thompson River. Costs shown reflect project design only as construction is scheduled outside of the ten year capital program window.	**City Public Works**	$2.3M for project design	City CIP budget, grants	Medium	Design in 2021	New in 2021.
L11	Goals 1,2,5 Objectives 5	Flood	**29th & Sheridan Improvements.** A project to reduce flooding problems at 29th Street and Sheridan Avenue. This project includes the installation of an underground storm drainage system which will outlet into the Lake Loveland Outlet Channel.	**City Public Works**	$390,000	City CIP budget, grants	Medium	2021	New in 2021.
L12	Goals 1,2,5 Objectives 5	Flood	**Baretta Drive Improvements.** A project to reduce flooding problems at Baretta Drive and Boxelder Drive. This project includes the installation of an underground storm drainage system which will outlet into Woodmere Park.	**City Public Works**	$695,000	City CIP budget, grants	Medium	TBD	New in 2021.
L19	Goals 1,2,3,4,5 Objectives 1,3,5	Wildfire	**Adopt sprinkler regulations / tax credits for installation.** LFRA will bring forth the regulations, City Finance will develop the tax credit formula, and in partnership submits to Loveland City Council for adoption.	**LFRA, City Council, City Finance**	Staff Time	Internal budgets	High	2025	New in 2021. (from MMP #19)
L36	Goals 1,2,5 Objectives 2,3,5	Cyber Threats	**Improve protection of critical IT infrastructure and management of hacking threats.** City IT will conduct a risk and threat assessment and design solutions based on that assessment.	**City IT**	Staff Time, possible consulting time and hardware/ software TBD	Internal budgets	High	2023	New in 2021. (from MMP #36)

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
L44	Goals 1,2,5 Objectives 3,5	Biological Hazards, Civil Disturbance, Dam Inundation, Drought, Earthquake, Flood, Hazmat, Landslide/ Rockslide, Soil Hazards, Spring/ Summer Storm, Tornado, Utility Disruption, Wildfire, Winter Storm	**Emergency spending policy.** Clarify emergency spending policy on increased spending limit during times of emergency response (re-evaluate mid-year budget caps).	**City Finance**	Staff Time	Internal budgets	High	2021	New in 2021. (from MMP #44)
L54	Goals 1,2,3,4,5 Objectives 2,4,5	Flood	**Implement Big Thompson Restoration Plan Update.** Serve as liaison with external partners to implement Big Thompson Restoration Plan Update, including the following sections: - Reach 22 - Jasper Lake along the Big Thompson - Reach 50 - Glen Haven along West Creek - Reach 27 - Glade Road along the Big Thompson - Reach 29 - Morey Open Space along the Big Thompson - Reach 21 Cedar Cove along Big Thompson - Reach 24 Sylvan Dale along Big Thompson - Reach 15 East Drake along Big Thompson (US 34) - Reach 14 Drake along Big Thompson (US 34) - Reach 18 Idlewild along Big Thompson (US 34) - Reach 59 North Drake along North Fork (CR 43) - Reach 58 Fish Hatchery along North Fork (CR 43) - Reach 57 Crosier Mt. Trail along North Fork (CR43)	**Big Thompson River Coalition,** City Water & Power	TBD as projects are identified.	Internal budgets and grants as available	High	2021-2031	New in 2021. (from MMP #54-65)
L80	Goals 1,2,3,4,5 Objectives 1,3,5	Flood, Wildfire	**Code enforcement.** Ensure enforcement of all applicable fire codes in conjunction with applicable building codes, monitoring the inspection data, by improving enforcement staffing levels.	**LFRA**	Staff Time	Internal budget	High	Ongoing	New in 2021. (from MMP #80)

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
L91	Goals 1,2,5 Objectives 3,5	Flood, Hazmat, Landslide/ Rockslide, Soil Hazards, Spring/Summer Storm, Tornado, Utility Disruption, Wildfire, Winter Storm	**Review zoning codes and development standards to limit the risks to development in hazard areas.** Add to UBC, consider comprehensive plan.	**City Development Services,** Loveland Fire Rescue Authority	Staff Time	Internal budgets	Medium	2021	New in 2021. (from MMP #91)
L 110	Goals 1,2,5 Objectives 2,3,5	Hazmat	**Eliminate chlorine at water treatment plan.** Eliminate chlorine gas as the method to disinfect water during the water treatment process, and replace with sodium hypo chlorite, which is in liquid form and is much safer than chlorine gas. Construct a chemical building specifically for storage and delivery of sodium hypo chlorite, when updating the water treatment process.	**City Water & Power**	TBD	Internal budget	High	2021	New in 2021. (from MMP #110)
L 114	Goals 1,2,3 Objectives 3,5	Flood	**Develop a 2.4-acre substation to be located on the city-owned property between West 22nd and West 29th Streets, west of Mehaffey Park.** The existing power plant in the Big Thompson Canyon has been destroyed twice due to flooding. This new location will eliminate this hazard. This project is being funded with Public Assistance grant funding following the 2013 flood.	**City Water & Power**	$9M	FEMA PA Grants	High	2021	New in 2021. (from MMP #114)
L 128	Goals 1,2,5 Objectives 3,4,5	Flood, Utility Disruption	**Inspect all water sewer crossings and finish necessary upgrades.** Project will protect critical infrastructure including wastewater service lines.	**City Water & Power**	TBD	Internal budgets or grants	High	2023	New in 2021. (from MMP #128)
L 156 B	Goals 2,3,5 Objectives 1,2,3,5	Dam Inundation, Flood	**Purchase and install stream/river gauges and/or cameras.** Will improve real time monitoring of Big Thompson River and its tributaries to improve warning time.	**City Water & Power**	TBD	Internal budgets, grants, Larimer County	High	2023	New in 2021. (from MMP #156)
L 198	Goals 1,2,3,4,5 Objectives 1,3,4,5	Flood, Wildfire	**Repurpose Storm Mountain 4x4 trail through Masonville for secondary vehicle egress.** This community currently only has one evacuation route. An existing 4x4 trail could be repurposed to serve as an additional route. Work with property owners to develop a second ingress/egress route to enhance evacuation.	**LFRA**, City Attorney's Office, Larimer County	Staff time	Internal budgets	Medium	2025	New in 2021. (from MMP #198)

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
L 199	Goals 1,2,3,4,5 Objectives 1,3,4,5	Flood, Wildfire	**Create secondary vehicle egress on the Drake Trail.** This community currently only has one evacuation route. Work with property owners to develop and construct a second ingress/egress route to enhance evacuation.	**LFRA**, City Attorney's Office, Larimer County	TBD	Internal budgets, grants, Larimer County	Medium	2025	New in 2021. (from MMP #199)
L 200	Goals 1,2,3,4,5 Objectives 1,3,4,5	Flood, Wildfire	**Create secondary vehicle egress to Cedar Cove.** This community currently only has one evacuation route. Work with property owners to develop and construct a second ingress/egress route to enhance evacuation.	**LFRA**, City Attorney's Office, Larimer County	TBD	Internal budgets, grants, Larimer County	Medium	2025	New in 2021. (from MMP #200)
L 216	Goals 1,2,3,4,5 Objectives 1,2,3,4,5	Biological Hazards, Civil Disturbance, Dam Inundation, Drought, Earthquake, Flood, Hazmat, Landslide/ Rockslide, Soil Hazards, Spring/Summer Storm, Tornado, Utility Disruption, Wildfire, Winter Storm	**Hire grant specialist.** Hire a full time grant specialist for the benefit of all city departments and to address projects related to preparedness, response, recovery, and mitigation. The position itself can be partially funded by the grants we receive.	**City Finance**	Staff time	Internal budgets	Medium	2025	New in 2021. (from MMP #216)

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L.7 Plan Maintenance and Implementation

The City of Loveland and LFRA have developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the City and LFRA will continue public participation in the plan maintenance process.

L.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The City of Loveland's/Loveland Fire Rescue Authority's implementation strategy included:

- Our mitigation actions will be reviewed and updated annually.
  - This was accomplished.
- Mitigation actions, activities and information will be integrated into existing public education programs and shared via website and or social media.
  - These have been integrated to the extent possible.
- We will integrate hazard mitigation actions into our existing public education/community training programs to continually increase awareness about local hazards and potential consequences."
  - This was accomplished and is ongoing.
- We will incorporate mitigation actions from the 2016 Larimer County Plan into our soon-to-be-developed Mitigation Master Plan
  - The MMP was developed and has been implemented. Completed in 2016, the Loveland Mitigation Master Plan states that it "specifically addresses each of the known hazards, risks, and vulnerabilities that are already defined within the recently updated Larimer County Hazard Mitigation Plan." The MMP is used to help coordinate mitigation planning and prioritize implementation across departments.

L.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the City/LFRA to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Emergency Manager will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Emergency Manager will also be responsible for representing the City/LFRA on future Larimer County Planning Team meetings, and for coordination with city staff and departments during plan updates. The City, Fire Authority, and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by City Council.

Integration into Other Planning Mechanisms

The City of Loveland and Loveland Fire Rescue Authority will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the City/LFRA will:

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- Incorporate mitigation actions from the 2021 Larimer County Plan into the next update of the Mitigation Master Plan.
- Incorporate information from the HMP and MMP into amendments to the City's planning and zoning codes.
- The MMP planning team will meet annually to discuss items that need to be updated and look at progress of action items.
- Continue to incorporate information from the HMP into existing public education & outreach programs.
- Maintain information on the City's/LFRA's websites and utilize the marketing and communications firm to get information to citizens and businesses.
- Mitigation actions will be incorporated in capital improvement planning.

Continued Public Involvement

The City and Loveland Fire Rescue Authority will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include using internal marketing and communications resources to share information to get information to citizens and businesses.

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L.8 Letter of Intent to Participate

City of Loveland

Office of Emergency Management
• 410 East Fifth Street • Loveland, Colorado 80537
(970) 962-2534 • FAX (970) 962-2912
www.cityofloveland.org

LETTER OF INTENT TO PARTICIPATE

November 26, 2018

Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins CO 80522
Attn: Lori Hodges, Director of Emergency Management

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the City of Loveland and the Loveland Fire Rescue Authority are submitting this letter of intent to confirm that City of Loveland and the Loveland Fire Rescue Authority have agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, City of Loveland and the Loveland Fire Rescue Authority agree to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

City of Loveland and the Loveland Fire Rescue Authority understand that they must engage in the following planning process, as more fully described in FEMA's Local Mitigation Planning Handbook dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals;
- Proactively offer opportunities for participation in the planning process by all community stakeholders;
- Documentation of an effective process to maintain and implement the plan; and,
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body.

City of Loveland

Office of Emergency Management
• 410 East Fifth Street • Loveland, Colorado 80537
(970) 962-2534 • FAX (970) 962-2912
www.cityofloveland.org

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, we Steve Adams City Manager and Mark A. Miller Fire Chief, commit City of Loveland and the Loveland Fire Rescue Authority to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 26 day of November, 2018

Steve Adams - City Manager

Mark A. Miller – Fire Chief

M. Northern Colorado Water Conservancy District (Northern Water)

"Provide water resources management, project operations, and conservation services for C-BT Project beneficiaries."

—Mission, Northern Water

M.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Northern Colorado Water Conservancy District (Northern Water) participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section M.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the District on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

M.2 Community Profile

Northern Water is a public agency created in 1937 to contract with the federal government to build the Colorado-Big Thompson (C-BT) Project. The C-BT collects water west of the Continental Divide and delivers it to Northeastern Colorado for agricultural, municipal, domestic and industrial uses. Northern Water and the U.S. Bureau of Reclamation jointly operate and maintain the C-BT Project.

About 880,000 people live within Northern Water boundaries, which encompass 1.6 million acres in portions of eight counties: Boulder, Broomfield, Larimer, Logan, Morgan, Sedgwick, Washington and Weld. Northern Water provides cities, towns rural-domestic water districts and industries with year-round deliveries. And between April and October, the primary growing season, Northern Water also delivers water to more than 120 ditch, reservoir and irrigation companies serving thousands of farms and more than 640,000 acres.

A map of Northern Water's service area is shown in Figure M-1; additional assets in Larimer County are depicted in Figure M-2.

M.2.1 Growth and Development Trends

Northern Water does not have authority to manage growth or development within its district outside of Northern Water property. As the population continues to grow in Larimer County and throughout Colorado, so too will the demand for water growth and reliance on Northern Water assets, particularly during times of drought.

M.3 Hazard Identification and Risk Assessment

Northern Water covers parts of eight counties. For the purpose of this plan, spatially analyzed hazard risks have been assessed for the areas of the district that lie specifically within Larimer County.

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

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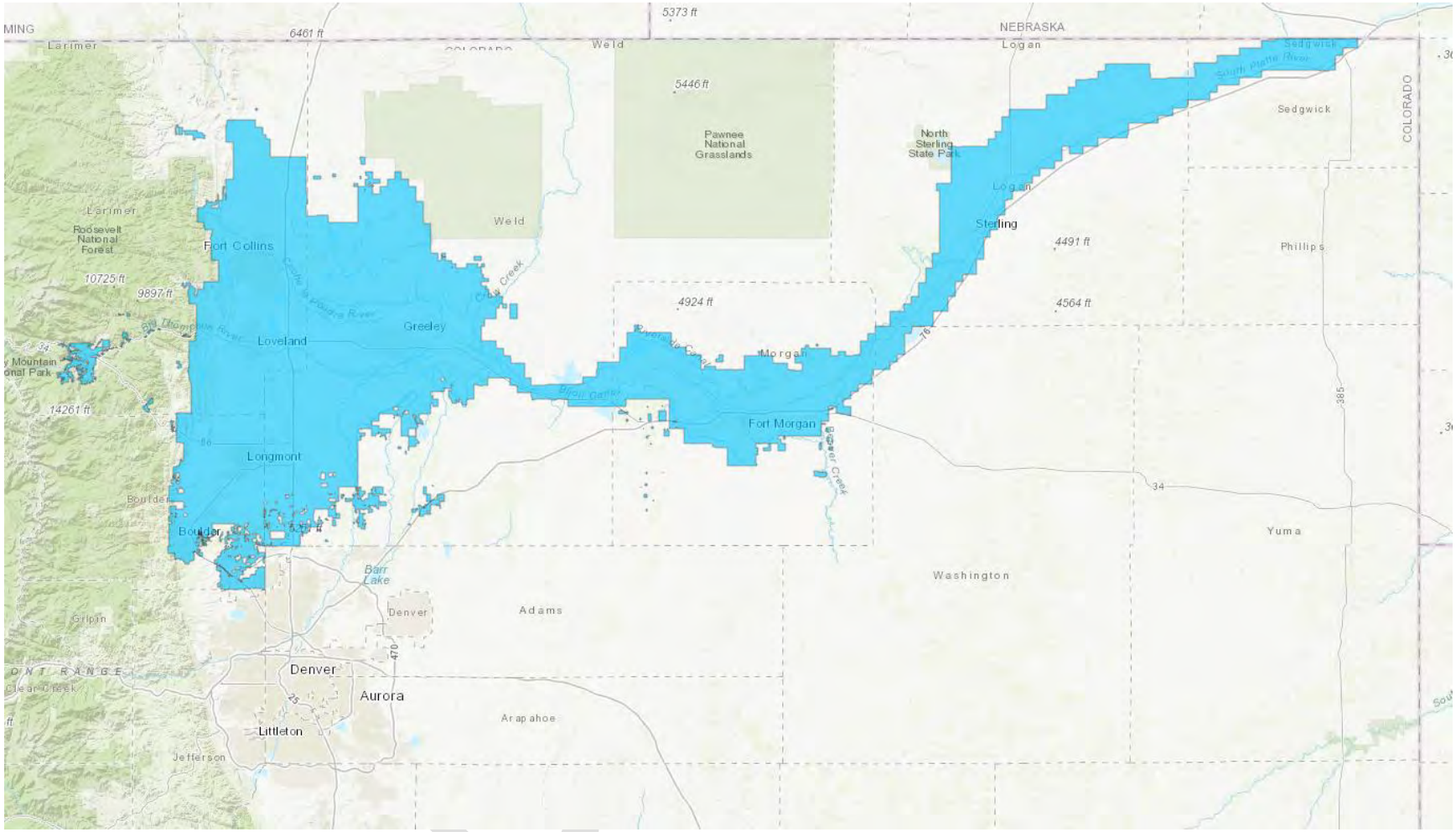
Figure M-1 Map of the Northern Colorado Water Conservancy District Service Area



Source: Northern Water website

Table M-1 Hazard Identification and Risk Assessment Summary for Northern Water

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Likely	Extensive	Critical	Medium
Civil Disturbance	Likely	Limited	Limited	Medium
Dam Inundation	Occasional	Extensive	Critical	High
Drought	Likely	Significant	Critical	High
Earthquake	Unlikely	Significant	Catastrophic	Medium
Flood	Likely	Significant	Catastrophic	Medium
Hazardous Materials	Likely	Limited	Critical	Medium
Landslide/Rockslide	Likely	Significant	Significant	Medium
Soil Hazards	Likely	Significant	Critical	Medium
Spring/Summer Storm	Highly Likely	Significant	Significant	Medium
Tornado	Likely	Significant	Critical	High
Utility Disruption	Likely	Extensive	Negligible	Medium
Wildfire	Highly Likely	Significant	Critical	High
Winter Storm	Highly Likely	Extensive	Significant	High

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

M.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Northern Water service area, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. Because the Northern Water service area covers a significant portion of Larimer County, including both urban and rural areas, the potential impact of most hazards is the same as that of the County overall. However, differences in the vulnerability of Northern Water's assets does change the overall risk from some hazards, as noted in the Table above.

For the following hazards, the District's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Hazardous Materials
- Soil Hazards
- Spring/Summer Storm
- Tornado
- Utility Disruption

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

M.4.1 Community Asset Inventory

Northern Water has assets across ten Colorado counties, including Larimer County. These assets include:

- Dams,
- Hydropower plants,
- Pump plants,
- Canals, pipelines, and outlets,
- Tunnels,
- Reservoirs and lakes,
- Office buildings.

In addition to hard assets, the watersheds that provide the district's water resources are extremely important, thus forest health and watershed health initiatives are of vital importance.

A general overview of these assets in Larimer County is portrayed in Figure M-2. A detailed analysis of the vulnerability of individual Northern Water assets was not conducted for this plan, but the collective vulnerability of assets is described in the following sections.

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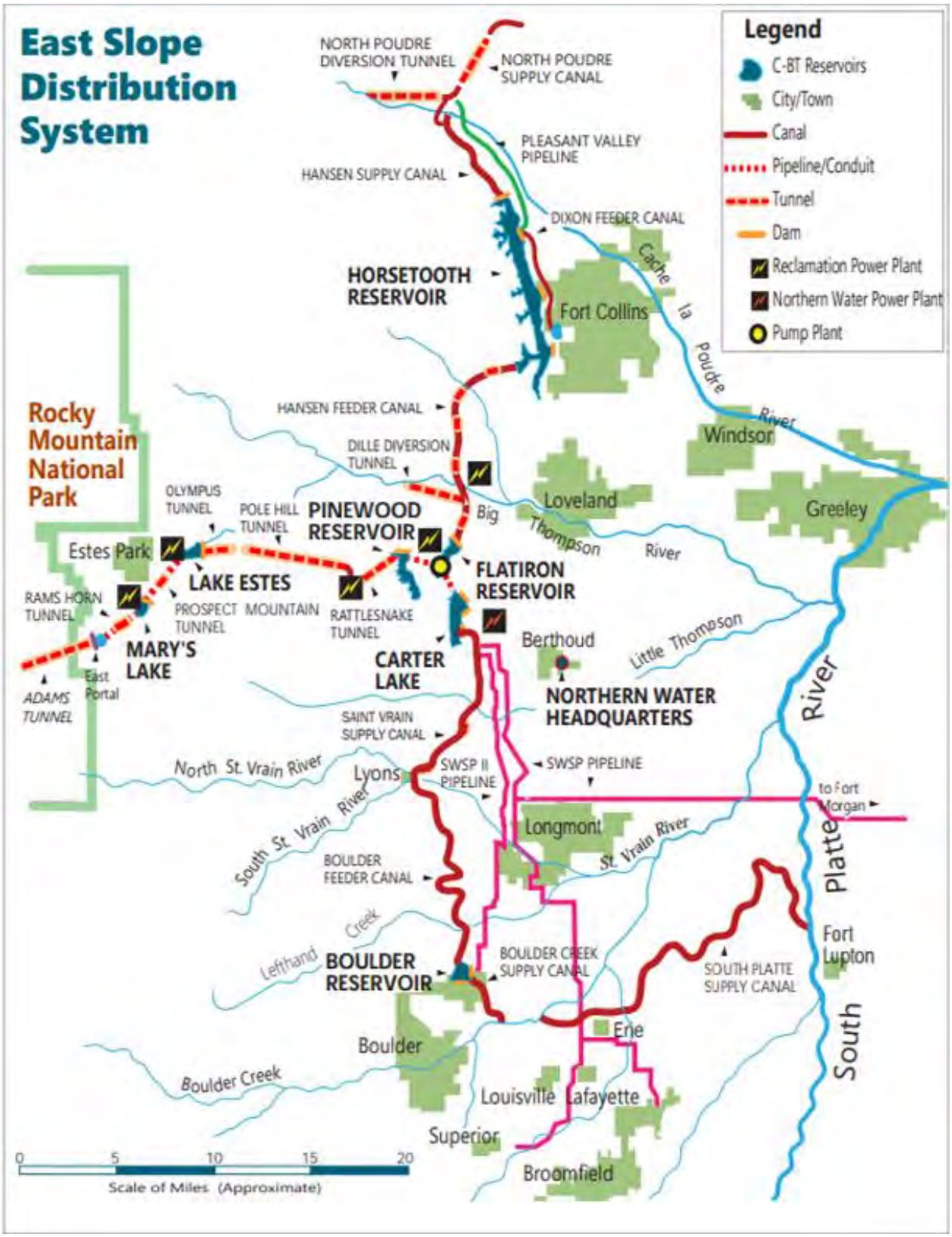
Figure M-2 Map of Northern Water's East Slope Distribution System



Source: Northern Water website

M.4.2 Dam Inundation

Northern Water operates several dams in Larimer County or that have the potential to impact Larimer County in the event of a dam failure or incident. High Hazard dams include Carter Lake, Flatiron, and Horsetooth; Significant hazard dams include Mary's Lake. All of these dams are discussed in Section 4.3.3 of the base Plan. It should be reiterated that dams are classified as high or significant hazard due to the potential impacts if an incident were to occur, and in no way reflect the likelihood of a failure or incident. A failure of one of these dams would have severe economic ramifications on the District, both from the physical loss of the asset and the potential loss of water supply.

Additionally, several Northern Water assets are themselves potentially at risk of a dam failure or incident at a dam not operated by Northern Water. There are a number of other dams of concern located in or upstream of Larimer County that pose a potential risk to Northern Water owned and operated facilities. Depending on the type and severity of the incident, this could result in water quality impacts, and possibly lead to spillway flows or concerns for the integrity of the impacted Northern Water dams.

Other Northern Water assets such as canals, pump plants, and other structures can also be impacted by dam inundation. As shown in Figure 4-5 in the Base Plan, there are several areas of dam inundation with the potential to impact Norther Water assets.

M.4.3 Drought

The most significant impacts associated with drought and water shortage for Northern Water are those related to water intensive activities such as wildfire protection, agriculture, and municipal usage. Northern Water will utilize their Water Shortage Response Plan during water shortage events. This plan contains progressive stages that can be enacted. These stages contain voluntary and mandatory conservation measures in addition to specific curtailments of water usage for specific industries. Northern Water uses various indicators when deciding to enact restrictions. These indicators include geographical, environmental and economic conditions on the western slope, where most of the Northern Water's most critical assets are located. However, restrictions and subsequent reductions in usage on the western slope do not increase water in streams and waterways in Northern Water's collection system. Revenue shortages, water quality issues and recycled water availability are all potential impacts during water shortage events. In addition, a lack of available water can also lower reservoir levels, which exposes more shoreline to erosion. This can result in increased water treatment costs. During an extraordinary, long-term water shortage event, hydropower availability may be at risk.

M.4.4 Earthquake

Many Northern Water assets are built to withstand mild to moderate shaking. However, a major earthquake could cause significant damage to several assets, to include canals, pipelines, and outlets, pump plants, office buildings, and potentially even dams and tunnels.

M.4.5 Flood

As shown in Figures 4-19 through 4-22 in the Base Plan, there are several areas at risk of flooding that could potentially impact Norther Water assets. By their very nature, many Northern Water assets are built in floodplains, such as hydropower and pump plants. Canals and outlets can also be damaged by flash flooding. Increased flooding in burn scar areas left behind after wildfires is of particular concern.

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M.4.6 Landslide/Rockslide

Figures 4-27 and 4-28 in the Base Plan show several areas at risk of landslide or rockfall that could potentially impact Norther Water assets, particularly in the areas around Estes Park and Pinewood Springs. Specific assets in areas of landslide/rockfall risk have not been identified.

M.4.7 Wildfire

Figure 4-44 and 4-28 in the Base Plan show that many of Norther Water's east slope distribution assets are located in areas at moderate to high wildfire risk. Assets such as canals, pipelines, and outlets are somewhat resistant to wildfire impacts, although the extreme heat from wildfires can cause the concrete in canals to crack and leak. The most significant impact of wildfires on Northern Water assets is increased flooding and erosion as a result of burn scar areas. This can greatly affect sediment loads in reservoirs and increase costs for water treatment.

M.4.8 Winter Storms

Northern Water assets have limited vulnerability to winter storms, particularly because most assets do not operate in the winter. However, winter storms that occur in fall or spring can impact and disrupt distribution operations due to ice jams, increased flows, and can cause a safety risk for workers operating and maintaining those assets.

M.5 Capabilities Assessment

This section profiles the programs and policies currently in use by Northern Water to reduce hazard impacts or that could be used to implement hazard mitigation activities.

M.5.1 Existing Capabilities

The following tables summarize the District's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Table M-2 Northern Water Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	No	
Zoning ordinance	No	
Subdivision ordinance	No	
Growth management ordinance	No	
Floodplain ordinance	No	
Other special purpose ordinance (stormwater, steep slope, wildfire)	No	
Building codes	Yes	
Fire department ISO rating	No	
Erosion or sediment control program	Yes	
Stormwater management program	Yes	
Site plan review requirements	Yes	
Capital improvements plan	Yes	
Economic development plan	Yes	
Local emergency operations plan	Yes	
Other special plans	Yes	COOP, Water Shortage Response Plan

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Flood insurance study or other engineering study for streams	No	
Elevation certificates (for floodplain development)	No	

Source: Northern Water planning team

Table M-3 Northern Water Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Water Quality Dept, Environmental Service Div.
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Engineering Dept.
Planner/engineer/scientist with an understanding of natural hazards	Yes	Water Quality / Real Estate / Security / Emergency Management
Personnel skilled in GIS	Yes	IT / GIS
Full time building official	Yes	Facilities
Floodplain manager	No	
Emergency manager	Yes	Real Estate / Security / Emergency Management
Grant writer	Yes	Water Quality Dept, Environmental Service Div.
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	IT / GIS
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	Alertus and Everbridge: Real Estate / Security / Emergency Management / O&M / IT

Source: Northern Water planning team

Table M-4 Northern Water Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	Yes	No	
Capital improvements project funding	Yes	No	
Authority to levy taxes for specific purposes	Yes	Yes	
Fees for water, sewer, gas, or electric services	Yes	Yes	
Impact fees for new development	Yes	No	
Incur debt through general obligation bonds	Yes	Yes	
Incur debt through special tax bonds	Yes	No	
Incur debt through private activities	Yes	Yes	
Withhold spending in hazard prone areas	Yes	No	

Source: Northern Water planning team

Table M-5 Northern Water Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	Yes	Northern Water participates in multiple county and state watershed programs to educate the public on water use and environmental education.
Firewise	No	
StormReady	No	

Source: Northern Water planning team

M.5.2 Opportunities for Enhancement

Based on the capability assessment, Northern Water 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 DHSEM. Additional training opportunities will help to inform District staff 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.

Northern Water has established a Drought Committee and the Water Efficiency Department has hired a Water Efficiency Planner whose job it is to provide drought Planning and Response.

M.6 Mitigation Strategy

Northern Water has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The District had one mitigation action in the 2016 Plan, which was not completed and has been carried over to the 2021 Plan along with 11 new actions. Additionally, Northern Water participates in multiple fireshed/watershed partnerships on mitigation projects for water conservation and source water protection and fire mitigation.

The District planning team identified and prioritized the following mitigation actions for the Northern Water based on the risk assessment. 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.

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Table M-6 Northern Water 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
M-1	Goals 1,2,3 Objectives 4,5	Biological, Flood, Wildfire, Drought	**Colorado-Big Thompson Headwaters Partnership.** Northern Water jointly owns, operates and maintains the Colorado Big-Thompson Project (C-BT) with the Bureau of Reclamation. C-BT delivers about 215,000 acre-feet of water annually to supplement water supplies for 860,000 people and 640,000 acres of irrigated land in northeastern Colo. Watersheds include the Upper Colorado and Big Thompson rivers in Grand and Larimer counties. C-BT water supplies are nearly entirely dependent upon snowmelt from high elevation watersheds along the Continental Divide in Northern Colorado. Forest health and fires within these watersheds can have dramatic effects on the quality of watershed runoff and the ability of C-BT water supplies to meet municipal, industrial and agricultural water uses. Catastrophic wildfires that occurred in Northern Colorado during 2012-2013 drought conditions highlighted the risk that C-BT water supplies face given deteriorated forest health conditions, drought, and urbanization at the wildland-urban interface. Northern Water, in conjunction with its partner local, State and Federal agencies is taking a pro-active approach to addressing these conditions. The C-BT Headwaters Partnership was created in December 2012 through an MOU between the US Forest Service, Colorado State Forest Service, Bureau of Reclamation and Northern Water. The goal of the partnership is to restore health and resiliency of forests and watersheds and preplan wildfire response to protect C-BT infrastructure and water supplies. The following actions will be conducted by Northern Water through the Partnership: • Conduct forest and watershed health treatments, and pre-plan post-wildfire response. • Develop a 5-year operating plan specifying treatment zones and activities.	**Northern Water,** U.S. Forest Service, Colorado State Forest Service, Bureau of Reclamation, National Park Service, Western Area Power Administration, Larimer County	$350,000 per year	Lead and support agencies, Colorado Department of Natural Resources grants, Colorado State Forest Service grants, Other grants	High	Ongoing	Annual Implementation. The C-BT Headwaters Partnership now also includes the Western Area Power Administration (WAPA) and Rocky Mountain National Park in addition to the other listed parties. The Five Year Plan for the C-BT Headwaters Partnership has been finalized and has been updated four times (currently version 5). We have received five years of Wildfire Risk Reduction Grant funding. This program is also now administered through the Colorado State Forest Service.

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			• Support creation and refinement of watershed assessments. • Coordinate to provide education, technical and financial incentives. • Engage other partners. • Develop a shared communications and media campaign. • The C-BT Headwaters Partnership meets on a monthly basis to plan and coordinate activities, review on-going projects, and perform field investigations of new projects. The partnership is currently developing its 5-year operating plan."						
M-2	Goals 1,2,3 Objectives 3,4,5	Wildfire, Drought	**2020 Pole Hill.** Pole Hill- Pinewood, 246 acres, (Dry Creek Huc 12) Whole tree removal. This will build off of a 25-acre treatment that was completed last year. Historic forest type is Ponderosa Pine. Tree densities are much higher & average tree age class is lower than historic reference conditions for the site. The properties have experienced beetle & mistletoe events, as well as nearby wildfire resulting in areas of patchy mortality. This project area requires heavy tree thinning to restore the forests to a healthy composition, structure, and ecologically functioning system. Benefits include: • Reduce sediment deposits and damage to water supply and infrastructure. • Decrease modeled active crown fire potential. • Enhance wildlife habitat though an increase of grass – forb – shrub abundance. • Increased social licensing in the surrounding communities. • Increase spatial heterogeneity of trees. • Increase Ponderosa pine dominance and age class diversity.	**Northern Water,** Big Thompson Conservation District	$774,900	Nine landowners. Additional funders are NRCS EQIP, CSFS Grant, Peaks to People water fund	High	2021	New in 2021. This project has led to increased interest of forest restoration and is leading to many future projects.
M-3	Goals 1,2,3 Objectives 3,4,5	Biological, Wildfire, Drought	**Cheley Camp.** Fish Creek Drainage; 80 acres (Lake Estes HUC 12); Whole tree removal. This will build off of a ~200-acre treatment that was completed in 2018. Historic forest type is Ponderosa Pine. Tree densities are much higher & species composition has shifted from historic reference conditions for	**Northern Water,** Big Thompson Conservation District	$16,000	$100,000 of NW funds split between BTCD projects for FY21. Some EQIP funding	Medium	2021	New in 2021.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			the site. This project area has been highly affected by infestations of both dwarf mistletoe and various forest pests. This project area requires heavy tree thinning to restore the forests to a healthy composition, structure, and ecologically functioning system. Benefits include: • Reduce sediment deposits and damage to the Fish Creek and Lake Estes water supply and infrastructure. • Decrease modeled active crown fire potential. • Enhance wildlife habitat though an increase of grass – forb – shrub abundance. • Increased health and function of the forest. • Increased social licensing in the surrounding communities. • Increase spatial heterogeneity of trees. • Increase Ponderosa pine dominance and age class diversity.						
M-4	Goals 1,2,3 Objectives 3,4,5	Wildfire	**Fox Creek.** Hand treatment; 15 acres (North Fork Big Thompson HUC 12); Whole tree removal. This project site has showcased tree densities that are much higher & species composition has shifted from historic reference conditions for the site. This project area has been affected by infestations of both dwarf mistletoe and various forest pests. This project area requires heavy tree thinning to restore the forests to a healthy composition, structure, and ecologically functioning system. Benefits include: • Reduce sediment deposits and damage to Fox Creek and North Fork of the Big Thompson river. • Decrease modeled active crown fire potential. • Enhance wildlife habitat though an increase of grass – forb – shrub abundance. • Increased health and function of the forest. • Decrease the likelihood of home and community losses to wildfire. • Increased social licensing in the surrounding communities. • Increase spatial heterogeneity of trees.	**Northern Water,** Big Thompson Conservation District		$100,000 of NW funds split between BTCD projects forFY21	Low	2022	New in 2021.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			• Increase Ponderosa pine dominance and age class diversity.						
M-5	Goals 1,2,3 Objectives 3,4,5	Wildfire	**Husted Ranch.** Dry Creek Drainage; 250 acres (Lake Estes HUC 12); Whole tree removal. The Husted Ranch has experienced a drastic shift from historical reference conditions. Species compositions have shifted from Ponderosa Pine to Douglas-Fir & forest densities have greatly increased. The project area has also experienced Mountain Pine Beetle and mistletoe outbreaks which have adversely affected forest health. Mechanical thinning will be implemented on approximately 250 acres of forested lands to restore the functionality and vigor of the forest. Benefits include: • Reduced sediment deposits and damage to Dry Creek and Lake Estes water supply and infrastructure. • Decrease modeled active crown fire potential. • Enhance wildlife habitat though an increase of grass – forb – shrub abundance. • Increased health and function of the forest. • Decrease the likelihood of home and community losses to wildfire. • Increased social licensing in the surrounding communities. • Increase spatial heterogeneity of trees. • Increase Ponderosa pine dominance and age class diversity.	**Northern Water,** Big Thompson Conservation District	$275,000	$100,000 of NW funds split between BTCD projects for FY21; $175,000 - Joint Chiefs Funding (CSFS & EQIP)	Medium	2022	New in 2021.
M-6	Goals 1,2,3 Objectives 3,4,5	Wildfire	**Cedar Park.** Big Thompson Canyon hand crew pile and burn, 50-100 acres. Certified forester designed plan to address: Fuel Reassignment / Treatment Thinning of trees Mulching / chipping	**Northern Water,** Big Thompson Watershed Coalition	$180,000	TBD	Medium	2021	New in 2021. The Nature Conservancy will implement pile burning with their own funds. Will be complimented by 600 acres of work by the USFS on National Forest land adjacent to Sylvan Dale, which was catalyzed by this project. USFS will likely spend ~ $1M

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
M-7	Goals 1,2,3 Objectives 3,4,5	Wildfire	**Glen Haven.** Certified forester designed plan to address: • Fuel Reassignment / Treatment • Thinning of trees • Mulching / chipping	**Northern Water,** Big Thompson Watershed Coalition	$231,500	$80K from Norther Water budget; remainder TBD	Low	2021	New in 2021. Did not receive first grant applied for; applied for second grant - waiting for approval process
M-8	Goals 1,2,3 Objectives 3,4,5	Wildfire	**Lory State Park.** Additional Acres per Lory State Park FMP. Certified forester designed plan to address: • Fuel Reassignment / Treatment • Thinning of trees • Mulching / chipping	**Northern Water**, CSFS	$75,000	$40,000 FRWRM	High	2021	New in 2021. $40K 2017 FRWRM grant moved here. Lory Phase 1 had sufficient funding ($80K between Peaks to People and CPRW funds). Will be matched by CPW
M-9	Goals 1,2,3 Objectives 3,4,5	Wildfire	**Mary's Lake.** 150 acres. Certified forester designed plan to address: • Fuel Reassignment / Treatment • Thinning of trees • Mulching / chipping	**Northern Water**, Estes Valley Watershed Coalition	$70,000	TBD	High	2021	New in 2021. Working w/ CSFS on silviculture before writing prescription; Working on landowner agreements - project not to begin until spring/summer 21; NW budget may be split with other projects identified by EVWC
M-10	Goals 1,2,3 Objectives 3,4,5	Wildfire	**Chimney Hollow.** Hand crew lop and scatter, 80 acres. Certified forester designed plan to address: • Fuel Reassignment / Treatment • Thinning of trees • Mulching / chipping	**Northern Water**, Larimer County Natural Resources	$84,000	TBD	High	2021	New in 2021. Need to coordinate activity with Chimney Hollow Construction for access and safety
M-11	Goals 1,2,3 Objectives 3,4,5	Wildfire	**Horsetooth Mountain Open Space, Hermit Park Open Space, Ramsay-Shockey Open Space.** Certified forester designed plan to address: • Fuel Reassignment / Treatment • Thinning of trees • Mulching / chipping	**Northern Water**, Larimer County Natural Resources	TBD	$60,000 NW funds split between LC projects in FY21	High	2021	New in 2021. Projects TBD: Forest prescriptions will be determined based on weather, access and potential matching grant funds.
M-12	Goals 1,2,3 Objectives 3,4,5	Biological, Flood, Wildfire	**Fuels Reduction, Location(s) TBD.** Certified forester designed plan to address: • Fuel Reassignment / Treatment • Thinning of trees • Mulching / chipping	**Northern Water**, CSFS	TBD	$100,000 of NW funds split between CSFS projects in both Ft Collins & Granby field offices for FY21	Medium	2021	New in 2021. NW funds will be split between projects in both Ft Collins & Granby field offices

M.7 Plan Maintenance and Implementation

The Northern Colorado Water Conservancy District has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the district will continue public participation in the plan maintenance process.

M.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The District's implementation strategy included:

- We participate in the C-BT Headwaters Partnership, a partnership of Northern Water, the U.S. Forest Service, Colorado State Forest Service and the Bureau of Reclamation. Our wildfire mitigation and planning activities will be incorporated into the 5-year operating plan of this group. Other mitigation activities are incorporated into our annual O&M planning activities, which are monitored by our management team and Board of Directors.
  - This was accomplished.
- Our mitigation actions and priorities are discussed with our Board of Directors during open session of our Planning & Action and Board meetings, which are open to the public. Mitigation activities are also discussed at our Water User's meetings, which happen twice per year, and advertised through our general electronic mailings and other public information activities.
  - This was accomplished.
- Our wildfire mitigation activities will be incorporated into the C-BT Headwaters Partnership 5-year operating plan. Other mitigation activities are incorporated into our annual O&M activities or capital projects activities. Northern Water is implementing a new Asset Management program that will monitor and track these activities.
  - This was accomplished.

Additional ways in which the District incorporated information from the 2016 HMP into other plans and processes include:

M.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the District to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Emergency Management Specialist will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Emergency Management Specialist will also be responsible for representing the District on future Larimer County Planning Team meetings, and for coordination with District staff and departments during plan updates. The District, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the District's Board of Directors.

Integration Into Other Planning Mechanisms

Northern Water will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan.

Continued Public Involvement

Northern Water will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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M.8 Letter of Intent to Participate

Northern Water
Northern Colorado Water Conservancy District
220 Water Avenue Berthoud, Colorado 80513
Phone 1-800-369-7246 • www.northernwater.org

February 10, 2020

Lori R. Hodges
Director
Larimer County Office of Emergency Management
200 West Oak Street
Fort Collins, Co 80526

Re: "Statement of Intent to Participate" as a Participating Jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Lori R. Hodges;

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR § 201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, Northern Colorado Water Conservancy District (Northern Water) is submitting this letter of intent to confirm that Norther Water has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, Northern Water agrees to meet requirements for mitigation plans identified in 44 CFR § 201.6 and to price such cooperation as is necessary and in a timely manner for Larimer County Office of Emergency Management to complete the plan in conformance with FEMA requirements.

Northern Water understands that it must engage in the following planning process, as more fully described in FEMA's Local Mitigation Planning Handbook dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;

Lori R. Hodges
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February 10, 2020

- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the participating Jurisdiction, I, Bernard Lodge, commit Northern Water to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 6th Day of February 2020

Bernard Lodge
Emergency Management Specialist

eal

N. Pinewood Springs Fire Protection District

"Professional and Courteous Mountain Community Emergency Services"

N.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Pinewood Springs Fire Protection District participated in the 2016 Larimer County Hazard Mitigation Plan and has been active in implementing that plan as described in Section N.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the District on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

N.2 Community Profile

The Pinewood Springs Fire Protection District is a volunteer fire protection district located in the mountains between Estes Park and Lyons along highway 36. They provide services to the communities of Pinewood Springs and Estes Park Estates. Pinewood Springs Fire Protection services include structure fire protection, wildland fire suppression, vehicle-fire suppression, basic medical response, motor vehicle accident response, hazardous material containment and mitigation, mutual aid response, and rapid intervention team services. The preceding services are provided with an emphasis on protection of life, limb, and property.

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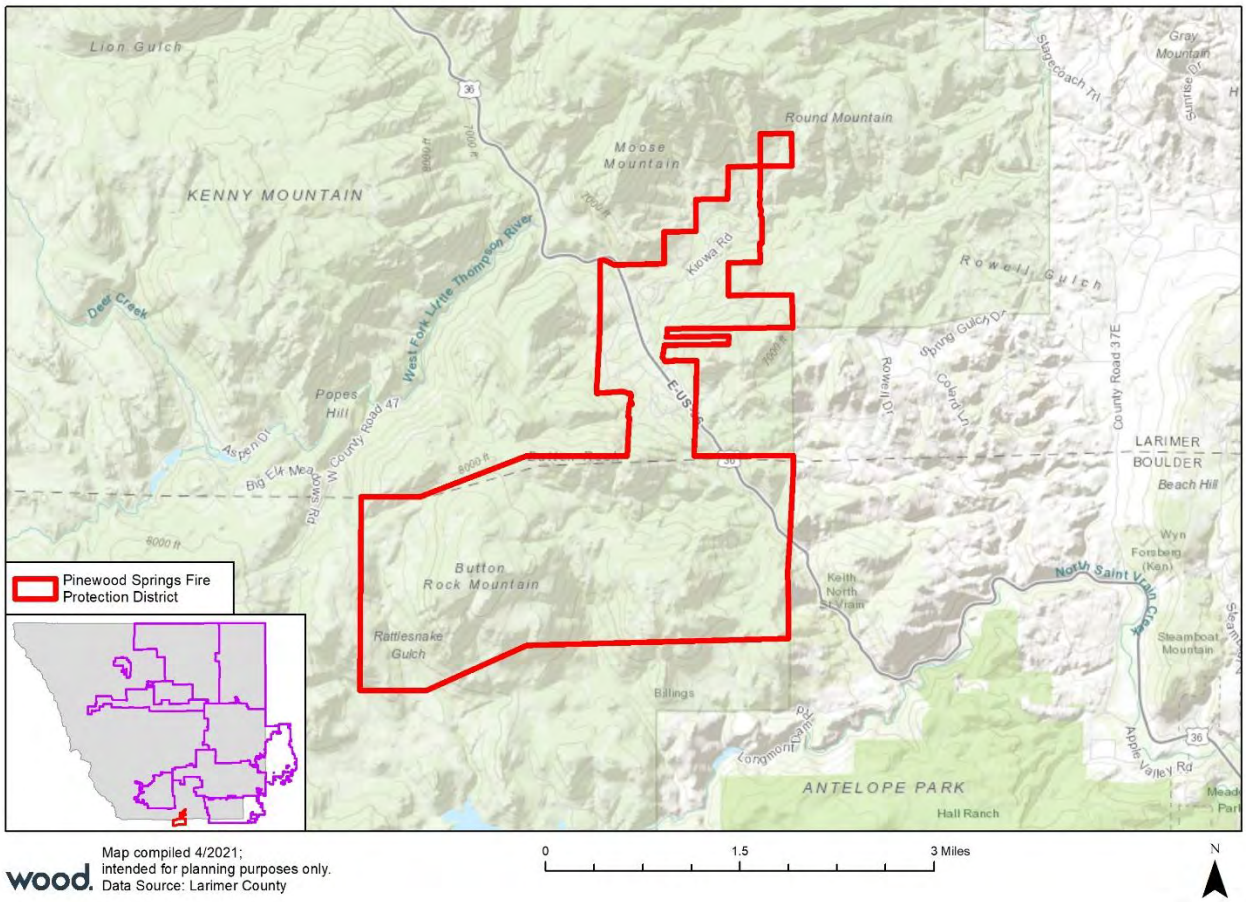
Figure N-1 Map of the Pinewood Springs Fire Protection District



Social vulnerability scores for the District can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. Overall, the District is characterized by medium-low levels of social vulnerability. For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

N.3 Hazard Identification and Risk Assessment

Pinewood Springs Fire Protection District is situated in both Larimer and Boulder Counties. For the purpose of this plan, spatially analyzed hazard risks have been assessed for the areas of the district that lie specifically within Larimer County.

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table N-1 Hazard Identification and Risk Assessment Summary for the Pinewood Springs Fire Protection District

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Likely	Extensive	Significant	High
Civil Disturbance	Unlikely	Limited	Negligible	Low
Dam Inundation	Likely	Limited	Limited	Medium
Drought	Occasional	Extensive	Critical	Medium
Earthquake	Unlikely	Significant	Critical	Medium
Flood	Likely	Limited	Negligible	Medium
Hazardous Materials	Occasional	Limited	Negligible	Low
Landslide/Rockslide	Likely	Significant	Limited	Medium
Soil Hazards	Unlikely	Limited	Negligible	Low
Spring/Summer Storm	Highly Likely	Extensive	Limited	Medium
Tornado	Unlikely	Limited	Negligible	Low
Utility Disruption	Highly Likely	Extensive	Significant	Medium
Wildfire	Highly Likely	Extensive	Catastrophic	High
Winter Storm	Highly Likely	Extensive	Significant	High

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

N.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Pinewood Springs Fire Rescue District, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the District's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Drought
- Flood
- Hazardous Materials Incident
- Landslide/Rockslide
- Soil Hazards
- Tornado
- Wildfire

For the purpose of this plan, only the parts of the District that lie specifically within Larimer County have been assessed for vulnerability data. For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

N.4.1 Community Asset Inventory

Table N-2 lists summary information about the one critical facility identified as important to protect or that provide critical services in the event of a disaster. For additional information on critical facilities, to include the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan.

Table N-2 Pinewood Springs Fire Protection District Critical Facilities and Infrastructure

FEMA Lifeline	Count
Food, Water, Shelter	1
Total	**1**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

N.4.2 Civil Disturbance

There is no significant history of civil disturbance risk in the Pinewood Springs Fire Protection District. The overall significance of this hazard for the District is Low.

N.4.3 Dam Inundation

Figure 4-5 in the base plan does not show any significant dam inundation areas in the Pinewood Springs Fire Protection District. There are no critical facilities identified as being at risk of dam inundation. The overall significance of this hazard for the District is Low.

N.4.4 Flood

The frequency and spatial extent of flooding in the Pinewood Springs Fire Protection District is lower than the County as a whole. There are no critical facilities identified in mapped floodplains. The overall significance of this hazard for the District is Medium.

N.4.5 Hazardous Materials Incident

There is no significant history of hazardous materials incidents in the Pinewood Springs Fire Protection District. The overall significance of this hazard for the District is Low.

N.4.6 Landslide/Rockslide

Figure D-7 in Annex D (Town of Estes Park) shows significant rockfall potential in the Pinewood Springs Fire Protection District. There are no critical facilities identified as being at risk of landslide or rockfall. The overall significance of this hazard for the District is Medium.

N.4.7 Soil Hazards

There is no significant history of expansive/collapsible soils or land subsidence in the Pinewood Springs Fire Protection District. There are no critical facilities identified as being at risk of soil hazards. The overall significance of this hazard for the District is Low.

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N.4.8 Tornado

There is no significant history of tornadoes in the Pinewood Springs Fire Protection District. The overall significance of this hazard for the District is Low.

N.4.9 Wildfire

Pinewood Springs has experienced several large wildfire events in the past. As seen in Section 4.3.13 of the Base Plan, most of the District is classified as being at High or Highest risk of wildfires. The one critical facility identified above is at high risk of wildfire. The overall significance of this hazard for the District is High.

N.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Pinewood Springs Fire Protection District to reduce hazard impacts or that could be used to implement hazard mitigation activities.

N.5.1 Existing Capabilities

The following tables summarize the District's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Pinewood Springs FPD is covered under a Community Wildfire Protection Plan (CWPP), which was last updated in 2010; they have submitted an action to update the CWPP.

Table N-3 Pinewood Springs Fire Protection District Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	No	County
Zoning ordinance	No	County
Subdivision ordinance	No	
Growth management ordinance	No	
Floodplain ordinance	No	County
Other special purpose ordinance (stormwater, steep slope, wildfire)	No	County
Building codes	No	County
Fire department ISO rating	Yes	Current PSFPD ISO rating is 3
Erosion or sediment control program	No	
Stormwater management program	No	
Site plan review requirements	No	County
Capital improvements plan	No	
Economic development plan	No	
Local emergency operations plan	No	County
Other special plans	No	
Flood insurance study or other engineering study for streams	No	
Elevation certificates (for floodplain development)	No	

Source: Pinewood Springs Fire Protection District planning team

Table N-4 Pinewood Springs Fire Protection 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	No	
Planner/engineer/scientist with an understanding of natural hazards	No	
Personnel skilled in GIS	No	
Full time building official	No	
Floodplain manager	No	
Emergency manager	No	
Grant writer	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)	Yes	Larimer and Boulder Counties provide Reverse 911, LETA

Source: Pinewood Springs Fire Protection District planning team

Table N-5 Pinewood Springs Fire Protection District Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	No	No	
Capital improvements project funding	No	No	
Authority to levy taxes for specific purposes	Yes	Yes	Mill levy
Fees for water, sewer, gas, or electric services	No	No	
Impact fees for new development	No	No	
Incur debt through general obligation bonds	No	No	
Incur debt through special tax bonds	Yes	No	
Incur debt through private activities	No	No	
Withhold spending in hazard prone areas	No	No	
DOLA Grants	Yes	Yes	

Source: Pinewood Springs Fire Protection District planning team

Table N-6 Pinewood Springs Fire Protection District Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	Yes	Local social media groups such as Nextdoor and the Pinewood Springs Community Facebook page
Firewise	No	PSFPD does utilize Firewise Communities materials and recommendations
StormReady	No	
The Pinewood Springs Fire Protection District offers ongoing fire mitigation surveys and information to all residents. The Pinewood	Yes	

Education & Outreach	Yes/No	Comments
Springs Water District has strict water usage rules and guidelines that are communicated to customers.		

Source: Pinewood Springs Fire Protection District planning team

N.5.2 Opportunities for Enhancement

Based on the capability assessment, the Pinewood Springs Fire Protection District 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 DHSEM. Additional training opportunities will help to inform District staff 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.

N.6 Mitigation Strategy

The Pinewood Springs Fire Protection District has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The District had five mitigation actions in the 2016 Plan, and has completed three of them:

- New Fire Station construction
- Replace the dry hydrant and reestablish access
- Install emergency power to critical portions of the fire station

The remaining actions have been carried over into the 2021 Plan, along with three new actions.

The District planning team identified and prioritized the following mitigation actions for the Pinewood Springs Fire Protection District based on the risk assessment. 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.

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Table N-7 Pinewood Springs Fire Protection District 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
N-1	Goals 1,2,3,4,5 Objectives 1,2,3,4,5	Flood	**Full Adoption of Updated FEMA Floodplains.** Floodplain mapping is out of date and the 2013 Flood caused extensive changes to current floodplains. The Little Thompson River has never been mapped. Work with FEMA on updating current floodplain mapping in coordination with Larimer County. By 2020, the Little Thompson River through the Pinewood Springs Fire Protection District will be mapped and adopted by FEMA	Pinewood Springs Fire Protection District, Larimer County, Community Development and Office of Emergency Management	$300,000	Colorado State Flood Hazard Mapping Project	Low	2023	In Progress
N-2	Goals 1,2,4,5 Objectives 2,3,5	Wildfire	**Mitigation Code Changes.** Recent large-scale disasters have caused Pinewood Springs to re-evaluate all Wildfire codes for possible mitigation actions. Provide recommendations for code changes to the Pinewood Springs Fire Board for reducing losses and mitigating risk to structural and wildfire. Update fire codes with recommendations approved by the Board to decrease future risk and disaster losses.	**Pinewood Springs Fire Protection District**, Larimer Community Development Division, Office of Emergency Management	$0	Staff time	Medium	2022	In progress
N-3	Goals 1,2,3,4 Objectives 1,4,5	Wildfire	**Enhanced Community Wildland Fire Mitigation Programming and Resource Development.** As long-term residents move away and new residents move into the Pinewood Springs area, it is important to have programs available to educate residents about the hazards of wildland fire in the Wildland/Urban Interface (WUI). In addition, since the implementation of mitigation strategies such as metal roofing, fire-resistant siding, tree/vegetation trimming and removal, cisterns, sprinkling systems is cost-prohibitive for many residents, we need to develop financial resources and grants that residents can access to accomplish these kinds of measures. Benefits: Reduce or eliminate damage to buildings and property caused by wildland fire in the Pinewood Springs area.	**Pinewood Springs Fire Protection District**, Pinewood Springs Property Owners Association, Larimer County, others to be determined.	$11M	Unknown	High	Ongoing	New in 2021. Initial education and outreach to begin Spring 2021. Financial programming timeline unknown, dependent upon development or resources. Overall project continues indefinitely.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
N-4	Goals 1,2,3,5 Objectives 3,5	Civil Disturbance, Dam Inundation, Earthquake, Flood, Hazardous Materials, Landslide/ Rockslide, Spring/ Summer Storm, Tornado, Utility Disruption, Wildfire, Winter Storm	**Technology Update.** Upon being dispatched to an incident, Pinewood Springs Firefighters must view maps placed on the walls in the fire station in order to determine where the incident is located. Little or no other information is available until the first units arrive on scene and can provide more detail. This project would equip each Pinewood Springs apparatus with a tablet computer, where detailed maps, trail maps, hazards and hazard mitigation information and surveys could be stored for use in the field. The most significant benefit gained would be that firefighters could arrive on a scene with enhanced information about the location and surrounding area. This would allow for the safest and most efficient approach the incident, and might allow firefighters the ability to identify and protect the highest valued assets with the least risk. Information carried on tablets may help to reduce risk to firefighters and other responders, as well as those affected by an incident. Detailed knowledge available at the scene could increase the efficiency of actions taken on scene.	**Pinewood Springs Fire Protection District**	$5,000	Grants, budget review	Medium	2021	New in 2021
N-5	Goals 1,2,3,4,5 Objectives 1,2,3,4,5	Wildfire	**Community Wildfire Protection Plan Update.** The Pinewood Springs Fire Protection District's Community Wildfire Protection Plan (CWPP) was last updated in 2010 and needs to be updated. The purpose of the CWPP is risk analysis, fire behavior analysis and community wildfire hazard rating (WHR) to provide a more comprehensive, scientifically-based assessment of the wildfire hazards and risk within our jurisdiction.	**Pinewood Springs Fire Protection District**	$3,500	TBD	High	2022	New in 2021.

N.7 Plan Maintenance and Implementation

The Pinewood Springs Fire Protection District has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the district will continue public participation in the plan maintenance process.

N.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The District's implementation strategy included:

- Our mitigation actions will be reviewed annually by the Fire District.
  - This was not accomplished due to transitions in District leadership. Under new leadership, the HMP and associated mitigation actions will be reviewed on an annual basis by the Pinewood Springs Fire Protection District's Board of Directors.
- Changes, actions and priorities communicated via monthly news information and social media.
  - This was not accomplished. The Pinewood Springs Fire Protection District did not have sufficient communication resources in place. The District has launched new social media outlets, and is updating its web site capabilities.
- We will integrate highest risk hazards in our annual operating budget and long term planning process.
  - This was accomplished with several initiatives from the 2016 HMP, including the construction of a new fire station and the installation of an emergency generator at the fire station.

Additional ways in which the District incorporated information from the 2016 HMP into other plans and processes include:

N.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the District to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Fire Chief will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Fire Chief will also be responsible for representing the District on future Larimer County Planning Team meetings, and for coordination with District staff and departments during plan updates. The District, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the District's Board of Directors.

Integration into Other Planning Mechanisms

The Pinewood Springs Fire Protection District will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the District will:

- The Fire Chief, Planning Team and PSFPD Board of Directors will meet annually to discuss items that need to be updated and look at progress of action items.

- Information from the HMP will be incorporated into existing and future public education & outreach programs as it is relevant.
- The HMP will be posted on the Pinewood Springs Fire Protection District's website.
- Mitigation actions will be incorporated in capital funding and improvement planning as appropriate.

Continued Public Involvement

The Pinewood Springs Fire Protection District will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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N.8 Letter of Intent to Participate

LETTER OF INTENT TO PARTICIPATE

Pinewood Springs Fire Protection District

August 15, 2014

Lori Hodges
Larimer County
200 West Oak St, 2nd floor
Fort Collins, CO, 80522-1190

Re: "Statement of Intent to Participate" as a participating jurisdiction in Larimer County CO Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Lori Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Pinewood Springs Fire Protection District is submitting this letter of intent to confirm that the Pinewood Springs Fire Protection District has agreed to participate in the Larimer County CO Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, the Pinewood Springs Fire Protection District agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to the Larimer County CO HMP to complete the plan in conformance with FEMA requirements.

The Pinewood Springs Fire Protection District understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction and not addressed in the master planning document;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I R. L. Wilcox (Chief PSFPD), commit the Pinewood Springs Fire Protection District to the Larimer County CO Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 15 day of August 2014 R. L. Wilcox (Chief PSFPD)

O. Poudre Canyon Fire Protection District

"Fire and Emergency Medical Services for people who live and play in the Poudre Canyon!"

O.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Poudre Canyon Fire Protection District participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section O.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the District on the Planning Team are listed in Appendix B.

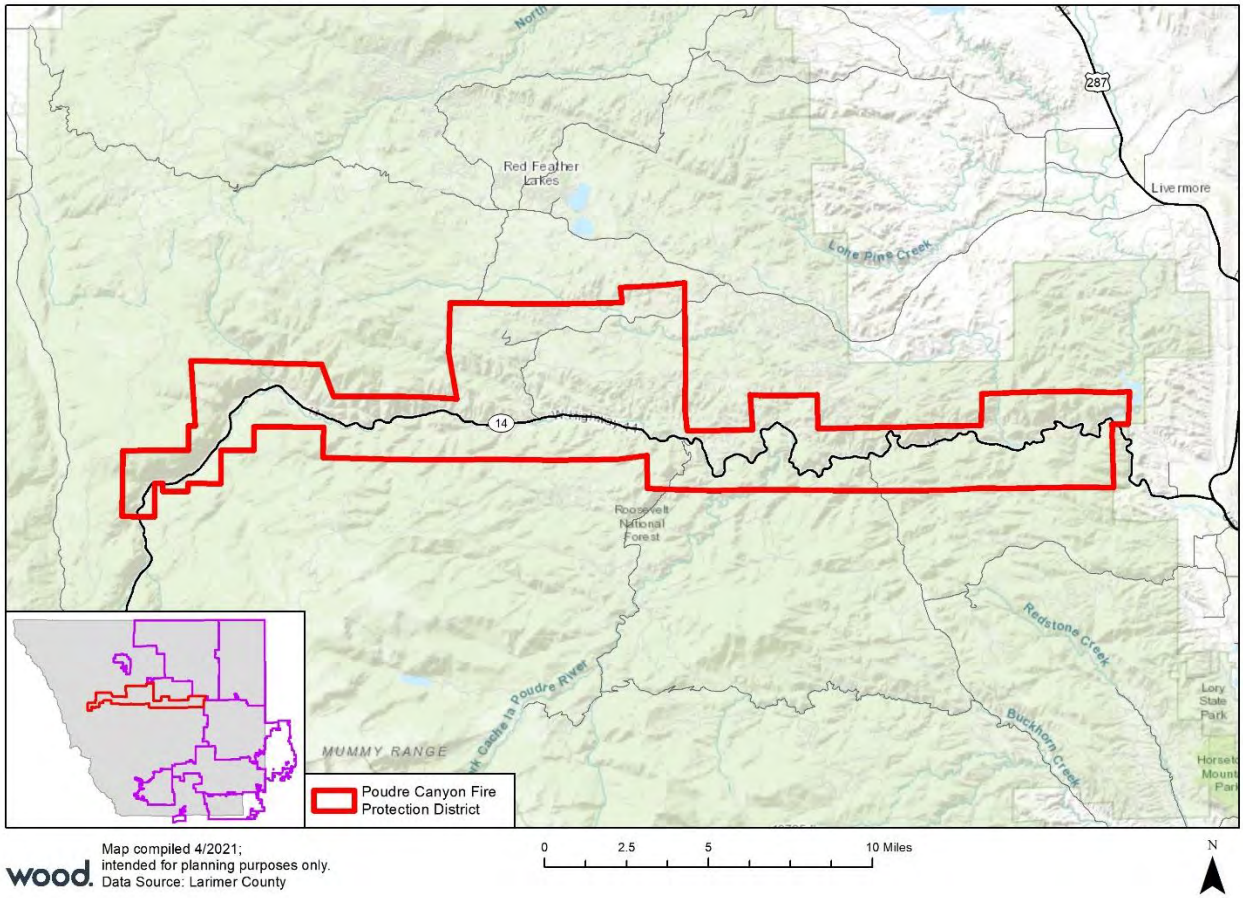
More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

O.2 Community Profile

Poudre Canyon is located in the mountains west of Fort Collins. Poudre Canyon has approximately 500 full time residents with a summertime population of around 1,500. Many visitors engage in activities within the canyon including fishing, boating, and hiking, mountain biking, sightseeing, motorcycling, and exploring the back country.

Poudre Canyon Fire Protection District is a volunteer fire department providing services for fire (structure and wildland), emergency medical care, ice rescue, river rescue, low angle rescue, traffic accidents, and information to residents and visitors to the Poudre Canyon. The district covers over 100 square miles along Colorado State Highway 14 from Gateway Park to Poudre Falls, along County Road 69, County Road 68C, and Forest Road 171, and also provides service to an additional 150 square miles that include County Road 103, County Road 63E and Forest Roads 139 and 156.

Figure O-1 Map of the Poudre Canyon Fire Protection District



Social vulnerability scores for the District can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. Overall, the District is characterized by medium-low levels of social vulnerability, however it does rank high in household composition and disability vulnerability. For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

O.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table O-1 Hazard Identification and Risk Assessment Summary for the Poudre Canyon Fire Protection District

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Likely	Limited	Critical	Low
Civil Disturbance	Unlikely	Limited	Negligible	Low
Dam Inundation	Occasional	Extensive	Critical	Medium
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Significant	Significant	Medium
Flood	Likely	Limited	Negligible	Medium
Hazardous Materials	Unlikely	Limited	Negligible	Low
Landslide/Rockslide	Likely	Significant	Negligible	Medium
Soil Hazards	Likely	Limited	Negligible	Low
Spring/Summer Storm	Likely	Limited	Negligible	Medium
Tornado	Unlikely	Limited	Significant	Low
Utility Disruption	Likely	Significant	Significant	Medium
Wildfire	Likely	Significant	Critical	High
Winter Storm	Highly Likely	Extensive	Significant	Medium

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

O.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Poudre Canyon Fire Protection District, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the District's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Drought
- Earthquake
- Spring/Summer Storm
- Utility Disruption
- Winter Storm

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

O.4.1 Community Asset Inventory

Table O-2 lists summary information about the five critical facilities identified as important to protect or that provide critical services in the event of a disaster. For additional information on critical facilities, to include the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan.

Table O-2 Poudre Canyon Fire Protection District Critical Facilities and Infrastructure

FEMA Lifeline	Count
Food, Water, Shelter	4
Miscellaneous	1
Total	**5**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

O.4.2 Biological Hazards

The majority of the District is rural and forested with only two population centers. The overall significance of this hazard for the District is Low.

O.4.3 Civil Disturbance

There is no significant history of civil disturbance risk in the Poudre Canyon Fire Protection District. The overall significance of this hazard for the District is Low.

O.4.4 Dam Inundation

Figure 4-5 in Section 4.3.3 of the Base Plan shows potential dam inundation areas in the Poudre Canyon Fire Protection District, including a number of High Hazard dams. One critical facility (miscellaneous category) is potentially at risk of dam inundation. The overall significance of this hazard for the District is Medium.

O.4.5 Flood

Figure 4-19 in Section 4.3.6 of the Base Plan shows relatively few mapped floodplain areas in Poudre Canyon Fire Protection District. One critical facility (miscellaneous category) is located in the 1% floodplain. While localized flash flooding is always possible, the District's flood risk is lower than the County as a whole. The overall significance of this hazard for the District is Medium.

O.4.6 Hazardous Materials Incident

There is no significant history of hazardous materials incidents in the Poudre Canyon Fire Protection District, although accidents along Highway 14 remain a possibility. The overall significance of this hazard for the District is Low.

O.4.7 Landslide/Rockslide

Figures 4-26 and 4-27 in Section 4.3.8 of the Base Plan shows considerable potential landslide and rockslide areas in the Poudre Canyon Fire Protection District, particularly along Highway 14. Two critical facilities (food-water-shelter and miscellaneous categories) are potentially at risk of landslide, no critical facilities are at risk of rockfall. The overall significance of this hazard for the District is Medium.

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O.4.8 Soil Hazards

There are no known areas at significant risk of expansive/collapsible soils or land subsidence in the Poudre Canyon Fire Protection District. The overall significance of this hazard for the District is Low.

O.4.9 Tornado

There is no significant history of tornadoes in the Poudre Canyon Fire Protection District. The overall significance of this hazard for the District is Low.

O.4.10 Wildfire

As seen in Section 4.3.13 of the Base Plan, most of the Poudre Canyon Fire Protection District is classified as being at low risk of wildfires, however there are several areas at moderate or high risk. Three critical facilities (food-water-shelter category) are in areas at low or lowest risk of wildfire. However, given the District's significant history of wildfires, the overall significance of this hazard for the District is High.

O.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Poudre Canyon Fire Protection District to reduce hazard impacts or that could be used to implement hazard mitigation activities.

O.5.1 Existing Capabilities

The following tables summarize the District's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Poudre Canyon has four Community Wildfire Protection Plans (CWPPs), one for each community served: Poudre Park, Poudre City, Spenser Heights, and 68C.

Table O-3 Poudre Canyon Fire Protection District Planning/Regulatory Mitigation Capabilities

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

Source: Poudre Canyon Fire Protection District planning team

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Table O-4 Poudre Canyon Fire Protection 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	No	
Planner/engineer/scientist with an understanding of natural hazards	No	
Personnel skilled in GIS	No	
Full time building official	No	
Floodplain manager	No	
Emergency manager	No	
Grant writer	Yes	Several members of PCFPD have had successful grant applications
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	

Source: Poudre Canyon Fire Protection District planning team

Table O-5 Poudre Canyon Fire Protection District Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	No	No	
Capital improvements project funding	No	No	
Authority to levy taxes for specific purposes	Yes	No	
Fees for water, sewer, gas, or electric services	No	No	
Impact fees for new development	Yes	No	
Incur debt through general obligation bonds	No	No	
Incur debt through special tax bonds	No	No	
Incur debt through private activities	No	No	
Withhold spending in hazard prone areas	No	No	

Source: Poudre Canyon Fire Protection District planning team

Table O-6 Poudre Canyon Fire Protection District Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	No	
Firewise	No	
StormReady	No	
Wildfire mitigation information program	Yes	

Source: Poudre Canyon Fire Protection District planning team

O.5.2 Opportunities for Enhancement

Based on the capability assessment, the Poudre Canyon Fire Protection District 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 volunteer members related to hazards or hazard mitigation grant funding in partnership with the County and DHSEM. Additional training opportunities will help to inform District volunteers on how best to integrate hazard information and mitigation projects into the District policies and ongoing duties of the District. Continuing to train District volunteers on mitigation and the hazards that pose a risk to the District will lead to more informed volunteers who can better communicate this information to the public.

O.6 Mitigation Strategy

The Poudre Canyon Fire Protection District has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The District had one mitigation action in the 2016 Plan, which was not completed. It has been carried over to the 2021 Plan along with one new action.

The District planning team identified and prioritized the following mitigation actions for the Poudre Canyon Fire Protection District based on the risk assessment. 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.

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Table O-7 Poudre Canyon Fire Protection District 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
O-1	Goals 1,2,3 Objectives 5	Wildfire	**Homeowner Wildfire Hazard Awareness.** Numerous properties in the district need to be better mitigated against wildfire hazards. Inform homeowners of best practices in mitigating properties against wildfire. Make presentations at community meetings, include information in newsletter to property owners, include topic in monthly newsletters to canyon association groups, one on one consultation with property owners as requested.	Poudre Canyon FPD	$2500	FPD Budget	High	Ongoing	Annual Implementation. We have published numerous articles about wildfire hazard mitigation around the home. Articles have been in both the Upper and Lower Canyon Association monthly newsletters and the Fire District semi-annual newsletter. Additionally, presentations have been made to the Upper Canyon Association at their monthly meetings.
O-2	Goals 1,2,3,4 Objectives 1,4,5	Wildfire	**Chipping and Burning Slash.** Assist canyon residents with mitigation needs by providing assistance with chipping or burning slash as volunteers are available. Benefits: Structures more likely to survive a wildfire or other runaway fire.	Poudre Canyon FPD	FPD Budget	Donations and district operating budget	Medium	2025	New in 2021. The District has applied for a grant to purchase a chipper for reducing slash where burning is not desirable.

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O.7 Plan Maintenance and Implementation

The Poudre Canyon Fire Protection District has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the district will continue public participation in the plan maintenance process.

O.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The District's implementation strategy included:

- Our hazard mitigation actions will be reviewed by the Fire Board annually.
  - This was accomplished.
- Our hazard awareness plan will be discussed at community meetings at least annually.
  - This was accomplished.
- We have no planning or regulatory authority. We will seek grants that will allow the district to provide mitigation assistance.
  - This wasn't accomplished due to lack of staff time.

Additional ways in which the District incorporated information from the 2016 HMP into other plans and processes include:

O.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the District to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Chief will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Chief will also be responsible for representing the District on future Larimer County Planning Team meetings, and for coordination with District staff and departments during plan updates. The District, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the District's Board of Directors.

Integration into Other Planning Mechanisms

The Poudre Canyon Fire Protection District will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan.

Continued Public Involvement

The Poudre Canyon Fire Protection District will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and presenting information at community meetings.

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O.8 Letter of Intent to Participate

POUDRE CANYON
Fire Protection District

December 11, 2014

Lori R. Hodges
Larimer County
Emergency Management
200 West Oak Street
Fort Collins, CO 80526

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Poudre Canyon Fire Protection District is submitting this letter of intent to confirm that Poudre Canyon Fire Protection District has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, Poudre Canyon Fire Protection District agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County OEM to complete the plan in conformance with FEMA requirements.

Poudre Canyon Fire Protection District understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction and not addressed in the master planning document;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I, Hugh Collins, commit Poudre Canyon Fire Protection District to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 11th day of December 2014

Hugh Collins
CHIEF

P. POUDRE FIRE AUTHORITY

"To protect life and property by being prompt, skillful, and caring. Our actions are anchored in the core values of courage, leadership, and duty."

— Mission, Poudre Fire Authority

P.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Poudre Fire Authority participated in the 2016 Larimer County Hazard Mitigation Plan and has been active in implementing that plan as described in Section P.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the District on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

P.2 Community Profile

The Poudre Fire Authority (PFA) is a Fire and Rescue service agency serving the City of Fort Collins and the Poudre Valley Fire Protection District. The PFA district service area is approximately 235 square miles and has a population of approximately 189,635 people. The PFA was established in 1981 with the merging of the City of Fort Collins and Poudre Valley Fire Departments to improve fire and rescue services.

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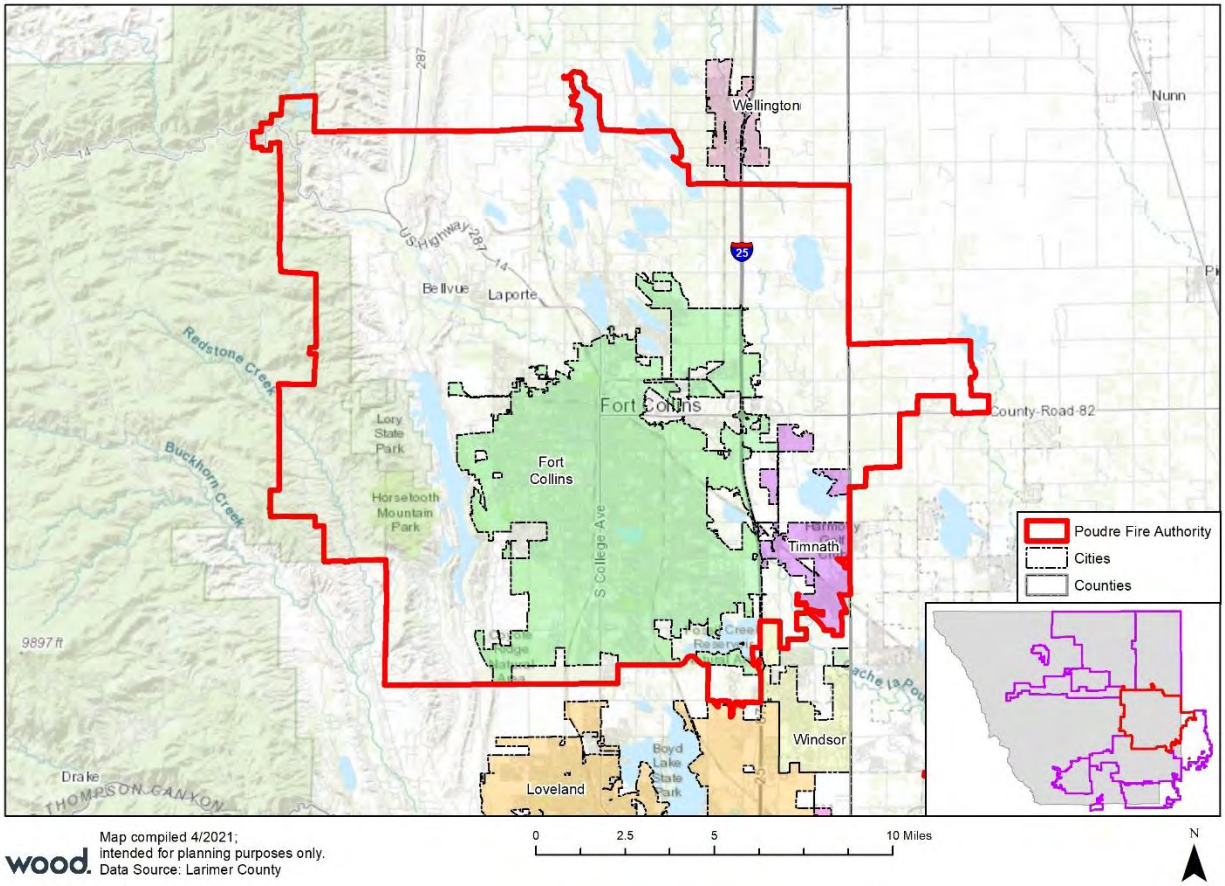
Figure P-1 Map of the Poudre Fire Authority



Social vulnerability scores for the Authority can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. The Poudre Fire Authority service area consists of areas that range from low social vulnerability (the bottom 20% of the county) and high social vulnerability (the top 20% of the county). The highly socially vulnerable areas are clustered in the central part of the service area. For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

P.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table P-1 Hazard Identification and Risk Assessment Summary for the Poudre Fire Authority

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Likely	Significant	Critical	Medium
Civil Disturbance	Highly Likely	Limited	Negligible	Low
Dam Inundation	Occasional	Extensive	Critical	Medium
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Significant	Critical	Medium
Flood	Highly Likely	Significant	Critical	High
Hazardous Materials	Likely	Limited	Critical	High
Landslide/Rockslide	Likely	Limited	Significant	Medium
Soil Hazards	Occasional	Limited	Negligible	Low
Spring/Summer Storm	Highly Likely	Significant	Negligible	Medium
Tornado	Likely	Significant	Critical	High
Utility Disruption	Highly Likely	Limited	Negligible	Low
Wildfire	Highly Likely	Limited	Significant	High
Winter Storm	Highly Likely	Significant	Significant	High

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

P.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Poudre Fire Authority, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the District's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Hazardous Materials Incident
- Spring/Summer Storm
- Tornado
- Utility Disruption
- Winter Storm

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

P.4.1 Community Asset Inventory

Table P-2 lists summary information about the 361 critical facilities identified as important to protect or that provide critical services in the event of a disaster. Of those 361 facilities, 268 are in the City of Fort Collins, and 6 are in the Town of Timnath. For additional information on critical facilities, to include the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan as well as Annex H City of Fort Collins and Annex R Town of Timnath.

Table P-2 Poudre Fire Authority Critical Facilities and Infrastructure

FEMA Lifeline	Count
Communications	18
Energy	35
Food, Water, Shelter	112
Hazardous Material	7
Health and Medical	50
Miscellaneous	14
Safety and Security	6
Total	**361**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

P.4.2 Dam Inundation

Figure 4-5 in Section 4.3.3 of the Base Plan shows significant potential dam inundation areas in the Poudre Fire Authority service area, including a number of High Hazard dams. As show in Table P-3, the majority (89%) of the 361 critical facilities in the PFA area are potentially at risk of dam inundation. The overall significance of this hazard for the District is Medium.

Table P-3 Critical Facilities at Risk of Dam Inundation

FEMA Lifeline	Count
Communications	17
Energy	33
Food, Water, Shelter	95
Hazardous Material	7
Health and Medical	42
Miscellaneous	14
Safety and Security	109
Transportation	3
Total	**320**

Source: USACE National Inventory of Dams 2018, Colorado Dam Safety Program, Cascarta, Larimer County GIS, U.S. Census Bureau, Wood analysis

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P.4.3 Flood

Figure 4-19 in Section 4.3.6 of the Base Plan shows significant areas at 1% annual risk and/or 0.2% annual risk of flooding in the Poudre Fire Authority service area. As show in Table P-4, 29 critical facilities are potentially at risk of dam inundation. The overall significance of this hazard for the District is High.

Table P-4 Critical Facilities at Risk of Flooding

FEMA Lifeline	1% Floodplain	0.2% Floodplain	Protected By Levee
Communications			
Energy	1		
Food, Water, Shelter	8	3	4
Hazardous Material		1	
Health and Medical			1
Miscellaneous			1
Safety and Security	1	3	4
Transportation			2
Total	**10**	**7**	**12**

Source: Cascarta, FEMA NFHL Effective 2/6/2013 and Preliminary 3/8/2019, Larimer County Assessor's Office, Wood analysis

P.4.4 Landslide/Rockslide

Figures 4-26 and 4-27 in Section 4.3.8 of the Base Plan shows several areas in the Poudre Fire Authority service area potentially at risk of landslide and rockslide. Four critical facilities (two in the food-water-shelter category, one each in the health-medical and safety-security categories) have been identified as at risk of landslide; none are at risk of rockslide. The overall significance of this hazard for the District is Medium.

P.4.5 Soil Hazards

Section 4.3.9 in the Base Plan shows several areas in the Poudre Fire Authority service area potentially at risk of expansive or collapsible soils or land subsidence. As shown in Table P-5, a significant number of the critical facilities identified above are potentially at risk from soil hazards; however, the risk of these hazards is unlikely to create significant disruption. The overall significance of this hazard for the District is Low.

Table P-5 Critical Facilities at Risk of Soil Hazards

FEMA Lifeline	Collapsible Soils	Expansive Soils
Communications	10	12
Energy	12	21
Food, Water, Shelter	26	47
Hazardous Material		2
Health and Medical	23	23
Miscellaneous	3	9
Safety and Security	49	67
Transportation	1	2
Total	**124**	**182**

Source: CGS, Cascarta, Larimer County, Wood analysis

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P.4.6 Wildfire

As seen in Section 4.3.13 of the Base Plan, there are several locations in the Poudre Fire Authority service area classified as being at high or moderate risk of wildfires, particularly in the areas west of Fort Collins. Table P-6 shows several critical facilities exposed to wildfire risk. The overall significance of this hazard for the District is High.

Table P-6 Critical Facilities at Risk of Wildfire

FEMA Lifeline	Moderate Risk	Low Risk	Lowest Risk
Communications		2	
Energy		1	7
Food, Water, Shelter	3	10	13
Hazardous Material		3	
Health and Medical			
Miscellaneous			
Safety and Security	5	5	1
Transportation	1		
Total	**9**	**19**	**21**

Source: Cascarta, CO-WRAP, Wood analysis

P.5 Capabilities Assessment

The capability assessment examines the ability of the Poudre Fire Authority to implement and manage the comprehensive mitigation strategy laid out in this Plan. The strengths, weaknesses, and resources of the community are identified here as a means for evaluating and maintaining effective and appropriate management of the Fire Authority's hazard mitigation program.

P.5.1 Existing Capabilities

The following tables summarize the Authority's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Poudre Fire Authority is covered under a Community Wildfire Protection Plan (CWPP), which was last updated in 2011.

Table P-7 Poudre Fire Authority Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	Yes	City/County
Zoning ordinance	Yes	City/County
Subdivision ordinance	Yes	City/County
Growth management ordinance	Yes	City/County
Floodplain ordinance	Yes	City/County
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	City/County
Building codes	Yes	City/County
Fire department ISO rating	2	Within Fort Collins and Timnath and within 5 miles of a 24 hour staffed fire station. Anything outside

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Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
		of the city limits, but within 1,000 feet of a hydrant is a 3. Outside of that it is a 10.
Erosion or sediment control program	Yes	City/County
Stormwater management program	Yes	City/County
Site plan review requirements	Yes	PFA has inspectors that look at fire related issues
Capital improvements plan	Yes	City/County
Economic development plan	Yes	City/County
Local emergency operations plan	Yes	City/County
Other special plans		
Flood insurance study or other engineering study for streams	Yes	City/County
Elevation certificates (for floodplain development)	Yes	City/County

Source: Poudre Fire Authority planning team

Table P-8 Poudre Fire Authority 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	No	
Planner/engineer/scientist with an understanding of natural hazards	No	
Personnel skilled in GIS	Yes	PFA IT Department/ GIS analyst position
Full time building official	No	
Floodplain manager	No	
Emergency manager	Yes	Emergency Management Specialist works for PFA, but is assigned to the City of Fort Collins Emergency Preparedness and Security
Grant writer	No	
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	Fort Collins 911

Source: Poudre Fire Authority planning team

Table P-9 Poudre Fire Authority Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	No	No	
Capital improvements project funding	No	No	
Authority to levy taxes for specific purposes	No	No	
Fees for water, sewer, gas, or electric services	No	No	
Impact fees for new development	No	No	
Incur debt through general obligation bonds	No	No	
Incur debt through special tax bonds	No	No	
Incur debt through private activities	No	No	

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Withhold spending in hazard prone areas	No	No	

Source: Poudre Fire Authority planning team

Table P-10 Poudre Fire Authority Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	No	
Firewise	No	
StormReady	No	
PFA employs a full-time public educator that is responsible for a variety of fire and home safety education programs. In addition, the emergency management specialist delivers emergency preparedness programs.	Yes	

Source: Poudre Fire Authority planning team

P.5.2 Opportunities for Enhancement

Based on the capability assessment, Poudre Fire Authority 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 DHSEM. Additional training opportunities will help to inform Authority staff and Town Council on how best to integrate hazard information and mitigation projects into the Authority policies and ongoing duties of the Authority. Continuing to train District staff on mitigation and the hazards that pose a risk to the Authority will lead to more informed staff members who can better communicate this information to the public. An update to the 2011 Community Wildfire Protection Plan (CWPP) should also be considered.

P.6 Mitigation Strategy

The Poudre Fire Authority has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The District had three mitigation actions in the 2016 Plan, which were not completed. They been carried over to the 2021 Plan along with two new actions.

The District planning team identified and prioritized the following mitigation actions for the Poudre Fire Authority based on the risk assessment. 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.

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Table P-11 Poudre Fire Authority 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
P-1	Goals 1,2,3,5 Objectives 2,3,4,5	Biological, Drought, Earthquake, Land Subsidence, Extreme Temperatures, Flood, Severe Storm, Wind & Tornado, Wildfire, Hazmat	**Training in Disaster Management Large Scale Incidents.** Poudre Fire Authority needs to expand their disaster management training from fire and wildland to all hazards. As an emergency response and rescue organization, expanding their scope in areas other than response will increase the community's capability to be more resilient. Increase training and knowledge in disaster management: • Additional training in ICS • Additional training in EOC Operations Additional training in Disaster Management Operations	**PFA Training Division**, Fort Collins OEM	$2,000	Annual Budget, EMPG	High	Ongoing	PFA in conjunction with the City of Fort Collins, provides a minimum of three training opportunities per year in ICS. The EOC Operations training is currently being revamped and is expected to be delivered in early 2021. The Department will continue to look for opportunities to partner with FEMA and bring disaster management training to the area.
P-2	Goals 1,2,5 Objectives 3,4,5	Biological Hazards, Civil Disturbance, Dam Inundation, Drought, Earthquake, Flood, Hazmat, Landslide/Rockslide, Soil Hazards, Spring/ Summer Storm, Tornado, Utility Disruption, Wildfire, Winter Storm	**Implementation of Capital Improvement Plans to Enhance Mitigation.** Recent large-scale disasters have caused Poudre Fire Authority and the City of Fort Collins to re-evaluate existing regulatory documents and programs for possible mitigation changes and actions, which has led to the development of a Capital Improvement Plan. Integrate the Mitigation Plan adopted by the Poudre Fire Authority into current Capital Improvement Plans to ensure that development does not encroach on known hazard areas. Partner with other organizations and agencies with similar goals to promote Building, Fire and Life Safety Codes that are more disaster resilient.	**Poudre Fire Authority.** City of Fort Collins, Larimer Community Development Division, Fort Collins and Larimer Offices of Emergency Management	Unknown	Staff time, Poudre Fire Authority, City of Fort Collins, grant funding	High	Ongoing	The Community Safety and Service Division of the Poudre Fire Authority reviews plans for new building projects in their jurisdiction and works closely with the City and County Building Departments to ensure that projects meet all applicable codes.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
P-3	Goals 1,2,5 Objectives 3,5	Biological Hazards, Civil Disturbance, Dam Inundation, Drought, Earthquake, Flood, Hazmat, Landslide/Rockslide, Soil Hazards, Spring/Summer Storm, Tornado, Utility Disruption, Wildfire, Winter Storm	**Critical Infrastructure Project.** The Larimer Resiliency Framework and recent meetings regarding critical infrastructure have illustrated the need to ensure redundant power supplies to critical facilities in the Poudre Fire Authority and to provide for lightning mitigation measures. Facilitate development and installation of uninterruptible/back up power supply for Poudre Fire Authority facilities. Complete the installation of uninterruptible power supply (UPS) for all Poudre Fire Authority maintained computers. The UPS system will improve the safety and communication of responders. Establish plans and begin development of the build out and installation of backup power supplies (generators) for all Poudre Fire Authority facilities. These will be installed based upon the priorities on the system, with the most critical facilities ranked the highest.	**Poudre Fire Authority,** City of Fort Collins, Fort Collins and Larimer Office of Emergency Management	$200,000	City Resources, PFA resources, grant funding	Medium	End of 2022	In Progress. All PFA Stations except Station 2, 3, and 7, and the Administration building currently have a backup power source. There are plans to build a new Station 7 at some point in the future and a backup power source will be part of that build. The status of Stations 2 and 3 and Admin are unknown at this time.
P-4	Goals 1,2,5 Objectives 3,5	Cyber Attacks, Utility Disruption	**Business Continuity Planning / Disaster Recovery (IT).** The Poudre Fire Authority IT department with assistance from the City of Ft. Collins IT department is working to build a redundant/secondary data center that can ensure critical IT operations function in the event of a natural or man-made cyber event which would disrupt operations at our primary data center.	**Poudre Fire Authority IT**, Partner agencies such as the CoFC, Larimer County, and more	Difficult to estimate as this has been an ongoing effort over multiple years	O&M & Capital budget requests	Medium	2021	New in 2021
P-5	Goals 1,2,5 Objectives 3,5	Spring/ Summer Storm, Tornado	**Station Roof Replacement Project.** Over the years, PFA Stations have suffered significant damage due to hail and severe weather. In an attempt to cut down on the amount of damage, the Department is replacing roofs with a shingle that is resistant to wind and has the highest impact rating when it comes to hail and storm debris. This will reduce the amount of money spent on roof repairs after severe weather and improves the safety of the station.	**Poudre Fire Authority Facilities**	Facilities Repair Budget	$250,000	Medium	5 years	New in 2021

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P.7 Plan Maintenance and Implementation

The Poudre Fire Authority has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the organization will continue public participation in the plan maintenance process.

P.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The District's implementation strategy included:

- Annual updates and quarterly monitoring of the action items within the plan.
  - This was not accomplished due to organizational changes as the Office of Emergency Management was moved from PFA to the City.
- PFA holds monthly board meetings with the opportunity for public comment. Quarterly reports are in the board packet which covers updates of mitigation actions and priorities. These reports that cover maintenance and progress are made public and posted on the PFA website.
  - This was accomplished.
- Items in the Hazard Mitigation plan that impact PFA will be incorporated into other plans including our strategic plan. For example: We will update our local policies and procedures to include hazard specific sections that address the highest risks within the fire service. Training and exercises that cover these hazards will also be incorporated into our training and exercise program.
  - This was accomplished. The Training Division designed several trainings around the high hazards found in the Hazard Mitigation Plan.

Additional ways in which the District incorporated information from the 2016 HMP into other plans and processes include:

P.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the District to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

PFAs Emergency Management Specialist will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Emergency Management Specialist will also be responsible for representing the District on future Larimer County Planning Team meetings, and for coordination with District staff and departments during plan updates. The District, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the District's Board of Directors.

Integration into Other Planning Mechanisms

The Poudre Fire Authority will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the District will:

- The Emergency Management Specialist with meet annually with PFA Division Chiefs to review the plan and look at progress They will discuss ways in which the information can be incorporated into Public Outreach programs and PFA training plans. Information on the Hazard Mitigation Plan will be incorporated into PFAs annual report.

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Continued Public Involvement

The Poudre Fire Authority will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

P.8 Letter of Intent to Participate

Poudre fire Authority

102 Remington Street
Fort Collins, CO 80524

Phone: (970) 416-2892
Fax: (970) 416-2809
Internet: www.poudre-fire.org

LETTER OF INTENT TO PARTICIPATE

December 12, 2018

Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins CO 80522
Attn: Lori Hodges, Director of Emergency Management

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Poudre Fire Authority is submitting this letter of intent to confirm that Poudre Fire Authority has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, Poudre Fire Authority agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

Poudre Fire Authority understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I, Tom DeMint, Fire Chief of Poudre Fire Authority, commit Poudre Fire Authority to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 12 day of December, 2018.

Tom DeMint
Fire Chief
Poudre Fire Authority

Q. THOMPSON VALLEY EMS

Thompson Valley EMS East Station Source: Thompson Valley EMS

Q.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. Thompson Valley EMS participated in the 2016 Larimer County Hazard Mitigation Plan and has been active in implementing that plan as described in Section Q.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the District on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

Q.2 Community Profile

The Thompson Valley EMS service covers approximately 450 square miles of southeastern Larimer County. It includes the Towns of Berthoud and Johnstown, the City of Loveland, and portions of the Windsor Severance Fire Districts with a total estimated population of 100,000. The Thompson Valley EMS is a full service 911 ALS provider. Some of the services include providing emergency medical services, EMS education and training, EMT training, and job safety training. Thompson Valley EMS was established in 1983.

A map of the Thompson Valley EMS Service Area is shown in Figure Q-1.

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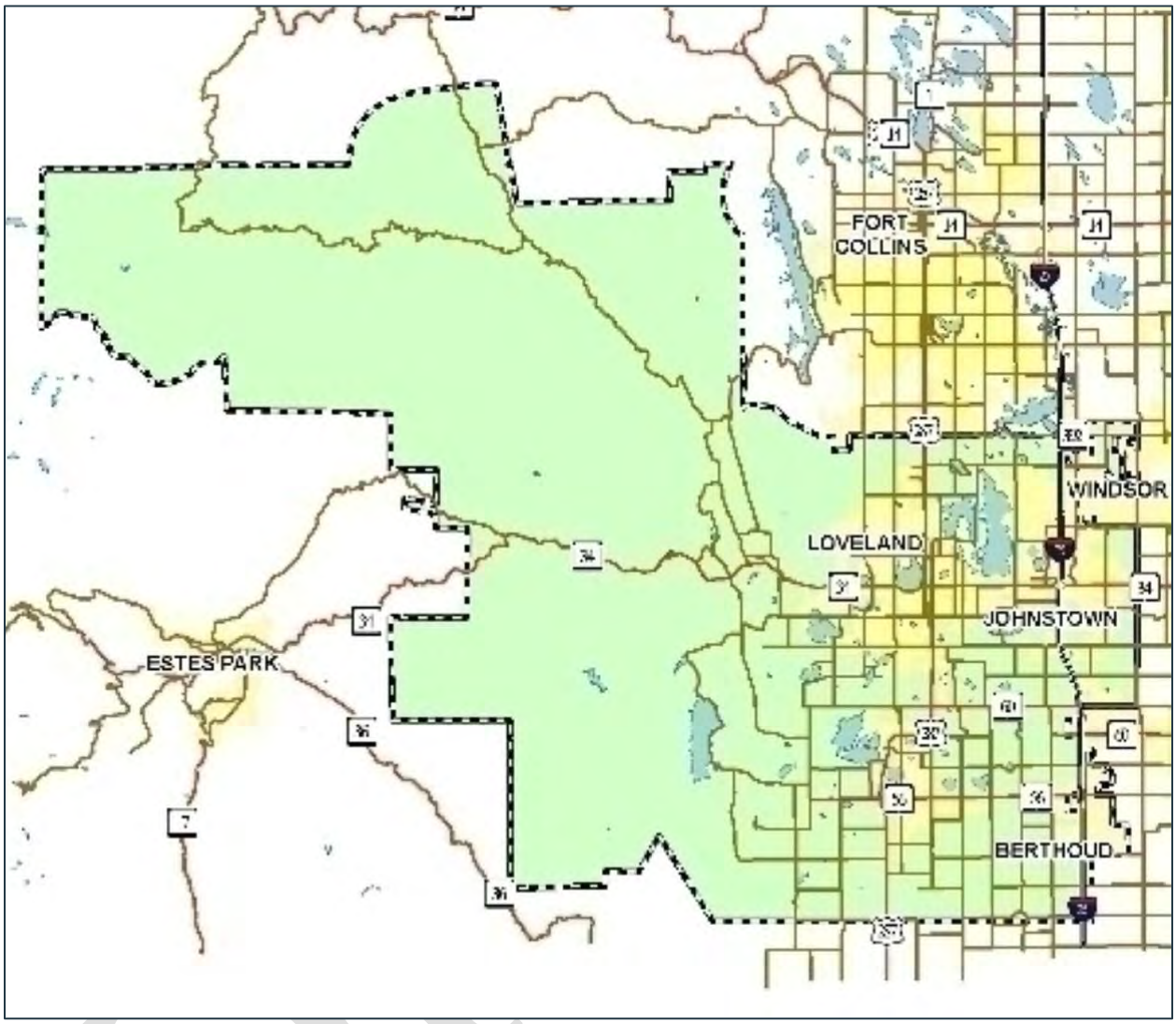
Figure Q-1 Map of the Thompson Valley EMS Service Area



Source: Thompson Velley EMS website

Q.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table Q-1 Hazard Identification and Risk Assessment Summary for Thompson Valley EMS

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Highly Likely	Extensive	Catastrophic	High
Civil Disturbance	Likely	Limited	Limited	Medium
Dam Inundation	Occasional	Extensive	Critical	Medium
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Significant	Catastrophic	Medium
Flood	Highly Likely	Significant	Catastrophic	High
Hazardous Materials	Likely	Limited	Critical	High
Landslide/Rockslide	Occasional	Limited	Significant	Low
Soil Hazards	Likely	Significant	Limited	Low
Spring/Summer Storm	Highly Likely	Extensive	Critical	High
Tornado	Likely	Limited	Critical	High
Utility Disruption	Likely	Significant	Critical	Medium
Wildfire	Highly Likely	Significant	Critical	High
Winter Storm	Highly Likely	Extensive	Critical	High

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

Q.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for Thompson Valley EMS, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the District's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Hazardous Materials Incident
- Spring/Summer Storm
- Tornado
- Utility Disruption
- Winter Storm

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

Q.4.1 Community Asset Inventory

Table Q-2 lists assets owned by TVEMS that are important to protect in the event of a disaster or hazard event.

Table Q-2 Berthoud Fire Protection District Critical Facilities and Infrastructure

Asset	Address	Hazard Vulnerabilities
Station 350 & Headquarters	4480 Clydesdale Parkway Loveland, CO 80538	
Station 310	2100 Boise Ave. Loveland, CO 80537	Expansive Soils
Station 320	380 N. Wilson Loveland, CO 80537	Dam Inundation, Flood
Station 330	704 N 2nd Street Berthoud, CO 80513	Collapsible & Expansive Soils
Station 340	2750 N. Taft Ave. Loveland, CO 80537	Expansive Soils
Station 360	4645 Sunview Dr. Loveland, CO 80538	Expansive Soils

Source: Thompson Valley EMS planning team

Q.4.2 Dam Inundation

Figure 4-5 in Section 4.3.3 of the Base Plan shows significant potential dam inundation areas in the Thompson Valley EMS service area, including a number of High Hazard dams. The overall significance of this hazard for the District is Medium.

Q.4.3 Flood

Figure 4-19 in Section 4.3.6 of the Base Plan shows significant areas at 1% annual risk and/or 0.2% annual risk of flooding in the Thompson Valley EMS service area. The overall significance of this hazard for the District is High.

Q.4.4 Landslide/Rockslide

Figures 4-26 and 4-27 in Section 4.3.8 of the Base Plan shows few areas in the Thompson Valley EMS service area potentially at risk of landslide and rockslide. The overall significance of this hazard for the District is Low.

Q.4.5 Soil Hazards

Section 4.3.9 in the Base Plan shows several areas in the Thompson Valley EMS service area potentially at risk of expansive or collapsible soils or land subsidence. The overall significance of this hazard for the District is Low.

Q.4.6 Wildfire

As seen in Section 4.3.13 of the Base Plan, there are several locations in the Thompson Valley EMS service area classified as being at Moderate or High risk of wildfires, particularly in the areas west of Berthoud. The overall significance of this hazard for the District is High.

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Q.5 Capabilities Assessment

This section profiles the programs and policies currently in use by Thompson Valley EMS to reduce hazard impacts or that could be used to implement hazard mitigation activities.

Q.5.1 Existing Capabilities

The following tables summarize the District's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Table Q-3 Thompson Valley EMS Planning and Regulatory Mitigation Capabilities

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

Source: Thompson Valley EMS planning team

Table Q-4 Thompson Valley EMS 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	No	
Planner/engineer/scientist with an understanding of natural hazards	No	
Personnel skilled in GIS	No	
Full time building official	No	
Floodplain manager	No	
Emergency manager	No	
Grant writer	No	
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	No	

Personnel Resources	Yes/No	Department/Position/Comments
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	Coordinate with LETA and PSAPs

Source: Thompson Valley EMS planning team

Table Q-5 Thompson Valley EMS Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	Yes	No	
Capital improvements project funding	Yes	Yes	Yearly Internal Process
Authority to levy taxes for specific purposes	Yes	Yes	
Fees for water, sewer, gas, or electric services	No	No	
Impact fees for new development	No	No	
Incur debt through general obligation bonds	Yes	Yes	
Incur debt through special tax bonds	Yes	Yes	
Incur debt through private activities	Yes	Yes	
Withhold spending in hazard prone areas	No	No	

Source: Thompson Valley EMS planning team

Table Q-6 Education and Outreach Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	No	
Firewise	No	
StormReady	No	

Source: Thompson Valley EMS planning team

Q.5.2 Opportunities for Enhancement

Based on the capability assessment, Thompson Valley EMS 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 DHSEM. Additional training opportunities will help to inform District staff 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.

Q.6 Mitigation Strategy

Thompson Valley EMS has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The District had three mitigation actions in the 2016 Plan. None of these actions have been completed or deleted; all have been carried over into the 2021 Plan, along with one new action.

The District planning team identified and prioritized the following mitigation actions for Thompson Valley EMS based on the risk assessment. 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.

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Table Q-7 Thompson Valley EMS 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
Q-1	Goal 1 Objectives 3	Dam Inundation, Earthquake, Flood, Hazmat, Landslide/Rockslide, Spring/Summer Storm, Tornado, Utility Disruption, Wildfire, Winter Storm	**Emergency Generators.** In the event of a large scale power outage that effects the power at an EMS station, an emergency generator would allow for the garage door openers to operate thus allowing the crew to be able to respond to emergency calls. Budget and equip at least one EMS station with an emergency generator per year. Budgeting of one emergency generator and partner with contractor who is licensed to install generator. Conduct monthly inspection and testing of generators to assure their capability.	**Thompson Valley EMS**	$500,000 - $1,000,000	General operating funds and/or potential grants.	Low	2025	Priority evaluation ongoing
Q-2	Goal 1 Objectives 3	Dam Inundation, Drought, Earthquake, Flood, Landslide/Rockslide, Soil Hazards, Spring/Summer Storm, Tornado, Wildfire, Winter Storm	**Mitigation Assessment.** Thompson Valley EMS covers a large portion of southern Larimer County. Many of the highest natural hazards exist in this area, including flooding along the Little Thompson River and WUI areas. A determination of mitigation actions to protect Thompson EMS assets is needed. Conduct a mitigation assessment of Thompson Valley EMS infrastructure and assets to determine key protection and mitigation actions.	**Thompson Valley EMS**	$0	General operating funds and/or potential grants.	Medium	2022	Currently in progress
Q-3	Goal 1,2,4,5 Objectives 2,3,5	Wildfire	**Wildfire Mitigation Project.** The Larimer Resiliency Framework and recent meetings regarding critical infrastructure have illustrated the need to ensure the functionality of all critical systems during and after disaster. Mitigate against wildfire at all Thompson Valley EMS facilities. Create defensible space around all district-owned facilities and infrastructure, including creating buffer zones, replacing flammable vegetation with less flammable species and creating defensible space around power lines, oil and gas lines, and other infrastructure systems.	**Thompson Valley EMS**, Loveland and Larimer Offices of Emergency Management	$200,000	City Resources, Thompson Valley EMS resources, grant funding	High	2022	Mitigation is being done to a minimal extent yearly, permanent mitigation is being evaluated

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
Q-4	Goal 1,3 Objectives 3,5	Utility Disruption	**Install power generator at Thompson Valley EMS Headquarters.** A fully functioning dispatch center capable of communication with all Thompson Valley EMS ambulances and support staff is functioning at the Headquarters building on Clydesdale Avenue. This project would create a backup power for the center in the event of a hazard causing power disruptions. Benefits: Ability to dispatch EMS to medical emergencies is retained by the service.	**Thompson Valley EMS**	$125,000	Internal funding	High	2021	New in 2021

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Q.7 Plan Maintenance and Implementation

Thompson Valley EMS has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the organization will continue public participation in the plan maintenance process.

Q.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The District's implementation strategy included:

- Our mitigation actions will be added to the capital budget each year and evaluated annually.
  - This was accomplished. Each year our mitigation actions are added and then prioritized based on the financial resources available for that budget year.
- Through our accreditation process, mitigation actions will be listed as a line item for public review.
  - This was accomplished.
- We will integrate the plan into our annual SWOT analysis.
  - This was accomplished.

Q.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the District to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Chief and/or Battalion Chief will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Chief and/or Battalion Chief will also be responsible for representing the District on future Larimer County Planning Team meetings, and for coordination with District staff and departments during plan updates. The District, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the District's Board of Directors.

Integration Into Other Planning Mechanisms

Thompson Valley EMS will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the District will:

- The Chief and Battalion Chief will meet annually to discuss items that need to be updated and look at progress of action items.
- Incorporate information from the HMP into existing public education & outreach programs.
- Post information on the TVEMS website and utilize the marketing and communications firm to get information to citizens and businesses.
- Mitigation actions will be incorporated in capital improvement planning.

Continued Public Involvement

Thompson Valley EMS will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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Q.8 Letter of Intent to Participate

Thompson Valley EMS
4480 Clydesdale Parkway
Loveland, Colorado 80538
970-663-6025

December 12, 2018

Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins CO 80522
Attn: Lori Hodges, Director of Emergency Management

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, Thompson Valley EMS is submitting this letter of intent to confirm that Thompson Valley EMS has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, Thompson Valley EMS agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

Thompson Valley EMS understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;

Page 1

- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body.

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I Randy Lesher, Chief, commit Thompson Valley EMS to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 12th day of December 2018

Randy Lesher, Chief
Thompson Valley EMS

Page 2

R. TOWN OF TIMNATH

By 2040, the Town of Timnath will be:

- *A well-planned and branded community that provides full services and amenities to its residents.*
- *An integrated and safe community with multiple physical connections and mobility options.*
- *Self-sustaining with a stable balance of commercial and residential growth.*
- *Artfully reflective of Town's history, ambience, and historical agrarian uses.*
- *Well-managed with intelligent use of financial resources.*
- *Pro-business with meaningful primary employment opportunities for the residents.*
- *Connected with an integrated system of parks, trails, open space and natural protected areas.*
- *An influential player among the regional partnerships in Northern Colorado.*
- *A destination community that is clean, green, and serene.*
  -- Town of Timnath Vision Statement

R.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Town of Timnath participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section R.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the Town on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

R.2 Community Profile

The Town of Timnath is located east of Interstate 25 and the cities of Fort Collins and Loveland, and northwest of Windsor. Timnath is also within short travel distance to Denver, just 56 miles to the south, and Cheyenne, 46 miles to the north. The proximity of Timnath to 1-25, makes it a prime location for development. Fort Collins and Windsor presently provide the majority of employment, service, and retail opportunities to the town and its residents.

The incorporated area of Timnath currently consists of over 3,200 acres of land. The town's Growth Management Area encompasses over 13,600 acres or 21.4 square miles. Residential development is predominantly concentrated in the eastern portion of the town both north and south of Harmony Road in the Harmony and Timnath Ranch subdivisions, north of downtown in the Serratoga Falls subdivision, and in the downtown area along Main Street between County Road 38 and County Road 40. New development is also occurring in the Wild Wing subdivision located north of Harmony west of County Line Road. Larger lot single-family residential development has occurred on agricultural lands both in the Town and in unincorporated Larimer County, a trend that is expected to continue as the town grows. Commercial activity is centered primarily within the downtown area along Main Street, and at the Interstate 25 and Harmony Road interchange. New commercial development has been approved along Harmony Road just east of the Cache la Poudre River.

Figure R-1 shows a map of the Town of Timnath.

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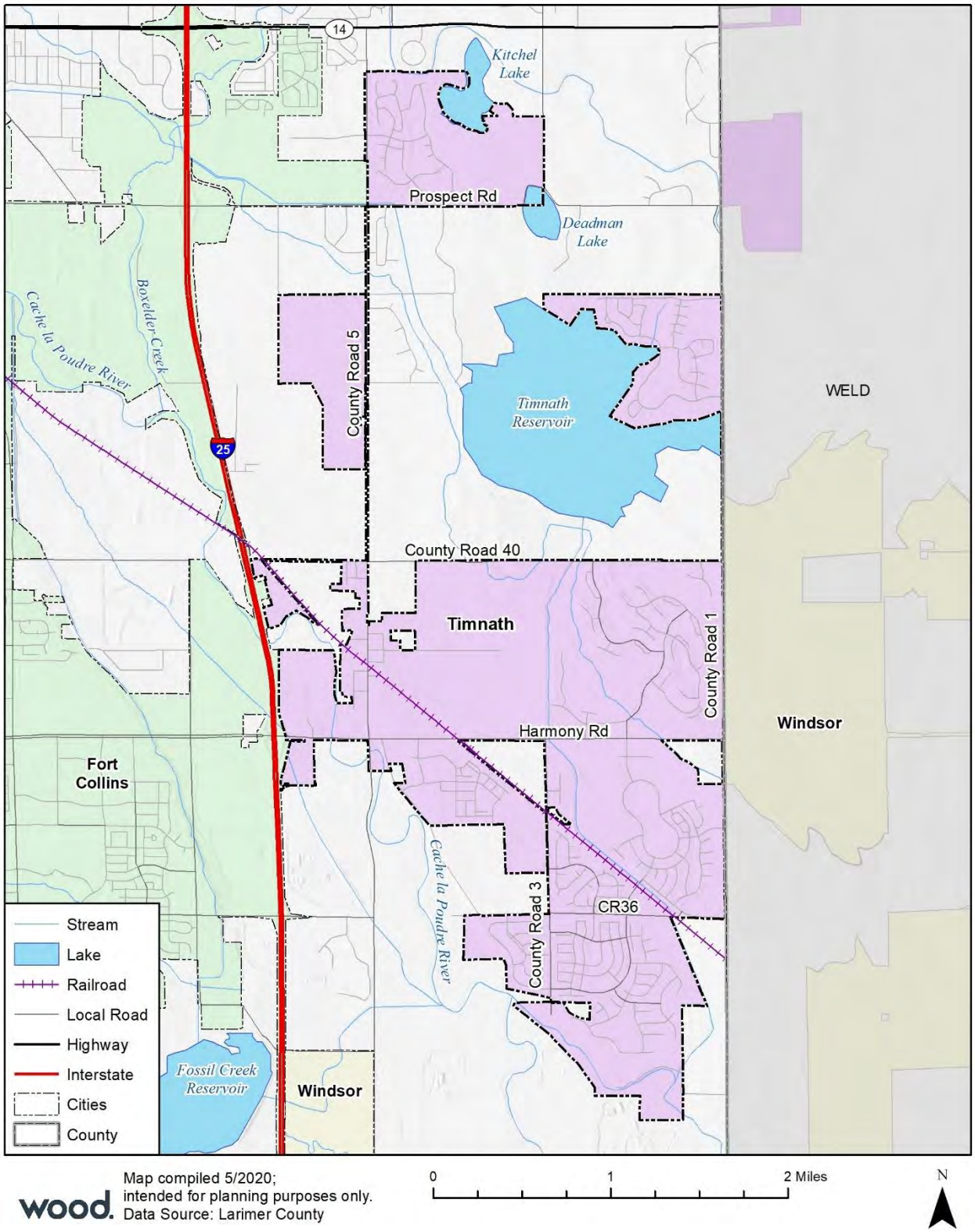
Figure R-1 Map of the Town of Timnath



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County

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R.2.1 Demographics

The following tables and graphs summarize key demographic and social characteristics of the Town of Timnath.

Table R-1 Town of Timnath Demographic and Social Characteristics, 2014-2018

Town of Timnath	2014	2018	% Change
Population	1,210	2,922	141.49%
Median Age	30.6	34.0	11.1%
Total Housing Units	446	975	118.6%
Housing Occupancy Rate	87.4%	90.4%	3.4%
% of Housing Units with no Vehicles Available	0.00%	1.20%	
Median Home Value	$364,200	$484,100	32.9%
Unemployment Rate	7.6%	1.5%	-80.3%
Mean Travel Time to Work (minutes)	22.2	34.5	55.4%
Median Household Income	$78,906	$126,940	60.9%
Per Capita Income	$31,471	$38,538	22.5%
% of Individuals Below Poverty Level	1.2%	3.2%	166.7%
% Without Health Insurance	1.7%	2.1%	23.5%
# of Households	390	881	125.9%
Average Household Size	3.1	3.3	7.1%
% of Population Over 25 with High School Diploma	97.5%	95.1%	-2.5%
% of Population Over 25 with bachelor's degree or Higher	46.5%	55.2%	18.7%
% with Disability	4.7%	6.9%	46.8%
% Speak English less than "Very Well"	0.0%	4.4%	

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table R-2 Demographic and Social Characteristics Compared to the County and State

Demographic & Social Characteristics (as of 2018)	Timnath	County	Colorado
Median Age	34.0	35.9	36.6
Housing Occupancy Rate	90.4%	91.7%	89.8%
% of Housing Units with no Vehicles Available	1.2%	4.1%	5.2%
Median Home Value	$484,100	$336,200	$313,600
Unemployment	1.5%	5.0%	4.7%
Mean Travel Time to Work (minutes)	34.5	23.2	25.5
Median Household Income	$126,940	$67,664	$68,811
Per Capita Income	$38,538	$35,390	$36,415
% of Individuals Below Poverty Level	3.2%	12.0%	10.9%

Demographic & Social Characteristics (as of 2018)	Timnath	County	Colorado
% Without Health Insurance	2.1%	6.3%	8.1%
Average Household Size	3.3	2.5	2.6
% of Population Over 25 with High School Diploma	95.1%	95.8%	91.4%
% of Population Over 25 with bachelor's degree or Higher	55.2%	46.3%	40.1%
% with Disability	6.9%	9.8%	10.6%
% Speak English less than "Very Well"	4.4%	2.6%	5.9%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table R-3 Demographics by Race and Sex

Timnath	Population	%
Total Population	2,922	100%
Male	1,327	45.4%
Female	1,595	54.6%
White, not Hispanic	2,494	85.4%
Hispanic or Latino	240	8.2%
Black	0	0.0%
Asian	180	6.2%
American Indian and Alaska Native	0	0.0%
Native Hawaiian and Other Pacific Islander	0	0.0%
Some other race	0	0.0%
Two or more races	12	0.4%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table R-4 Types and Total Amounts of Housing Units in Timnath

Type of Housing Units	Total	%
Total housing units	975	100%
1-unit detached	971	99.6%
1-unit attached	4	0.4%
2 units	0	0.0%
3 or 4 units	0	0.0%
5 to 9 units	0	0.0%
10 to 19 units	0	0.0%
20 or more units	0	0.0%
Mobile home	0	0.0%
Boat, RV, van, etc.	0	0.0%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

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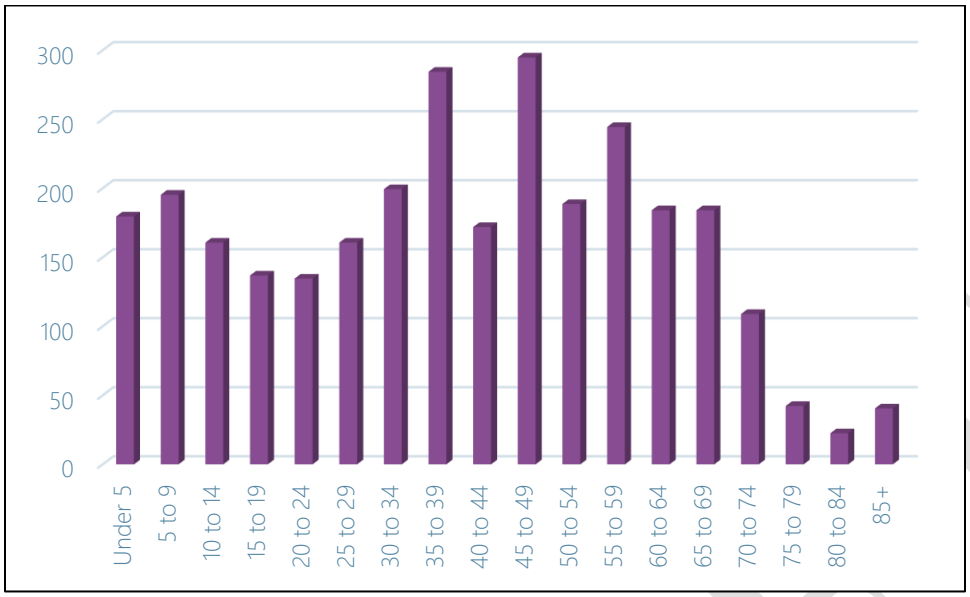
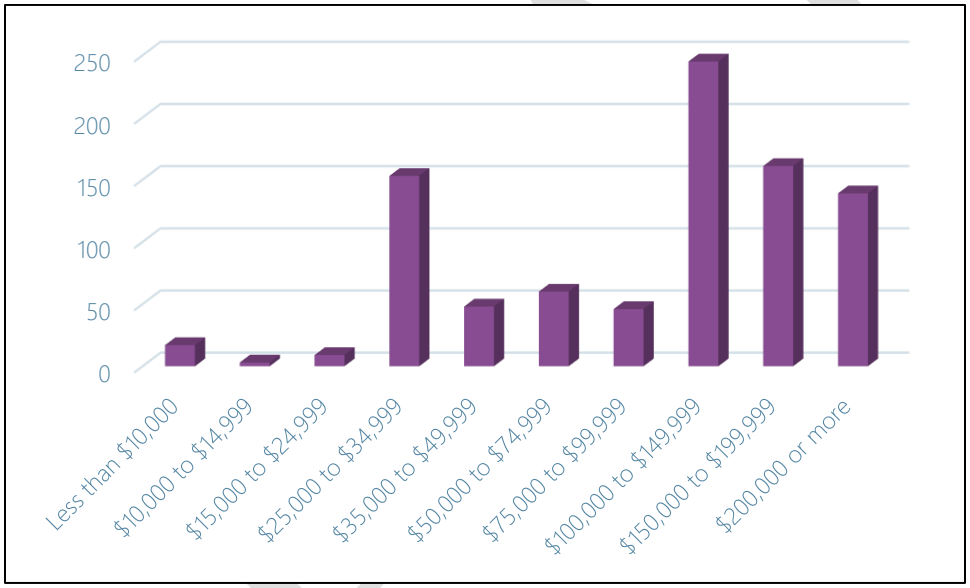
Figure R-2 Town of Timnath Population Distribution by Age



Source: U.S. Census Bureau American Community Survey, www.census.gov/

Figure R-3 Town of Timnath Income Distribution



Source: U.S. Census Bureau American Community Survey, www.census.gov/

R.2.2 Social Vulnerability

Social vulnerability scores for the Town of Timnath can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. Timnath is characterized by medium-low levels of social vulnerability. This does not mean, however, that there aren't any socially vulnerable residents living in the community or that social vulnerability levels will remain the same over time. Close analysis of the individual social vulnerability indicators within the community will give local emergency managers, planners, and stakeholders a clearer picture of which social vulnerability factors threaten the community the most and where social and economic resources should be allocated in order to reduce vulnerability. Over time, the town should

continue to monitor their local social vulnerability as demographic, economic, and housing related conditions change.

For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

R.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table R-5 Hazard Identification and Risk Assessment Summary for the Town of Timnath

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Likely	Extensive	Critical	High
Civil Disturbance	Occasional	Limited	Negligible	Low
Dam Inundation	Occasional	Significant	Critical	Medium
Drought	Likely	Significant	Negligible	Low
Earthquake	Unlikely	-	-	-
Flood	Likely	Limited	Significant	Medium
Hazardous Materials	Occasional	Limited	Significant	Low
Landslide/Rockslide	Unlikely	-	-	-
Soil Hazards	Occasional	Limited	Negligible	Low
Spring/Summer Storm	Highly Likely	Extensive	Significant	Low
Tornado	Occasional	Significant	Catastrophic	High
Utility Disruption	Likely	Extensive	Negligible	Medium
Wildfire	Unlikely	-	-	-
Winter Storm	Highly Likely	Extensive	Significant	Low

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

R.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Town of Timnath, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the Town's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Utility Disruption

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

R.4.1 Community Asset Inventory

Table R-6 shows the total number of improved parcels, properties, and their improvement and content values for the Town of Timnath. See Section 4.2.2 of the Base Plan for details and methodology.

Table R-6 Total Exposure of Improved Properties within the Town of Timnath

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value
Agricultural	6	9	$1,258,416	$1,258,416	$2,516,832
Commercial	33	41	$43,989,997	$43,989,997	$87,979,994
Exempt	11	40	$11,948,647	$11,948,647	$23,897,294
Industrial	2	2	$1,081,420	$1,622,130	$2,703,550
Mobile Home	1	3	$446,949	$223,474	$670,423
Multiple Unit	3	73	$26,836,415	$26,836,415	$53,672,830
Residential	2,157	2,173	$987,151,248	$493,575,652	$1,480,726,900
Total	**2,213**	**2,341**	**$1,072,713,092**	**$579,454,731**	**$1,652,167,823**

Source: Larimer County GIS/Assessor's Office, Wood analysis.

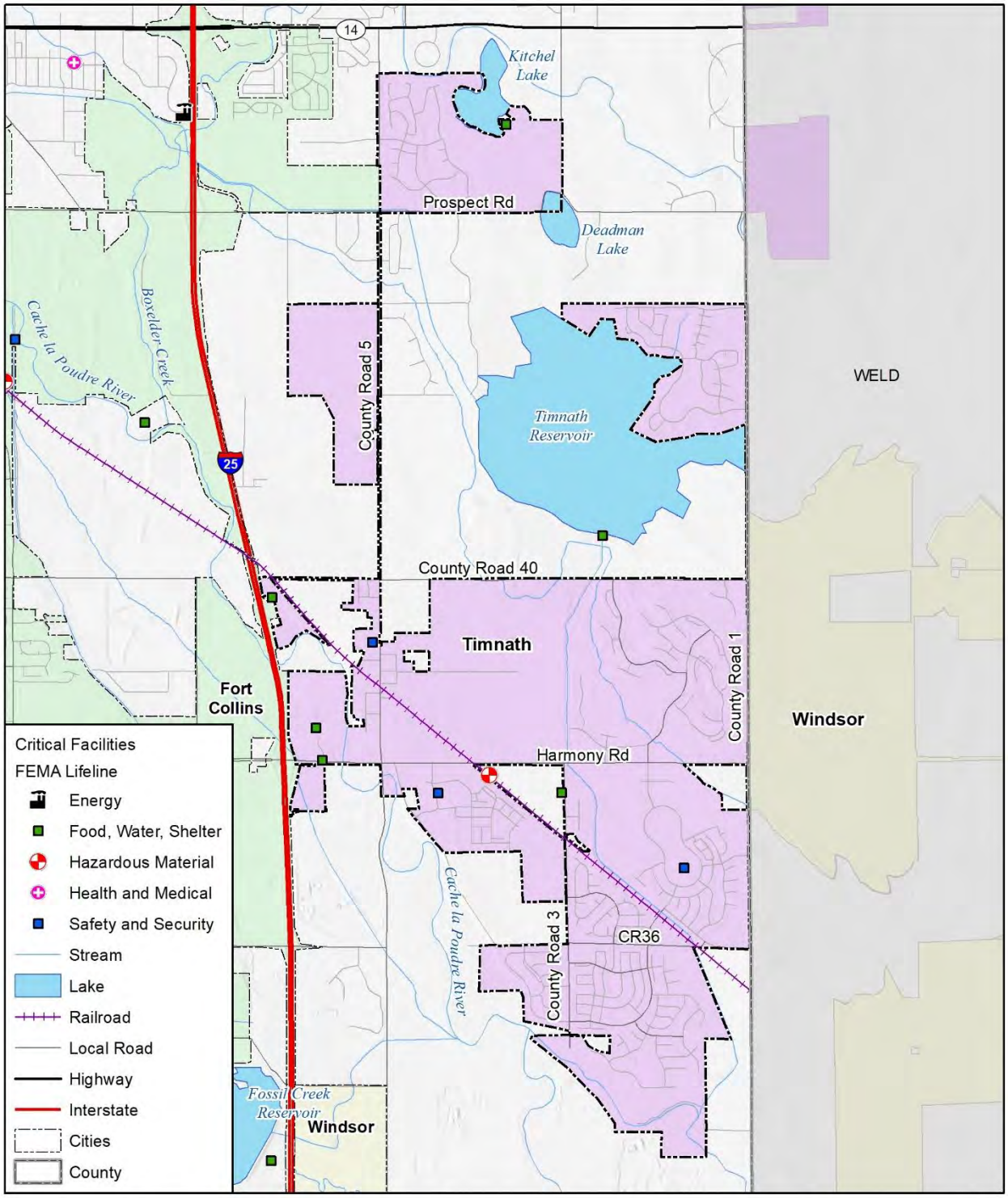
Table R-7 lists summary information about the 6 critical facilities and other community assets identified by the Town as important to protect or that provide critical services in the event of a disaster. These facilities are mapped in Figure R-4. For additional information on the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan.

Table R-7 Town of Timnath Critical Facilities and Infrastructure Summary

FEMA Lifeline	Count
Food, Water, Shelter	3
Safety and Security	3
Total	**6**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

Figure R-4 Town of Timnath Critical Facilities and Infrastructure



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, EPA

0 1 2 Miles

N

R.4.2 Dam Inundation

Potential dam inundation areas in and around the Town of Timnath are shown in Figure R-5.

Figure R-5 Dam Inundation Areas for the Town of Timnath

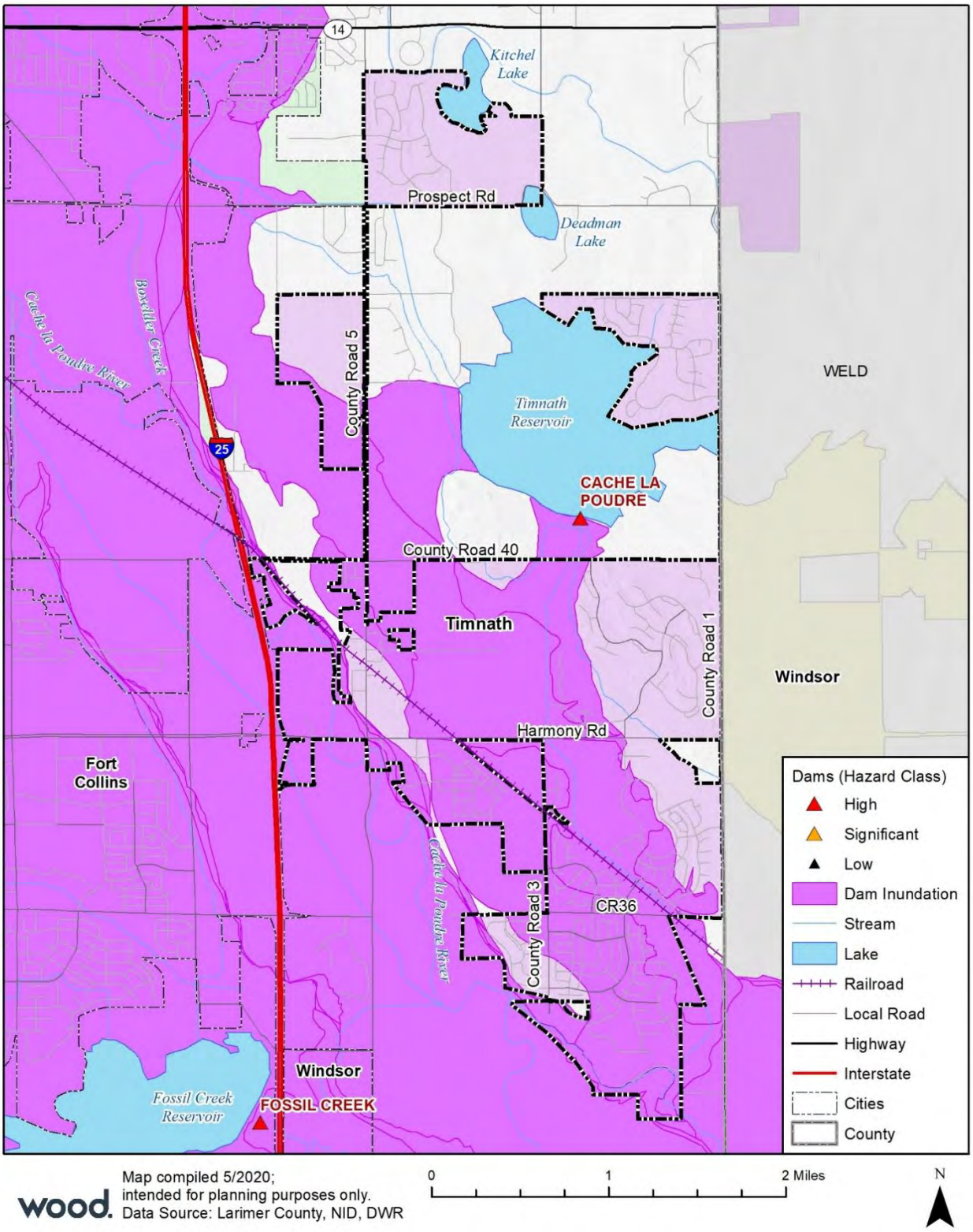


Table 4-17 in Section 4.3.3 of the Base Plan lists dams of concern for Larimer County. Dams in or upstream of the Town of Timnath are:

- Cache La Poudre (Timnath Reservoir)
- East Side Detention Facility
- Fossil Creek
- Horsetooth Reservoir
- Indian Creek

Table R-8 shows that Timnath has 1,165 parcels potentially at risk of dam inundation, valued at $785M; an estimated 3,788 residents live in those parcels.

Table R-8 Town of Timnath Parcels Potentially at Risk of Dam Inundation

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value	Population
Agricultural	4	6	$1,061,189	$1,061,189	$2,122,378	
Commercial	18	23	$35,641,176	$35,641,176	$71,282,352	
Exempt	5	31	$6,701,244	$6,701,244	$13,402,488	
Multiple Unit	3	72	$26,836,415	$26,836,415	$53,672,830	
Residential	1,135	1,141	$429,936,489	$214,968,267	$644,904,756	3,788
Total	**1,165**	**1,273**	**$500,176,513**	**$285,208,291**	**$785,384,804**	**3,788**

Source: USACE National Inventory of Dams 2018, Colorado Dam Safety Program, Larimer County GIS, U.S. Census Bureau, Wood analysis

There are 4 critical facilities identified in areas at risk of dam inundation in the Town of Timnath, shown in Table R-9.

Table R-9 Town of Timnath Critical Facilities Potentially at Risk of Dam Inundation

FEMA Lifeline	Count
Food, Water, Shelter	2
Safety and Security	2
Total	**4**

Based on the above analysis, the spatial extent and severity of the dam inundation hazard, the Town of Timnath is comparable to that of Larimer County as a whole. The overall significance of this hazard for the Town is Medium.

R.4.3 Flood

FEMA mapped floodplains in and around the Town of Timnath are shown in Figure R-6.

The Town of Timnath does not have any improved parcels in areas at 1% annual chance of flooding. As shown in Table 4-35 in Section 4.3.6 of the Base Plan, there are an estimated 3 parcels and 0 residents located in the 0.2% annual chance flood hazard area, with an estimated value of $5,380,816.

The Town does not have any critical facilities in 1% or the 0.2% annual chance flood hazard areas.

Based on the above analysis, the spatial extent and severity of the flood hazard in the Town of Timnath is lower than that of the County as a whole. The overall significance of this hazard for the Town is Medium.

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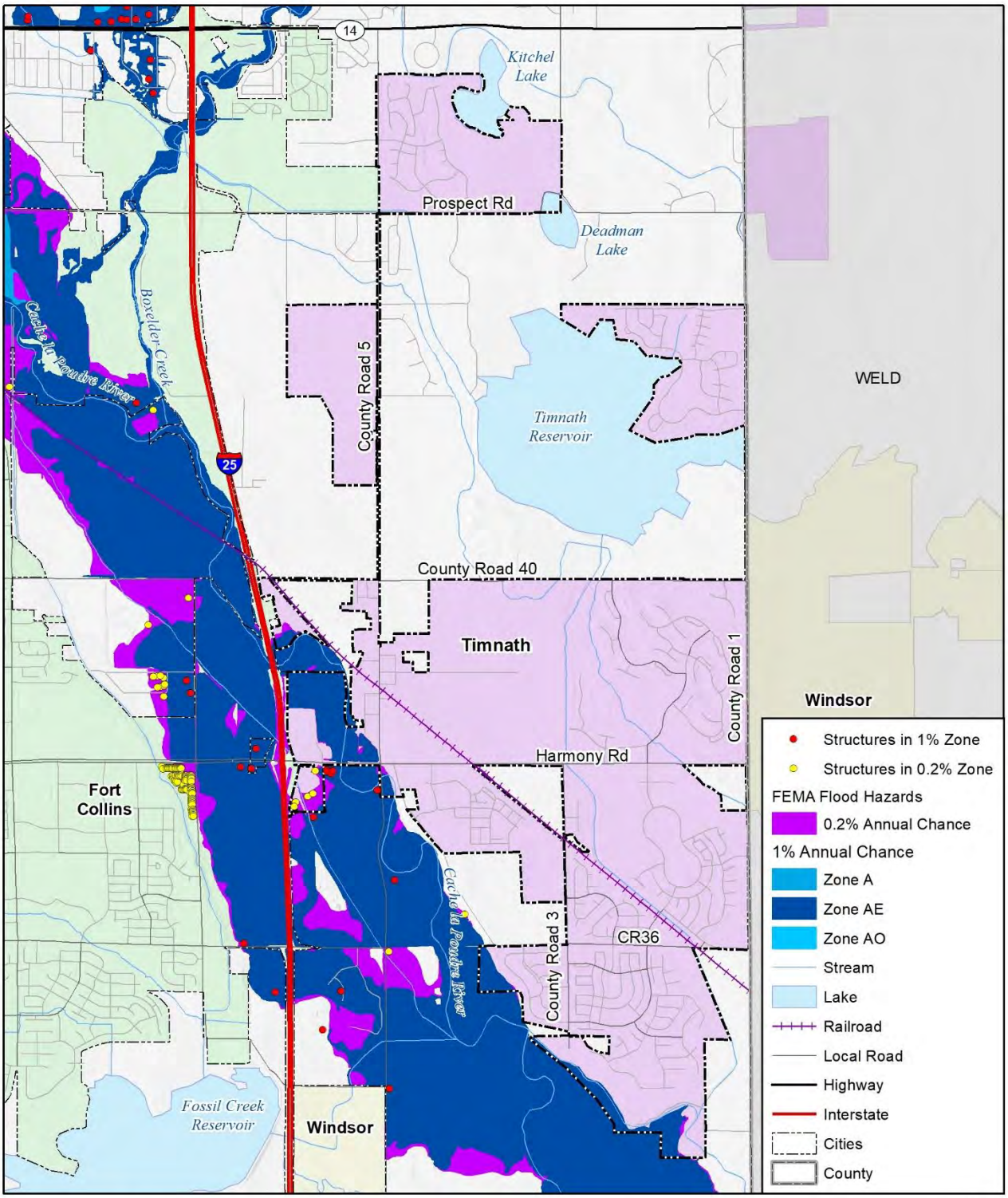
Figure R-6 FEMA Special Flood Hazard Areas for the Town of Timnath



Map compiled 10/2020;
intended for planning purposes only.
Data Source: Larimer County,
FEMA NFHL 2/6/2013

National Flood Insurance Program Policy Analysis

Timnath has participated in the National Flood Insurance Program (NFIP) since 2006. NFIP insurance data shows that as of January 2021 there are 3 flood insurance policies in force in the Town with $910,000 of coverage. There has been only one historical claim for flood losses, for $4,074. There are no repetitive or severe repetitive loss structures as defined by the NFIP. The Town of Timnath does not participate in the Community Rating System (CRS) program.

R.4.4 Hazardous Materials Incident

Designated hazardous materials routes passing through or near the Town of Timnath include I-25 and several rail lines. None of the County's Risk Management Plan (RMP) facilities are located within the Town limits.

There are no designated hazardous materials routes passing through the Town of Timnath. However hazardous materials are still shipped through the Town, primarily along US287 and the rail line. There is one Risk Management Plan (RMP) facility located within the Town limits.

The National Response Center (NRC) data cited in Section 4.3.7 of the Base Plan includes only one hazardous materials incident in or near the Town of Timnath from 1987 through 2019, a gas pipeline explosion in 2009 that resulted in no injuries, but caused $50,000 in property damage.

Based on the above analysis, the frequency and spatial extent of hazardous materials incidents in the Town of Timnath is lower than that of Larimer County as a whole. The overall significance of this hazard for the Town is Medium.

R.4.5 Landslide/Rockslide

There are no identified areas of landslide or rockslide risk in the Town of Timnath. The overall significance of this hazard for the Town is Low.

R.4.6 Soil Hazards

There are no historically undermined areas or areas at risk of land subsidence or expansive soils that have been identified in the Town of Timnath. However, portions of the Town are at risk of collapsible soil, as shown in Figure R-7.

Table 4-49 in Section 4.3.9 of the Base Plan shows 327 parcels and 328 buildings potentially at risk to collapsible soils, with a total value of $256,667,353. An estimated 1,079 residents are at risk. The overall significance of this hazard for the Town is Low.

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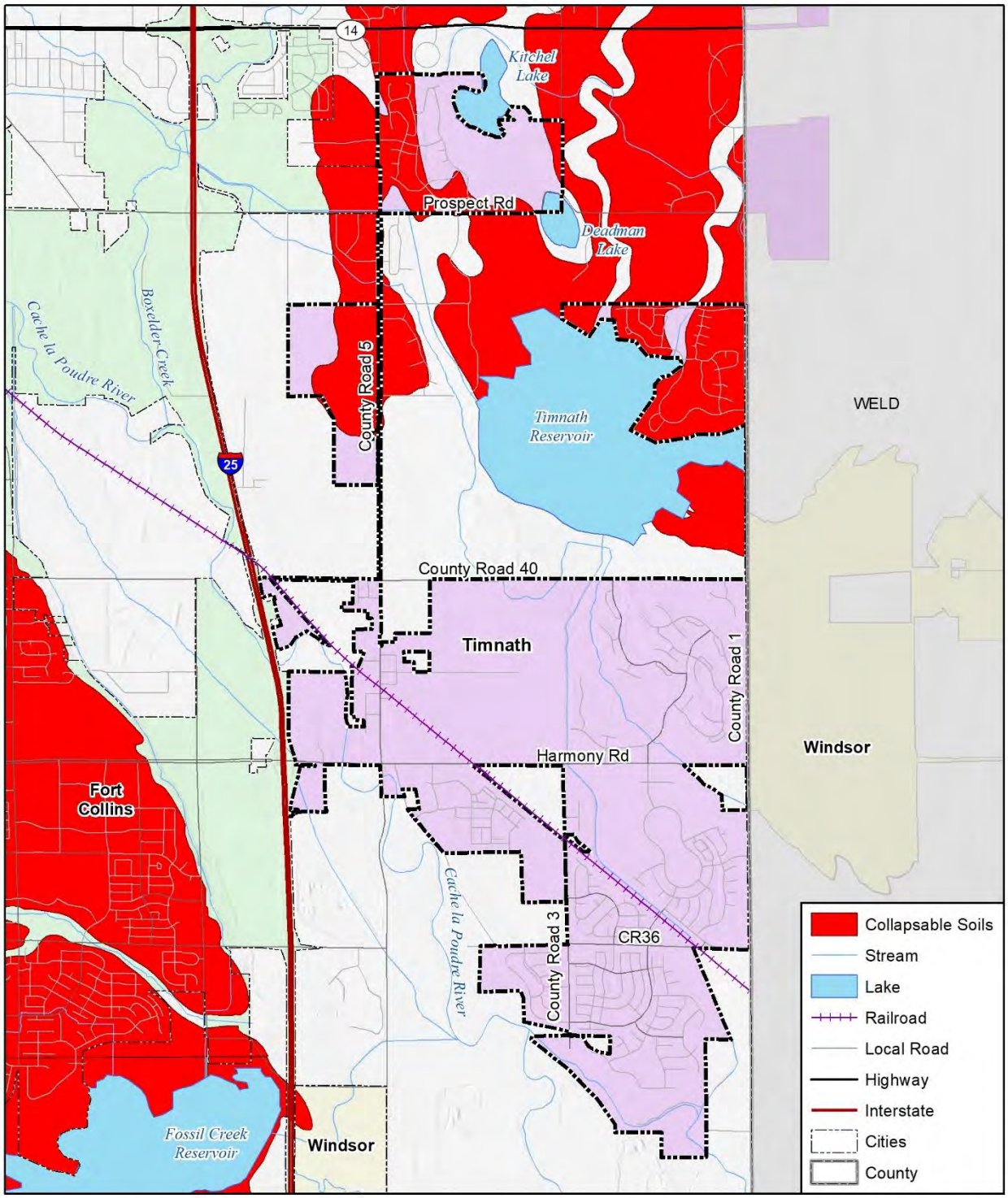
Figure R-7 Potential Collapsible Soils Areas – Town of Timnath



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

0 1 2 Miles

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The critical facility exposure analysis shows that there are no critical facilities in Timnath at risk of collapsible or expansive soils.

The overall significance of this hazard for the Town is Low.

R.4.7 Wildfire

The Town of Timnath has not had a significant history of wildfire activity in or adjacent to the Town, although the Town has felt impacts from wildfires in other areas of the County.

Areas in and around the Town of Timnath at risk of wildfire, based on CO-WRAP assessment, are shown in Figure R-8.

Tables 4-72, 4-73, and 4-74 in the Wildfire profile of the Base Plan shows that the Town has only 281 parcels and 281 buildings at moderate risk of wildfire, with a total value of $142,585,575. An estimated 933 residents live in these at-risk areas. There are no parcels at high or highest risk within Timnath.

The Town has no critical facilities identified at being at risk of wildfires.

A relatively low percentage of the Town's total parcels and structures is at direct risk of wildfire, showing that the overall significance of this hazard for the Town is Low.

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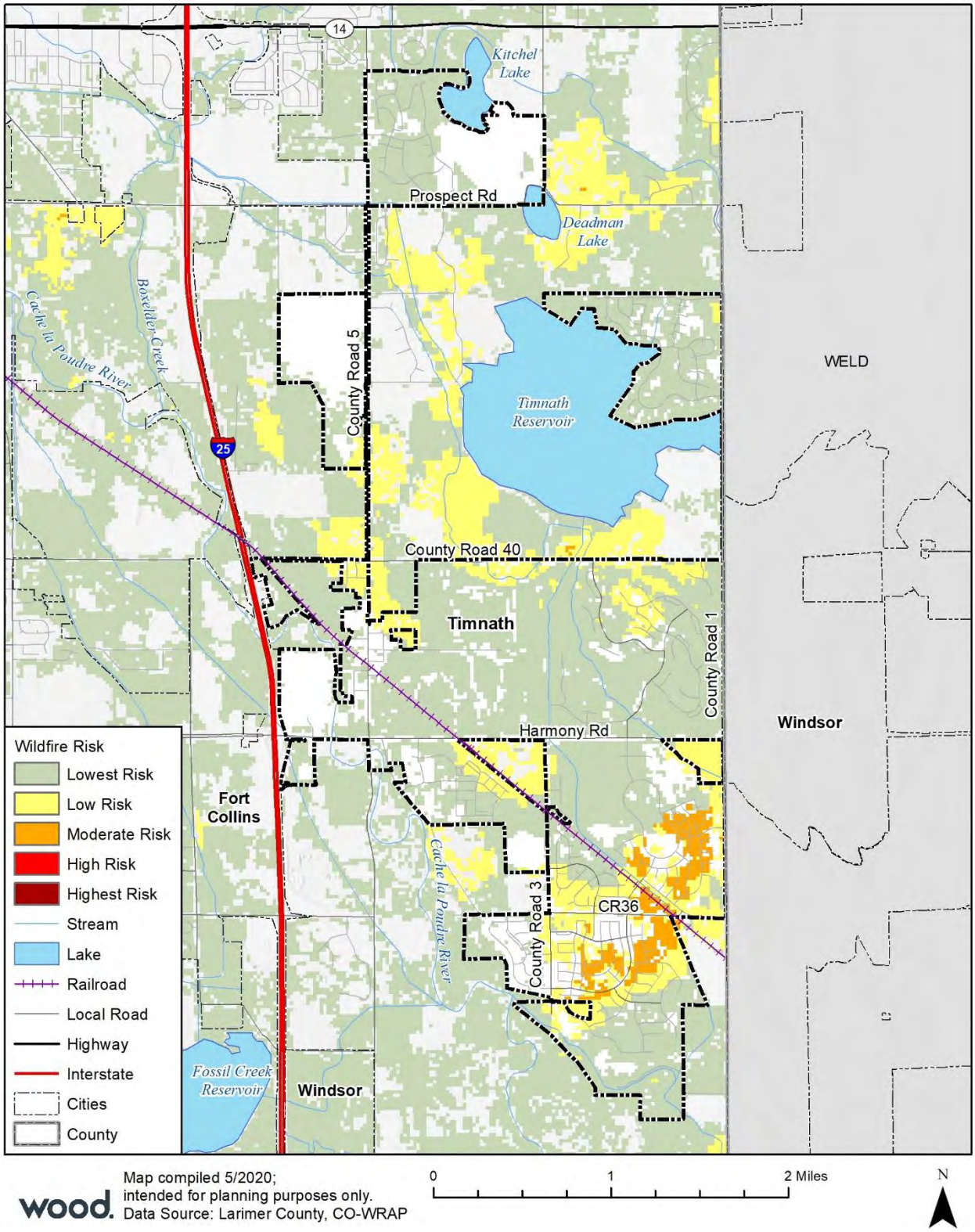
Figure R-8 Timnath Wildfire Risk



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CO-WRAP

0 1 2 Miles

N

R.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Town of Timnath to reduce hazard impacts or that could be used to implement hazard mitigation activities.

R.5.1 Existing Capabilities

The following tables summarize the Town's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Table R-10 Town of Timnath Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	Yes	Timnath.org
Zoning ordinance	Yes	Timnath.org
Subdivision ordinance	Yes	Timnath.org
Growth management ordinance	Yes	2020 Comprehensive Plan
Floodplain ordinance	Yes	Timnath.org
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Stormwater
Building codes	Yes	2018 ICC, 2012 IECC
BCEGS rating	No	
Fire department ISO rating	Yes	
Erosion or sediment control program	Yes	Timnath.org
Stormwater management program	Yes	Land Use Code/Drainage Master Plan
Site plan review requirements	Yes	Land Use Code
Capital improvements plan	Yes	Budget
Economic development plan	Yes	Economic Development Policy
Local emergency operations plan	Yes	Government Contingency Plan
Community Wildfire Protection Plan	Yes	2011 Poudre Fire Authority CWPP
Other special plans	Yes	Transportation Plan
National Flood Insurance Program	Yes	Joined 2006
Community Rating System	No	
Flood insurance study or other engineering study for streams	Yes	Cooperation with Larimer County
Elevation certificates (for floodplain development)	Yes	Timnath.org / FEMA - CLOMR/LOMR

Source: Town of Timnath planning team

Table R-11 Town of Timnath Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Community Development Planner
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Community Development Planner
Planner/engineer/scientist with an understanding of natural hazards	Yes	Community Development Planner
Transportation Planner	No	Contracts services as needed
Resiliency Planner	No	
Personnel skilled in GIS	Yes	Community Development Planner

Personnel Resources	Yes/No	Department/Position/Comments
Full time building official	Yes	Community Development Planner
Floodplain manager	Yes	Community Development Planner
Emergency manager	Yes	Town Manager
Grant writer	No	
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Community Development Planner
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	Larimer County
Other key personnel	Yes	Public Works

Source: Town of Timnath planning team

Table R-12 Town of Timnath Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	No	No	
Capital improvements project funding	Yes	Yes	
Authority to levy taxes for specific purposes	No	No	
Fees for water, sewer, gas, or electric services	No	No	Special Districts Provide
Stormwater Service Fees	Yes	Yes	
Impact fees for new development	Yes	Yes	
Incur debt through general obligation bonds	No	No	No Voter Authorization
Incur debt through special tax bonds	No	No	
Incur debt through private activities	Yes	No	
Withhold spending in hazard prone areas	No	No	

Source: Town of Timnath planning team

Table R-13 Town of Timnath Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	No	
Firewise	No	
StormReady	No	

Source: Town of Timnath planning team

Local land use plans and building codes are tremendous tools for evaluating local policies related to hazard mitigation and risk reduction. Additionally, comprehensive master plans, capital improvement plans, stormwater plans and zoning ordinances all present opportunities for enhanced local capabilities.

Building codes are another tool that communities use to enhance public safety. For example, they can increase structural integrity, mitigate structure fires, and provide benefits in relation to natural hazard avoidance. In Colorado, land use regulations and building codes are typically implemented at the local level. Even without a statewide mandate, most counties and many municipalities have enacted regulations and codes. The Town of Timnath has adopted a local building code requirement, demonstrating their understanding of the benefits codes provide, including reduced exposure to hazards.

R.5.2 Opportunities for Enhancement

Based on the capability assessment, Timnath has several existing mechanisms in place that already help to mitigate hazards. There are also opportunities for the Town 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 DHSEM. Additional training opportunities will help to inform Town staff and Town Council on how best to integrate hazard information and mitigation projects into the Town policies and ongoing duties of the Town. Continuing to train Town staff on mitigation and the hazards that pose a risk to the Town will lead to more informed staff members who can better communicate this information to the public.

R.6 Mitigation Strategy

The Town of Timnath has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The Town had three mitigation actions in the 2016 Plan. None of these actions have been completed or deleted, and have been carried over into the 2021 Plan, along with two new actions.

The local planning team identified and prioritized the following mitigation actions for the Town of Timnath based on the risk assessment. 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.

National Flood Insurance Program

Recognizing the importance of the National Flood Insurance Program (NFIP) in mitigating flood losses, the Town of Timnath will place an emphasis on continued compliance with the NFIP. As an NFIP participant, the Town has and will continue to make every effort to remain in good standing with NFIP. This includes continuing to comply with the NFIP's standards for updating and adopting floodplain maps and maintaining and updating the floodplain zoning ordinance as well as review of any potential development in special flood hazard areas.

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Table R-14 Town of Timnath 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
R-1	Goal 1,4 Objectives 1	Hazmat, Spring/Summer Storms, Winter Storms	**Community Outreach Project.** We are a very small but rapidly growing community. We have recently updated our website and other social media, but need to do more public outreach, specifically related to public awareness and preparedness around risk and hazards that affect our community. Create a public outreach program for the Town of Timnath. We will use existing educational materials as well as develop materials specific to the Town of Timnath to increase hazard and risk preparedness, response to educate our citizens.	**Town Manager's Office,** Larimer County OEM, Poudre Fire Authority/City of Fort Collins OEM.	$5,000	Town general fund.	Low	2024	Continue - Not Completed
R-2	Goal 1 Objectives 3	Biological Hazards, Civil Disturbance, Dam Inundation, Drought, Earthquake, Flood, Hazmat, Landslide/Rock slide, Soil Hazards, Spring/Summer Storm, Tornado, Utility Disruption, Wildfire, Winter Storm	**Mitigation Assessment.** Timnath is currently updating all of their emergency management plans and programs. An assessment of risk has not been done before this plan. With this data, Timnath needs to conduct an assessment to determine future mitigation opportunities within the Town. A determination of mitigation actions to protect the Town of Timnath is needed. Conduct a mitigation assessment of Timnath to determine key protection and mitigation actions.	**Town of Timnath,** Larimer County OEM, Poudre Fire Authority	Unknown	General operating funds and/or potential grants.	Low	2024	Continue - Not Completed
R-3	Goal 1,2,3,4,5 Objectives 1,2,3,4,5	Flood	**Full Adoption of Updated FEMA Floodplains.** Floodplain mapping is out of date and the 2013 Flood caused extensive changes to current floodplains. Work with FEMA on updating current floodplain mapping in coordination with Larimer County. By 2020, the Cache la Poudre River through Timnath will be mapped and adopted by FEMA.	**Town of Timnath Planning Department,** Larimer County Community Development and Office of Emergency Management	$300,000	Colorado State Flood Hazard Mapping Project	High	2020?	Continue - Not Completed

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
R-4	Goals Objectives	Hazmat	**Upgrade railroad crossings.** Working in concert with Great Western Railroad to upgrade and improve railroad crossings and lines and to ensure trains traveling through town maintain a minimum speed. Company seldom transports hazards materials, crossings are improved, and operating functionally. Law enforcement for proper traffic control. 2016 Great Western railroad train derailment at or near the rail intersection with Summerfields Parkway. Nine cars derailed and damaged track. Non-hazardous materials present. All impacts were within the railroad ROW. The Town could see potential issues with trains at the three existing railroad crossings in Timnath. These areas have the potential of impacting emergency services and vehicle traffic. There is an added potential of hazardous materials being transported through town.	**Engineering/ Public Works,** Planning, Police, Poudre Fire Authority, Larimer County Sheriff's Office, Timnath Administration	TBD. Great Western will be responsible for improvements to their infrastructure.	Town general fund and Town of Timnath Development Authority (urban renewal authority), development obligations	Low	2024	New in 2021. Three Bell to be completed in 2021; Main Street to be completed by 2024.
R-5	Goals Objectives	Flooding	**Cache la Poudre River Flooding.** 1% storm event occurs in the Poudre River drainage basin causing flooding of the Poudre River and overtopping of the riverbanks impacting adjacent properties and roads. Poudre River trail becomes inundated during storm events or spring runoff. Gates have been installed to prohibit public access to flood prone areas. Harmony Road bridge has been constructed to withstand these types of events. Monitoring floodplain and restricting development. Specifically, flooding of County Road 5 could be mitigated by elevating the road out of the floodplain/floodway and improving the Poudre River bridge south of Harmony Road. These improvements will be coordinated with Larimer County, the Colorado Department of Transportation, and the adjacent property owner(s) at time of future development. These improvements would allow for traffic flow as well as emergency services to continue should a flood occur in this area. The Town is currently	Public Works/ Engineering, Planning, Police, Poudre Fire Authority, Larimer County Sheriff's Office, Timnath Administration	TBD	Town of Timnath general fund and Timnath Development Authority (urban renewal authority). FEMA for major event cleanup and repairs.	Medium		New in 2021. The Town currently has the following to help curb potential problems within these areas: 1. The Town does have floodplain development regulations 2. The Town does have building codes and conducts code enforcement services to ensure compliance 3. There is multi-jurisdictional cooperation within the watershed and along this vehicular corridor 4. The Town does have stormwater management regulations 5. The Town has subdivision and development regulations

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			working with affected property owners on the potential of open space preservation of areas within the floodplain/floodway thereby limiting the amount of impervious area and increased runoff. The Town will be establishing public education and outreach programs through various messaging platforms. The Town will evaluate and possibly install hazard warning systems where appropriate. The Town will coordinate with various agencies to handle post-disaster mitigation work						6. The Town has emergency response services

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R.7 Plan Maintenance and Implementation

The Town of Timnath has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the town will continue public participation in the plan maintenance process.

R.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The Town of Timnath's implementation strategy included:

- We will schedule annual review by staff and adoption by the Town Council.
  - The Town's 2016 "Emergency Operations Plan" was adopted by the Timnath Town Council on July 12, 2016.
- We have a robust website and will post comment pages, surveys and the plans on the site.
  - This has not been necessary although we do have a website and will use it in the event that something will manifest itself.
- Upon the update of our comprehensive plan, we will include discussion of hazard mitigation as well as any recommended action items such as necessary amendments to our zoning or building codes.
  - The Town recently completed an update to the Town's Comprehensive Plan. That document was adopted by Town Council on February 25, 2020. The document does include goals, objectives, and action items to guide the growth of the Town. Portions of the plan reference emergency services and emergency services partners. There is no specific topic related to hazard mitigation. However, the Town's Land Use Code and Building Codes are up to date and inclusive of certain standards related to hazard mitigation as they pertain to residential and commercial developments related to flooding, soils, and fire protection.

R.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the Town to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Town Manager will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Town Manager will also be responsible for representing the Town on future Larimer County Planning Team meetings, and for coordination with town staff and departments during plan updates. The Town and relevant departments, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the Timnath Town Council.

Integration into Other Planning Mechanisms

The Town of Timnath will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the Town will:

- Town of Timnath and their service providers will make an effort to meet annually to discuss items that need to be updated and look at progress of action items.
- Work toward incorporating information from the HMP into public education & outreach programs.

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- Post information on the Town's website and utilize the marketing and communications firm to get information to citizens and businesses.
- Mitigation actions will be incorporated in capital improvement planning as appropriate.
- Will consider the applicable information from the HMP and incorporate as necessary into the next update of the Town's comprehensive plan/zoning code/etc.

Continued Public Involvement

The Town will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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R.8 Letter of Intent to Participate

TIMNATH

LETTER OF INTENT TO PARTICIPATE

December 7, 2018

Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins CO 80522
Attn: Lori Hodges, Director of Emergency Management

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Town of Timnath is submitting this letter of intent to confirm that the Town of Timnath has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, the Town of Timnath agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

The Town of Timnath understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I, April D. Getchius, commit The Town of Timnath to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 7th day of December, 2018

April D. Getchius
Town Manager

Phone: (970) 224-3211 Fax: (970) 224-3217 www.timnath.org
4800 Goodman Street • Timnath, CO 80547

S. Upper Thompson Sanitation District

The Upper Thompson Sanitation District is fully committed to managing the natural resources with which the District is entrusted; to provide reliable, high quality, cost effective wastewater collection and treatment services; to promote a quality of life that all citizens in the Estes valley may benefit from. Our staff strives to deliver prompt and friendly customer service, while ensuring the preservation, protection, and enhancement of our environment for future generations.

– Mission Statement, Upper Thompson Sanitation District

S.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Upper Thompson Sanitation District participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section S.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the District on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

S.2 Community Profile

The Upper Thompson Sanitation District was formed in 1971 to provide wastewater treatment service to the areas surrounding the Town of Estes Park and to improve the water quality of the Big Thompson River. The plant and collection lines were built with Federal, State and local funding and the plant was brought on-line in 1976, providing service to areas of the Estes Valley which were previously without adequate sewage treatment. The District policies and operations are overseen by a Board of Directors elected by the voters within the District.

The Upper Thompson Sanitation District Treatment Facility (or Plant) is a Tertiary (or three stage), Advanced Treatment Facility. This facility was built to handle a flow of 1.5 Million Gallons per Day (MGD), and a peak hydraulic flow of 3.75 MGD. This corresponds to an equivalent population of 15,000 people. Over 99% of the solids and pollutants in the wastewater are removed and disposed of. In the fall of 2000, Phase 1 (of a 3 Phase expansion) was completed, raising the plant capacity to 2.0 MGD by adding a new secondary clarifier.

S.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

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Table S-1 Hazard Identification and Risk Assessment Summary for the Upper Thompson Sanitation District

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Likely	Significant	Significant	Medium
Civil Disturbance	Unlikely	Limited	Significant	Low
Dam Inundation	Occasional	Limited	Significant	Low
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Extensive	Catastrophic	Medium
Flood	Likely	Extensive	Critical	High
Hazardous Materials	Unlikely	Limited	Significant	Medium
Landslide/Rockslide	Occasional	Limited	Significant	Low
Soil Hazards	Likely	Limited	Negligible	Low
Spring/Summer Storm	Highly Likely	Significant	Significant	High
Tornado	Unlikely	Limited	Negligible	Low
Utility Disruption	Likely	Significant	Significant	Medium
Wildfire	Likely	Significant	Significant	Medium
Winter Storm	Highly Likely	Extensive	Significant	Medium

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

S.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Upper Thompson Sanitation District, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the District's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Hazardous Materials
- Spring/Summer Storm
- Tornado
- Utility Disruption
- Winter Storm

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

S.4.1 Community Asset Inventory

The Upper Thompson Sanitation District treatment facility is a tertiary (or three-stage), advanced treatment process. When the plant was constructed, it contained several innovative technologies, making it one of the most advanced treatment facilities at the time. This facility was built to treat a flow of 1.5 million gallons per day (MGD), and a peak hydraulic flow of 3.75 MGD. Over 99% of the solids and pollutants in the wastewater are removed. In the fall of 2000, a new secondary clarifier was constructed, adding operational flexibility and increased plant capacity to 2.0 MGD.

The UTSD treatment facility is located at the east end of Lake Estes, off Highway 34 just east of the Town of Estes Park.

S.4.2 Dam Inundation

Section 4.3.3 of the Base Plan and Section D.4.2 of Annex D (Town of Estes Park) show minimal potential dam inundation areas in the Upper Thompson Sanitation District. The UTSD treatment facility is not located in a dam inundation area. The overall significance of this hazard for the District is Low.

S.4.3 Flood

Section 4.3.6 of the Base Plan and Section D.4.3 of Annex D (Town of Estes Park) show significant areas at 1% annual risk and/or 0.2% annual risk of flooding in the Upper Thompson Sanitation District. The UTSD treatment facility is located in 1% floodplain. The overall significance of this hazard for the District is High.

S.4.4 Landslide/Rockslide

Section 4.3.8 of the Base Plan and Section D.4.5 of Annex D (Town of Estes Park) show no identified areas in the Upper Thompson Sanitation District at risk of landslide, but significant areas at risk of rockslide. The UTSD treatment facility is not at risk of either landslide or rockslide. The overall significance of this hazard for the District is Low.

S.4.5 Soil Hazards

There are no identified areas in the Upper Thompson Sanitation District potentially at risk of expansive or collapsible soils or land subsidence. The overall significance of this hazard for the District is Low.

S.4.6 Wildfire

Section 4.3.13 of the Base Plan and Section D.4.8 of Annex D (Town of Estes Park) show several locations in the Upper Thompson Sanitation District classified as being at Moderate or High risk of wildfires, particularly in the areas west of Berthoud. The UTSD treatment facility is located in an area assessed as lowest risk of wildfire. The overall significance of this hazard for the District is High.

S.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Upper Thompson Sanitation District to reduce hazard impacts or that could be used to implement hazard mitigation activities.

S.5.1 Existing Capabilities

The following tables summarize the District's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

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Table S-2 Upper Thompson Sanitation District Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	Yes	In the form of a Wastewater Utility Master Plan
Zoning ordinance	No	Town/County
Subdivision ordinance	No	Town/County
Growth management ordinance	No	Town/County
Floodplain ordinance	No	Town/County
Other special purpose ordinance (stormwater, steep slope, wildfire)	No	Town/County/State
Building codes	Yes	UTSD Rules and Regulations sewer construction standards
Fire department ISO rating	No	Town/County/State
Erosion or sediment control program	No	
Stormwater management program	No	Town/County/State
Site plan review requirements	Yes	UTSD Rules and Regulations
Capital improvements plan	Yes	UTSD CIP
Economic development plan	No	
Local emergency operations plan	Yes	UTSD Emergency
Other special plans	No	
Flood insurance study or other engineering study for streams	No	
Elevation certificates (for floodplain development)	No	

Source: Upper Thompson Sanitation District planning team

Table S-3 Upper Thompson 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	Town/County
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	All Depts. Specific to sewer infrastructure and construction.
Planner/engineer/scientist with an understanding of natural hazards	No	
Personnel skilled in GIS	Yes	Collection Dept
Full time building official	No	Town/County
Floodplain manager	No	Town/County
Emergency manager	No	
Grant writer	Yes	Contracted
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Collection Dept, Critical asset data
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	WWTF. SCADA / alarms / exterior alarm lighting at lift stations, emergency after-hours call numbers.

Source: Upper Thompson Sanitation District planning team

Table S-4 Upper Thompson Sanitation District Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	Yes	Yes	
Capital improvements project funding	Yes	Yes	
Authority to levy taxes for specific purposes	Yes	No	None currently
Fees for water, sewer, gas, or electric services	Yes	Yes	
Impact fees for new development	Yes	Yes	System Development Fees (Taps)
Incur debt through general obligation bonds	Yes	No	None currently
Incur debt through special tax bonds	NA	No	
Incur debt through private activities	Yes	No	None currently
Withhold spending in hazard prone areas	N/A	No	

Source: Upper Thompson Sanitation District planning team

Table S-5 Upper Thompson Sanitation District Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	Yes	See below
Firewise	No	
StormReady	No	

Source: Upper Thompson Sanitation District planning team

UTSD utilizes Facebook, its website, in-person personnel, presentations, flyers, public events, and open houses to educate customers on water and wastewater related topics and District activities/future projects and challenges. All UTSD Board Meetings are open to public and major planning processes are open to public comment per state statutes.

The COVID-19 outbreak, and subsequent shortage of toilet paper, has also presented other challenges for the UTSD—and all wastewater authorities for that matter. Alternatives to toilet paper are wipes (both "flushable" and non-flushable) and other paper products, of which none are designed for use or conveyance in sewers. These products can clog lines and pumps resulting in overflows, and they can severely disrupt downstream treatment processes. UTSD has increased efforts in public education on these issues and will continue to do so.

S.5.2 Opportunities for Enhancement

Based on the capability assessment, Upper Thompson Sanitation District 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 DHSEM. Additional training opportunities will help to inform District staff 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.

Enhancements underway or being considered include:

- Expansion of in-house emergency management capabilities (i.e., detailed asset inventory/assessment, expansion of emergency operations plan, etc.) would be beneficial.

- UTSD does well with developing projects but can always benefit from expanding project prioritization and implementation techniques. Perhaps through development of more comprehensive and District-specific decision matrices and criticality factors to objectively ensure the most critical projects are being implemented first.

S.6 Mitigation Strategy

The Upper Thompson Sanitation District has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The District had three mitigation actions in the 2016 Plan, and has completed two of them:

- District and Inter-Jurisdictional Communications Improvement
- FLCS Force Main Evaluation and Rehabilitation

The remaining action has been carried over into the 2021 Plan, along with two new actions.

The District planning team identified and prioritized the following mitigation actions for the Upper Thompson Sanitation District based on the risk assessment. 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.

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Table S-6 Upper Thompson Sanitation District 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
S-1	Goals 1,2,3,4,5 Objectives 2,3,4,5	Extreme Temperatures, Flood, Severe Storm, Biological, Hazmat	**Sewer Main Cleaning and Inspection.** The most common threat to the District's sanitary sewer system is sanitary sewer overflows resulting from a blockage in the pipe. Blockages can be caused by many things including tree root intrusion, grease build-up, grit/debris, and broken or collapsed pipe. Sanitary sewer overflows always have the potential to reach surface water, storm sewer systems, and State receiving waters, posing a threat to public health and stream health. A large portion of the District's system is located in "off road" and "back yard" easements. Access to sewer lines and manholes is often blocked by trees, fences, structures, and other landscaping. The ability to gain entry to these system components is crucial to both preventive maintenance, as well as emergency response. Routine cleaning and CCTV inspection of the District's sanitary sewer lines and manholes. Maintain, and keep current, relations with mutual aid organizations and contractors. Continue repairing and rehabilitating system components. Known problem areas will be cleaned and inspected at least once a year. The rest of the District's system will continue to be routinely cleaned and inspected with the goal of completing these tasks on at least 10 percent of the District's system yearly. During this maintenance cycle, identified problem areas will be noted and incorporated into the District's capital improvement plan for repair or rehabilitation to reduce the risk of a sanitary sewer overflow or loss of proper utility function due to natural and man-made disasters. Continue to evaluate, mitigate, and reinforce system components located within the floodplain, next to rivers, and in drainage areas. Continue to assess and enforce District easements and access; keeping these easements clear of obstructions, ensuring staff and equipment can gain entry to manholes and sewer lines in the event of an emergency or for routine maintenance. Continue public outreach efforts to increase awareness and stress the importance of access of these critical locations. Continue cooperative efforts with other agencies and organizations overseeing new development. Ensuring optimum placement of new sewer mains and manholes to reduce risk or damage caused by potential disasters.	**Upper Thompson Sanitation District**, Town of Estes Park, Larimer County, Estes Park Sanitation District, COWARN.	Tasks covered by annual District Operations Budget	District's annual budget	High	Ongoing	Annual Implementation. UTSD has maintained and achieved yearly sewer system inspection goals and will continue to do so. Condition assessment occurs throughout this process, from which projects are identified, prioritized, and sequentially implemented. These operations have resulted in projects (e.g., UTSD Sewer River Crossing Repair Project) that increase resiliency of systems in high risk areas.

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
S-2	Goals 1,2,5 Objectives 3,4,5	Flood, Soil Hazards, Spring/Summer Storm, Utility Disruption, Winter Storm.	**Big Thompson Interceptor Assessment / Construction Improvements.** The Big Thompson Sanitary Sewer Interceptor begins in the heart of downtown Estes Park and extends gravity sewer flow 5.5 miles southwest, ending near the Rocky Mountain National Park boundary on Tunnel Road. This interceptor ranges in size from 8-inch to 24-inch and is composed primarily of aged vitrified clay pipe (VCP). VCP is especially vulnerable to damage resulting from root intrusion, ground movement, settling, erosion, and natural disaster events such as flooding. Since the entire Big Thompson Interceptor follows the Big Thompson River drainage corridor (including 20 river crossings), erosion and flood/severe wet weather events are the primary hazards of concern for the District. Damage or incapacitation to this interceptor could ultimately result in threats both public health and the surrounding environment. This project, step number one, will include a comprehensive condition assessment of this aging interceptor: to identify and prioritize areas for further assessment, planning, and/or corrective and preventative measures. Resulting future mitigation may include actions such as stream channel work, rip rap armoring, sewer main/manhole rehabilitation, concrete encasement, and/or full replacement with the goal of increasing system resiliency for both long-term hazards and disaster events. Benefits: Assessment and possible subsequent mitigation actions would aim to reduce the occurrence and severity of system infrastructure loss and/or incapacitation resulting from time-sustained erosion, ground movement, and wet weather disaster events. This benefits and protects the District's underground assets, public health, downstream water users, and the aquatic environment.	**Upper Thompson Sanitation District**	$75,000 (condition assessment phase)	District Capital Improvement Plan (CIP) budget.	High	2021-2022	New in 2021
S-3	Goals 1,2,3,4,5 Objectives	Spring/Summer Storm, Utility Disruption, Biological Hazards	**New Upper Thompson Sanitation District Wastewater Treatment Facility (WWTF).** The District is in the planning level stages for a project to build a new WWTF. The following represent the key drivers for this project with respect to the existing WWTF. 1. Facility Age: The existing WWTF was constructed in the mid-1970s with upgrades provided in the 2000s. The WWTF will reach its 50-year design life in 2025. Although the staff have maintained the facility in excellent condition, the WWTF lacks operational flexibility; does not meet 2019 codes (building,	**Upper Thompson Sanitation District**	$46,000,000	District capital, Long-term low interest loans, Grants.	High	2020 (planning) - 2024 (project completion)	New in 2021

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			electrical, and fire), standards, and regulations; and is approaching the end of its useful life with deteriorating structures/equipment, and replacement parts hard to find. As WWTF flow and loadings continue to approach rated capacity, it will become increasingly difficult to remove structures from service for maintenance. The cost to maintain as well as retrofit existing structures for new purposes will require significant investment. 2. Increased Wastewater Flow: Population expansion and associated increases in wastewater flow in the WUSA are expected to continue. The WWTF is unable to hydraulically pass and provide treatment to future wastewater flow and loadings beyond 2.0 mgd and 4,450 pounds of five-day biochemical oxygen demand per day (lbs BOD5/day) without significant modifications that require site expansion. 3. Future Regulations: The WWTF is unable to reduce nutrients (total phosphorus (TP) and total nitrogen (TN)), metals, and temperature to the anticipated future water quality standard effluent levels without significant modification of the existing treatment process that require site expansion or de-rating of the WWTF below 2.0 mgd. 4. CDPHE Requirements: The WWTF discharge permit requires that the District "initiate engineering and financial planning for expansion… wherever throughput reaches eighty (80) percent of the treatment capacity" and "… commence construction of… expansion wherever throughput reaches ninety-five (95) percent of the treatment capacity." The District's 80% and 95% flow throughput is 1.6 and 1.9 mgd, respectively. The peak month flow in May 2015 was 1.7 mgd. The District's 80% and 95% influent organic loading throughput is 3,560 and 4,228 ppd, respectively. The WWTF has not exceeded the 80% peak month organic loading. The highest peak month loading between January 2014 and December 2019 was in June 2017 at 2,540 ppd. 5. Limited Aerobic Digester Capacity: The aerobic digesters were constructed for the original facility capacity of 1.5 mgd. Digester capacity is limited during peak loading events and will be further limited as the influent flow and loadings approach the permitted and projected flow and loading capacities. The enclosed digester roof and walls experience severe corrosion						

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			and were replaced in 1997. The digester roof will likely require replacement in the next five (5) years. 6. Limited Filtration Capacity: The WWTF filters were constructed for the original facility capacity of 1.5 mgd. The filters capture solids sloughed from the nitrification towers during normal operation and are operated without polymer addition. Both the filter beds and surface wash arms need to be replaced. The filters require significant upgrades to operate at a higher flow rate for the WWTF capacity of 2 mgd. Currently at a flow rate of 100 gallons per minute (gpm) into the filters, nearly constant backwashing is required. The filter capacity will be limited for TP removal/polishing with the addition of alum and/or polymer as the influent flow and loadings approach the permitted and projected flow and loading capacities."						

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S.7 Plan Maintenance and Implementation

The Upper Thompson Sanitation District has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the district will continue public participation in the plan maintenance process.

S.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The District's implementation strategy included:

- District staff will actively monitor and manage the plan, with Board of Directors review at least quarterly.
  - This was not accomplished quarterly but was reviewed, and will continue to be reviewed, annually.
- Status updates and changes to the plan will be posted on District social media outlets/website - and will be topics of public discussion."
  - This was accomplished; the District reviewed the plan and our mitigation actions during public Board meetings. Updates were also provided during subsequent Board meetings regarding the progress of mitigation actions being implemented.
- We will integrate mitigation actions into our Capital Improvement Plan.
  - This was accomplished in the completion of the District's Fish Creek Lift Station and dual force main capital project completion in 2019. Other realized 2016 mitigation actions included completion of the District's communications improvement project.

Additional ways in which the District incorporated information from the 2016 HMP into other plans and processes include integrating planning and mitigation steps incorporated in this plan to develop and complete other hazard-mitigating capital improvement projects such as sewer river crossing replacement projects in 2018, 2019, and 2020. These projects added resiliency to previously vulnerable segments of sanitary sewer mains traversing under and/or along major drainage basins in the Estes Valley.

S.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the District to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Collection System Superintendent will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Collection System Superintendent will also be responsible for representing the District on future Larimer County Planning Team meetings, and for coordination with District staff and departments during plan updates. The District, Fire District, Town of Estes Park, and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the District's Board of Directors.

Integration Into Other Planning Mechanisms

The Upper Thompson Sanitation District will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the District will:

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- The District and other Estes Valley jurisdictions will meet annually to discuss items that need to be updated and look at progress of action items.
- Incorporate information from the HMP into existing public education & outreach programs.
- Post information on the District's website and utilize the marketing and communications firm to get information to citizens and businesses.
- Mitigation actions will be incorporated in capital improvement and operations planning.
- Incorporate information from the HMP into the next update of the District's Wastewater Utility Master Plan update.
- Minimum annual review of plan and mitigation action information for District staff and Board of Directors.

Continued Public Involvement

The Upper Thompson Sanitation District will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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S.8 Letter of Intent to Participate

UPPER THOMPSON SANITATION DISTRICT

Environmental Protection Through Wastewater Collection and Treatment

December 11, 2018

Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins CO 80522
Attn: Lori Hodges, Director of Emergency Management

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Upper Thompson Sanitation District is submitting this letter of intent to confirm that Upper Thompson Sanitation District has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, Upper Thompson Sanitation District agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

Upper Thompson Sanitation District understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I Chris Bieker, District Managerl, commit Upper Thompson Sanitation District to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 11th day of December, 2018

Chris Bieker, District Manager

T. TOWN OF WELLINGTON

"The citizens of Wellington choose to deal with the issue of growth proactively in order to maintain the quality of life in the community. Over the past fifteen years, the Town has witnessed a significant amount of residential growth. Wellington residents want to continue to investigate the development of innovative land uses that provide a sound tax base, preserve the quality of life, and balance residential and commercial development.

Citizens want to ensure that new development does not overburden existing infrastructure and services and does not detract from the community's existing character. The valued aspects of the Town's character include: friendly and accessible downtown, seeing familiar faces around town, a safe and relaxed environment, and diverse community programs and activities."

– Community Vision Statement, Town of Wellington Comprehensive Plan, 2014

T.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Town of Wellington participated in the 2016 Larimer County Hazard Mitigation Plan and has been active in implementing that plan as described in Section T.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the Town on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

T.2 Community Profile

Wellington, also referred to as "Colorado's Northern Gateway," is located along the northern Front Range, 11 miles north of Fort Collins and 34 miles south of Cheyenne on I-25. The town's location has long made it a crossroads of those travelling both north/south from Colorado to Wyoming and east/west from the farming and ranching communities east to Fort Collins and the Rocky Mountains.

Wellington was founded in 1905, spurred by agricultural development, the Union Pacific Railroad and the presence of the North Poudre Land & Reservoir Co. The town boomed in the early 20th century but its population did not reach 1,000 until 1980. From 2000 until 2010 the town grew rapidly from 2,672 residents to 6,289 residents. As of 2018 the population was 8,571, indicating continued steady growth. With new developments and a booming population in the early 21st century, downtown anchor businesses are beginning to thrive once again, and a community vision for a vibrant downtown commercial district along Cleveland Avenue has become a community priority.

Figure T-1 shows a map of the Town of Wellington.

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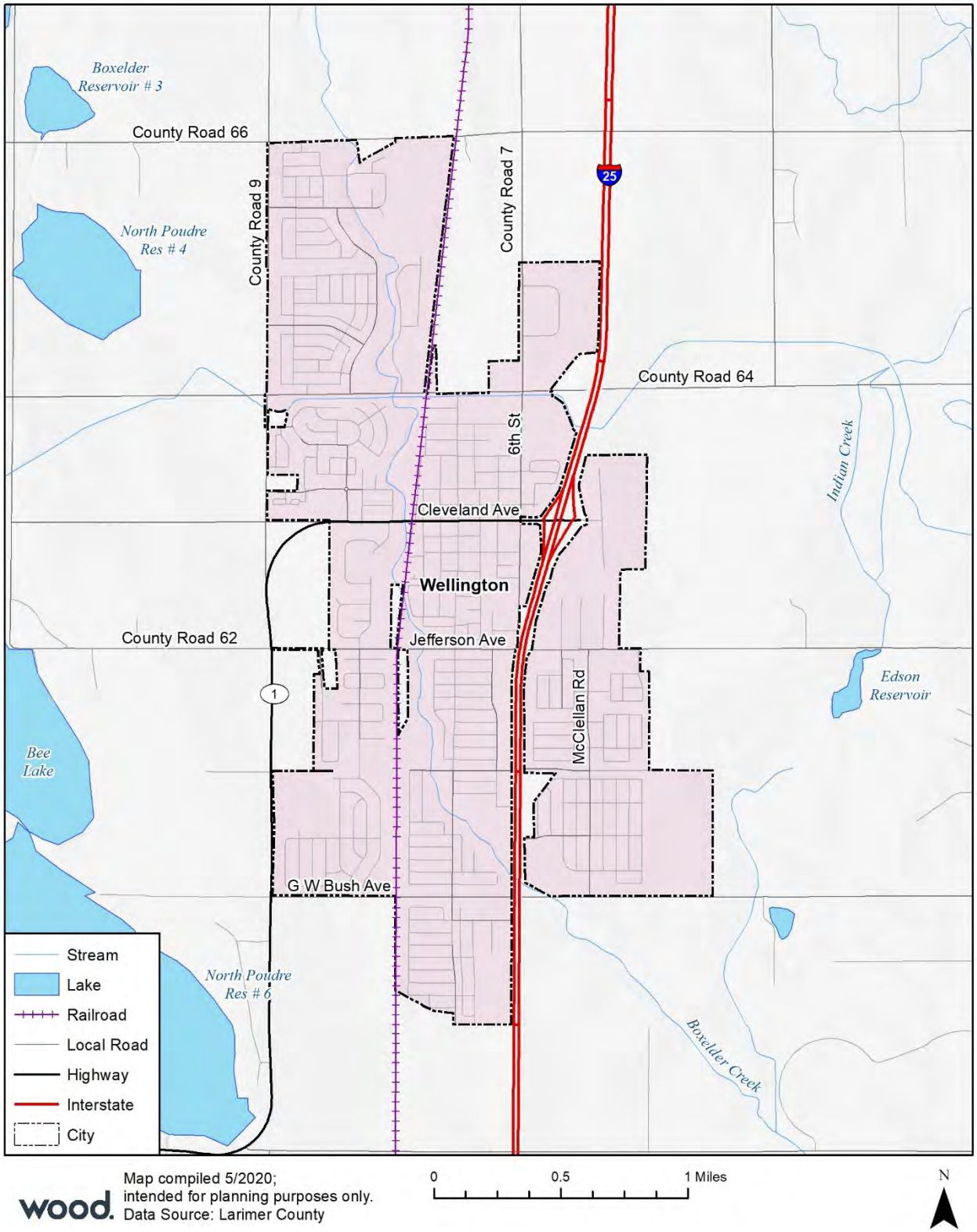
Figure T-1 Map of the Town of Wellington



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County

T.2.1 Demographics

The following tables and graphs summarize key demographic and social characteristics of the Town of Wellington.

Table T-1 Town of Wellington Statistics

Town of Wellington	2014	2018	% Change
Population	6,634	8,571	29.20%
Median Age	33	31.5	-4.5%
Total Housing Units	2,478	2,820	13.8%
Housing Occupancy Rate	95.6%	100.0%	4.6%
% of Housing Units with no Vehicles Available	2.50%	2.80%	12.0%
Median Home Value	$204,100	$280,700	37.5%
Unemployment Rate	2.1%	3.0%	42.9%
Mean Travel Time to Work (minutes)	33.2	25.9	-22.0%
Median Household Income	$73,658	$88,978	20.8%
Per Capita Income	$31,970	$30,703	-4.0%
% of Individuals Below Poverty Level	5.0%	5.7%	14.0%
% Without Health Insurance	8.1%	3.8%	-53.1%
# of Households	2,370	2,820	19.0%
Average Household Size	2.8	3.0	8.6%
% of Population Over 25 with High School Diploma	95.0%	94.9%	-0.1%
% of Population Over 25 with bachelor's degree or Higher	27.7%	35.7%	28.9%
% with Disability	8.5%	8.7%	2.4%
% Speak English less than "Very Well"	1.1%	1.0%	-9.1%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table T-2 Demographic and Social Characteristics Compared to the County and State

Demographic & Social Characteristics (as of 2018)	Wellington	County	Colorado
Median Age	31.5	35.9	36.6
Housing Occupancy Rate	100.0%	91.7%	89.8%
% of Housing Units with no Vehicles Available	2.8%	4.1%	5.2%
Median Home Value	$280,700	$336,200	$313,600
Unemployment	3.0%	5.0%	4.7%
Mean Travel Time to Work (minutes)	25.9	23.2	25.5
Median Household Income	$88,978	$67,664	$68,811
Per Capita Income	$30,703	$35,390	$36,415
% of Individuals Below Poverty Level	5.7%	12.0%	10.9%

Demographic & Social Characteristics (as of 2018)	Wellington	County	Colorado
% Without Health Insurance	3.8%	6.3%	8.1%
Average Household Size	3.0	2.5	2.6
% of Population Over 25 with High School Diploma	94.9%	95.8%	91.4%
% of Population Over 25 with bachelor's degree or Higher	35.7%	46.3%	40.1%
% with Disability	8.7%	9.8%	10.6%
% Speak English less than "Very Well"	1.0%	2.6%	5.9%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table T-3 Demographics by Race and Sex

Wellington	Population	%
Total Population	8,571	100%
Male	4,319	50.4%
Female	4,252	49.6%
White, not Hispanic	6,872	80.2%
Hispanic or Latino	1,347	15.7%
Black	60	0.7%
Asian	13	0.2%
American Indian and Alaska Native	26	0.3%
Native Hawaiian and Other Pacific Islander	0	0.0%
Some other race	497	5.8%
Two or more races	323	3.8%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table T-4 Types and Total Amounts of Housing Units in Wellington

Type of Housing Units	Total	%
Total housing units	2,820	100%
1-unit detached	2,581	91.5%
1-unit attached	38	1.3%
2 units	45	1.6%
3 or 4 units	41	1.5%
5 to 9 units	33	1.2%
10 to 19 units	82	2.9%
20 or more units	0	0.0%
Mobile home	0	0.0%
Boat, RV, van, etc.	0	0.0%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

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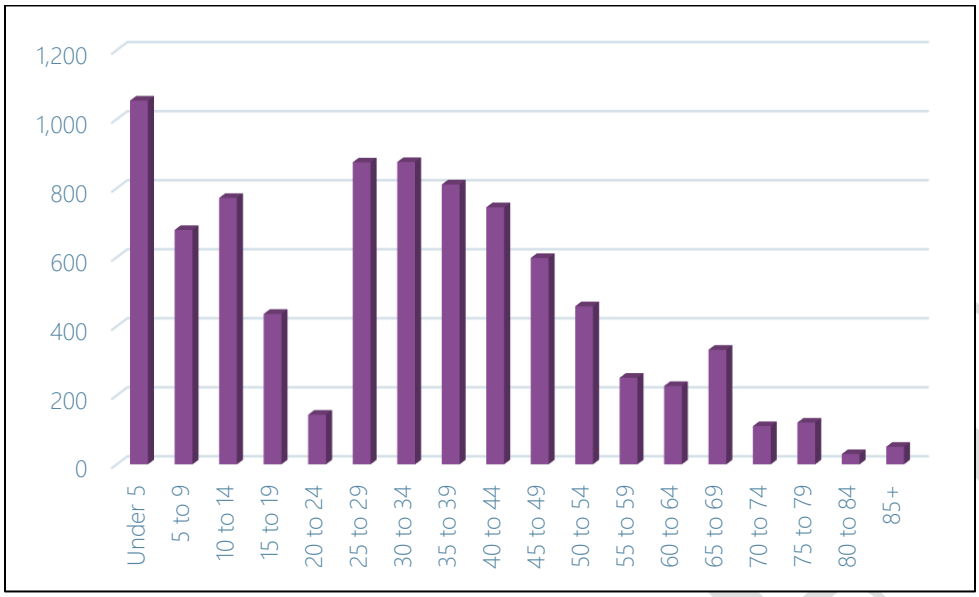
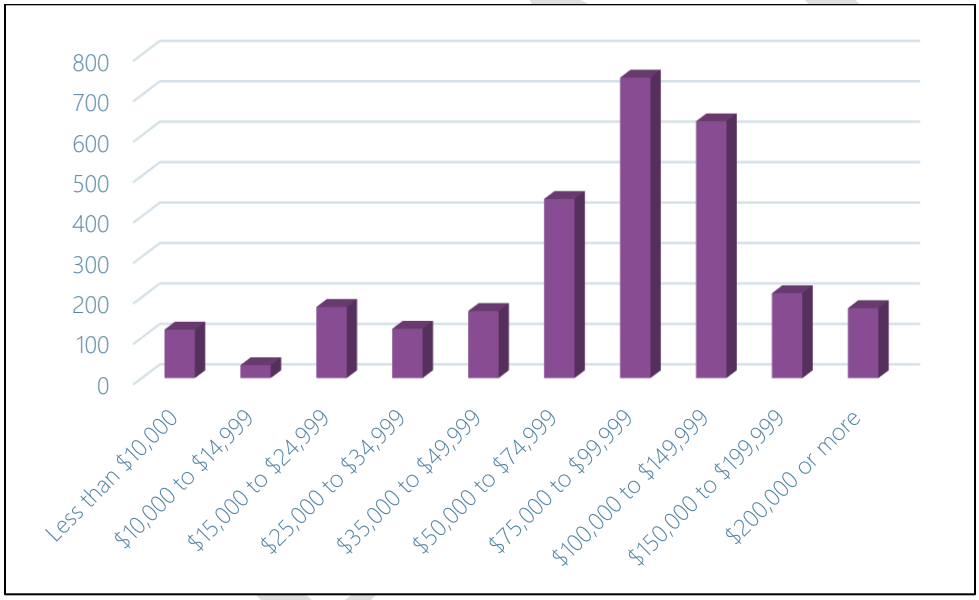
Figure T-2 Town of Wellington Population Distribution by Age



Source: U.S. Census Bureau American Community Survey, www.census.gov/

Figure T-3 Town of Wellington Income Distribution



Source: U.S. Census Bureau American Community Survey, www.census.gov/

T.2.2 Social Vulnerability

Social vulnerability scores for the Town of Wellington can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. Wellington's overall social vulnerability is below average compared to the rest of Larimer County and Colorado as a whole. In particular, Wellington's vulnerability ranks below average in the minority status and language vulnerability, as well as housing and transportation vulnerability. However, the Town's vulnerability ranks above average in the household composition and disability vulnerability category. Close analysis of the individual social vulnerability indicators within the community will give local emergency managers, planners, and stakeholders a clearer picture of which social vulnerability factors threaten the community the most and where social and economic resources should be allocated in

order to reduce vulnerability. Over time, the town should continue to monitor their local social vulnerability as demographic, economic, and housing related conditions change.

For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

T.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table T-5 Hazard Identification and Risk Assessment Summary for the Town of Wellington

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Highly Likely	Extensive	Catastrophic	High
Civil Disturbance	Likely	Limited	Significant	Medium
Dam Inundation	Occasional	Extensive	Catastrophic	High
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Significant	Catastrophic	Medium
Flood	Likely	Limited	Critical	High
Hazardous Materials	Likely	Significant	Significant	Medium
Landslide/Rockslide	Likely	Limited	Negligible	Low
Soil Hazards	Likely	Limited	Limited	Low
Spring/Summer Storm	Highly Likely	Extensive	Critical	High
Tornado	Likely	Limited	Critical	High
Utility Disruption	Likely	Significant	Critical	Medium
Wildfire	Likely	Limited	Significant	Medium
Winter Storm	Highly Likely	Extensive	Critical	High

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

T.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Town of Wellington, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the Town's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Tornado
- Utility Disruption

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

T.4.1 Community Asset Inventory

Table T-6 shows the total number of improved parcels, properties, and their improvement and content values for the Town of Wellington. See Section 4.2.2 of the Base Plan for details and methodology.

Table T-6 Total Exposure of Improved Properties within the Town of Wellington

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value
Agricultural	2	2	$741,938	$741,938	$1,483,876
Commercial	92	97	$55,485,546	$55,485,546	$110,971,092
Exempt	28	216	$38,870,816	$38,870,816	$77,741,632
Industrial	3	3	$4,017,637	$6,026,455	$10,044,092
Mobile Home	7	9	$118,866	$59,433	$178,299
Multiple Unit	5	66	$7,131,790	$7,131,790	$14,263,580
Residential	3,637	3,652	$1,005,900,758	$502,950,309	$1,508,851,067
Total	**3,774**	**4,045**	**$1,112,267,351**	**$611,266,287**	**$1,723,533,638**

Source: Larimer County GIS/Assessor's Office, Wood analysis.

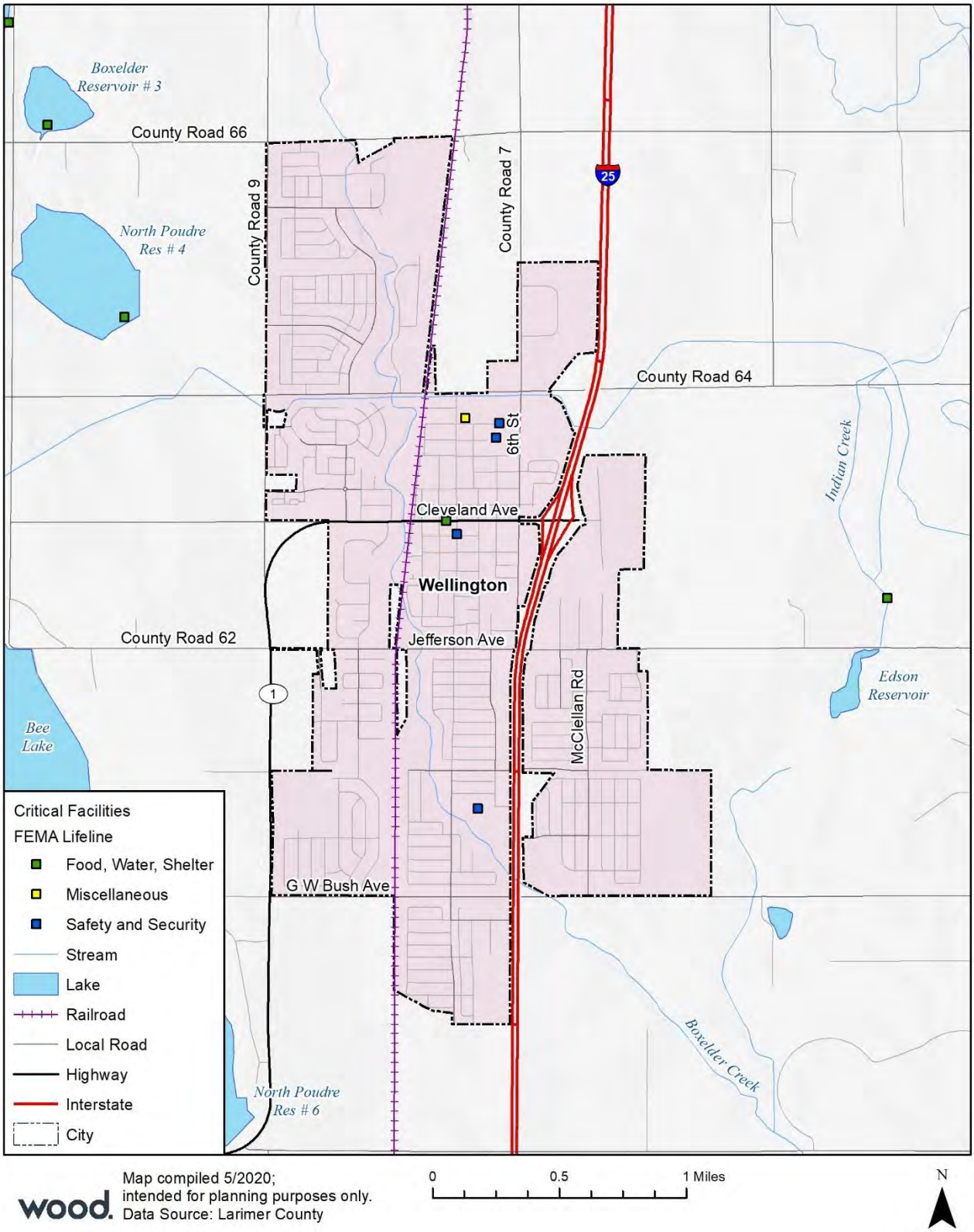
Table T-7 lists summary information about the 16 critical facilities and other community assets identified by the Town as important to protect or that provide critical services in the event of a disaster. These facilities are mapped in Figure T-4. For additional information on the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan.

Table T-7 Town of Wellington Critical Facilities and Infrastructure Summary

FEMA Lifeline	Count
Food, Water, Shelter	1
Miscellaneous	1
Safety and Security	4
Total	**6**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

Figure T-4 Town of Wellington Critical Facilities and Infrastructure



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County

0 0.5 1 Miles

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T.4.2 Dam Inundation

Potential dam inundation areas in and around the Town of Wellington are shown in Figure T-5.

Figure T-5 Dam Inundation Areas for the Town of Wellington

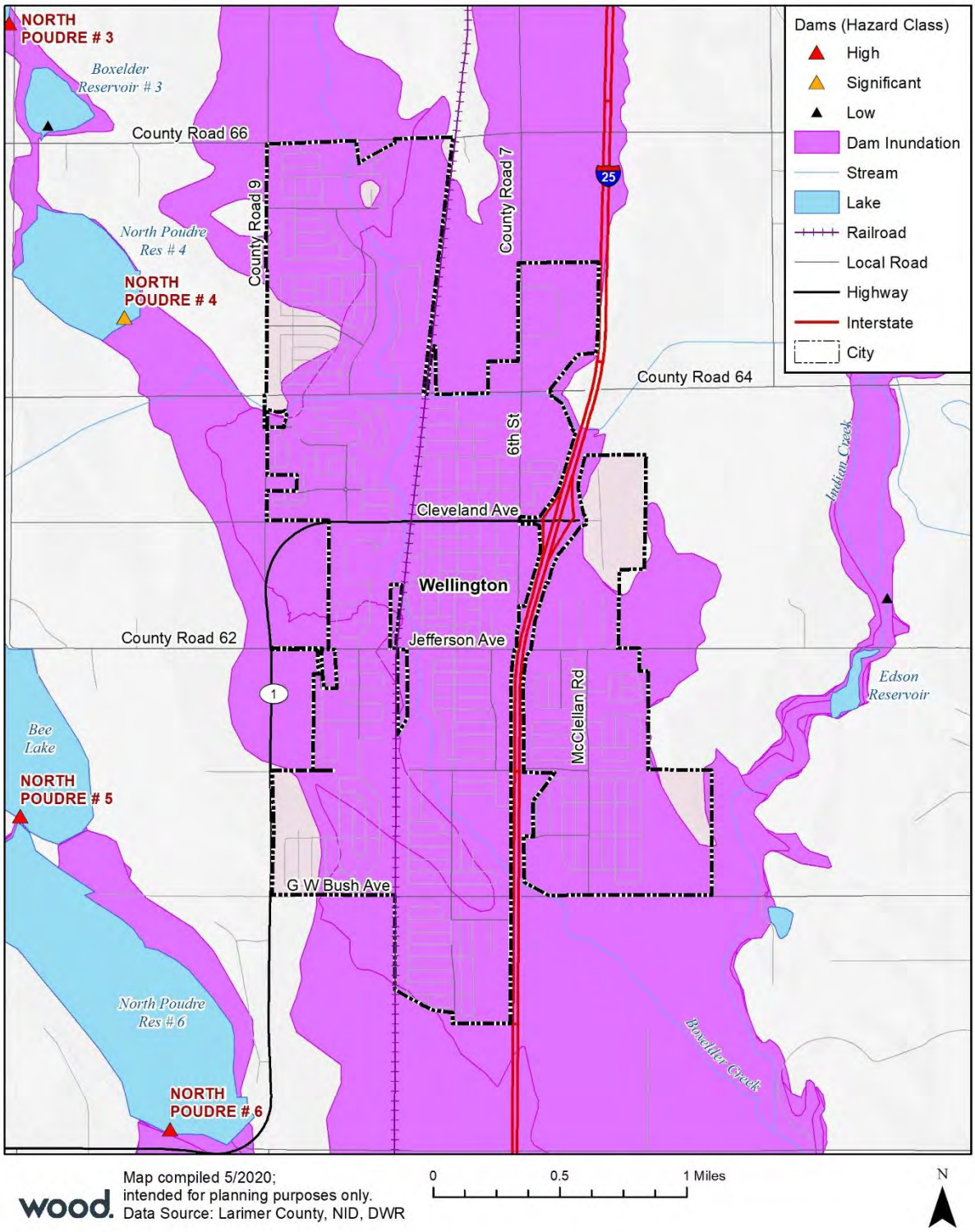


Table 4-17 in Section 4.3.3 of the Base Plan lists dams of concern for Larimer County. High Hazard classified dams upstream of the Town of Wellington are:

- Floodwater Ret. B-2
- Floodwater Ret. B-3
- Floodwater Ret. B-4
- North Poudre # 3
- Rawhide

Table T-8 shows that Wellington has 3,621 parcels potentially at risk of dam inundation, valued at $1.6B; This constitutes 95% of the total improved parcels in the Town. An estimated 9,855 residents live in those parcels.

Table T-8 Town of Wellington Parcels Potentially at Risk of Dam Inundation

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value	Population
Agricultural	1	1	$224,784	$224,784	$449,568	
Commercial	92	97	$55,485,546	$55,485,546	$110,971,092	
Exempt	28	216	$38,870,816	$38,870,816	$77,741,632	
Industrial	3	3	$4,017,637	$6,026,455	$10,044,092	
Mobile Home	7	9	$118,866	$59,433	$178,299	25
Multiple Unit	5	66	$7,131,790	$7,131,790	$14,263,580	
Residential	3,485	3,498	$958,955,772	$479,477,817	$1,438,433,589	9,829
Total	**3,621**	**3,890**	**$1,064,805,211**	**$587,276,641**	**$1,652,081,852**	**9,855**

Source: USACE National Inventory of Dams 2018, Colorado Dam Safety Program, Larimer County GIS, U.S. Census Bureau, Wood analysis

All six of the critical facilities identified in the Town of Wellington are located in areas at risk of dam inundation, as shown in Table T-9.

Table T-9 Town of Wellington Critical Facilities at Risk of Dam Inundation

FEMA Lifeline	Count
Food, Water, Shelter	1
Miscellaneous	1
Safety and Security	4
Total	**6**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

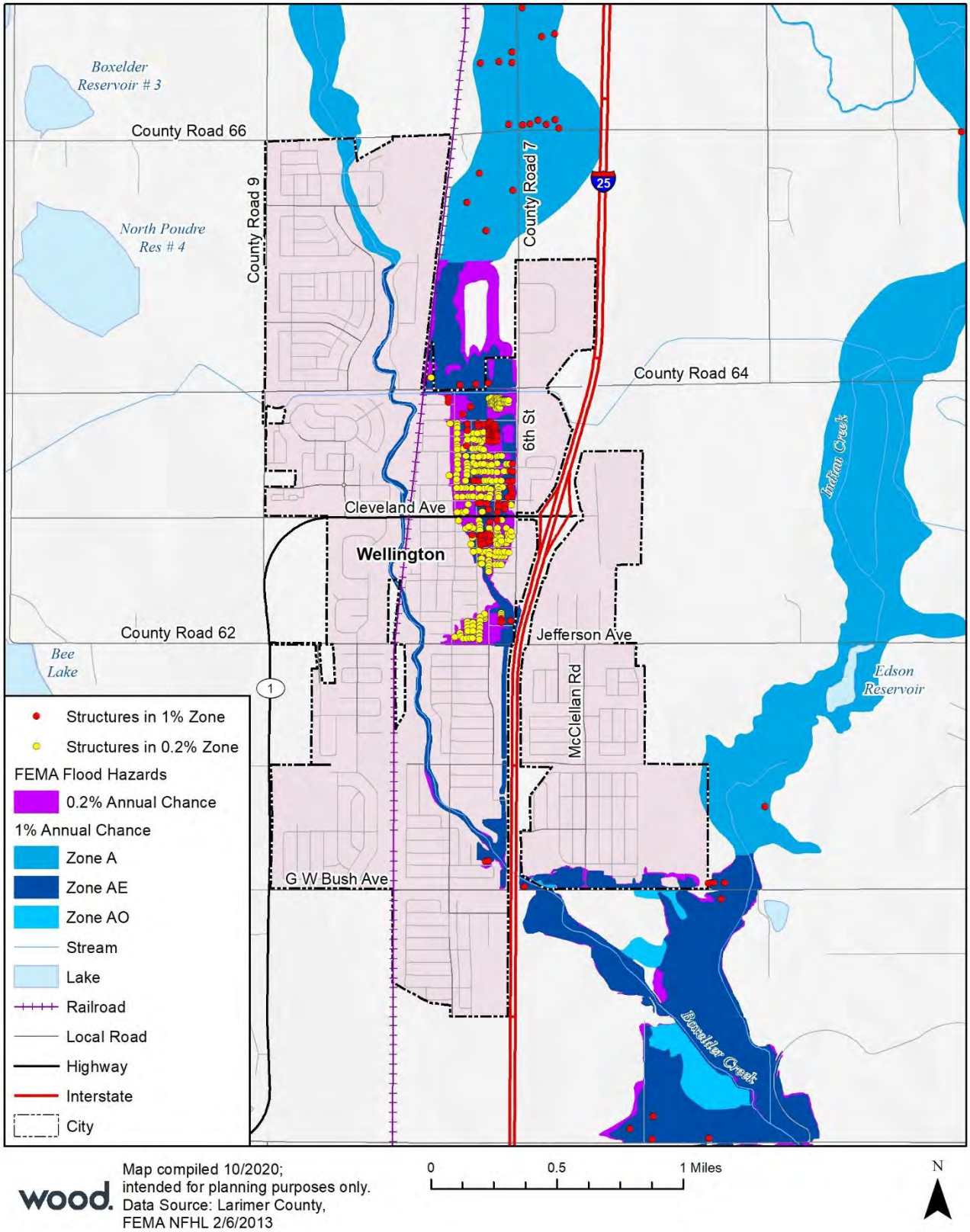
Based on the above analysis, the spatial extent and severity of the dam inundation hazard in the Town of Wellington is significantly higher than that of Larimer County as a whole. The overall significance of this hazard for the Town is High.

T.4.3 Flood

FEMA mapped floodplains in and around the Town of Wellington are shown in Figure T-6.

As shown in Table 4-34 of Section 4.3.6 of the Base Plan, the Town of Wellington has 43 parcels, 52 buildings, and 112 residents in areas at 1% annual chance of flooding, with total estimated losses of $10,014,666. There are an additional 191 parcels, 328 buildings, and 541 residents located in the 0.2% annual chance flood hazard area, with total estimated losses of $28,257,120.

Figure T-6 FEMA Special Flood Hazard Areas for the Town of Wellington



Map compiled 10/2020; intended for planning purposes only. Data Source: Larimer County, FEMA NFHL 2/6/2013

The Town has three critical facility identified in FEMA mapped floodplains, as shown in Table T-10.

Table T-10 Wellington Critical Facilities Exposed to Risk of Flooding

FEMA Lifeline	1% Annual Flood Risk	0.2% Annual Flood Risk	Protected by Levee	Total
Miscellaneous	0	1	0	1
Safety and Security	1	1	0	2
Total	**1**	**2**	**0**	**3**

Source: Cascarta

Based on the above analysis, the spatial extent and severity of the flood hazard in the Town of Wellington is higher than that of Larimer County as a whole. The overall significance of this hazard for the Town is High.

National Flood Insurance Program Policy Analysis

Wellington has participated in the National Flood Insurance Program (NFIP) since 1979. NFIP insurance data shows that as of January 2021 there were 30 flood insurance policies in force in the Town with $10,578,400 of coverage. There have been 10 historical claims for flood losses, totaling $52,161. There are no repetitive or severe repetitive loss structures as defined by the NFIP. The Town of Wellington does not participate in the Community Rating System (CRS) program.

T.4.4 Hazardous Materials Incident

Designated hazardous materials routes passing through or near the Town of Wellington include I-25 and one rail line. None of the County's Risk Management Plan (RMP) facilities are located within the Town limits.

The National Response Center (NRC) data cited in Section 4.3.7 of the Base Plan includes just three hazardous materials incidents in or near the Town of Wellington from 1987 through 2019. This averages out to one hazardous materials incident every ten years. None of those incidents reported any deaths, injuries, or significant property damage. It should also be noted that a portion of the Town's drinking water supply is supplied with raw water from 3 shallow alluvial aquifers.

Based on the above analysis, the frequency and spatial extent of hazardous materials incidents in the Town of Wellington is lower than that of Larimer County as a whole. The overall significance of this hazard for the Town is Medium.

T.4.5 Landslide/Rockslide

There are no identified areas of landslide or rockslide risk in the Town of Wellington. The overall significance of this hazard for the Town is Low.

T.4.6 Soil Hazards

There are no historically undermined areas or areas at risk of land subsidence or collapsible or expansive soils that have been identified in the Town of Wellington. However, a significant area of potential collapsible soils has been identified southeast of the Town, as shown in Figure T-7. The overall significance of this hazard for the Town is Low.

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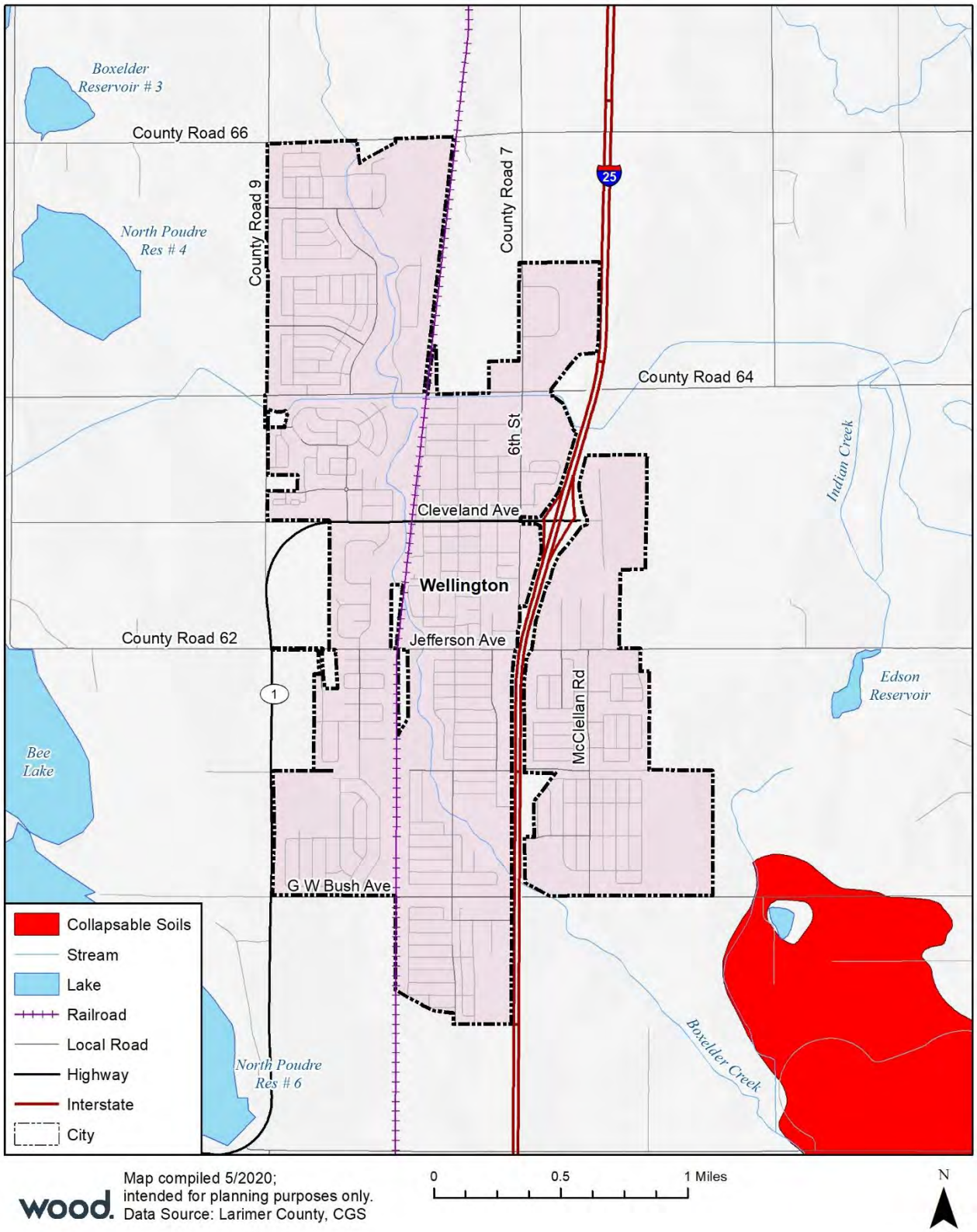
Figure T-7 Potential Collapsible Soils Areas – Town of Wellington



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

T.4.7 Wildfire

Areas in and around the Town of Wellington at risk of wildfire, based on CO-WRAP assessment, are shown in Figure T-8. Tables 4-72, 4-73, and 4-74 in the Wildfire profile of the Base Plan shows that the Town does not have any parcels at moderate, high, or highest risk of wildfire.

The Town has one critical facility identified at being at risk of wildfires, as shown in Table T-11.

Table T-11 Wellington Critical Facilities Exposed to Wildfire Risk

FEMA Lifeline	Lowest Risk	Low Risk	Moderate Risk	High Risk	Highest Risk	Total
Safety and Security	1					1
Total	**1**	**0**	**0**	**0**	**0**	**1**

Source: Cascarta, CO-WRAP

The overall significance of wildfire for the Town is Medium.

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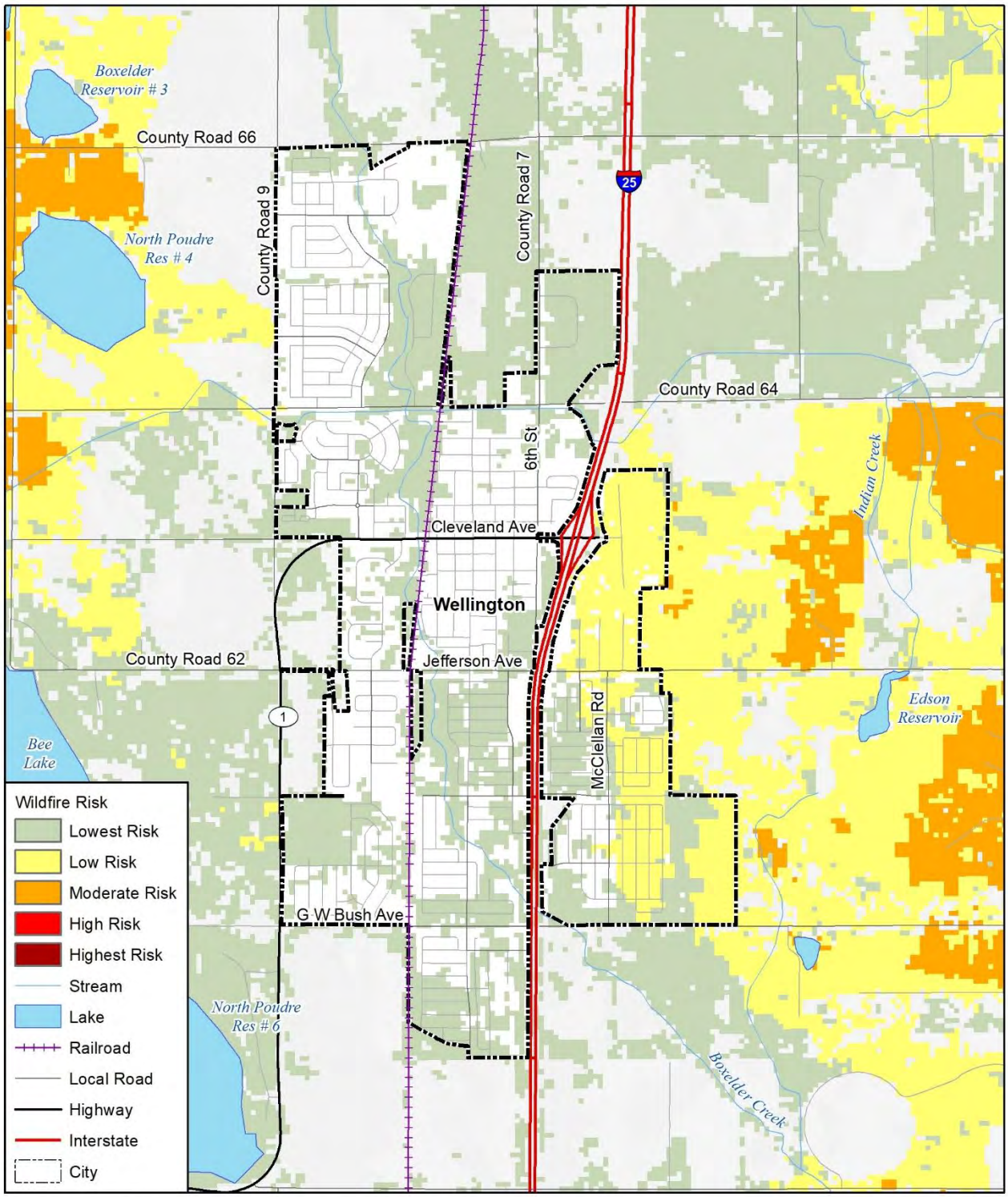
Figure T-8 Wellington Wildfire Risk



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CO-WRAP

0 0.5 1 Miles

N

T.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Town of Wellington to reduce hazard impacts or that could be used to implement hazard mitigation activities.

T.5.1 Existing Capabilities

The following tables summarize the Town's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Table T-12 Town of Wellington Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	Yes	
Zoning ordinance	Yes	
Subdivision ordinance	Yes	
Growth management ordinance	No	
Floodplain ordinance	Yes	
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Adopted infrastructure design standards
Building codes	Yes	2018 IBC
BCEGS Rating	No	
Fire department ISO rating	Yes	ISO rating 3, as provided by Wellington Fire Protection District
Erosion or sediment control program	Yes	
Stormwater management program	Yes	
Site plan review requirements	Yes	
Capital improvements plan	Yes	
Economic development plan	Yes	
Local emergency operations plan	No	
Community Wildfire Protection Plan	No	
Other special plans	No	
National Flood Insurance Program	Yes	Joined 1979
Community Rating System	No	
Flood insurance study or other engineering study for streams	Yes	
Elevation certificates (for floodplain development)	Yes	

Source: Town of Wellington planning team

Table T-13 Town of Wellington Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Planning and Building Department
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Public Works Department
Planner/engineer/scientist with an understanding of natural hazards	Yes	Public Works Department
Transportation Planner	Yes	Town Planner, Town Engineer
Resiliency Planner	No	

Personnel Resources	Yes/No	Department/Position/Comments
Personnel skilled in GIS	No	GIS services provided by consultant
Full time building official	No	New building official position in approved 2021 budget
Floodplain manager	Yes	Public Works Department
Emergency manager	No	
Grant writer	Yes	Finance Department
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Public Works Department
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	No	

Source: Town of Wellington planning team

Table T-14 Town of Wellington Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	Yes	No	
Capital improvements project funding	Yes	Yes	
Authority to levy taxes for specific purposes	Yes	Yes	
Fees for water, sewer, gas, or electric services	Yes	Yes	
Stormwater Service Fees	Yes	Yes	
Impact fees for new development	Yes	Yes	
Incur debt through general obligation bonds	Yes	Yes	
Incur debt through special tax bonds	Yes	No	
Incur debt through private activities	Yes	No	
Withhold spending in hazard prone areas	Yes	No	

Source: Town of Wellington planning team

Table T-15 Town of Wellington Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	No	
Firewise	No	
StormReady	No	
Other: Communications Specialist on staff	Yes	

Source: Town of Wellington planning team

Local land use plans and building codes are tremendous tools for evaluating local policies related to hazard mitigation and risk reduction. Additionally, comprehensive master plans, capital improvement plans, stormwater plans and zoning ordinances all present opportunities for enhanced local capabilities.

Building codes are another tool that communities use to enhance public safety. For example, they can increase structural integrity, mitigate structure fires, and provide benefits in relation to natural hazard avoidance. In Colorado, land use regulations and building codes are typically implemented at the local level. Even without a statewide mandate, most counties and many municipalities have enacted regulations and codes. The Town of Wellington has adopted a local building code requirement, demonstrating their understanding of the benefits codes provide, including reduced exposure to hazards.

T.5.2 Opportunities for Enhancement

Based on the capability assessment, Wellington has several existing mechanisms in place that already help to mitigate hazards. There are also opportunities for the Town 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 DHSEM. Additional training opportunities will help to inform Town staff and Town Council on how best to integrate hazard information and mitigation projects into the Town policies and ongoing duties of the Town. Continuing to train Town staff on mitigation and the hazards that pose a risk to the Town will lead to more informed staff members who can better communicate this information to the public.

Another capability enhancement would be to consider joining the CRS, which would require enhancements to the Town's floodplain management program; however the low number and value of flood insurance policies in the Town of Wellington means this would not significantly affect flood insurance affordability in the Town.

Although there are specific emergency response plans for critical facilities such as treatment plants, an overall adopted Emergency Action Plan is a probable future improvement.

T.6 Mitigation Strategy

The Town of Wellington has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The Town had two mitigation actions in the 2016 Plan, and has completed one of them:

- North Old Town Drainage Improvements – completed in 2017

The remaining action has been carried over into the 2021 Plan, along with three new actions.

Wellington has used FEMA Pre Disaster Mitigation funding for the Coal Creek Flood Mitigation Project, which removed flood hazard designation from most of the designated properties in the Town of Wellington and north of Wellington along Coal Creek. It reduced the acreage designated by FEMA as a floodplain by approximately 700 to 850 acres. It also reduced the flood hazard and damages for approximately 200 homes, dozens of businesses, and two schools, a community center, and commercial structures. A Letter of Map Revision (LOMR) was filed with FEMA and approved in February 2013.

The local planning team identified and prioritized the following mitigation actions for the Town of Wellington based on the risk assessment. 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. These actions are also captured in Table 6-2 in the Base Plan.

National Flood Insurance Program

Recognizing the importance of the National Flood Insurance Program (NFIP) in mitigating flood losses, the Town of Wellington will place an emphasis on continued compliance with the NFIP. As an NFIP participant, the Town has and will continue to make every effort to remain in good standing with NFIP. This includes continuing to comply with the NFIP's standards for updating and adopting floodplain maps and maintaining and updating the floodplain zoning ordinance as well as review of any potential development in special flood hazard areas.

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Table T-16 Town of Wellington 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
T-1	Goals 1,2,5 Objectives 3,5	Tornado	**Tornado Warning System.** Town of Wellington has no Tornado Warning System. Provide Tornado Warning System. Tornado Sirens or Reverse 911 type phone notification	**Town of Wellington,** Wellington Fire District, Larimer County Sheriff	TBD	Grants, Annual Budget	Medium	2024	Not completed/deferred.
T-2	Goals 1,2,3,5 Objectives 3,5	Drought, Fire, Hazardous Material	**Source Water Protection Plan.** Plan and implement various strategies for protecting source water for the drinking water system, such as natural and man-made pollutants, hazardous material and other contaminants. Benefits: Damage or loss of human life.	**Town of Wellington**, Larimer County, NPIC	TBD	Grant funding, Town utility funding	High	TBD	New in 2021
T-3	Goals 1,2,5 Objectives 3,5	Flood	**Stormwater Masterplan.** Plan and implement various drainage and stormwater management programs and improvements throughout the Town.	**Town of Wellington**	TBD	Grant funding, Town drainage funds	High	2021-2026	New in 2021
T-4	Goals 1,2,5 Objectives 3,5	Dam Inundation, Flood	**B-Dam Emergency Response Plan and Flood Warning System.** The B-Dams flood control structures located just upstream of the Town and have been reclassified as high hazard dams. These improvements are intended to provide early warning and a coordinated plan in the event of an overtopping event.	Town of Wellington, Larimer County, Town of Timnath, City of Fort Collins, North Poudre Irrigation Company	TBD	Grant funding, various funding from participating jurisdictions	High	2021 - 2026	New in 2021

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T.7 Plan Maintenance and Implementation

The Town of Wellington has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the town will continue public participation in the plan maintenance process.

T.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The Town of Wellington's implementation strategy included:

- The Town Board will review the plan annually in a work session.
  - This was not accomplished, because of extensive staff turnover.
- We will post mitigation plan on town website and update when mitigation actions are completed.
  - This was accomplished.
- We will integrate mitigation actions into our capital improvements plan.
  - This was partially accomplished. The North Old Town Drainage Improvements project was included in the CIP plan, and has been completed. The Tornado Warning System project was deferred.

Additional ways in which the Town incorporated information from the 2016 HMP into other plans and processes include:

- The lessons learned from the Old Town Drainage Improvements project led directly into a new town-wide Stormwater Masterplan project, which was included in the Town budget for 2021. That budget has been approved and adopted by the Board of Trustees.

T.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the Town to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Town Administrator or their designee will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Town Administrator, or their designee, will also be responsible for representing the Town on future Larimer County Planning Team meetings, and for coordination with town staff and departments during plan updates. The Town, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the Town Board of Trustees.

Integration Into Other Planning Mechanisms

The Town of Wellington will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the Town will:

- Incorporate information from the HMP into the Comprehensive Plan and Land Use update projects, which are currently underway and scheduled for completion in mid-2021, as appropriate.
- Incorporate information from the HMP into various infrastructure masterplans which are either currently underway or included in the adopted 5-year CIP plan, as appropriate.
- Incorporate information from the HMP into existing public education & outreach programs.

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- Post information on the Town's website and utilize internal communications staff to get information to citizens and businesses.
- Mitigation actions will be incorporated into the 5-year capital improvement plan, beginning in 2021.
- Appropriate town departments and staff will meet annually to discuss items that need to be updated and look at progress of action items.

Continued Public Involvement

The Town will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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T.8 Letter of Intent to Participate

TOWN OF WELLINGTON
3735 CLEVELAND AVENUE
P.O. BOX 127
WELLINGTON, CO 80549
TOWN HALL (970) 568-3381
FAX (970) 568-9354
www.wellingtoncolorado.gov

LETTER OF INTENT TO PARTICIPATE

December 1, 2018

Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins CO 80522
Attn: Lori Hodges, Director of Emergency Management

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, Town of Wellington is submitting this letter of intent to confirm that Town of Wellington has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, Town of Wellington agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

Town of Wellington understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I Troy Hamman, Mayor, commit Town of Wellington to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 1st day of December, 2018

Troy Hamman, Mayor Town of Wellington

U. Wellington Fire Protection District

"Essential community partners serving as a cohesive team of highly skilled, professional responders exceeding expectations with courage, confidence, and uncompromising safety."

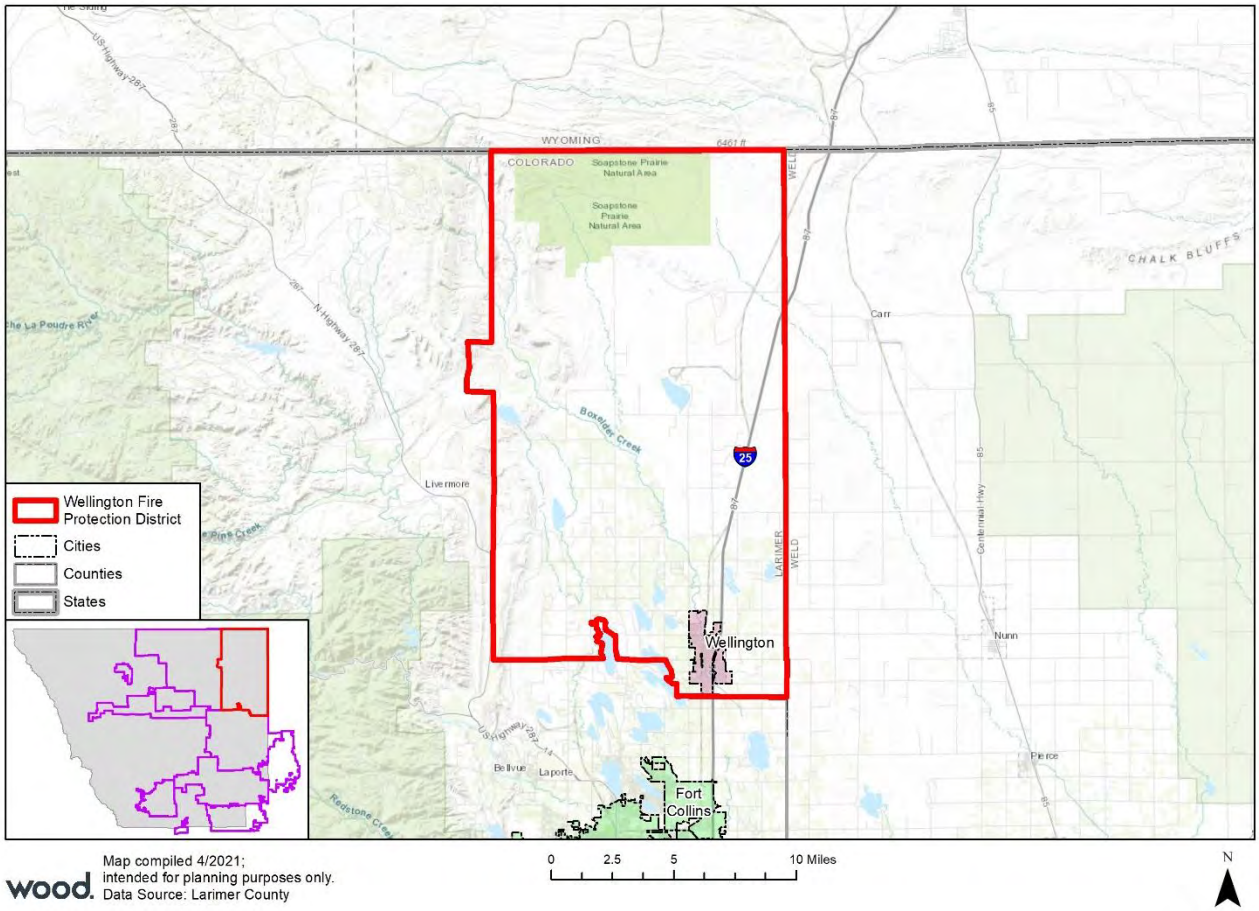
— Vision Statement, Wellington Fire Protection District

U.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Wellington Fire Protection District participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section U.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the District on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

Figure U-1 Map of the Wellington Fire Protection District



U.2 Community Profile

The Wellington Fire Protection District (WFPD) serves over 15,000 residents living throughout an area of 288 square miles in Northern Colorado. The members respond to over 900 calls per year ranging from medical emergencies to hazardous material incidents. Along with major transportation and rail corridors, the WFPD also includes significant regional utility transmission infrastructure and natural resources.

U.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table U-1 Hazard Identification and Risk Assessment Summary for the Wellington Fire Protection District

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Likely	Extensive	Catastrophic	High
Civil Disturbance	Occasional	Limited	Negligible	Low
Dam Inundation	Occasional	Extensive	Critical	Medium
Drought	Likely	Significant	Significant	Medium
Earthquake	Occasional	Extensive	Catastrophic	High
Soil Hazards	Occasional	Limited	Negligible	Low
Flood	Highly Likely	Significant	Critical	High
Hazardous Materials	Highly Likely	Significant	Catastrophic	High
Landslide/Rockslide	Occasional	Limited	Negligible	Low
Spring/Summer Storm	Highly Likely	Extensive	Critical	Medium
Tornado	Likely	Extensive	Catastrophic	High
Utility Disruption	Highly Likely	Significant	Critical	High
Wildfire	Highly Likely	Significant	Significant	High
Winter Storm	Highly Likely	Extensive	Critical	Medium

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

U.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Wellington Fire Protection District, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the District's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Drought
- Earthquake
- Hazardous Materials Incident
- Spring/Summer Storm
- Tornado
- Utility Disruption
- Winter Storm

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

U.4.1 Community Asset Inventory

Table U-2 lists summary information about the 35 critical facilities identified as important to protect or that provide critical services in the event of a disaster. Only six of these facilities are in the Town of Wellington. For additional information on critical facilities, to include the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan and Annex T Town of Wellington.

Table U-2 Wellington Fire Protection District Critical Facilities and Infrastructure

FEMA Lifeline	Count
Energy	1
Food, Water, Shelter	28
Miscellaneous	1
Safety and Security	5
Total	**35**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

U.4.2 Civil Disturbance

There is no significant history of civil disturbance risk in the Wellington Fire Protection District. The overall significance of this hazard for the District is Low.

U.4.3 Dam Inundation

Figure 4-5 in Section 4.3.3 of the Base Plan shows potential dam inundation areas in the Wellington Fire Protection District, including a number of High Hazard dams. As show in Table U-3, half of the critical facilities in the District are potentially at risk of dam inundation. The overall significance of this hazard for the District is Medium.

Table U-3 Critical Facilities at Risk of Dam Inundation

FEMA Lifeline	Count
Communications	
Food, Water, Shelter	13
Miscellaneous	1
Safety and Security	4

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FEMA Lifeline	Count
Total	**18**

Source: USACE National Inventory of Dams 2018, Colorado Dam Safety Program, Cascarta, Larimer County GIS, U.S. Census Bureau, Wood analysis

U.4.4 Flood

Figure 4-19 in Section 4.3.6 of the Base Plan shows mapped flood hazard areas within the Wellington Fire Protection District boundaries. As show in Table U-4 eight critical facilities are potentially at risk of dam inundation. The overall significance of this hazard for the District is High.

Table U-4 Critical Facilities at Risk of Flooding

FEMA Lifeline	1% Floodplain	0.2% Floodplain
Energy	5	
Miscellaneous		1
Safety and Security	1	1
Total	**6**	**2**

Source: Cascarta, FEMA NFHL Effective 2/6/2013 and Preliminary 3/8/2019, Larimer County Assessor's Office, Wood analysis

U.4.5 Landslide/Rockslide

Figure 4-27 in Section 4.3.8 of the Base Plan shows little potential landslide or rockslide risk in the Wellington Fire Protection District. No critical facilities have been identified as at risk of landslide or rockfall. The overall significance of this hazard for the District is Low.

U.4.6 Soil Hazards

Section 4.3.9 in the Base Plan shows several historically undermined areas in the Wellington Fire Protection District, but few areas at risk of collapsible or expansive soils. No critical facilities have been identified as at risk of soil hazards. The overall significance of this hazard for the District is Low.

U.4.7 Wildfire

As seen in Section 4.3.13 of the Base Plan, significant portions of the District are classified as being at Moderate or High risk of wildfires. Table U-5 shows several critical facilities exposed to wildfire risk. The overall significance of this hazard for the District is High.

Table U-5 Critical Facilities at Risk of Wildfire

FEMA Lifeline	Moderate Risk	Low Risk	Lowest Risk
Energy	1		
Food, Water, Shelter	11	5	2
Safety and Security			2
Total	**12**	**5**	**4**

Source: Cascarta, CO-WRAP, Wood analysis

U.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Wellington Fire Protection District to reduce hazard impacts or that could be used to implement hazard mitigation activities.

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U.5.1 Existing Capabilities

The following tables summarize the District's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Wellington FPD does not currently have a Community Wildfire Protection Plan (CWPP) in place but has submitted a new action to create one.

Table U-6 Wellington Fire Protection District Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	Yes	Actively participating in the Town of Wellington Comprehensive Master Plan process
Zoning ordinance	Yes	Included with the Town of Wellington zoning ordinance
Subdivision ordinance	No	
Growth management ordinance	Yes	Included with the Town of Wellington
Floodplain ordinance	No	
Other special purpose ordinance (stormwater, steep slope, wildfire)	No	
Building codes	Yes	Adopted the 2018 Fire Code in 2019
Fire department ISO rating	Yes	3 in Town and 5/10 in the unincorporated areas
Erosion or sediment control program	No	
Stormwater management program	Yes	Included with the Town of Wellington
Site plan review requirements	Yes	
Capital improvements plan	Yes	Adopted a 5 +1 Capital improvement plan in 2020
Economic development plan	No	
Local emergency operations plan	Yes	Incorporated with Larimer County
Other special plans	No	
Flood insurance study or other engineering study for streams	No	
Elevation certificates (for floodplain development)	No	

Source: Wellington Fire Protection District planning team

Table U-7 Wellington Fire Protection District Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Included with the Town of Wellington
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Included with the Town of Wellington
Planner/engineer/scientist with an understanding of natural hazards	No	
Personnel skilled in GIS	Yes	Deputy District Manager
Full time building official	Yes	Included with the Town of Wellington
Floodplain manager	No	
Emergency manager	Yes	Included with Larimer County
Grant writer	Yes	Deputy District Manager
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Deputy District Manager and partnership with PFA

Personnel Resources	Yes/No	Department/Position/Comments
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	

Source: Wellington Fire Protection District planning team

Table U-8 Wellington Fire Protection District Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	No	No	
Capital improvements project funding	Yes	Yes	
Authority to levy taxes for specific purposes	Yes	Yes	
Fees for water, sewer, gas, or electric services	No	No	
Impact fees for new development	Yes	No	Implemented in 2019
Incur debt through general obligation bonds	Yes	No	
Incur debt through special tax bonds	Yes	No	
Incur debt through private activities	No	No	
Withhold spending in hazard prone areas	No	No	

Source: Wellington Fire Protection District planning team

Table U-9 Wellington Fire Protection District Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	Yes	
Firewise	No	
StormReady	No	
Other?	No	

Source: Wellington Fire Protection District planning team

U.5.2 Opportunities for Enhancement

Based on the capability assessment, the Wellington Fire Protection District 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 DHSEM. Additional training opportunities will help to inform District staff 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.

U.6 Mitigation Strategy

The Wellington Fire Protection District has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The District had two mitigation actions in the 2016 Plan, and has completed one of them:

- Completed implementing a Homeowner Fire Mitigation program through community risk reduction practices, open house opportunities and extensive social media engagement.

The remaining action has been carried over into the 2021 Plan, along with four new actions.

The District planning team identified and prioritized the following mitigation actions for the Wellington Fire Protection District based on the risk assessment. 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.

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Table U-10 Wellington Fire Protection District 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
U-1	Goals 1,2,3,5 Objectives 3,5	Hazmat	**Railroad Pre-Incident Planning.** Interagency communication, information sharing, initial response and evacuation planning. Interagency coordinated development of a pre-incident plan and regional exercise. Development of a Pre-Incident Response and Evacuation Plan	**Wellington Fire Protection District,** Colorado State Patrol, Colorado Department of Transportation, BNSF, Larimer County Emergency Management, Larimer County Sheriff's Office, Poudre Fire Authority.	$8,000 (inclusive of estimated personnel time and exercise supplies)	Grant funding, private sector investment, interagency training funds	High	2024	In progress. Work and planning toward this 2015 objective are ongoing. The District is process of preparing hazard mapping and developing a hazard system warning plan
U-2	Goals 1,2,3,4,5 Objectives 1,3,4,5	Hazmat	**H-3 Occupancy Hazard Preparedness.** The District received building plans for an H3 occupancy extraction facility. This is the first of this classification within the Fire District and preventative and educational action are planned to be taken. Benefit: The benefit of this is to prevent significant property damage to a commercial park closely located to a community park. Strengthen our Fire Prevention office with the addition of hazardous material training and public education opportunities around the ground marijuana and hemp industry in northern Colorado.	**Wellington Fire Protection District**, Larimer County, Fire Marshall Association, and surrounding fire jurisdictions	$3,000 (inclusive of estimated personnel time and exercise supplies)	General fund and scholarship opportunities	Medium	2022	New in 2021.
U-3	Goals 1,2,3,4,5 Objectives 3,5	Drought	**Drought Mitigation Planning and Public Outreach.** Interagency communication, information sharing, initial response, and redundancy planning. Interagency coordinated development of a pre-incident plan for emergency access points for water. The District is process of preparing hazard mapping to target key areas of concern. The project will include acquiring above ground storage for water as well as stocking bottled water for consumption. The District will then conduct a robust public outreach program to educate the public on the new planning efforts, and address conservation efforts to help mitigate loss of property or life from drought conditions.	**Wellington Fire Protection District,** Town of Wellington, and Larimer County Emergency Management	$100,000	General fund, community partnerships and grant funding	Medium	2024	New in 2021. A PIO position was recently added to the District to support community awareness.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
U-4	Goals 1,2,3,5 Objectives 3,5	Wildfire	**Homeowner Fire Mitigation Program.** The District has a high risk of large-scale grassfires that can move quickly and cause damage and destruction. This project will inform homeowners and property owners of best practices in mitigating properties against wildfire and grassfire hazards, and encourage implementation of mitigation activities. Present at community meetings, provide written recommendations and actions to homeowners and provided one-on-one assessments regarding wildfire/grassfire risk.	**Wellington Fire Protection District,** Larimer County Emergency Management, Larimer County Sheriff's Office, Poudre Fire Authority.	$2,500 (inclusive of estimated personnel time and exercise supplies)	Grant funding, private sector investment, interagency training funds	Medium	2024	New in 2021. A PIO position was recently added to the District to support community awareness.
U-5	Goals 1,2,3,4,5 Objectives 1,2,3,4,5	Wildfire	**Community Wildfire Protection Plan.** The Wellington Fire Protection District is not covered by a Community Wildfire Protection Plan (CWPP) but intends to develop one. The purpose of the CWPP is risk analysis, fire behavior analysis and community wildfire hazard rating (WHR) to provide a more comprehensive, scientifically-based assessment of the wildfire hazards and risk within our jurisdiction.	Wellington Fire Protection District	$20,000	District budge & grants	Medium	2022	New in 2021.

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U.7 Plan Maintenance and Implementation

Wellington Fire Protection District has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the district will continue public participation in the plan maintenance process.

U.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The District's implementation strategy included:

- The plans and our mitigation actions will be reviewed and updated with County, Town, and mutual aid agencies on an annual basis.
  - This wasn't accomplished, because of prioritization and staffing availability.
- We will work cooperatively with the County, Town and other local agencies to seek input and share in public communication efforts.
  - This was accomplished through shared coordination and public information.
- Plans and actions will be integrated into fire district SOP's, Strategic Planning, Annual Budget Development, and coordinated with County and Town efforts.
  - This wasn't accomplished but is currently in progress. It was not completed due to limitations of staffing and prioritization.

Additional ways in which the District incorporated information from the 2016 HMP into other plans and processes included integrating 2016 HMP information into the adopted 2020 Capital Improvement Plan.

U.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the District to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

Integration into Other Planning Mechanisms

The Wellington Fire Protection District will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the District will:

- WFPD and relevant entities will meet annually to discuss items that need to be updated and look at progress of action items.
- Incorporate information from the HMP into existing public education & outreach programs.
- Post information on the Town's and WFPD's website and utilize community partnerships to get information to citizens and businesses.
- Mitigation actions will continue to be incorporated in capital improvement planning.
- Incorporate information from the HMP into the current update of the Town's comprehensive plan/zoning code/etc.]

Continued Public Involvement

The Wellington Fire Protection District will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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U.8 Letter of Intent to Participate

LETTER OF INTENT TO PARTICIPATE

WELLINGTON FIRE PROTECTION DISTRICT

December 14, 2018

Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins CO 80522
Attn: Lori Hodges, Director of Emergency Management

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Wellington Fire Protection District (District) is submitting this letter of intent to confirm that the District has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, the District agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

The District understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I, Gary L. Green, Fire Chief, commit the District to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 14th day of December, 2018

Gary L. Green
Fire Chief

V. TOWN OF WINDSOR

"Windsor is the hub of Northern Colorado; a safe, unique and special town that offers diverse cultural and recreation opportunities. Windsor is recognized as a regional leader that demonstrates fiscal responsibility, environmental stewardship and strategic excellence. A town that thinks big and embraces its hometown pride. The Town of Windsor promotes community and hometown pride through sustainable, excellent and equitable delivery of services in a fiscally responsible manner."

–Town of Windsor Strategic Plan, 2018

V.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. The Town of Windsor participated in the 2016 Larimer County Hazard Mitigation Plan, and has been active in implementing that plan as described in Section V.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the Town on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

V.2 Community Profile

Windsor was founded in 1882 and was incorporated on April 2, 1890. The Town's location in the fertile Cache la Poudre River Valley, the introduction of irrigation, and the development of the railroad through the area each contributed to the early development of the Town and Region. Windsor's early economy was centered largely on agriculture. As compared to the dramatic population increases of the 1970s, Windsor experienced only moderate growth between 1980 and 1990. During this time period, population growth in the Region was concentrated mainly in the larger cities of Fort Collins and Loveland, where large employers such as the Colorado State University and the Hewlett-Packard Corporation are located.

Figure V-1 shows a map of the Town of Windsor.

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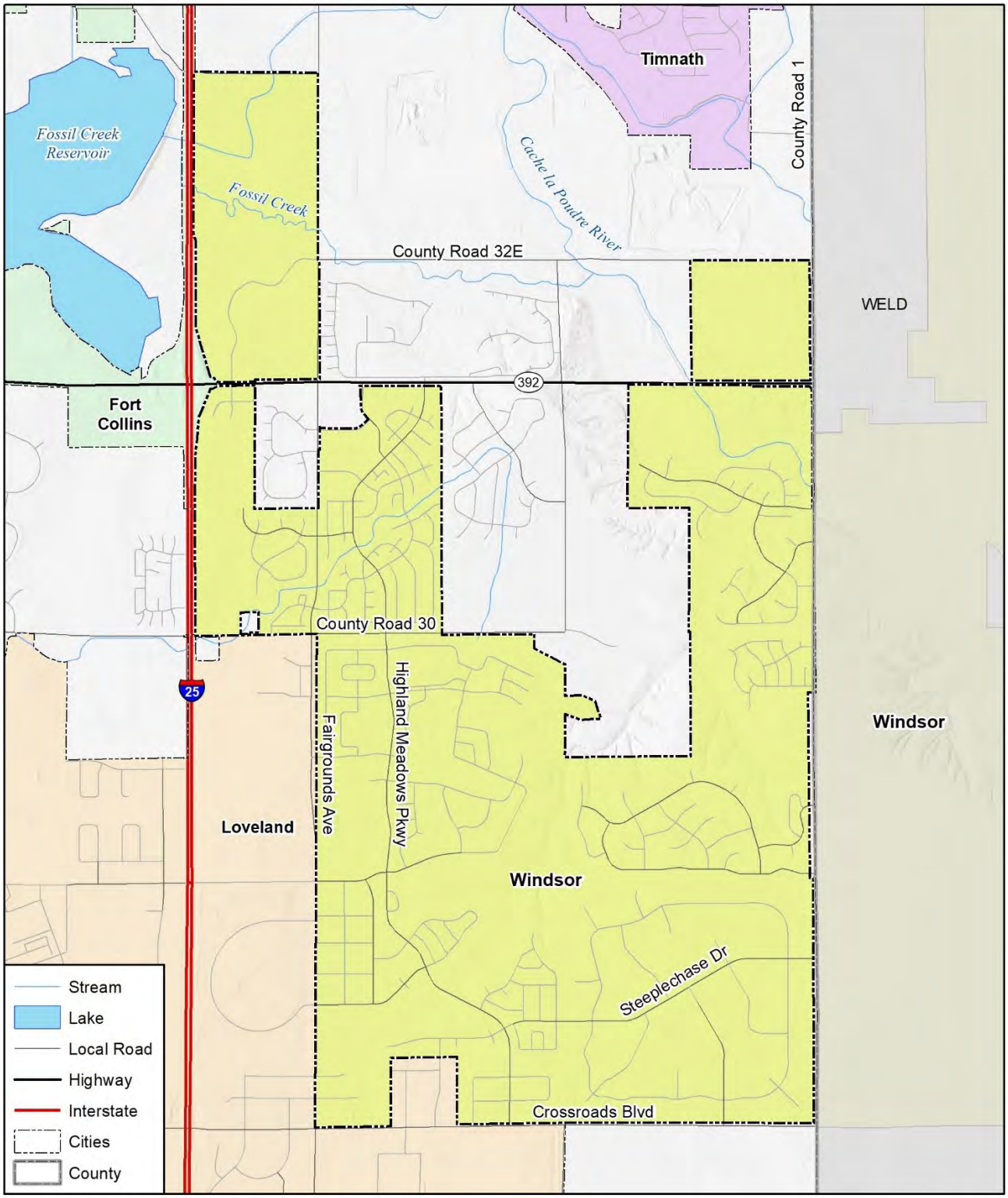
Figure V-1 Map of the Town of Windsor



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County

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V.2.1 Demographics

The following tables and graphs summarize key demographic and social characteristics of the Town of Windsor.

Table V-1 Town of Windsor Statistics

Town of Windsor	2014	2018	% Change
Population	19,865	25,232	27.0%
Median Age	38	38.8	2.1%
Total Housing Units	7,530	9,207	22.3%
Housing Occupancy Rate	95.8%	97.2%	1.5%
% of Housing Units with no Vehicles Available	4.10%	2.50%	-39.0%
Median Home Value	$276,400	$374,700	35.6%
Unemployment Rate	4.4%	3.0%	-31.8%
Mean Travel Time to Work (minutes)	23.7	24.8	4.6%
Median Household Income	$82,724	$96,710	16.9%
Per Capita Income	$36,082	$41,262	14.4%
% of Individuals Below Poverty Level	4.8%	4.3%	-10.4%
% Without Health Insurance	6.4%	3.3%	-48.4%
# of Households	7,210	8,952	24.2%
Average Household Size	2.7	2.8	2.6%
% of Population Over 25 with High School Diploma	96.8%	97.2%	0.4%
% of Population Over 25 with bachelor's degree or Higher	44.6%	44.9%	0.7%
% with Disability	7.7%	7.5%	-2.6%
% Speak English less than "Very Well"	1.1%	1.6%	45.5%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table V-2 Demographic and Social Characteristics Compared to the County and State

Demographic & Social Characteristics (as of 2018)	Windsor	County	Colorado
Median Age	38.8	35.9	36.6
Housing Occupancy Rate	97.2%	91.7%	89.8%
% of Housing Units with no Vehicles Available	2.5%	4.1%	5.2%
Median Home Value	$374,700	$336,200	$313,600
Unemployment	3.0%	5.0%	4.7%
Mean Travel Time to Work (minutes)	24.8	23.2	25.5
Median Household Income	$96,710	$67,664	$68,811
Per Capita Income	$41,262	$35,390	$36,415
% of Individuals Below Poverty Level	4.3%	12.0%	10.9%

Demographic & Social Characteristics (as of 2018)	Windsor	County	Colorado
% Without Health Insurance	3.3%	6.3%	8.1%
Average Household Size	2.8	2.5	2.6
% of Population Over 25 with High School Diploma	97.2%	95.8%	91.4%
% of Population Over 25 with bachelor's degree or Higher	44.9%	46.3%	40.1%
% with Disability	7.5%	9.8%	10.6%
% Speak English less than "Very Well"	1.6%	2.6%	5.9%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table V-3 Demographics by Race and Sex

Windsor	Population	%
Total Population	25,232	100%
Male	12,241	48.5%
Female	12,991	51.5%
White, not Hispanic	21,852	86.6%
Hispanic or Latino	2,007	8.0%
Black	100	0.4%
Asian	603	2.4%
American Indian and Alaska Native	106	0.4%
Native Hawaiian and Other Pacific Islander	9	0.0%
Some other race	224	0.9%
Two or more races	737	2.9%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

Table V-4 Types and Total Amounts of Housing Units in Windsor

Type of Housing Units	Total	%
Total housing units	9,207	100%
1-unit detached	7,812	84.8%
1-unit attached	337	3.7%
2 units	119	1.3%
3 or 4 units	128	1.4%
5 to 9 units	417	4.5%
10 to 19 units	88	1.0%
20 or more units	278	3.0%
Mobile home	28	0.3%
Boat, RV, van, etc.	0	0.0%

Source: U.S. Census Bureau American Community Survey, www.census.gov/

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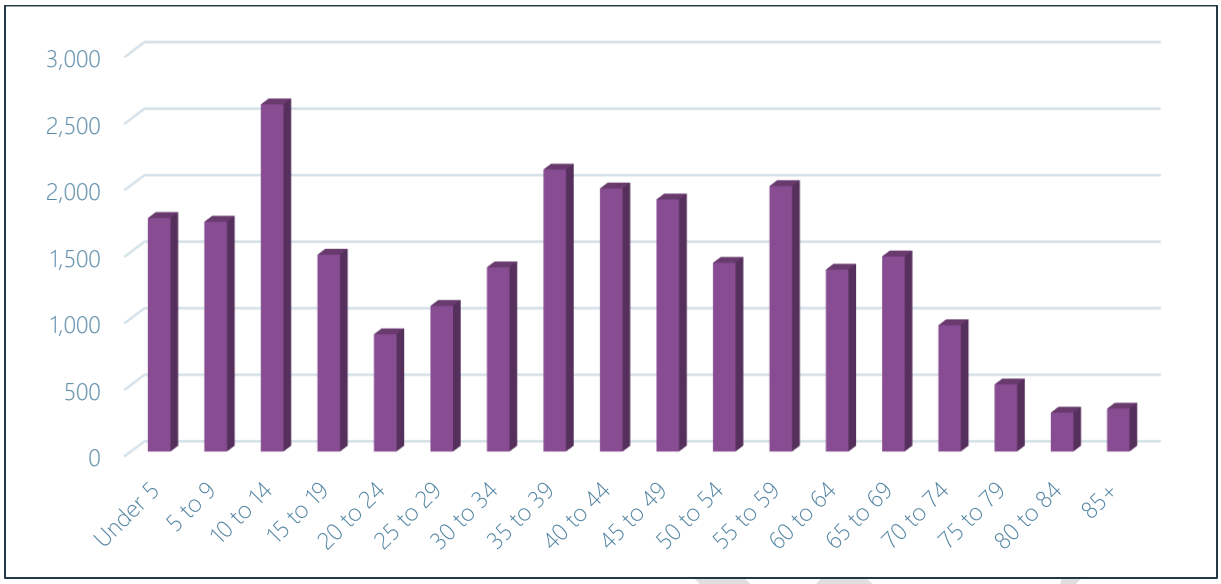
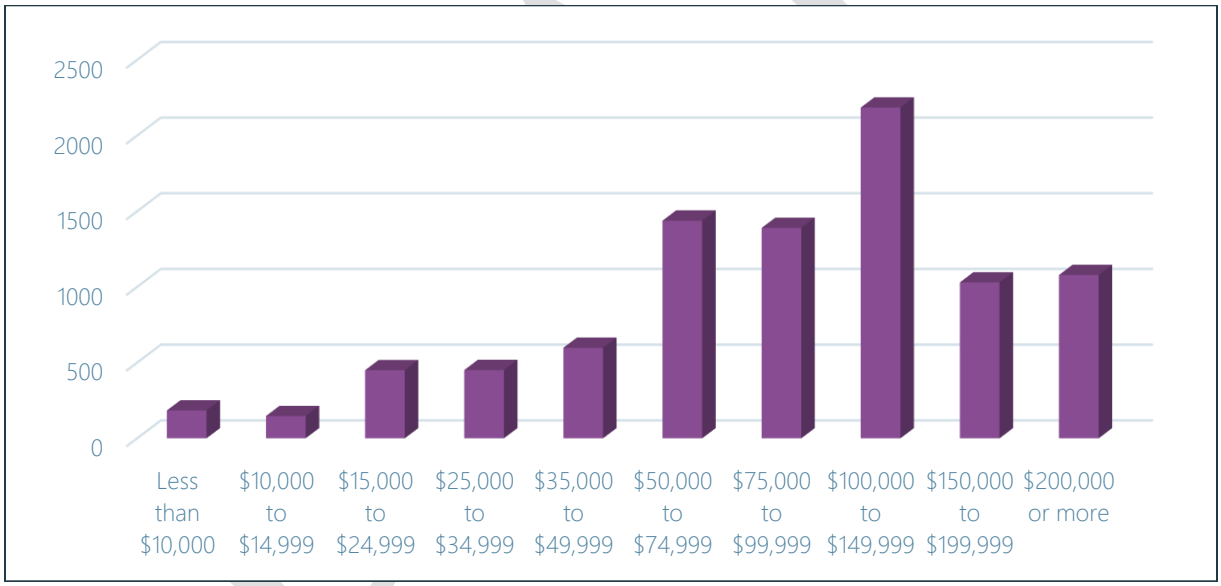
Figure V-2 Town of Windsor Population Distribution by Age



Source: U.S. Census Bureau American Community Survey, www.census.gov/

Figure V-3 Town of Windsor Income Distribution



Source: U.S. Census Bureau American Community Survey, www.census.gov/

V.2.2 Social Vulnerability

Social vulnerability scores for the Town of Windsor can be seen in Figures 2-4 through 2-8 in Section 2 of the Base Plan. Windsor's overall social vulnerability is below average compared to the rest of Larimer County and Colorado as a whole. In particular, Windsor's vulnerability ranks below average in the minority status and language vulnerability, as well as housing and transportation vulnerability. However, the Town's vulnerability ranks above average in the household composition and disability vulnerability category. Close analysis of the individual social vulnerability indicators within the community will give local emergency managers, planners, and stakeholders a clearer picture of which social vulnerability factors threaten the community the most and where social and economic resources should be allocated in order

to reduce vulnerability. Over time, the town should continue to monitor their local social vulnerability as demographic, economic, and housing related conditions change.

For more discussion of Social Vulnerability, see Section 2.7 of the Base Plan.

V.3 Hazard Identification and Risk Assessment

The Town of Windsor is situated in both Larimer and Weld Counties. For the purpose of this plan, spatially analyzed hazard risks have been assessed for the areas of the town that lie specifically within Larimer County. The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table V-5 Hazard Identification and Risk Assessment Summary for the Town of Windsor

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Highly Likely	Extensive	Catastrophic	High
Civil Disturbance	Likely	Limited	Significant	Medium
Dam Inundation	Occasional	Limited	Significant	Medium
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Significant	Catastrophic	Medium
Flood	Likely	Limited	Critical	High
Hazardous Materials	Likely	Limited	Significant	Medium
Landslide/Rockslide	Likely	Limited	Significant	Low
Soil Hazards	Highly Likely	Significant	Significant	Medium
Spring/Summer Storm	Highly Likely	Extensive	Critical	High
Tornado	Likely	Limited	Critical	High
Utility Disruption	Likely	Significant	Critical	Medium
Wildfire	Highly Likely	Significant	Critical	Medium
Winter Storm	Highly Likely	Extensive	Critical	High

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

V.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Town of Windsor, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the Town's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Tornado
- Utility Disruption

For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

V.4.1 Community Asset Inventory

Table V-6 shows the total number of improved parcels, properties, and their improvement and content values for the Town of Windsor. See Section 4.2.2 of the Base Plan for details and methodology.

Table V-6 Total Exposure of Improved Properties within the Town of Windsor

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value
Agricultural	2,183	2,587	$848,882,468	$848,882,468	$1,697,764,936
Commercial	1,077	1,753	$542,488,008	$542,488,008	$1,084,976,016
Exempt	310	1,178	$282,034,786	$282,034,786	$564,069,572
Industrial	91	117	$77,906,548	$116,859,834	$194,766,382
Mobile Home	257	3,059	$242,398,985	$121,199,488	$363,598,473
Multiple Unit	46	134	$18,812,653	$18,812,653	$37,625,306
Residential	25,361	27,742	$9,199,343,297	$4,599,671,632	$13,799,014,929
Total	29,325	36,570	$11,211,866,745	$6,529,948,869	$17,741,815,614

Source: Larimer County GIS/Assessor's Office, Wood analysis.

Table V-7 lists summary information for the one critical facility identified by the Town as important to protect or that provide critical services in the event of a disaster. This facility is mapped in Figure V-4. For additional information on the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan.

Table V-7 Town of Windsor Critical Facilities and Infrastructure Summary

FEMA Lifeline	Count
Energy	1
Total	1

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

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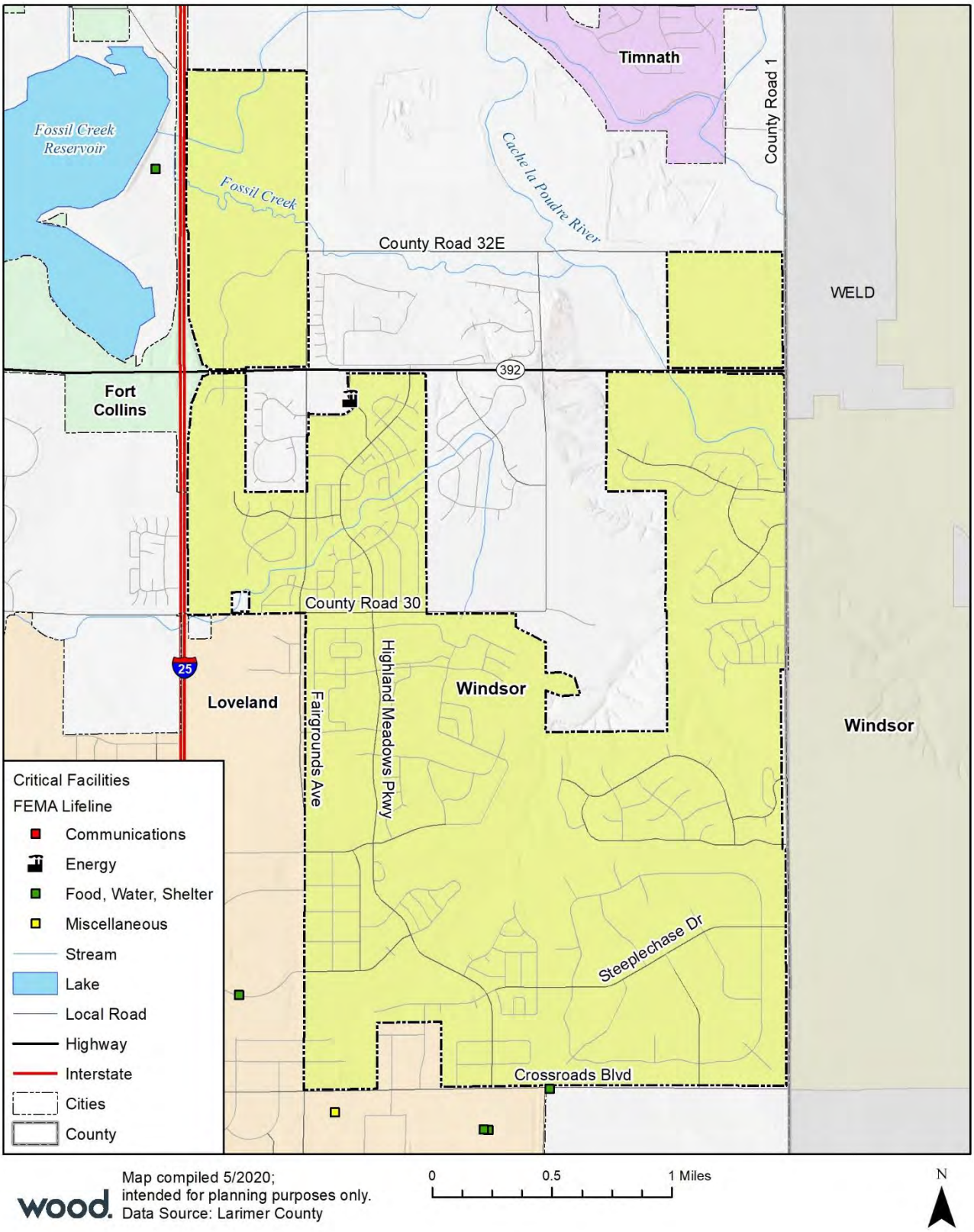
Figure V-4 Town of Windsor Critical Facilities and Infrastructure



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County

V.4.2 Dam Inundation

Potential dam inundation areas in and around the Town of Windsor are shown in Figure V-5.

Figure V-5 Dam Inundation Areas for the Town of Windsor

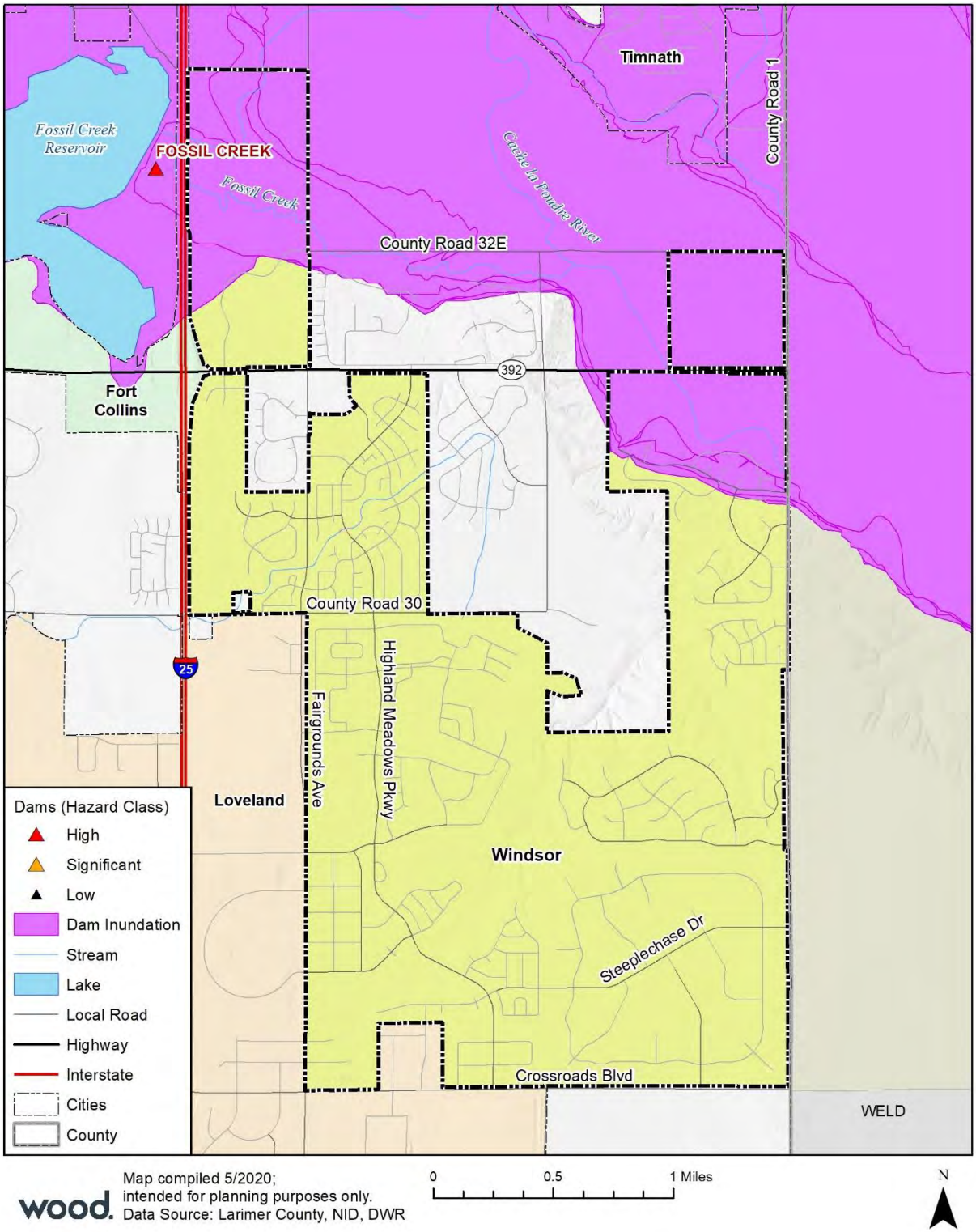


Table 4-17 in Section 4.3.3 of the Base Plan lists dams of concern for Larimer County. Dams upstream of the Town of Windsor are:

- Cobb Lake
- Fossil Creek
- Warren Lake

Table V-8 shows that Windsor has 147 parcels potentially at risk of dam inundation, valued at $93M; This constitutes 5% of the total improved parcels in the Town. An estimated 364 residents live in those parcels.

Table V-8 Town of Windsor Parcels Potentially at Risk of Dam Inundation

Property Type	Improved Parcels	Building Count	Improved Value	Content Value	Total Value	Population
Agricultural	1	1	$140,720	$140,720	$281,440	
Commercial	146	148	$61,844,668	$30,922,334	$92,767,002	364
Total	**147**	**149**	**$61,985,388**	**$31,063,054**	**$93,048,442**	**364**

Source: USACE National Inventory of Dams 2018, Colorado Dam Safety Program, Larimer County GIS, U.S. Census Bureau, Wood analysis

The critical facility identified in the Town of Windsor is not located in an area at risk of dam inundation.

Based on the above analysis, the spatial extent and severity of the dam inundation hazard in the Town of Windsor is lower than that of Larimer County as a whole. The overall significance of this hazard for the Town is Medium.

V.4.3 Flood

FEMA mapped floodplains in and around the Town of Windsor are shown in Figure V-6.

The Town of Windsor does not have any parcels, buildings, or critical facilities in either the 1% or 0.2% annual chance of flooding areas.

Based on the above analysis, the spatial extent and severity of the flood hazard in the Town of Windsor is lower than Larimer County as a whole. The overall significance of this hazard for the Town is Low.

National Flood Insurance Program Policy Analysis

Windsor has participated in the National Flood Insurance Program (NFIP) since 1991. NFIP insurance data shows that as of January 2021 there were 63 flood insurance policies in force in the Town with $19,820,000 of coverage, although the majority of these are on the Weld County side of town. There have been 11 historical claims for flood losses, totaling $6,932. There are no repetitive or severe repetitive loss structures as defined by the NFIP. The Town of Windsor does not participate in the Community Rating System (CRS) program.

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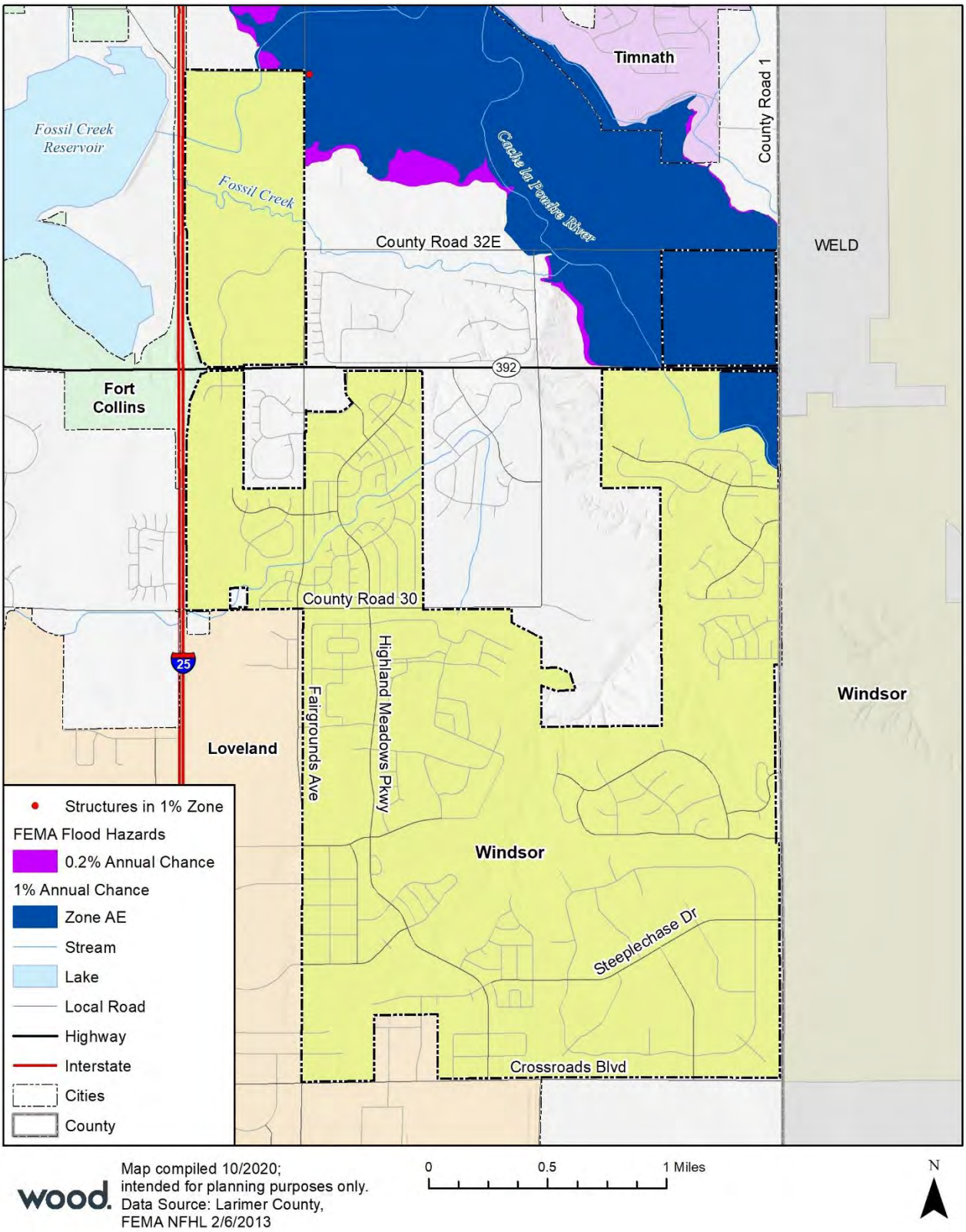
Figure V-6 FEMA Special Flood Hazard Areas for the Town of Windsor



wood.

Map compiled 10/2020;
intended for planning purposes only.
Data Source: Larimer County,
FEMA NFHL 2/6/2013

V.4.4 Hazardous Materials Incident

The only designated hazardous materials route passing through or near the Town of Windsor is I-25. None of the County's Risk Management Plan (RMP) facilities are located within the Town limits.

The National Response Center (NRC) data cited in Section 4.3.7 of the Base Plan includes just two hazardous materials incidents in or near the Town of Windsor from 1987 through 2019. This averages out to one hazardous materials incident every fifteen years. None of those incidents reported any deaths, injuries, or significant property damage.

Based on the above analysis, the frequency and spatial extent of hazardous materials incidents in the Town of Windsor is lower than that of Larimer County as a whole. The overall significance of this hazard for the Town is Medium.

V.4.5 Landslide/Rockslide

There are no identified areas of landslide or rockslide risk in the Town of Windsor. The overall significance of this hazard for the Town is Low.

V.4.6 Soil Hazards

No historically undermined areas or areas at risk of land subsidence or expansive soil have been identified in the Town of Windsor; however, portions of the Town are at risk of collapsible soil, as shown in Figure V-7. There are no critical facilities at risk of land subsidence, collapsible soil, or expansive soil within the Town.

Table 4-49 in Section 4.3.9 of the Base Plan shows 1,019 parcels and 1,032 buildings at risk to collapsible soils, with a total value of $777,079,621; this represents 35% of the total parcels in Windsor. The overall significance of this hazard for the Town is Medium.

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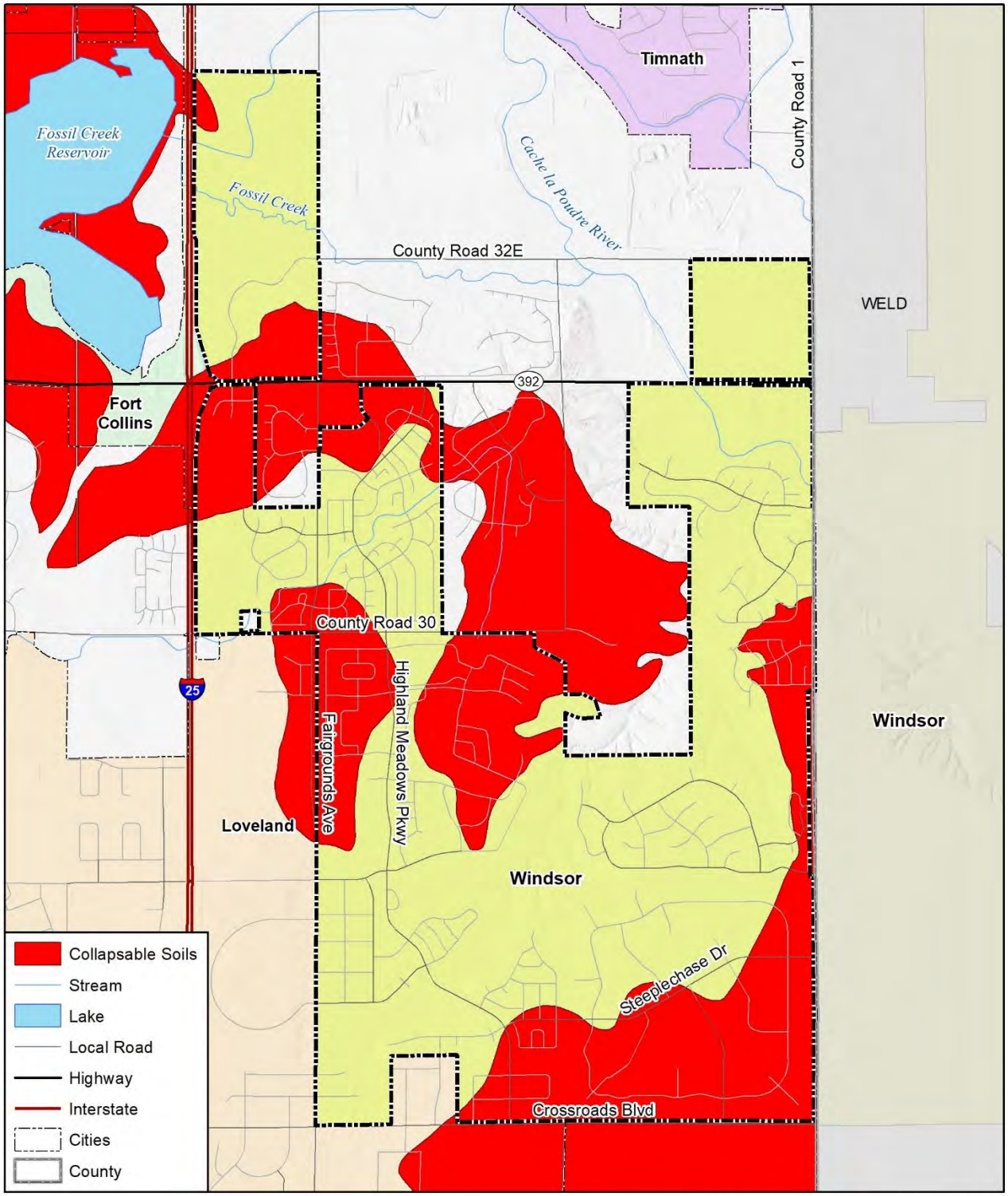
Figure V-7 Potential Collapsible Soils Areas – Town of Windsor



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CGS

0 0.5 1 Miles

N

V.4.7 Tornado

The Town of Windsor has had a significant history of tornadoes. There have been six recorded tornadoes in Windsor between 1954 and 2020, although all six were in the Weld County side of Town.

The most severe event occurred on May 22, 2008. This EF3 tornado traveled in a north westerly direction and reached speeds of over 165 miles per hour. This tornado event consisted of a formation of several combined tornadoes forming a wedge that was between a half and three quarters of a mile wide. The tornado caused damage to not only the Town of Windsor but also the towns of Milliken, Platteville, Gilchrest, and the City of Greeley. One person was killed at the Missile Silo Campground near Greeley. The tornado impacted area received a Presidential Major Disaster Declaration, and received $420 million in FEMA Individual Assistance. The Rocky Mountain Insurance Information Association (RMIIA) reported that there was an estimated $193.5 million in insured damages and approximately 24,000 auto and homeowners' claims. Additional details concerning this damaging event can be found in the post- event reports posted on the Town's website.

The overall significance of this hazard for the Town is High.

V.4.8 Wildfire

Areas in and around the Town of Windsor at risk of wildfire, based on CO-WRAP assessment, are shown in Figure V-8. Tables 4-72, 4-73, and 4-74 in the Wildfire profile of the Base Plan shows that the Town has 366 parcels and 368 buildings at moderate, high, or highest risk of wildfire, worth an estimated $276,220,525. An estimated 1,034 residents live in areas at moderate, high, or highest risk of wildfire.

The Town has no critical facilities identified at being at risk of wildfires.

The overall significance of this hazard for the Town is Medium.

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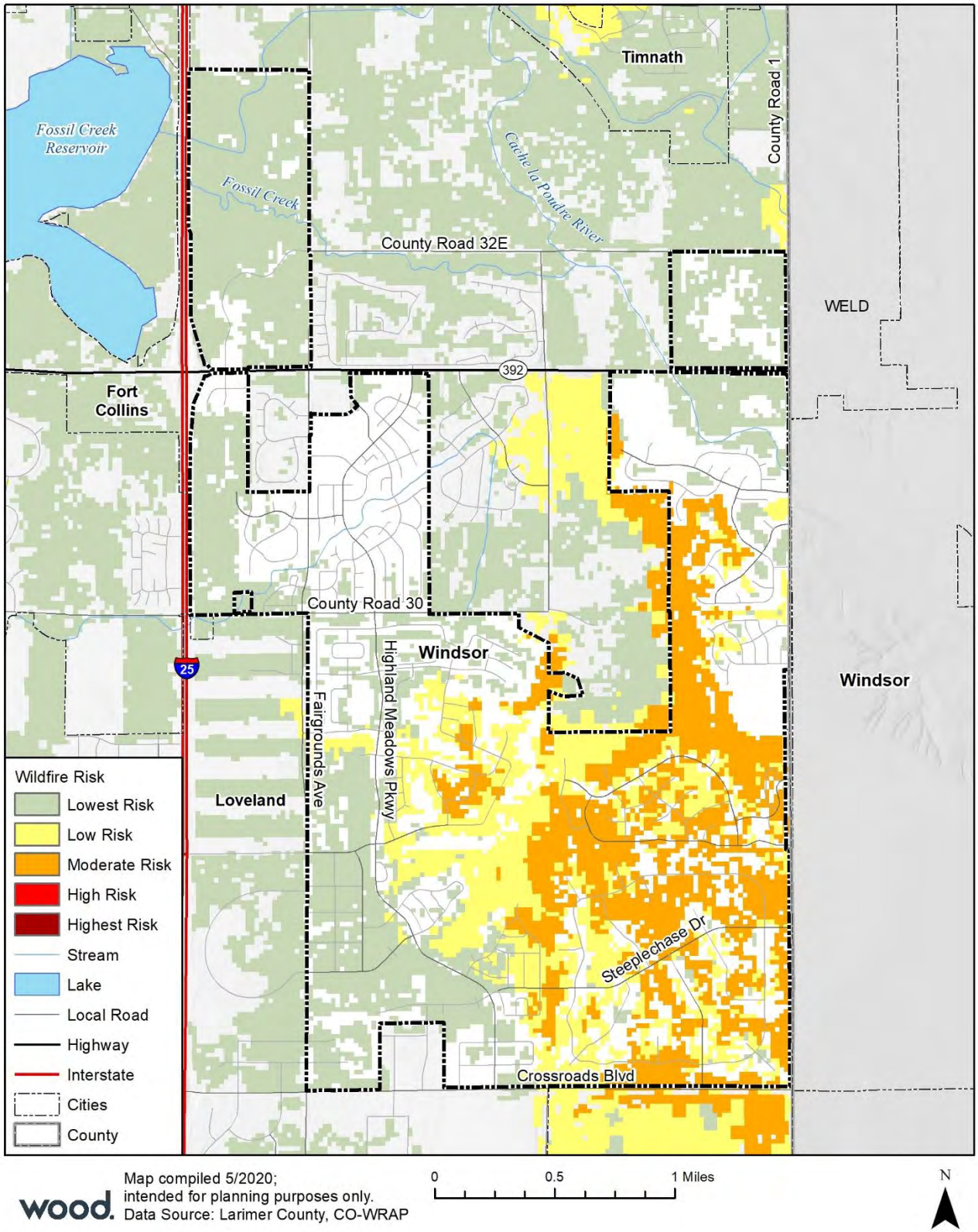
Figure V-8 Windsor Wildfire Risk



Map compiled 5/2020;
intended for planning purposes only.
Data Source: Larimer County, CO-WRAP

V.5 Capabilities Assessment

This section profiles the programs and policies currently in use by the Town of Windsor to reduce hazard impacts or that could be used to implement hazard mitigation activities.

V.5.1 Existing Capabilities

The following tables summarize the Town's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Table V-9 Town of Windsor Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	Yes	
Zoning ordinance	Yes	
Subdivision ordinance	Yes	
Growth management ordinance	Yes	
Floodplain ordinance	Yes	
Other special purpose ordinance	Yes	Stormwater ordinance
Building codes	Yes	2018 IBC
BCEGS Rating	No	
Fire department ISO rating	Yes	ISO Rating 2/10 and 3/10
Erosion or sediment control program	No	
Stormwater management program	Yes	
Site plan review requirements	Yes	
Capital improvements plan	Yes	
Economic development plan	Yes	
Local emergency operations plan	No	Yes-Strategic Econ Plan
Community Wildfire Protection Plan	Yes	Windsor Severance Fire District CWPP
Other special plans	Yes	Transportation Master Plan, Roadway improvement Plan and others
National Flood Insurance Program	Yes	Joined 1991
Community Rating System	No	
Flood insurance study or other engineering study for streams	Yes	
Elevation certificates (for floodplain development)	Yes	

Source: Town of Windsor planning team

Table V-10 Town of Windsor Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position/Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Community Development Department/4 Licensed Civil Engineers/5 AICP certified Planners
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Community Development Department/5 Civil Engineers/4 P.E.'s and 1 E.I.T.
Planner/engineer/scientist with an understanding of natural hazards	Yes	Community Development Department/2 Licensed Civil Engineers with floodplain experience
Transportation Planner	No	On call contract position
Resiliency Planner	No	

Personnel Resources	Yes/No	Department/Position/Comments
Personnel skilled in GIS	Yes	IT Department/2 GIS Specialists Engineering Division/2 GIS data technicians
Full time building official	Yes	Contract with SAFEbuilt to perform building plan review and building inspection services
Floodplain manager	Yes	Community Development Department/1-Certified Floodplain Manager
Emergency manager	Yes	Shared jointly with other departments
Grant writer	No	
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	NOCO Alerts/Reverse 911

Source: Town of Windsor planning team

Table V-11 Town of Windsor Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	Yes	Yes	
Capital improvements project funding	Yes	Yes	
Authority to levy taxes for specific purposes	Yes	Yes	
Fees for water, sewer, gas, or electric services	Yes	Yes	Fees for water and sewer. Third party gas and electric providers
Impact fees for new development	Yes	Yes	Impact fees for roads, parks, drainage, and fire
Stormwater Service Fees	Yes	Yes	
Incur debt through general obligation bonds	Yes	No	
Incur debt through special tax bonds	Yes	Yes	
Incur debt through private activities	Yes	No	
Withhold spending in hazard prone areas	Yes	No	

Source: Town of Windsor planning team

Table V-12 Town of Windsor Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	Yes	Water & Sewer Board, Town Board
Firewise	No	
StormReady	No	

Source: Town of Windsor planning team

Local land use plans and building codes are tremendous tools for evaluating local policies related to hazard mitigation and risk reduction. Additionally, comprehensive master plans, capital improvement plans, stormwater plans and zoning ordinances all present opportunities for enhanced local capabilities.

Building codes are another tool that communities use to enhance public safety. For example, they can increase structural integrity, mitigate structure fires, and provide benefits in relation to natural hazard avoidance. In Colorado, land use regulations and building codes are typically implemented at the local level. Even without a statewide mandate, most counties and many municipalities have enacted regulations

and codes. The Town of Windsor has adopted a local building code requirement, demonstrating their understanding of the benefits codes provide, including reduced exposure to hazards.

V.5.2 Opportunities for Enhancement

Based on the capability assessment, Windsor has several existing mechanisms in place that already help to mitigate hazards. There are also opportunities for the Town 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 DHSEM. Additional training opportunities will help to inform Town staff and Town Council on how best to integrate hazard information and mitigation projects into the Town policies and ongoing duties of the Town. Continuing to train Town staff on mitigation and the hazards that pose a risk to the Town will lead to more informed staff members who can better communicate this information to the public.

Another capability enhancement would be to consider joining the CRS, which would require enhancements to the Town's floodplain management program; however the low number and value of flood insurance policies in the Town of Windsor means this would not significantly affect flood insurance affordability in the Town. The benefits of joining the StormReady program should also be explored.

V.6 Mitigation Strategy

The Town of Windsor has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The Town had six mitigation actions in the 2016 Plan, and has completed one of them:

- Flood Mitigation Project

Two actions were deleted as no longer needed:

- Flood Prevention on CR 13 (maintenance)
- Floodplain Management (duplicative)

The remaining actions have been carried over into the 2021 Plan, along with four new actions.

The local planning team identified and prioritized the following mitigation actions for the Town of Windsor based on the risk assessment. 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.

National Flood Insurance Program

Recognizing the importance of the National Flood Insurance Program (NFIP) in mitigating flood losses, the Town of Windsor will place an emphasis on continued compliance with the NFIP. As an NFIP participant, the Town has and will continue to make every effort to remain in good standing with NFIP. This includes continuing to comply with the NFIP's standards for updating and adopting floodplain maps and maintaining and updating the floodplain zoning ordinance as well as review of any potential development in special flood hazard areas.

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Table V-13 Town of Windsor 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
V-1	Goals 1 Objectives 3,5	Flood	**NFIP Promotion and Administration.** As participants in the NFIP the Community will continue to promote wise use of floodplains through ordinance administration and periodic update, promotion of flood insurance and staff training, including encouragement of Certified Floodplain Manager status. The benefits are to flood-prone building owners who choose to insure against flood losses, and to taxpayers who no longer would be faced with subsidizing those potential losses. Continued administration of floodplain regulations and updates to town ordinances.	**Floodplain Management Officials**, PW Department	Existing budget	NA	Medium	Ongoing	Annual Implementation. The Town reviews and permits any development within the floodplain. Floodplain information is posted on the Town of Windsor's website. Updates are performed to Town ordinances with regard to changing floodplain regulations.
V-2	Goals 1,2,3 Objectives 5	Civil Disturbance, Dam Inundation, Earthquake, Flood, Landslide/ Rockslide, Spring/ Summer Storm, Tornado, Utility Disruption, Wildfire, Winter Storm	**Emergency Power.** In Colorado, there are numerous events that could knock out power to Town offices. In case of emergency, there are several Town employees who need to stay connected to serve our residents. The Town plans on purchasing multiple mobile backup generators and installing connections at critical facilities to be identified.	**Town of Windsor**	Existing budget	NA	Medium	2022	In Progress. Windsor has purchased a backup generator for Town Hall and will work on placing one at the Town Shops.
V-3	Goals 2,3,4 Objectives 1,5	Biological Hazards, Civil Disturbance, Dam Inundation, Drought, Earthquake, Flood, Hazardous Materials, Landslide/ Rockslide, Soil Hazards, Spring/ Summer Storm, Tornado,	**LETA 911.** Residents need to be informed in case emergency situations arise. The Town continuously partners with LETA 911 to provide emergency communications to our residents. We will provide LETA 911 each year and encourage residents to sign-up for this great service. Continue to provide 911 services and related outreach.	**Larimer County**, Town of Windsor and other jurisdictions	Existing budget	Already funded	Medium	Ongoing	Annual Implementation. We will continue to work with LETA for emergency communications.

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
		Utility Disruption, Wildfire, Winter Storm							
V-4	Goals 1,2,5 Objectives 3,5	Flood	**Stormwater Improvements – Whitney Ditch.** Construct Law Basin drainage channel from the Whitney Ditch south to the Poudre River as identified in Windsor's Storm Drainage Master Plan. The channel was originally shown to route east of Kodak in the 2003 master plan. The 2017 master plan updated the alignment to route around the west side of Kodak.	Public Works / Engineering	$12,000,000	CIP Budget	Medium	5-15 years	New in 2021.
V-5	Goals 1,2,5 Objectives 3,5	Flood	**Stormwater Improvements – Eastman Park.** Connect to the southern terminus of the currently constructed Law Basin Master Channel and construct a new portion of drainage channel from the railroad south to Eastman Park Drive as identified in Windsor's Storm Drainage Master Plan.	Public Works / Engineering	$5,100,000	CIP Budget	Medium	5-15 years	New in 2021.
V-6	Goals 1,2,3,4,5 Objectives 1,2,3,4,5	Civil Disturbance, Dam Inundation, Earthquake, Flood, Landslide/ Rockslide, Spring/ Summer Storm, Tornado, Utility Disruption, Wildfire, Winter Storm	**Development of an Emergency Operations Center (EOC).** The Town needs to develop an EOC to coordinate response and recovery efforts, to include post-disaster mitigation.	Public Works / Police	TBD	CIP Budget	Medium	1-5 years	New in 2021.
V-7	Goals 1,2,3 Objectives 3,4,5	Civil Disturbance, Dam Inundation, Earthquake, Flood, Landslide/ Rockslide, Spring/ Summer Storm, Tornado, Utility Disruption, Wildfire, Winter Storm	**Technology Infrastructure Upgrades. The** Town's IT infrastructure is inadequate to maintain service during a disaster.	IT Dept	TBD	CIP Budget	Medium	1-5 years	New in 2021.

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V.7 Plan Maintenance and Implementation

The Town of Windsor has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the town will continue public participation in the plan maintenance process.

V.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The Town of Windsor's implementation strategy included:

- The Larimer County (and Weld County Hazard Mitigation Plan) will be reviewed annually by Town Board and review by Engineering/Public Work/ Police Department Staff to ensure items are up to date.
  - This was accomplished.
- The public will have the opportunity to voice their opinions during Town Board meetings.
  - This was accomplished.
- We will integrate mitigation actions into our capital improvements plan.
  - This was accomplished.

V.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the Town to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Chief of Police will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Chief of Police will also be responsible for representing the Town on future Larimer County Planning Team meetings, and for coordination with town staff and departments during plan updates. The Town, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the Town Board of Trustees.

Integration into Other Planning Mechanisms

The Town of Windsor will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the Town will:

- Risk Manager and Department Heads will meet annually to discuss items that need to be updated and look at progress of action items.
- Incorporate information from the HMP into existing public education & outreach programs.
- Post information on the Town's website and utilize the marketing and communications firm to get information to citizens and businesses.
- Mitigation actions will be incorporated in capital improvement planning.
- Incorporate information from the HMP into the next update of the Town's comprehensive plan/zoning code/etc.]

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Continued Public Involvement

The Town will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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V.8 Letter of Intent to Participate

TOWN OF WELLINGTON
3735 CLEVELAND AVENUE
P.O. BOX 127
WELLINGTON, CO 80549
TOWN HALL (970) 568-3381
FAX (970) 568-9354
www.wellingtoncolorado.gov

LETTER OF INTENT TO PARTICIPATE

December 1, 2018

Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins CO 80522
Attn: Lori Hodges, Director of Emergency Management

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, Town of Wellington is submitting this letter of intent to confirm that Town of Wellington has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, Town of Wellington agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

Town of Wellington understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I Troy Hamman, Mayor, commit Town of Wellington to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 1st day of December, 2018

Troy Hamman, Mayor Town of Wellington

W. Windsor Severance Fire Rescue

"Providing professional service and compassionate care from our family to yours."
– Mission, Windsor Severance Fire Rescue

W.1 Background and Planning Process

This Annex was updated during the development of the 2021 Larimer County Hazard Mitigation Plan. Windsor Severance Fire Rescue participated in the 2016 Larimer County Hazard Mitigation Plan and has been active in implementing that plan as described in Section W.7.1. A review of jurisdictional priorities found no significant changes in priorities since the last update. Individuals who participated in the update process and represented the District on the Planning Team are listed in Appendix B.

More details on the planning process and how the jurisdictions, special districts, and stakeholders participated, as well as how the public was involved, can be found in Chapter 3 of the Base Plan.

W.2 Community Profile

Windsor Severance Fire Rescue (WSFR) provides fire and rescue services to the towns of Windsor and Severance as part of the 110 square mile area it protects. The fire district employs 80 firefighters utilizing full-time, part-time and volunteer staffing. WSFR has three fire stations that are staffed 24 hours a day. Station 1 is located in downtown Windsor at 100 7th Street and serves as the department's headquarters. Station 2 is located at 9 Timber Ridge Parkway in Severance. Station 3 is located at 7790 REA Parkway in west Windsor.

WSFR is an all-hazards organization. It handles fires, emergency medical services, hazardous materials response, specialized rescue, and wildland firefighting. Fire prevention is heavily promoted through business inspections, school presentations, carbon monoxide and fire detector programs and proactive relationships with town and county officials. Mutual aid and automatic aid agreements with surrounding fire agencies ensures a high level of resources are available for all types of events.

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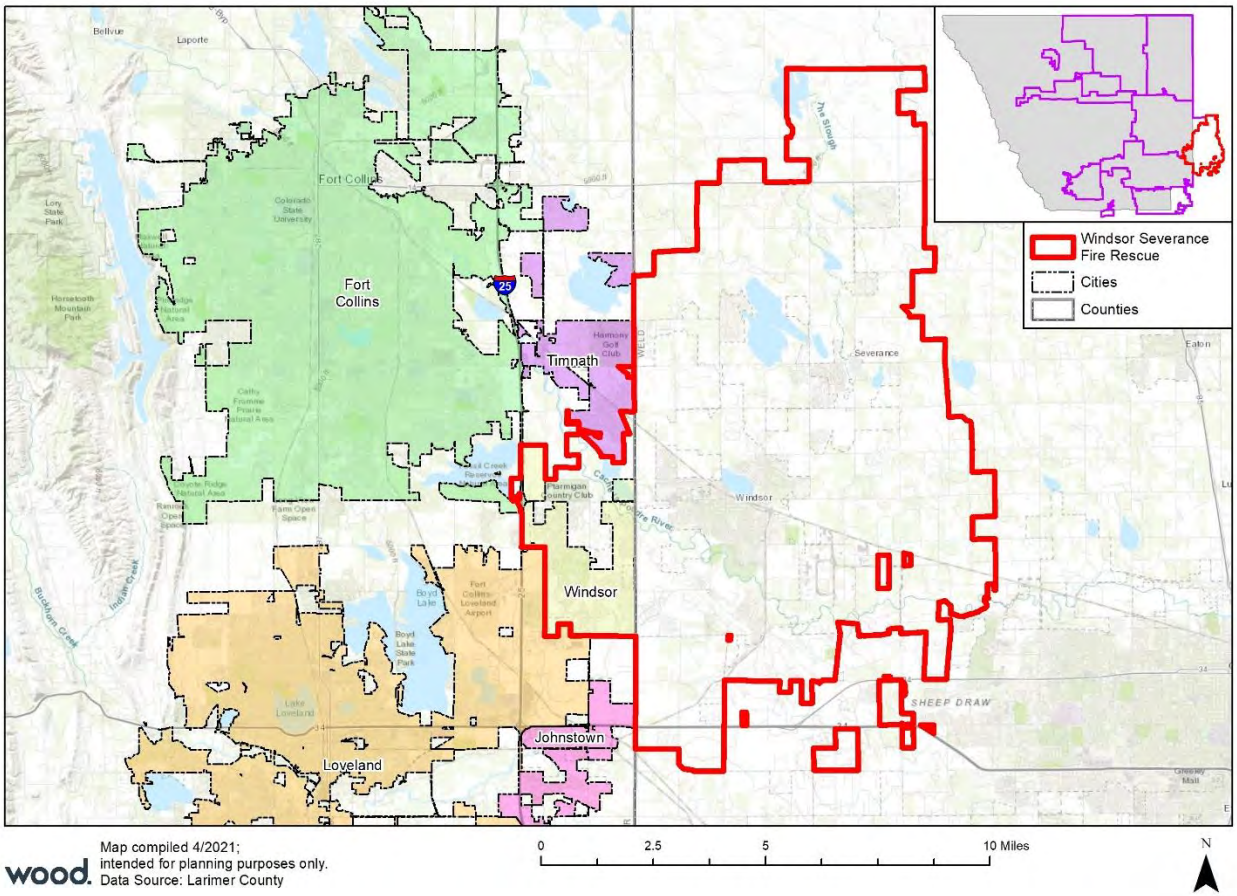
Figure W-1 Map of the Windsor Severance Fire Rescue District



W.3 Hazard Identification and Risk Assessment

The following Hazard Identification and Risk Assessment Summary table is based on jurisdiction-specific responses to the risk factor exercise and differs from the County-wide risk factors reported in Section 4.1.1 of the Base Plan.

Table W-1 Hazard Identification and Risk Assessment Summary for the Windsor Severance Fire Rescue District

Hazard	Frequency	Spatial Extent	Severity	Overall Significance
Biological Hazards	Highly Likely	Extensive	Catastrophic	High
Civil Disturbance	Likely	Limited	Significant	Medium
Dam Inundation	Occasional	Limited	Significant	Medium
Drought	Likely	Significant	Significant	Medium
Earthquake	Unlikely	Significant	Catastrophic	Medium
Flood	Likely	Limited	Critical	High
Hazardous Materials	Likely	Limited	Significant	Medium
Landslide/Rockslide	Likely	Limited	Significant	Low
Soil Hazards	Highly Likely	Significant	Significant	Medium
Spring/Summer Storm	Highly Likely	Extensive	Critical	High
Tornado	Likely	Limited	Critical	High
Utility Disruption	Likely	Significant	Critical	Medium
Wildfire	Highly Likely	Significant	Critical	Medium
Winter Storm	Highly Likely	Extensive	Critical	High

Frequency of Occurrence:
Highly Likely: Near 100% probability in next year.
Likely: Between 10 and 100% probability in next year or at least one chance in ten years.
Occasional: Between 1 and 10% probability in next year or at least one chance in next 100 years.
Unlikely: Less than 1% probability in next 100 years.

Spatial Extent:
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Potential Severity:
Catastrophic: Multiple deaths, complete shutdown of facilities for 30 days or more, more than 50% of property is severely damaged
Critical: Multiple severe injuries, complete shutdown of facilities for at least 2 weeks, more than 25% of property is severely damaged
Significant: Some injuries, complete shutdown of critical facilities for more than one week, more than 10 percent of property is severely damaged
Negligible: Minor injuries, minimal quality-of-life impact, shutdown of critical facilities and services for 24 hours or less, less than 10 percent of property is severely damaged.

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

W.4 Vulnerability Assessment

This section provides a refined vulnerability assessment, specific for the Windsor Severance Fire Rescue District, for those hazards where the risk is significantly different from that of Larimer County overall, or where sufficient data exists to conduct mapping and analysis at the local level. For the following hazards, the District's risk does not differ significantly from the rest of the County, and they are not profiled further:

- Biological Hazards
- Civil Disturbance
- Drought
- Earthquake
- Hazardous Materials Incident
- Spring/Summer Storm

- Utility Disruption
- Winter Storm

For the purpose of this plan, only the parts of the District that lie specifically within Larimer County have been assessed for vulnerability data. For more information about how hazards affect Larimer County, see Section 4 (Risk Assessment) of the Base Plan.

W.4.1 Community Asset Inventory

Table W-2 lists summary information about the one critical facility, located in the Town of Windsor, identified as important to protect or that provide critical services in the event of a disaster. For additional information on critical facilities, to include the definitions behind each critical facility category, source, and other details refer to Section 4.2 of the Base Plan and Annex V Town of Windsor.

Table W-2 Windsor Severance Fire Rescue District Critical Facilities and Infrastructure

FEMA Lifeline	Count
Energy	1
Total	**1**

Source: Cascarta, Larimer County Assessor's Office, Wood analysis.

W.4.2 Dam Inundation

Section 4.3.3 of the Base Plan and V.4.2 in Annex V (Town of Windsor) show potential dam inundation areas in the Windsor Severance Fire Rescue District. The critical facility identified above is not at risk of dam inundation. The overall significance of this hazard for the District is Medium.

W.4.3 Flood

Section 4.3.6 of the Base Plan and V.4.3 in Annex V (Town of Windsor) show significant areas within the Windsor Severance Fire Rescue District boundaries at 1% annual chance and 0.2% annual chance of flooding. The critical facility identified above is not located in a floodplain. The overall significance of this hazard for the District is High.

W.4.4 Landslide/Rockslide

There are no identified areas of landslide or rockslide risk in the Windsor Severance Fire Rescue District. The critical facility identified aboce is not at risk of landslide or rockfall. The overall significance of this hazard for the District is Low.

W.4.5 Soil Hazards

Section 4.3.9 of the Base Plan and V.4.6 in Annex V (Town of Windsor) show no historically undermined areas or areas at risk of land subsidence or expansive soil have been identified in the Windsor Severance Fire Rescue District; however, portions of the District are at risk of collapsible soil. The critical facility identified above is in an area of possible collapsible soils. The overall significance of this hazard for the District is Medium.

W.4.6 Tornado

The Windsor Severance Fire Rescue District has had a significant history of tornadoes. There have been six recorded tornadoes in the Town of Windsor between 1954 and 2020, although all six were in the Weld County side of the District. The overall significance of this hazard for the Town is High.

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W.4.7 Wildfire

Section 4.3.13 of the Base Plan and V.4.8 in Annex V (Town of Windsor) show significant portions of the District are classified as being at Low to Moderate risk of wildfires. The critical facility identified above not at risk of wildfire. The overall significance of this hazard for the District is Medium.

W.5 Capabilities Assessment

This section profiles the programs and policies currently in use by Windsor Severance Fire Rescue to reduce hazard impacts or that could be used to implement hazard mitigation activities.

W.5.1 Existing Capabilities

The following tables summarize the District's current ability to conduct mitigation activities, focused on planning and regulatory capabilities, administrative and technical capabilities, and fiscal capabilities.

Windsor Severance Fire Rescue does not have a Community Wildfire Protection Plan (CWPP) since their coverage area is primarily urban without significant wildland area.

Table W-3 Windsor Severance Fire Rescue Planning and Regulatory Mitigation Capabilities

Regulatory Tool (ordinances, codes, plans)	Yes/No	Comments
Comprehensive Plan	Yes	County Planning & Building
Zoning ordinance	Yes	Windsor, Severance, County Planning & Building
Subdivision ordinance	Yes	Windsor, Severance, County Planning & Building
Growth management ordinance	Yes	Windsor, Severance,
Floodplain ordinance	Yes	Windsor, Severance, County
Other special purpose ordinance (stormwater, steep slope, wildfire)	Yes	Windsor, Severance, County
Building codes	Yes	Windsor, Severance, County Planning & Building
Fire department ISO rating	Yes	ISO Rating 2/10 and 3/10
Erosion or sediment control program	Yes	Windsor, Severance, County Planning & Building
Stormwater management program	Yes	Windsor, Severance,, County Public Works
Site plan review requirements	Yes	Windsor, Severance, County Planning & Building
Capital improvements plan	Yes	Windsor, Severance,
Economic development plan	Yes	Windsor
Local emergency operations plan	Yes	Windsor, Severance, County
Other special plans	Yes	County
Flood insurance study or other engineering study for streams	Yes	Windsor, Severance, County Planning & Building
Elevation certificates (for floodplain development)	Yes	County Planning & Building

Source: Windsor Severance Fire Rescue planning team

Table W-4 Windsor Severance Fire Rescue Administrative and Technical Mitigation Capabilities

Personnel Resources	Yes/No	Department/Position	Comments
Planner/engineer with knowledge of land development/land management practices	Yes	Planning	Windsor, Severance, County
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Building Department	Windsor, Severance, County

Personnel Resources	Yes/No	Department/Position	Comments
Planner/engineer/scientist with an understanding of natural hazards	Yes	Engineering	Windsor, Severance, County
Personnel skilled in GIS	Yes	GIS Department	Windsor, Severance, County
Full time building official	Yes	Building Department	Windsor, Severance, County
Floodplain manager	Yes	Engineering	Windsor, Severance, County
Emergency manager	Yes	Emergency Managers, Fire Chief	Windsor, Severance, County, Windsor Severance Fire Rescue
Grant writer	Yes	Everbridge, Code Red	Larimer County, Weld County Windsor, Severance
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Planning	Windsor, Severance, County
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)	Yes	Building Department	Windsor, Severance, County

Source: Windsor Severance Fire Rescue planning team

Table W-5 Windsor Severance Fire Rescue Fiscal Mitigation Capabilities

Financial Resources	Accessible/ Eligible to Use	Has Been Used in the Past	Comments
Community Development Block Grants	Yes	Yes	Equipment and Staffing
Capital improvements project funding	Yes	Yes	Stations and Apparatus
Authority to levy taxes for specific purposes	No	No	
Fees for water, sewer, gas, or electric services	No	No	
Impact fees for new development	No	No	
Incur debt through general obligation bonds	No	No	
Incur debt through special tax bonds	Yes	Yes	Stations
Incur debt through private activities	No	No	
Withhold spending in hazard prone areas	No	No	

Source: Windsor Severance Fire Rescue planning team

Table W-6 Windsor Severance Fire Rescue Education and Outreach Mitigation Capabilities

Education & Outreach	Yes/No	Comments
Local Citizen Groups That Communicate Hazard Risks	Yes	Social Media - Nextdoor
Firewise	No	
StormReady	No	
Fire Safety, Disaster Preparedness, CPR First Aid, CarSeat Installation, Smoke Detectors, Bike Helmet Safety, SafeSitter,	Yes	

Source: Windsor Severance Fire Rescue planning team

W.5.2 Opportunities for Enhancement

Based on the capability assessment, Windsor Severance Fire Rescue 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 DHSEM. Additional training opportunities will help to inform District staff 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.

W.6 Mitigation Strategy

Windsor Severance Fire Rescue has adopted the hazard mitigation goals and objectives developed by the Planning Team and described in Section 6.2 of the Base Plan.

The District had three mitigation actions in the 2016 Plan, and has completed 2 of them:

- Mitigation Assessment
- Mitigation Code Changes

The remaining action has been carried over into the 2021 Plan, along with four new actions.

The District planning team identified and prioritized the following mitigation actions for Windsor Severance Fire Rescue based on the risk assessment. 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.

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Table W-7 Windsor Severance Fire Rescue 2021 Mitigation Action Plan

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
W-1	Goals 1,4 Objectives 1,5	Drought, Earthquake, Land Subsidence, Extreme Temperatures, Flood, Spring/ Summer Storm, Wind & Tornado, Wildfire, Winter Storm, Biological, Hazmat	**Community Emergency Preparedness.** There is a need for increased public awareness regarding emergency preparedness for hazards common to our area. Information on websites, social media, community events, more collaboration with government entities. Establish and implement plan for continuous community education.	**Windsor Severance Fire Rescue**, Town of Windsor, City of Fort Collins, RE-4 School District, Library District	Minimal	Existing Budget	Medium	Ongoing	Annual implementation. WSFR has established and implemented a plan for continuous education utilizing information on the department's website, social media, community events, as well as collaboration with local and state government agencies and local businesses.
W-2	Goals 1,2,3,5 Objectives 2,3,4,5	Hazmat	**Tactical Response Plans (TRPs).** There are roughly 1,627 oil and gas wells within the Windsor Severance Fire Protection District (WSFPD). There are also approximately 446 active pipelines overseen by the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) within the District. These pipelines transport natural gas and liquid petroleum products for local utility use, from oil and gas sites to regional gas plants and refineries for processing and as part of the interstate pipeline transportation system. In addition to the number of oil and gas wells, WSFPD also has about 56 industrial facilities operating with its response area, most of which utilize and store hazardous materials. Many are in the vicinity of the Poudre River. Potential exists for a severe environmental impact in the event of a catastrophic event. After performing a vulnerability assessment, WSFPD evaluated the current response plans and determined it was necessary to update and improve our emergency response plans with the hiring of a Life Safety Specialist, the purchase of computer software that will automatically aggregate critical information, and the development	**Windsor Severance Fire Rescue,** Mutual/auto-aid partners in Larimer and Weld Counties Local, county, state and federal emergency management divisions • Third party incident response organizations	Approximately $50,000 in wages and $7,500 for software.	General operating fund.	Medium	Industrial high hazard facilities: 2021. Other high hazard occupancies: 2022.	New in 2021. Initial implementation has begun and will be ongoing an updated annually.

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ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
			of Tactical Response Plans (TRPs). Tactical Response Plans (TRPs) are designed to help emergency response agencies and the oil/gas industry proactively collaborate on emergency planning and response at industry sites. WSFPD is going to expand this document for use at permanent, high hazard facilities that currently include manufacturing and hazardous materials storage sites within its District. The TRP will give responding agencies a strategic view of a specific site that helps them and facility staff to understand their emergency response roles during an incident. This document will distill information from a company's emergency planning document(s) and any required hazard mitigation plans (Tier II, RCRA, etc.) into a visual format that can be used for short and long-term incident response. The TRPs will include maps and descriptions of: • Contact information for site operators, emergency response agencies, utility owners and third-party incident response contractors (if applicable). • Facility operations • Specific site hazards (HAZMAT and non-HAZMAT) • Nearby critical receptors (neighboring commercial and residential development, schools, water sources, transportation infrastructure, etc.) • Hazardous materials storage and use areas • A summary of largest quantity and highest hazard materials stored on-site. Reduction of unnecessary exposures of emergency response personnel, industry staff and nearby communities (local and regional) to hazardous materials and environments during an incident. • Increasing the effectiveness of incident response through proactive emergency planning and information sharing between WSFPD, industry and our emergency response partners • Developing relationships and strengthening communication between WSFPD and our industry partners during normal and emergency response conditions • Creating more training opportunities for our crews to work with our industry partners • Minimize negative economic impact to community in the event of disaster						

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
W-3	Goals 1,2,3,5 Objectives 4,5	Biological Hazards, Civil Disturbance Dam Inundation, Earthquake, Flood, Hazardous Materials, Landslide/ Rockslide, Soil Hazards, Spring/ Summer Storm, Tornado, Utility Disruption, Wildfire, Winter Storm	**Windsor Severance Fire Protection District Station 4.** Station 4 will be strategically located to serve a large area of WSFPD that is currently underserved by our current 3 fire stations. Our projection is that not only our response area nearest station 4 would see a reduction in response times, but the existing 3 stations would also realize average response time reductions. Emergency response to fire and medical emergencies as well as to emergencies at oil and gas sites are time sensitive and labor-intensive endeavors. The quicker we can arrive on scene with the adequate personnel to handle an emergency, the better the outcome will be for that incident. Currently our response times to the immediate area does not meet national standards. Additionally, the area immediately adjacent to this proposed station is a 2,800+ residential unit subdivision that is currently being built at a rapid pace. The construction of station 4 will take 8 – 10 months once construction starts and we want to be able to provide effective emergency services as soon as possible. There are many operational efficiencies that will be realized by the addition of station 4, the most critical one will be the reduction of moving apparatus to station 1 during incidents by outlying stations. Currently, when certain conditions are met, an outlying station and apparatus are relocated to the "center of town'. This leaves the outlying areas without fire or EMS protection and creates a longer response time if there is a subsequent call occurs in an outlying area. With the addition of Station 4, our call modeling software shows the units will be better able to respond from their respective location on a much higher frequency. The data shows we will assure better and quicker service for incidents when they occur utilizing historic data. As illustrated by the population data and the 5-year projections, WSFPD has experienced considerable growth. This is further illustrated by the incident response demands. In 2010, WSFPD responded to 1,474 incidents and in 2019 WSFPD responded to 3,466 incidents. This is more than a 135% increase for emergency incidents while only experiencing a 56% increase in population. As we continue to expect a significant increase in population, we can also expect an even greater increase in our demands for service. Specifically, with respect to the impacts related to processing or energy conversion of minerals and mineral fuels, we have a large presence of oil and gas with WSFPD. The ability to better serve those sites are an immediate need and benefit.	**Windsor Severance Fire Rescue**, Town of Windsor, Third party incident response organizations	Approximately $8,000,000 for construction and $1,200,000 to staff	Capital Fund and DOLA grant	High	Fall 2021	New in 2021. WSFPD has identified an appropriate location for station 4 and in early 2020 purchased 12.94 acres of land for this purpose. The property is located at the intersection of New Liberty and Hilltop Dr. in Windsor, Weld Co. WSFPD has met with the Town of Windsor and have full support of the project as designed and planned. This site is adjacent to 2 large oil and gas sites operated by Great Western and Extraction. This station will have immediate response to 293 oil and gas sites and WSFPD has over 1,600 sites in our fire coverage area.

ID	Related Goal(s)	Hazard(s) Mitigated	Description / Background / Benefits	Lead Agency and Partners	Cost Estimate	Potential Funding	Priority	Timeline	Status / Implementation Notes
W-4	Goals 2,4 Objective 1,2	Flood, Wildfire	**Community Outreach.** Property owners in the WSFPD coverage area need education in the most effective fire mitigation steps to take, when and how to safely evacuate in case of flood or fire, how to sign up for LETA, and how to ensure that their insurance is sufficient to allow them to recover from a disaster. Hold regular educational meetings covering the subjects of fire mitigation, evacuation, and property insurance.	**Windsor Severance Fire Rescue**	Staff Time	WSFPD budget	Low	2023	New in 2021.
W-5	Goals 1,2,3,4,5 Objective 3,5	Dam Inundation, Earthquake, Flood, Landslide/Rockslide, Soil Hazards, Spring/Summer Storm, Tornado, Wildfire, Winter Storm	**Building Codes Update.** Work with the Town of Windsor to adopt more updated building codes to better protect homes, businesses, and infrastructure.	**Windsor Severance Fire Rescue**, Town or Windsor	Staff Time	WSFPD budget	Low	2025	New in 2021.

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W.7 Plan Maintenance and Implementation

Windsor Severance Fire Rescue has developed a Plan Maintenance and Implementation Strategy outlining their method and schedule for keeping the plan current. The Implementation Strategy below also includes a discussion of how the organization will continue public participation in the plan maintenance process.

W.7.1 Implementation and Maintenance of the 2016 Plan

The 2016 Plan discussed a number of strategies that Larimer County and its jurisdictions would use to integrate the plan into other planning mechanisms and processes. The District's implementation strategy included:

- Our mitigation actions will be reviewed by staff on an annual basis.
  - This was accomplished.
- Any major changes will be relayed to the community via social media, Everbridge, and our district's website.
  - This was accomplished.
- We will implement a hazardous materials inspection and permitting process for businesses in our jurisdiction.
  - This was accomplished.

Additional ways in which the District incorporated information from the 2016 HMP into other plans and processes include:

W.7.2 Monitoring, Evaluation and Updating the Plan

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the District to help inform updates and the development of local plans, programs and policies, as described in Section 7 of the Base Plan.

The Operations Chief will be responsible for monitoring, evaluating, and updating this plan using the process outlined in Section 7 of the Base Plan. The Operations Chief will also be responsible for representing the District on future Larimer County Planning Team meetings, and for coordination with District staff and departments during plan updates. The District, Fire District and Sheriff's Department will meet at a minimum annually to discuss items that need to be updated and look at progress of action items. All items with budgetary requirements would need to be approved by the District's Board of Directors.

Integration Into Other Planning Mechanisms

Windsor Severance Fire Rescue will work to incorporate the updated HMP into other plans, procedures, and programs as described in Section 7.3 of the Base plan. Specifically, the District will:

- Incorporate information from the HMP into existing public education & outreach programs.
- Mitigation actions will be incorporated in capital improvement planning.

Continued Public Involvement

Windsor Severance Fire Rescue will also continue to involve the public in mitigation, as described in Section 7.4 of the Base Plan. This will include posting information on the website and utilize the marketing and communications firm to get information to citizens and businesses.

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W.8 Letter of Intent to Participate

Windsor Severance Fire Rescue
100 N. 7th Street • Windsor • Colorado • 80550
970-686-2626

LETTER OF INTENT TO PARTICIPATE

December 14 , 2018

Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins CO 80522
Attn: Lori Hodges, Director of Emergency Management

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Windsor Severance Fire Protection District (WSFPD) is submitting this letter of intent to confirm that WSFPD has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, WSFPD agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Larimer County to complete the plan in conformance with FEMA requirements.

WSFPD understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of

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Windsor Severance Fire Rescue
100 N. 7th Street • Windsor • Colorado • 80550
970-686-2626

participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);

- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I, Michael E. Blackwill, commit WSFPD to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 14 day of December, 2018

Michael E. Blackwill, Interim Chief

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LETTER OF INTENT TO PARTICIPATE

Town of Windsor, Colorado

NOVEMBER 26, 2018

Larimer County Office of Emergency Management
200 W. Oak Street
Fort Collins CO 80522
Attn: Lori Hodges, Director of Emergency Management

Re: "Statement of Intent to Participate" as a participating jurisdiction in the Larimer County Multi-Jurisdictional Hazard Mitigation Plan (HMP)

Dear Ms. Hodges,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Hazard Mitigation Plan (HMP) requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the Town of Windsor, Colorado ("Windsor") is submitting this letter of intent to confirm that Windsor has agreed to participate in the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning, Windsor agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Weld County to complete the plan in conformance with FEMA requirements.

Windsor understands that it must engage in the following planning process, as more fully described in FEMA's *Local Mitigation Planning Handbook* dated March 2013 including, but not limited to:

- Identification of hazards unique to the jurisdiction;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-Jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan).

Therefore, with a full understanding of the obligations incurred by an agreement between the Lead Jurisdiction and the Participating Jurisdiction, I, Richard A. Klimek, Chief of Police for the Town of Windsor, Colorado, commit Windsor to the Larimer County Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 26 day of NOVEMBER, 2018

Town of Windsor, Colorado

By: Richard A. Klimek, Chief of Police

MEMORANDUM

Date: July 12, 2021
To: Mayor and Town Board
Via: Shane Hale, Town Manager
From: Karen Frawley, Town Clerk
Re: Action Style Meeting Minutes
Item #: 5.

Background / Discussion:

After attending a clerk's training over minute taking, staff has noticed a trend in municipalities moving to something called "action plus" style of minute taking for their official minutes. There are several different types of minutes that have been used including: action, action plus, summary, and verbatim. Best practices are to never use verbatim for minute taking as it allows for subjects to come back and want things changed because that is not what they actually said.

What we have customarily done is a combination of summary with some transcription of the back and forth between Board Members and staff. Depending on the topic and the amount of back and forth, this can be very tedious not only to the Clerk staff who have to type the minutes, but to the Board and public who have to wade through numerous pages reading the minutes. I have included an example of what our current minutes look like, compared to the action plus style of minutes.

After speaking with the Town Attorney about the possibility of moving to action plus style of minutes, with his blessing, I am recommending that we change to taking action plus style of minutes for our meetings. Per our adopted retention schedule, the minutes are our permanent record of the meeting and the recording of the meeting we keep for six months. One of the safe guards put in place when changing to this new style is keeping the recording for two years as opposed to the required six months. This would give the public, the Board, and staff the ability to have access to the recording for a longer period of time, along with ensuring that we have the recording to fall back on for legal proceedings if needed. I have checked with the IT department on the additional cost of keeping the recordings for a longer period of time and was informed that there would not be an additional cost associated with keeping the recordings for the extended amount of time.

Financial Impact:

None

Recommendation:

Staff recommends moving to taking action plus style of meeting minutes.

ATTACHMENTS:

- Current Style of Meeting Minutes
- Action Plus Meeting Minutes

TOWN BOARD REGULAR MEETING

April 12, 2021 - 7:00 PM
Town Board Chambers, 301 Walnut Street, Windsor, CO 80550
Please click this URL to join. https://windsorgov.zoom.us/j/97851702593
OR join by telephone at (888) 788-0099 or (877) 853-5247
Webinar ID:978 5170 2593

MINUTES

A. CALL TO ORDER

Mayor Rennemeyer called the meeting to order at 7:06 p.m.

1. Roll call

Mayor Paul Rennemeyer
Mayor Pro Tem Ken Bennett
Scott Charpentier
Barry Wilson - Absent
Julie Cline
Victor Tallon
David Sislowski

Also Present:

Shane Hale, Town Manager
Ian McCargar, Town Attorney
Rick Klimek, Police Chief
Aaron Lopez, Police Commander
John Thornhill, Community Development Director
Eric Lucas, Public Services Director
Carlin Malone, Chief Planner
Desa Blair, Civil Engineer
Dean Moyer, Finance Director
David Eisenbraun, Senior Planner
Stacy Miller, Economic Development Director
McKenzie Payne, Visual Media Coordinator
Ben Bodiker, Communications Intern
Karen Frawley, Town Clerk

2. Pledge of Allegiance

Mayor Rennemeyer asked Mayor Pro Tem Bennett to lead the pledge of allegiance.

3. Review of Agenda by the Board and Addition of Items of New Business to the Agenda for Consideration

Town Board Member Tallon moved to approve the agenda as presented, Town Board Member Charpentier seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

4. Proclamation

- National Library Week Proclamation
- Arbor Day Proclamation

- National Crime Victims' Rights Week

  Mayor Rennemeyer read the proclamations aloud.

5. Board Liaison Reports

- Town Board Member Charpentier - Chamber of Commerce, Clearview Library Board

  Per Mr. Charpentier, there are no updates to provide on the Chamber of Commerce since the last update.

  Per Mr. Charpentier, the library has just finished the public input meetings on the new library branch and admin office.

- Town Board Member Wilson - Planning Commission, Larimer County Behavioral Health Policy Council

  Town Board Member Wilson provided Mayor Pro Tem Bennett with his update to report.

  - Planning Commission - No update.
  - Behavioral Health Policy Council (BHPC)... this has been provided to Karen so links will me in meeting minutes:
    - The BHPC heard from 2 Impact Grant recipients:
      - **Northern Colorado Health Network**: Since 1983, Colorado Health Network (CHN) has sought to innovatively and equitably meet the evolving needs of individuals in Colorado living with and at risk of acquiring HIV and other health conditions. See their website for more information: https://coloradohealthnetwork.org/
      - **Front Range Exceptional Equestrians** provides social, physical and emotional development through horsemanship.

      Video: https://www.youtube.com/watch?v=NAb2tB3BhHU.
      Website: https://frontrangeexceptionalequestrians.org/.

    Larimer County and all 8 municipalities within Larimer County, including Windsor, will declare May as Mental Health Awareness Month with a proclamation.
    The BHPC received an overview of **Colorado Behavioral Healthcare Council (CBHC)** which engages in legislative and community action for bahavioral health. See link for more details: https://www.cbhc.org/what-we-do/legislative-and-community-action/
    The BHPC reviewed 2019 Grants Summary Dashboard: https://www.larimer.org/behavioralhealth/impactfund-portfolio-review The BHPC Reviewed the **Larimer County Behavior Health Services (BHS) Annual Report**: https://www.larimer.org/behavioralhealth/impactfund-portfolio-review

- Mayor Pro Tem Bennett – Water and Sewer Board, 34, and I-25 Coalition's

  Per Mayor Pro Tem Bennett, the Water and Sewer Board will meet this Wednesday. Water and Sewer Board has an Ad Hoc committee that is focused on public outreach and public education on the importance of water

and conservation. They took on a big project working with CSU extension office and the Town's communications department and presented the Colorado Landscapes Basic Course. Three sessions were held on YouTube, first on lawn care, second on trees and shrubs, and third on water wise landscaping. As of several weeks ago, there was right at one-hundred people who participated in those. They are still available on YouTube and can still be viewed.

Per Mayor Pro Tem Bennett, the I-25 Coalition met last week as did the 34 Coalition. Both groups have had conversations for several months anticipating an increase in funding both State and Federal funds for transportation. There are no real definitive answers about how much or how it will be distributed, but the message continues to be optimistic that there is going to be some type of additional State and Federal transportation funds in the coming year or years. There is a private group proposing to take over the express lanes from 120th in North Denver up to State Highway 56 which is the Berthoud interchange. It would be a private industry toll road but they would take it away from CDOT and it would be ran by a private entity.

Per Mayor Pro Tem Bennett, the 34 Coalition are continuing with the County Road 17 and 34. The Northwest corner of that is in the Town of Windsor. They are currently looking at redesign of that intersection because it has a lot of congestion and high crash rates. The issue is there is no money, but they are still moving forward with design. There will be a virtual open house in the coming weeks, however no dates have been set yet. Since they don't have any funds for the implementation of the design, according to CDOT is have some sort of a temporary treatment to deal with some of the congestion and crash data.

- Town Board Member Cline – Tree Board, Poudre River Trail Corridor Authority, Historic Preservation Commission

  Per Ms. Cline, the Historic Preservation Commission will meet on Wednesday so no updates at this time.

  Per Ms. Cline, the Tree Board met on March 23 and mainly talked about the Arbor Day and Skyview Elementary was selected as the Arbor Day School for this year. This Friday, they are having the Arbor Day celebration for Skyview which will be hosted via Zoom. There is a tree sale that is set for this Saturday at the Public Works Facility.

  Per Ms. Cline, the Poudre River Trail Corridor Authority met last Thursday and covered the Cycling Without Age program. They are hoping to have everything lined up so they can start the program in May. They are looking at insurance for the program as well as director and board insurance so they are covered should anything happen. The authority is also moving forward on a new marketing program to revise and revamp some of the website and marketing materials. With the current legislation in Washington, they are also trying to get a shovel ready program together and are looking at a consultant. The sub-committee is working on putting together information for an annual report to report out what has been done over the past two years to get ready for budget requests for the upcoming budget cycle. The authority is working on the trail-a-thon and looking at doing something for the month of June and trying to tie it into multiple events possibly a scavenger hunt.

- Town Board Member Tallon - Parks, Recreation and Culture Advisory Board, Great Western Trail Authority

  Per Mr. Tallon, the Parks, Recreation and Culture Advisory Board had planned to meet at the Riverwalk to look at the work being done on the project, but due to weather had to be pushed off to the May meeting.

  Per Mr. Tallon, according to the Great Western Trail Authority the trail is in good condition but the issues with horses still continue. The counts on the trail was down last month possibly due to the storm.

- Town Board Member Sislowski - Windsor Housing Authority, Windsor Severance Fire District

  Per Mr. Sislowski, the Windsor Housing Authority has no updates at this time.

  Per Mr. Sislowski, the Windsor Severance Fire District met on April 8th. They started off with badge pinning of three newly promoted engineers and three newly promoted firefighters. The fire board discussed the strategic plan which runs through 2021. They are currently working on developing a new strategic plan that will run from 2022 through 2026 and a draft copy will be going out to the board soon. The life safety educator, Rebecca Clark was selected to be the president of the Colorado Risk Reduction Network. Chief Kazian was also nominated to represent the Fire Chiefs on the Colorado Homeland Security Advisory Council. There was a recap on the status of Fire Station 4 provided. A discussion was also had on the fire impact fees.

- Mayor Rennemeyer - Downtown Development Authority, North Front Range MPO

  Per Mayor Rennemeyer, there are no updates from the Downtown Development Authority.

  Per Mayor Rennemeyer, an environmental justice plan was previously presented to the North Front Range MPO which addresses several environmental justice topics and was approved at the last MPO meeting. The transportation improvement program is not seeing any new projects being funded within fiscal years 2022 and 2023 so there are no projects to discuss. The budget is being carried forward. The mobility program that has the one call one click program mostly used in Fort Collins and Loveland needed additional funding and was approved and passed. The former Mayor of Severance resigned and was the Chair of the North Front Range MPO since the first of the year and Mayor Karspeck, Mayor of Berthoud was the vice-chair and has been placed as chair, the upcoming meeting in May the new vice-chair will be selected.

6. Public Invited to be Heard

   Mayor Rennemeyer opened the meeting up for public comment, to which there was none.

B. CONSENT CALENDAR

1. Minutes of the March 22, 2021 Regular Town Board Meeting - K. Frawley, Town Clerk

2. Resolution No. 2021-16 - A Resolution Approving An Exclusive Negotiation Agreement and Letter Of Intent Between and Among The Town of Windsor, Windsor Downtown Development Authority And Tribe, LLC, With Respect To Downtown Redevelopment - - Ian D. McCargar, Town Attorney
With the selection of Tribe, LLC, the Town Board and DDA instructed staff to work out an agreement for initial services to take place over the near-term, with the intention that a binding redevelopment agreement would evolve through Tribe's efforts. Attached is the Exclusive Negotiation Agreement and Letter of Intent ("ENA").

   The ENA is largely aspirational, but sets the parties on a path toward mutual establishment of redevelopment priorities. If those priorities are mutually-approved, the parties will enter into a formal redevelopment agreement with enforceable terms. The DDA has approved the ENA, as has Tribe.

   The reference to Section C (2) in Section 4 of the attached Resolution speaks to the ability of the parties to extend negotiations as necessary to arrive at agreed redevelopment terms. This permission for Town Manager action will enable continued negotiations if the Town Manager and DDA Executive Director feel it is needed. The formal redevelopment agreement will require Town Board and DDA Board approval by Resolution.

3. Report of Bills March 2021 - D. Moyer, Director of Finance

4. Resolution No. 2021-20 - A resolution vacating a portion of a utility easement in Lot 10, Block 2 in the Raindance Subdivision Ninth Filing Lot 10, Block 2 is in Raindance 9th Filing.
Raindance 9th Filing is a single family development that is located directly east of Colorado Blvd and north of Raindance 8th Filing, which is directly north of New Liberty Road. A 10-foot utility easement was inadvertently drawn along the western edge of Lot 10, Block 2 and needs to be vacated. The easement is unnecessary now and in the future.

   Mayor Pro Tem Bennett moved to approve the consent calendar as presented, Town Board Member Sislowski seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

C. BOARD ACTION

1. <u>Public Hearing - Final Major Subdivision - Raindance Subdivision 15th Filing – David Nelson/Martin Lind, owner/applicants, and Tom Siegel, applicant's representative</u>
The applicant, Mr. Lind, has submitted, on behalf of the owner Mr. David Nelson, a final major subdivision plat known as RainDance Subdivision Fifteenth Filing. The subdivision encompasses approximately 81 acres and is zoned Planned Unit Development (PUD) and is designated for single family residential.

   Preliminary Plat characteristics:
   - 81 total acres
   - 292 detached single-family homes
   - Density: 3.5 du/ac
   - Total open space including drainage: ~ 9.6 acres (12%)

- Parks: Two small pocket parks, for additional amenities, however, the overall park requirement is not applicable due to location proximity of Raindance Community Park (owned and maintained by metropolitan district).

As required with a major subdivision submittal, the applicant held a neighborhood meeting on February 11, 2021 in accordance with Chapter 16, Article XXXI, and Chapter 15, Article III, of the Municipal Code. There were no attendees and no public comments have been received to date by the planning staff or the applicant.

The Municipal Code requires a public hearing notification for a final major subdivision.

Notifications for this meeting were as follows:
- March 18, 2021 – affidavit of letters mailed to property owners within 300 feet
- March 26, 2021 – legal notice posted on the Town of Windsor website
- March 26, 2021 – development review sign posted on the property
- March 26, 2021 – legal ad published in the paper

Town Board Member Sislowski moved to open the public hearing, Town Board Member Tallon seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

Per Mr. Eisenbraun, these lots are known as the golf course lots as they are situated along the new Raindance golf course. These lots sit North of New Liberty and East of Colorado Boulevard and along Covered Bridge Parkway. They are all within the Raindance PUD and are within estate residential zonings. At the April 7, 2021 meeting, Planning Commission forwarded to Town Board a recommendation of approval of the final major subdivision as presented.

Town Board Member Tallon moved to close the public hearing, Mayor Pro Tem Bennett seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

2. Resolution No. 2021-17 - A Resolution Approving a Final Major Subdivision – Raindance Subdivision 15th Filing - David Nelson/Martin Lind, owners/applicants, and Tom Siegel, applicant's representative
Please see public hearing item.

Per Mr. Eisenbraun, nothing further to add.

Mayor Pro Tem Bennett read the following aloud, from Town Board Member Wilson, he was present at the Planning Commission meeting where this item was presented and has no issues with this specific filing. He does however have the same concerns as before regarding the cumulative effect of each filing together in terms of transportation. Questions about if the traffic study is accurate and if the Town is raising enough funds for the transportation needs. Mr. Siegel stated that in conjunction with various filings within Raindance, from time to time Town Board and staff has asked for the current traffic studies to be update in which they have been.

Town Board Member Sislowski stated for clarification, what he heard is that there was an updated traffic study done relating to the two new developments, but this study didn't suggest that there were any new changes? Mr. Eisenbraun responded that was correct.

Town Board Member Tallon moved to approve Resolution number 2021-17, Board Member Cline seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

3. Second Reading of Ordinance - Rezone - Hoehne Subdivision 1st Filing, Block 2, Tract B - Cindy Hoehne, Owner/Co-applicant, and Les Kaplan, Co-applicant

The applicants, Cindy Hoehne, and Les Kaplan, represented by Melanie Foslien of Northern Engineering, have submitted a rezoning application to rezone 4.36 acres from GC (General Commercial) to RMU (RMU-1) (Residential Mixed Use) Zone District. The proposed rezoning is located west of and adjacent to 15th Street, south of and adjacent to Westwood Drive, and north of Walnut Street and Westwood Village Park. The subject rezoning plat includes a 3.79-acre parcel plus adjacent right-of-way to the centerline of 15th Street and centerline of Westwood Drive.

The property is currently agricultural with one single-family residence and is surrounded by following zoning and land uses:

North: GC (General Commercial); Safeway shopping center (Hoehne Subdivision 1st Filing) South: SF-1 (Residential, Single-family); Westwood Village Park and single-family residential (Westwood Village Subdivision 2nd Filing)
East: SF-1 (Residential, Single-family); single family residential (Westwood Village Subdivision) Northeast: GC; Medical Facilities and Assisted Living – Columbine Health (Westwood Village Subdivision 5th Filing) West: RMU-1 (Residential Mixed Use); agriculture (Hoehne Subdivision 1st Filing)

Per Section 16-5-20 of the Town's Municipal Code, an applicant requesting a zoning map amendment must submit to the Town a petition and justification for the rezone. The property was zoned commercial at the time the Safeway shopping center was rezoned. The subject parcel has remained agriculture/undeveloped since this time. The property owner has petitioned to rezone the property to residential because there has been little interest for commercial development on the subject property due to the location behind the commercial center and rezoning to residential would tie into the existing residential development (east and south) and residentially zoned (to the west). Additionally, the RMU (RMU-1) zone district provides and appropriate transition from single-family residentially zoned property to the south to the GC (General Commercial) zoned property to the north.

The subject rezoning application constitutes an amendment to the Town's Official Zoning District Map. In accordance with Article XXIII of Chapter 16 of the Municipal Code, the rezoning from GC to RMU (RMU-1) is in compliance with the Town's 2016 Comprehensive Plan goals and objectives, as outlined below. The applicant held a neighborhood meeting on February 2, 2021. There were five attendees and two of the five attendees identified themselves as neighbors. Please refer to the enclosed meeting summary for topics discussed at the meeting. The main topic was the uses allowed in the GC zoning district as compared to the proposed RMU (RMU-1) zoning district, and the RMU (RMU-1) zone district allowable building height and density. Other questions were related to future development.

Conformance with the Comprehensive Plan

The rezone petition is consistent with the following comprehensive plan goals and objectives:

Chapter 5b – Growth Framework

Goal: *Maintain the character of the community while accommodating future growth that is fiscally and environmentally responsible.*

Staff comment: The property is located immediately south of a shopping center (Safeway) and further south of the New Windsor Marketplace, southwest of medical offices and assisted living, southeast of medical offices/urgent care (River Valley Crossing Subdivision), financial businesses, auto services, and restaurants; and north of an existing Town park (Westwood Village Park). The property is located within the Westwood Village neighborhood, located west and north of existing single-family residential.

Future development within an area already served by utilities and services ("infill") creates less of a fiscal burden on municipalities by having less utility and road infrastructure to maintain on a per unit basis. Additionally, the property is located within an area offering alternative forms of transportation such as walking, biking, and transit. The Poudre Express Route has two stops in close proximity to the subject site, a west-bound to Fort Collins stop on the north side of Main Street/SH 392, west of 15th Street, and an east-bound to Greeley stop on the south side of Main Street, also west of 15th Street.

Objective 3: Develop new neighborhoods adjacent to the Town core.

Staff comment: The proposed rezoning is in close proximity to the Town core, being approximately one mile west of downtown and within an established neighborhood.

Chapter 5c Residential Areas Framework Plan:
Goal: *Support diverse housing and residential neighborhoods to meet the needs of varying family sizes, lifestyles, and income levels.*

Objective 4: Foster a diversity of housing types and sizes through coordinated land use planning and zoning.

Objective 5: Support high density residential development near Downtown, commercial centers, and mixed-use nodes.

Staff comment: The proposed RMU (RMU-1) zoning allows for a mix of residential types. Future development of the property requires a site plan application and an administrative approval. A site plan application for the subject property has not been received at this time. As stated herein, the RMU (RMU-1) zone district offers an appropriate transition between the single-family residential located south of the subject property to the commercial center located to the north.

Notification

The applicant held a neighborhood meeting on February 2, 2021, virtually via Zoom. A link to this meeting was included in the mailing to adjacent property owners.

Notifications for this meeting were as follows:

- January 20, 2021- display ad published in papers
- January 15, 2021 – affidavit of mailing to property owners within 300 feet

Public Hearing notifications for the Planning Commission and Town Board meetings were completed in accordance with the Municipal Code as follows:

- February 19, 2021 - applicant mailed letters to surrounding property owners
- February 24, 2021 – development signs posted on property
- February 26, 2021 – public notice published in newspapers
- February 24, 2021 – public hearing notice published to Town website

Per Ms. Malone, this is the second reading of the Hoehne rezone and nothing has changed since the first reading.

Mayor Rennemeyer opened the meeting for public comment, to which there was none.

Mayor Pro Tem Bennett moved to approve Ordinance number 2021-1622 on second reading, Town Board Member Sislowski seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

4. Resolution No. 2021-18 Authorizing and Approving the Town of Windsor's Participation in the Metro Mortgage Assistance Plus Program

Town staff were contacted by representatives involved with the metroDPA program to inquire if the Town Board would consider approval of a participation agreement and resolution that would allow the Town of Windsor to be considered a participating Town with the City and County of Denver, which is the sponsor for the program. Other communities currently participating include Larimer County, Greeley, Evans, Berthoud, Mead, and members of the Metro Mayors Caucus. A total of 44 jurisdictions in the Front Range area are actively benefitting from metroDPA.

The metroDPA Program is unique among similar programs available in other states in that the program is administered at the county level instead of at the state level. The program is designed to offer assistance to qualified borrowers in the form of a variety of 30 year fixed rate first mortgage options and down payment assistance. For example, aid can be provided in the form of assistance set as a percentage (up to 6% depending on loan type) of the overall note and the aid can be applied toward down payment or closing costs. The full amount of aid is provided as a silent second mortgage (0% interest) and forgivable monthly over 36 months.

The Town Attorney has negotiated a modification to the "hold-harmless" language in Section 3 of the Delegation and Participation Agreement to address Town Board Member Sislowski's concerns. The new language conditions any Town obligation under this section on limitations and permissions provided under the Colorado law. The Colorado Constitution states that the Town cannot take on any future-year fiscal obligations or take on Denver's fiscal obligations. Mr. McCargar will be on-hand to explain this further during discussion of this item.

This is a program that provides an opportunity for homebuyers who qualify for a mortgage in all ways except they don't have the down payment saved up to make a down payment. This program provides thirty-year fixed rate mortgage either FHA, VA, or Conventional loan and an option available to the home owners of either three to five percent down payment assistance. Minimum credit score is 640, qualifying income is capped at $150,000.00 on a loan application, and it is open and available to any home owner looking in an approved area. This

program does not need any federal, state, or local funding and is a self-sustained program.

Town Board Member Cline asked how a potential home buyer ask for this program? Mr. Johnson responded that there is a website at metrodpa.org with more information and contact information.

Town Board Member Charpentier stated that he has spoken with representatives and although he is in favor of the program, he finds it unfortunate that from what he can tell, there is really only one lender a person can use which is US Bank that is around this area.

Town Board Member Sislowski stated that he and the Town Attorney have had some exchange on this and all along he has voiced the same concern as Mr. Charpentier just voiced that he would not want to see the government involved in a program that is competing against local banks. Town Board Member Sislowski stated that if it is not competing against local banks, he does believe it is a good program but has heartburn over the section three and the hold harmless provision. Town Board Member Sislowski stated that he like the overall program but not the agreement and if they are asked to approve both tonight he will vote against it.

Mayor Rennemeyer stated that he is excited about this program as it was one of the strategic initiatives that the Town Board laid out for the next two years of trying to offer assistance to home buyers in Windsor either by affordable housing or down payment assistance and will be voting for this.

Mayor Rennemeyer opened the meeting for public comment, Mr. Shane Mares at 1772 Country Sun Drive. Mr. Mares stated that his family is moving from Loveland and when they were starting to look at houses they were intrigued by Windsor but also slowed down due to other Towns and Counties having access to the metroDPA program. His opinion is that additional programs in the home buying market help home buyers and any option that reduces the monthly mortgage payments for any buyer is going to free up money every month that they live there. Multiplying that across multiple households across town, the savings could help spend money in Town with the monthly savings. Mr. Mares stated that he believes that Windsor's participation in the program will keep it competitive with neighboring communities.

Mayor Pro Tem Bennett moved to approve Resolution number 2021-18, Town Board Member Tallon seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Tallon; Nays - Sislowski; Motion Passed.

5. Resolution 2021-19 Being a Resolution Appropriating Additional Sums of Money to Defray Expenses in Excess of Amounts Budgeted for the Town of Windsor Colorado for 2020.

In the course of preparing for the annual audit we have some additional items that we need to add through a supplemental Budget for 2020. If you recall earlier this year we did a supplemental budget addressing final acceptance of infrastructure. In that supplement, no money changed hands. This one is different in that these were cash paid by the Town that we had not anticipated in the 2020 Budget. The supplements are similar in that they are necessary to comply with Budget law.

With the Water Fund, our appropriations were exceeded by an increase in Potable Water demand that had not been forecasted. The second item were the funds we

spent for the Water Treatment Plant site purchase. Our actual revenues still exceeded our actual expenditures and this is just a technical adjustment to ensure we don't violate Colorado statutes for exceeding our original appropriations.

The supplement to the CTC concerns the Great Western Trail activity renewed in earnest in 2020 and we did not have an appropriation in place for the pass-thru spending. We had assumed this activity would resume in 2021, but happened in 2020.

Town Board Member Tallon moved to approve Resolution number 2021-19, Mayor Pro Tem Bennett seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

D. COMMUNICATIONS

1. Communications from Town Attorney

   Per Mr. McCargar, last week the Town was asked to submit comments to the Public Utilities Commission on proposed new rail crossing rules that are under consideration by the PUC. Staff is working with the consultant that we used on the quite zone projects as she has considerable experience with rail crossing work. Windsor will come up with some comments between staff and the consultant that will be consistent with elsewhere in the State.

2. Communications from Town Staff
   Per Mr. Eisenbraun, the Eastman Park public open house is coming up the second week of May at the Community Rec Center.

   Per Mr. Moyer, in the packet was the December 2020 financial report. It came out how it had been described all year in that the sales tax was up as far as revenue went. Property tax was a little short but will eventually be caught up. When looking at the expenditures, mainly the water fund and conservation trust fund that were over the budget, that has been taken care of with the resolution approved tonight.

   a. Finance Report December 2020

3. Communications from Town Manager

   Per Mr. Hale, as a reminder, the City of Loveland will host a study session tomorrow night regarding metro districts. Invites have been sent out to the Town Board and the meeting will be held via a zoom meeting. The Mayor will host a Transportation Breakfast next Friday at the CRC and staff has reached out to the congressional delegation and sent invites to the meeting. Community Development will be providing an overview of upcoming projects. Reminder that Terry Walker has passed away and his service will be held this Friday at 2:00 p.m. at the CRC in the main gym.

   a. Monthly Board Report

      Focus Area Updates:

      1. Strategic Growth

The Town has continued its efforts to assess our organizational readiness to ensure a proactive emergency response. Most notably over the past month, Windsor has been in productive discussions with Weld County to ensure operations and communications are clear with Weld County office of Emergency Management.

2. Sustainable Infrastructure

Although we are very early in the Town Boards stated goal of establishing alternate routes to diminish truck traffic on Main Street, work has begun in earnest to do just that. The Town Manager and staff met with CDOT on March 18, 2021 to discuss high level CDOT analysis and required process, and is scheduling a follow up meeting with key elected officials and CDOT Staff. Staff is also working with the consultant studying downtown parking to also collect downtown traffic data in March/April, so we can better define the problem that currently exists. CDOT has provided a draft cost analysis for the relocation of HWY 257 (7th St) to CR 19/Hollister Lake Drive. Town staff is currently reviewing the cost analysis of the swap.

3. Vibrant and Healthy Economy

Town Board and DDA Board met interviewed finalists and chose Tribe Development for the development of the back lots. The Town Board will be presented with a development agreement for their consideration in mid-April. There will be a 90 day due diligence process, where a significant amount of data is viewed (land use, retail leakage study, downtown lease rates, parking analysis, etc.), visioning is conducted, and at the end all parties will know whether there is a development concept that will work. Assuming all entities want to proceed, new timetables will be developed based on what development action will be undertaken.

4. Communications from Town Board

E. ADJOURN

Town Board Member Tallon moved to adjourn, Town Board Member Charpentier seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

Upon a motion duly made, the meeting was adjourned at 8:34 p.m.

Karen Frawley, Town Clerk

TOWN BOARD REGULAR MEETING

April 12, 2021 - 7:00 PM
Town Board Chambers, 301 Walnut Street, Windsor, CO 80550
Please click this URL to join. https://windsorgov.zoom.us/j/97851702593
OR join by telephone at (888) 788-0099 or (877) 853-5247
Webinar ID:978 5170 2593

MINUTES

A. CALL TO ORDER

Mayor Rennemeyer called the meeting to order at 7:06 p.m.

1. Roll call

Mayor Paul Rennemeyer
Mayor Pro Tem Ken Bennett
Scott Charpentier
Barry Wilson - Absent
Julie Cline
Victor Tallon
David Sislowski

Also Present:

Shane Hale, Town Manager
Ian McCargar, Town Attorney
Rick Klimek, Police Chief
Aaron Lopez, Police Commander
John Thornhill, Community Development Director
Eric Lucas, Public Services Director
Carlin Malone, Chief Planner
Desa Blair, Civil Engineer
Dean Moyer, Finance Director
David Eisenbraun, Senior Planner
Stacy Miller, Economic Development Director
McKenzie Payne, Visual Media Coordinator
Ben Bodiker, Communications Intern
Karen Frawley, Town Clerk

2. Pledge of Allegiance

Mayor Rennemeyer asked Mayor Pro Tem Bennett to lead the pledge of allegiance.

3. Review of Agenda by the Board and Addition of Items of New Business to the Agenda for Consideration

Town Board Member Tallon moved to approve the agenda as presented, Town Board Member Charpentier seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

4. Proclamation

- National Library Week Proclamation

- Arbor Day Proclamation
- National Crime Victims' Rights Week

  Mayor Rennemeyer read the proclamations aloud.

5. Board Liaison Reports

- Town Board Member Charpentier - Chamber of Commerce, Clearview Library Board

  Per Mr. Charpentier, there are no updates to provide on the Chamber of Commerce since the last update.

  Per Mr. Charpentier, the library has just finished the public input meetings on the new library branch and admin office.

- Town Board Member Wilson - Planning Commission, Larimer County Behavioral Health Policy Council

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Per Mayor Pro Tem Bennett, the Water and Sewer Board will meet this Wednesday. Water and Sewer Board has an Ad Hoc committee that is focused on public outreach and public education on the importance of water and conservation. They took on a big project working with CSU extension office and the Town's communications department and presented the Colorado Landscapes Basic Course. Three sessions were held on YouTube, first on lawn care, second on trees and shrubs, and third on water wise landscaping. As of several weeks ago, there was right at one-hundred people who participated in those. They are still available on YouTube and can still be viewed.

Per Mayor Pro Tem Bennett, the I-25 Coalition met last week as did the 34 Coalition. Both groups have had conversations for several months anticipating an increase in funding both State and Federal funds for transportation. There are no real definitive answers about how much or how it will be distributed, but the message continues to be optimistic that there is going to be some type of additional State and Federal transportation funds in the coming year or years. There is a private group proposing to take over the express lanes from 120th in North Denver up to State Highway 56 which is the Berthoud interchange. It would be a private industry toll road but they would take it away from CDOT and it would be ran by a private entity.

Per Mayor Pro Tem Bennett, the 34 Coalition are continuing with the County Road 17 and 34. The Northwest corner of that is in the Town of Windsor. They are currently looking at redesign of that intersection because it has a lot of congestion and high crash rates. The issue is there is no money, but they are still moving forward with design. There will be a virtual open house in the coming weeks, however no dates have been set yet. Since they don't have any funds for the implementation of the design, according to CDOT is have some sort of a temporary treatment to deal with some of the congestion and crash data.

- Town Board Member Cline – Tree Board, Poudre River Trail Corridor Authority, Historic Preservation Commission

  Per Ms. Cline, the Historic Preservation Commission will meet on Wednesday so no updates at this time.

  Per Ms. Cline, the Tree Board met on March 23 and mainly talked about the Arbor Day and Skyview Elementary was selected as the Arbor Day School for this year. This Friday, they are having the Arbor Day celebration for Skyview which will be hosted via Zoom. There is a tree sale that is set for this Saturday at the Public Works Facility.

  Per Ms. Cline, the Poudre River Trail Corridor Authority met last Thursday and covered the Cycling Without Age program. They are hoping to have everything lined up so they can start the program in May. They are looking at insurance for the program as well as director and board insurance so they are covered should anything happen. The authority is also moving forward on a new marketing program to revise and revamp some of the website and marketing materials. With the current legislation in Washington, they are also

trying to get a shovel ready program together and are looking at a consultant. The sub-committee is working on putting together information for an annual report to report out what has been done over the past two years to get ready for budget requests for the upcoming budget cycle. The authority is working on the trail-a-thon and looking at doing something for the month of June and trying to tie it into multiple events possibly a scavenger hunt.

- Town Board Member Tallon - Parks, Recreation and Culture Advisory Board, Great Western Trail Authority

  Per Mr. Tallon, the Parks, Recreation and Culture Advisory Board had planned to meet at the Riverwalk to look at the work being done on the project, but due to weather had to be pushed off to the May meeting.

  Per Mr. Tallon, according to the Great Western Trail Authority the trail is in good condition but the issues with horses still continue. The counts on the trail was down last month possibly due to the storm.

- Town Board Member Sislowski - Windsor Housing Authority, Windsor Severance Fire District

  Per Mr. Sislowski, the Windsor Housing Authority has no updates at this time.

  Per Mr. Sislowski, the Windsor Severance Fire District met on April 8th. They started off with badge pinning of three newly promoted engineers and three newly promoted firefighters. The fire board discussed the strategic plan which runs through 2021. They are currently working on developing a new strategic plan that will run from 2022 through 2026 and a draft copy will be going out to the board soon. The life safety educator, Rebecca Clark was selected to be the president of the Colorado Risk Reduction Network. Chief Kazian was also nominated to represent the Fire Chiefs on the Colorado Homeland Security Advisory Council. There was a recap on the status of Fire Station 4 provided. A discussion was also had on the fire impact fees.

- Mayor Rennemeyer - Downtown Development Authority, North Front Range MPO

  Per Mayor Rennemeyer, there are no updates from the Downtown Development Authority.

  Per Mayor Rennemeyer, an environmental justice plan was previously presented to the North Front Range MPO which addresses several environmental justice topics and was approved at the last MPO meeting. The transportation improvement program is not seeing any new projects being funded within fiscal years 2022 and 2023 so there are no projects to discuss. The budget is being carried forward. The mobility program that has the one call one click program mostly used in Fort Collins and Loveland needed additional funding and was approved and passed. The former Mayor of Severance resigned and was the Chair of the North Front Range MPO since the first of the year and Mayor Karspeck, Mayor of Berthoud was the vice-chair and has been placed as chair, the upcoming meeting in May the new vice-chair will be selected.

6. Public Invited to be Heard

Mayor Rennemeyer opened the meeting up for public comment, to which there was none.

B. CONSENT CALENDAR

1. Minutes of the March 22, 2021 Regular Town Board Meeting - K. Frawley, Town Clerk

2. Resolution No. 2021-16 - A Resolution Approving An Exclusive Negotiation Agreement and Letter Of Intent Between and Among The Town of Windsor, Windsor Downtown Development Authority And Tribe, LLC, With Respect To Downtown Redevelopment - - Ian D. McCargar, Town Attorney
With the selection of Tribe, LLC, the Town Board and DDA instructed staff to work out an agreement for initial services to take place over the near-term, with the intention that a binding redevelopment agreement would evolve through Tribe's efforts. Attached is the Exclusive Negotiation Agreement and Letter of Intent ("ENA").

3. Report of Bills March 2021 - D. Moyer, Director of Finance

4. Resolution No. 2021-20 - A resolution vacating a portion of a utility easement in Lot 10, Block 2 in the Raindance Subdivision Ninth Filing Lot 10, Block 2 is in Raindance 9th Filing.
Raindance 9th Filing is a single family development that is located directly east of Colorado Blvd and north of Raindance 8th Filing, which is directly north of New Liberty Road. A 10-foot utility easement was inadvertently drawn along the western edge of Lot 10, Block 2 and needs to be vacated. The easement is unnecessary now and in the future.

Mayor Pro Tem Bennett moved to approve the consent calendar as presented, Town Board Member Sislowski seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

C. BOARD ACTION

1. Public Hearing - Final Major Subdivision - Raindance Subdivision 15th Filing – David Nelson/Martin Lind, owner/applicants, and Tom Siegel, applicant's representative
The applicant, Mr. Lind, has submitted, on behalf of the owner Mr. David Nelson, a final major subdivision plat known as RainDance Subdivision Fifteenth Filing. The subdivision encompasses approximately 81 acres and is zoned Planned Unit Development (PUD) and is designated for single family residential.

Town Board Member Sislowski moved to open the public hearing, Town Board Member Tallon seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

Per Mr. Eisenbraun, these lots are known as the golf course lots as they are situated along the new Raindance golf course. These lots sit North of New Liberty and East of Colorado Boulevard and along Covered Bridge Parkway. They are all within the Raindance PUD and are within estate residential zonings. At the April 7, 2021 meeting, Planning Commission forwarded to Town Board a recommendation of approval of the final major subdivision as presented.

Town Board Member Tallon moved to close the public hearing, Mayor Pro Tem Bennett seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

2. Resolution No. 2021-17 - A Resolution Approving a Final Major Subdivision – Raindance Subdivision 15th Filing - David Nelson/Martin Lind, owners/applicants, and Tom Siegel, applicant's representative
Please see public hearing item.

Per Mr. Eisenbraun, nothing further to add.

Mayor Pro Tem Bennett read the following aloud, from Town Board Member Wilson, he was present at the Planning Commission meeting where this item was presented and has no issues with this specific filing. He does however have the same concerns as before regarding the cumulative effect of each filing together in terms of transportation. Questions about if the traffic study is accurate and if the Town is raising enough funds for the transportation needs. Mr. Siegel stated that in conjunction with various filings within Raindance, from time to time Town Board and staff has asked for the current traffic studies to be update in which they have been.

Discussion on the item ensued between the Board and staff.

Town Board Member Tallon moved to approve Resolution number 2021-17, Board Member Cline seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

3. Second Reading of Ordinance - Rezone - Hoehne Subdivision 1st Filing, Block 2, Tract B - Cindy Hoehne, Owner/Co-applicant, and Les Kaplan, Co-applicant
The applicants, Cindy Hoehne, and Les Kaplan, represented by Melanie Foslien of Northern Engineering, have submitted a rezoning application to rezone 4.36 acres from GC (General Commercial) to RMU (RMU-1) (Residential Mixed Use) Zone District.

Per Ms. Malone, this is the second reading of the Hoehne rezone and nothing has changed since the first reading.

Mayor Rennemeyer opened the meeting for public comment, to which there was none.

Mayor Pro Tem Bennett moved to approve Ordinance number 2021-1622 on second reading, Town Board Member Sislowski seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

4. Resolution No. 2021-18 Authorizing and Approving the Town of Windsor's Participation in the Metro Mortgage Assistance Plus Program

The metroDPA Program is unique among similar programs available in other states in that the program is administered at the county level instead of at the state level. The program is designed to offer assistance to qualified borrowers in the form of a variety of 30 year fixed rate first mortgage options and down payment assistance. For example, aid can be provided in the form of assistance set as a percentage (up to 6% depending on loan type) of the overall note and the aid can be applied toward down payment or closing costs. The full amount of aid is provided as a silent second mortgage (0% interest) and forgivable monthly over 36 months.

Discussion ensued between the Board.

Mayor Pro Tem Bennett moved to approve Resolution number 2021-18, Town Board Member Tallon seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Tallon; Nays - Sislowski; Motion Passed.

5. Resolution 2021-19 Being a Resolution Appropriating Additional Sums of Money to Defray Expenses in Excess of Amounts Budgeted for the Town of Windsor Colorado for 2020.

   In the course of preparing for the annual audit we have some additional items that we need to add through a supplemental Budget for 2020. If you recall earlier this year we did a supplemental budget addressing final acceptance of infrastructure. In that supplement, no money changed hands. This one is different in that these were cash paid by the Town that we had not anticipated in the 2020 Budget. The supplements are similar in that they are necessary to comply with Budget law.

   Town Board Member Tallon moved to approve Resolution number 2021-19, Mayor Pro Tem Bennett seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

D. COMMUNICATIONS

1. Communications from Town Attorney

   Per Mr. McCargar, last week the Town was asked to submit comments to the Public Utilities Commission on proposed new rail crossing rules that are under consideration by the PUC. Staff is working with the consultant that we used on the quite zone projects as she has considerable experience with rail crossing work. Windsor will come up with some comments between staff and the consultant that will be consistent with elsewhere in the State.

2. Communications from Town Staff

   Per Mr. Eisenbraun, the Eastman Park public open house is coming up the second week of May at the Community Rec Center.

   Per Mr. Moyer, in the packet was the December 2020 financial report. It came out how it had been described all year in that the sales tax was up as far as revenue went. Property tax was a little short but will eventually be caught up. When looking at the expenditures, mainly the water fund and conservation trust fund that were over the budget, that has been taken care of with the resolution approved tonight.

   a. Finance Report December 2020

3. Communications from Town Manager

   Per Mr. Hale, as a reminder, the City of Loveland will host a study session tomorrow night regarding metro districts. Invites have been sent out to the Town Board and the meeting will be held via a zoom meeting. The Mayor will host a Transportation Breakfast next Friday at the CRC and staff has reached out to the congressional delegation and sent invites to the meeting. Community Development will be providing an overview of upcoming projects. Reminder that Terry Walker has passed away and his service will be held this Friday at 2:00 p.m. at the CRC in the main gym.

4. Communications from Town Board

E. ADJOURN

Town Board Member Tallon moved to adjourn, Town Board Member Charpentier seconded the motion. Roll call on the vote resulted as follows; Yeas - Bennett, Charpentier , Cline, Rennemeyer, Sislowski, Tallon; Motion Passed.

Upon a motion duly made, the meeting was adjourned at 8:34 p.m.

Karen Frawley, Town Clerk

MEMORANDUM

Date: July 12, 2021
To: Mayor and Town Board
Via: Shane Hale, Town Manager
From: Karen Frawley, Town Clerk
Re: Future Meeting Agenda
Item #: 6.

ATTACHMENTS:

- Future Meetings Agenda

FUTURE TOWN BOARD MEETINGS

July 15, 2021 5:30 p.m.	Joint Town Board and DDA Special Meeting 4th Street Concepts/Backlots
July 19, 2021 5:00 p.m.	Town Board Work Session (Windsor High School) Weld RE-4 School District All Boards Annual Meeting
July 26, 2021 5:30 p.m.	Town Board Work Session Meet the Board Body Cam Recommendations Park Fee Study
July 26, 2021 7:00 p.m.	Town Board Meeting
August 2, 2021 5:30 p.m.	Town Board Work Session Presentation of COGCC Rulemaking Changes Boardwalk Park Issues
August 9, 2021 5:30 p.m.	Town Board Work Session Board – Manager – Attorney Monthly Meeting IGA with Greeley on Open Space Land
August 9, 2021 7:00 p.m.	Town Board Regular Meeting
August 16, 2021 5:30 p.m.	Town Board Work Session Poudre River Trail Corridor Authority Future Plans
August 23, 2021 5:30 p.m.	Town Board Work Session
August 23, 2021 7:00 p.m.	Town Board Regular Meeting
August 30, 2021	Cancelled – 5th Monday
September 6, 2021	Cancelled – Labor Day Holiday
September 13, 2021 5:30 p.m.	Town Board Work Session Budget: Capital Improvement Plan
September 13, 2021 7:00 p.m.	Town Board Regular Meeting
September 20, 2021 5:30 p.m.	Town Board Work Session

September 27, 2021 5:30 p.m.	Town Board Work Session Budget: Capital Improvement Plant Follow-up Questions
September 27, 2021 7:00 p.m.	Town Board Regular Meeting
October 4, 2021 5:30 p.m.	Town Board Work Session
October 9, 2021 8:00 a.m – 2:00 p.m.	Town Board Operational Budget Retreat

Future Work Session Topics

- Broadband Update
- DDA Entertainment District
- Telecom Code (Pending FCC Rules)
- Regional Water Treatment Plant Site
- Presentation by Carolyn Steffl regarding SB21-262 – Special District Transparency
- Proportional services and amenities for planned population
- Economic development/retail needs based on population levels (following retail assessment)
- Budget: Follow-up Budget Items – October 25th
- Comprehensive Fee Update (October)