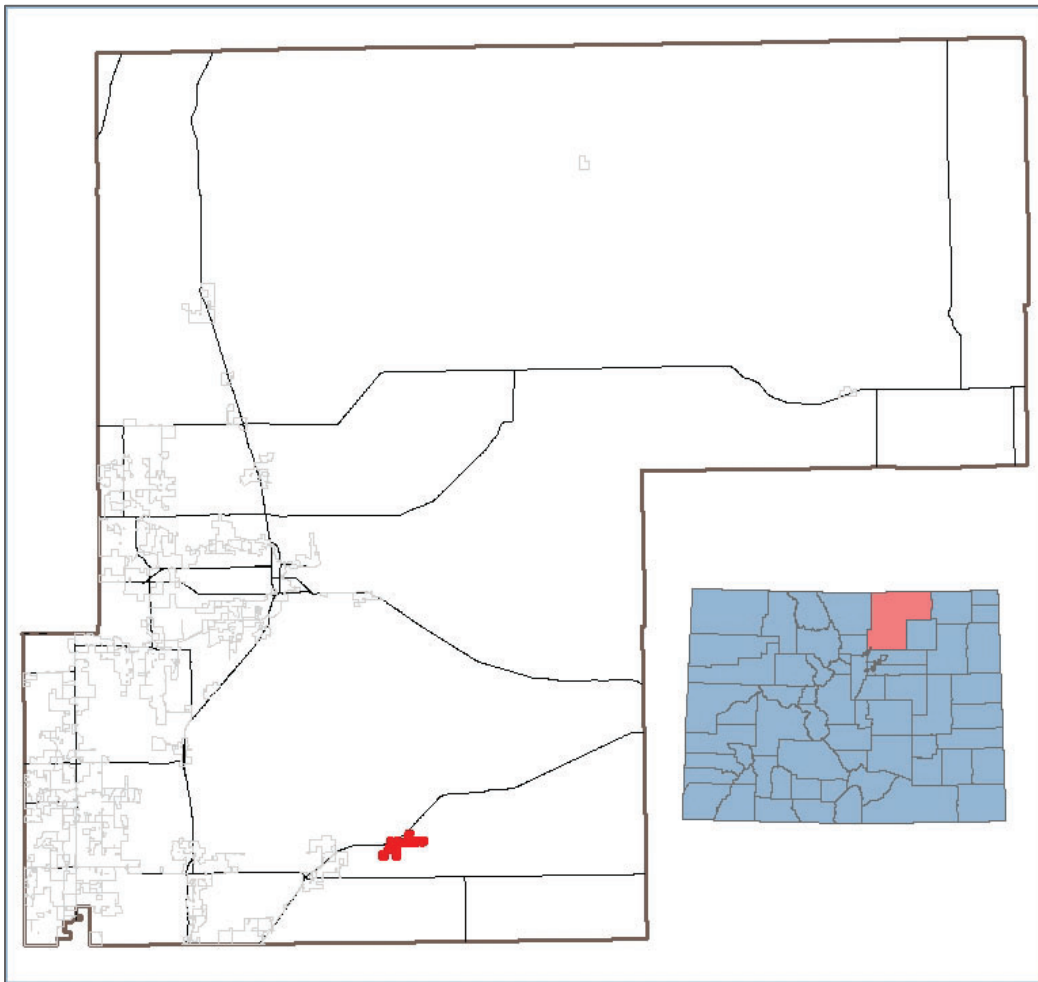


## 7.12 Town of Keenesburg

The motto of Keenesburg is "Home of 500 Happy People and a Few Soreheads." While the Town has grown to a population of over 1,200, the importance of positive progression of the community is at the forefront of the Town's character. Pride in the community's involvement and roots in agriculture have guided the development of this municipality.

### 7.12.1 Community Profile

The Town of Keenesburg is located in Southeast Weld County, approximately 25 miles southeast of the County Seat of Greeley. Keenesburg is located along the I-76 corridor and approximately 35 miles northeast of Denver. The Town has a total area of 0.6 square miles and is part of the agricultural community.



The table below summarizes development information of the Town of Keenesburg. Current information for specific characteristics of the population is only available from the US Census Bureau for municipalities with populations over 5,000 people.

Table 154. Town of Keenesburg Demographics

Keenesburg	Colorado	
1,237	5,758,736	Population, 2019

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Keenesburg	Colorado	
8.7%	14.5%	Population, % change April 1, 2010 to July 1, 2019
2.56	2.56	Persons Per Household, 2019

Note: Recent data is unavailable from the US Census Bureau for some categories, based on the size of the municipality. Source: US Census Bureau

## 7.12.2 Risk and Vulnerability Assessment

Table 155 summarizes the results of the RF ranking exercise performed by the Town of Keenesburg. The results represent the relative risk of different hazards across the municipality from the perspective of local stakeholders and subject matter experts. Note the final RF Ranking values in this table include the weighting factors detailed in the Risk Assessment chapter of this Plan.

Table 155. Risk Factor Results for Keenesburg

Hazard	Probability	Impact	Spatial Extent	Warning Time	Duration	RF Ranking
Agricultural Hazards	3	2	3	1	4	2.6
Cyber Hazards	3	2	2	4	2	2.5
Drought	4	3	3	1	4	3.2
Earthquake	1	3	3	4	1	2.3
Extreme Temps.	3	3	3	2	3	2.9
Flood	2	3	3	3	2	2.6
Hazmat Release	3	4	3	4	3	3.4
Land Subsidence	1	1	1	4	1	1.3
Prairie Fire	2	2	2	4	1	2.1
Public Health Hazards	4	4	4	1	4	3.7
Severe Storms	4	3	4	2	1	3.2
Tornado & Wind	3	3	3	4	1	2.9

The conclusions drawn from the qualitative assessment are organized into three categories shown in the following table and provide a summary of hazard risk for Keenesburg as a whole - based on High, Moderate, or Low risk designations. This process helped frame ongoing planning discussions around local and regional hazard risks and assisted with the development of the Plan's updated mitigation strategy.

Table 156. Hazard Risk Conclusions for Keenesburg

<b>HIGH RISK (2.5 or higher)</b>	<b>Agricultural Hazards, Cyber Hazards, Drought, Extreme Temperatures, Flood, Hazmat Release, Public Health Hazards, Severe Storms, Tornado &amp; Straight-Line Wind</b>
<b>MODERATE RISK (2.0 – 2.4)</b>	<b>Earthquake, Prairie Fire</b>
<b>LOW RISK (1.9 or lower)</b>	<b>Land Subsidence</b>

Since the 2016 Plan, the Town has increased the assessed risk from drought and flood to High Risk (both formerly Moderate). The Town has also increased the assessed risk from extreme temperatures,

hazmat release, public health hazards, and prairie fire to High Risk (all formerly Low). Besides the newly added hazards of agricultural hazards and cyber hazards, all other risk rankings remain the same.

The following sections highlight the Town of Keenesburg's High Risk hazards and include any specific content relevant to the Town. They are intended to supplement information included in each hazard profile in the main body of this Plan.

#### *7.12.2.1 Agricultural Hazards (including Disease & Pests)*

Vulnerability to agricultural hazards is not noticeably different from the rest of the County. Those communities whose economies are more dependent on the agriculture industry do experience higher risk to these hazards. There are no previous events to document specific to the Town of Keenesburg. Future occurrences are expected to mirror that of the County. Refer to Chapter 5 – Risk Assessment of this Plan for additional details.

#### *7.12.2.2 Cyber Hazards*

For any municipality, vulnerability to cyber hazards does not vary from that of the County as a whole. While there are no documented cyber events impacting the Town of Keenesburg, the threat of this hazard is continually increasing. There are no previous events to document specific to Keenesburg. Future occurrences are expected to mirror that of the County. Refer to Chapter 5 – Risk Assessment of this Plan for additional details.

#### *7.12.2.3 Drought*

The community vulnerability to drought is not noticeably different from the rest of the County. Those communities whose economies are more dependent on the agriculture industry do experience higher risk to this hazard. There are no previous events to document specific to the Town of Keenesburg. Future occurrences are expected to mirror that of the County. Refer to Chapter 5 – Risk Assessment of this Plan for additional details.

#### *7.12.2.4 Extreme Temperatures*

The Town of Keenesburg's vulnerability to extreme temperatures is not noticeably different from the rest of the County. Those communities whose economies are more dependent on the agriculture industry do experience higher risk to these hazards due to potential crop and livestock losses. Additionally, individuals at a higher risk to extreme temperatures include those with mobility issues, independent living difficulty, the elderly, low-income families, outdoor laborers, and those experiencing homelessness. Data for these demographics is collected at census tract level, however snapshot data for populations that can fluctuate drastically, such as the number of outdoor laborers and those experiencing homelessness is not included. These are still considerable populations in the County and the Town of Keenesburg and local efforts to quantify these populations periodically can help with mitigation planning.

The data for high risk populations has been analyzed by Colorado Department of Public Health and Environment (CDPHE) and has been used to create Community Inclusions [maps](#). These maps can be zoomed into specific census tracts for municipalities and communities, illustrating the population variances. Refer to Chapter 4 for examples of these maps for Weld County.

There are no previous events to document specific to the Town of Keenesburg. Future occurrences are expected to mirror that of the County. Refer to Chapter 5 – Risk Assessment of this Plan for additional details.

#### 7.12.2.5 Flood (including Dam & Levee Failure)

Flood is a very localized hazard and vulnerability is unique for each municipality. On 6/16/2018 a flash flood impacted Keenesburg, resulting in \$10,000 in property damages. Numerous roads were closed and damaged due to the heavy rain.

The Town of Keenesburg's overall vulnerability to flood is not noticeably different from the rest of the County. Keenesburg has 1 address point located in the Special Flood Hazard Area (SFHA). This equates to 1.7% of all address points for the Town, as compared to 1.6% of Countywide addresses located in the SFHA.

Flood events can also occur as a result of dam or levee failure. In these cases, flood waters may not follow the typical floodplains mapped as the SFHA.

The Town of Keenesburg's overall vulnerability to flooding in dam inundation areas is significantly different from the rest of the County, as Keenesburg has no address points located in these dam inundation areas. This is compared to 1.0% of Countywide addresses located in these areas.

Additionally, the Town is the first jurisdiction downstream from two dams. Both have a hazard classification of Low. Additional information pertaining to dams can be referenced at the State's Dam Safety website: <https://dwr.state.co.us/Tools/DamSafety/Dams>.

The Town's overall vulnerability to flooding in areas protected by known levees is substantially different from the rest of the County. Keenesburg has no address points located in these within levee protected areas, compared to 1.6% of Countywide addresses located in these areas.

It is important to note that this analysis is only as good as best available data allows. Current floodplains, dam inundation areas, and areas protected by levees may not currently map all hazard areas. Additionally, mapped hazard areas may be dated and in need of updated mapping and analysis.

Future occurrences are expected to mirror that of the County. Refer to Chapter 5 – Risk Assessment of this Plan for additional details.

#### 7.12.2.6 Hazmat Release

Vulnerability to hazmat release is increased for the Town of Keenesburg, mainly due to the location of a CDOT hazardous materials route through the community. Additionally, railroads span across Keenesburg which present their own increased risk for hazmat release. As is true for the entire County, the presence of any businesses that store hazardous materials also increases the risk for these types of events.

Based on data supplied by the Pipeline and Hazardous Materials Safety Administration's (PHMSA) Incident Reports Database, eight events occurred within Keenesburg between 1991 and 2019. One was a rollover accident, while the rest were due to improper transport preparation and loose or defective components.

Future occurrences are expected to mirror that of the County. Refer to Chapter 5 – Risk Assessment of this Plan for additional details.

#### 7.12.2.7 Public Health Hazards

Vulnerability to public health hazards is not expected to be noticeably different from the rest of the County. Individuals at a higher risk to this hazard include the aging adult population, those with a chronic illness, such as diabetes, asthma, coronary heart disease, and those who are obese or

overweight. Other populations at risk include children, those in poverty and those with a disability. This data is collected at census tract level by the Centers for Disease Control (CDC) and is unavailable at a municipality level. The data by census tract can be found in the Colorado Department of Health and Environment Open Data database [here](#).

Future occurrences are expected to mirror that of the County. There are no previous events to document specific to Keenesburg. Refer to Chapter 5 – Risk Assessment of this Plan for additional details, including a summary of the higher risk population demographics for Weld County and the State.

#### *7.12.2.8 Severe Storm (including Hail, Lightning, & Winter Storm)*

Vulnerability to severe storm, which includes hail, lightning, and winter storm, is not noticeably different from the rest of the County. The Town of Keenesburg's more densely developed areas experience the greatest risk, in addition to potential greater losses to the agriculture sector. Any structures not constructed to meet recent building codes experience the greatest risk from structural damages.

According to the NOAA's Storm Events Database, between 2015 and 2020, the Town of Keenesburg has had 8 severe storm events. Four (4) of these events resulted in reports of hail, which ranged in size from 1 inch to 1.5 inches. None of these events resulted in reported damage to property or crops and no injuries or deaths.

Four (4) events were reported as thunderstorm winds with magnitudes of 50 mph and 61 mph. There was no reported damage to property or crops and no injuries or deaths. No other events for severe storm, specific to Keenesburg, were recorded over this time period.

Future occurrences are expected to mirror that of the County. Refer to Chapter 5 – Risk Assessment of this Plan for additional details.

#### *7.12.2.9 Tornado & Straight-Line Wind*

Vulnerability to tornado & straight-line wind is not noticeably different from the rest of the County. The Town of Keenesburg's more densely developed areas experience the greatest risk, in addition to any structures not constructed to meet recent building codes.

According to the NOAA's Storm Events Database, between 2015 and 2020, there was one (1) report of an EF0 tornado in Keenesburg. The event did not cause damage to property or crops and no injuries or deaths.

Future occurrences are expected to mirror that of the County. Refer to Chapter 5 – Risk Assessment of this Plan for additional details.

### **7.12.3 Capabilities Assessment**

The capability assessment examines the ability of the Keenesburg 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.

Planning and regulatory capabilities are powerful tools for implementing hazard mitigation. The Town currently utilizes or has implemented many of these capabilities shown in Table 157. It is important for all municipalities to regularly review each of these tools, to identify opportunities for further risk reduction efforts.

Table 157. Planning &amp; Regulatory Capabilities

Mitigation Capability	Utilized?	Comments
Comprehensive, Master, or General Plan	Yes	Comprehensive Plan, update in 2021
Capital Improvement Program or Plan (CIP)	Yes	
Floodplain Management Plan	No	
Stormwater Program / Plan	In Progress	In development- planning stages
Community Wildfire Protection Plan (CWPP)	No	
Erosion / Sediment Control Program	No	Erosion control, Construction permits
Economic Development Plan	No	City Council informal group
Other:		
Building Codes	Yes	Updated 2018- New update in process
Site Plan Review Requirements	Yes	Municipal Code
Other:		
Zoning Ordinance (Land Use)	Yes	Municipal Code / Adopted Standards
Subdivision Ordinance	Yes	Municipal Code
National Flood Insurance Program (NFIP) Participant	Yes	
Flood Insurance Study / Flood Insurance Rate Map / DFIRM	Yes	
Floodplain Ordinance	Yes	
Elevation Certificates for Floodplain Development	No	
Community Rating System (CRS) Participant	No	
Open Space / Conservation Program	No	
Growth Management Ordinance	No	
Stormwater Ordinance	No	
Other Hazard Ordinance (steep slope, wildfire, snow loads, etc.)	No	
Other:	No	

Available resources including staff, municipal groups, and technology are all vital for a community to be able to implement hazard mitigation. Keenesburg is fortunate to have many of these capabilities identified in Table 158 and are currently increasing these abilities.

Table 158. Administrative &amp; Technical Capabilities

Mitigation Capability	Utilized?	Comments
Planning Commission	Yes	
Mitigation Planning Committee	No	

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Mitigation Capability	Utilized?	Comments
Maintenance Programs (tree trimming, clearing drainage, etc.)	Yes	Easement, cleaned and cleared, tree trimming in progress, Tree USA town in future
Emergency Manager	Yes	Fire Chief SE Weld FPD
Building Official	Yes	Contract Charles Abbott & Assoc, Troy Dicker
Floodplain Administrator	Yes	Mark Grey
Community Planner	Yes	Contract, Todd Hodges
Transportation Planner	In progress	2021- transportation plan-hiring position
Civil Engineer	Yes	Kent Bruxvoort
GIS Capability	In progress	goal for 2021
Resiliency Planner	No	
Other:	No	
Warning Systems / Services (flood)	Yes	Emergency Siren-All Hazards
Warning Systems / Services (other / multi hazard)	Yes	Emergency Siren, CodeRed, IPAWS
Grant Writing / Management	Yes	Debra Chumley
Other:	No	

The ability of a community to implement a comprehensive mitigation strategy is largely dependent on available funding. These related municipal capabilities are outlined in Table 159 and show that Keenesburg utilizes a broad range of financial tools that can support mitigation activities.

Table 159. Financial Capabilities

Mitigation Capability	Utilized?	Comments
Levy for Specific Purposes with Voter Approval	No	
Utilities Fees	Yes	Water, Sewer
System Development / Impact Development Fee	Yes	
General Obligation Bonds to Incur Debt	Yes	Sales Tax Revenue Bond
Special Tax Bonds to Incur Debt	No	
Open Space / Conservation Fund	Yes	
Stormwater Utility Fees	No	
Capital Improvement Project Funding	Yes	Capital Improvement Fund
Community Development Block Grants (CDBG)	Yes	Participating with Weld County
Withheld spending in hazard-prone areas	No	
Other:	No	



Education and outreach are important capabilities that allow a community to continue the conversation with their public regarding hazard risk and opportunities to mitigate. Table 160 shows that Keenesburg does leverage some of these capabilities and would benefit by expanding upon these efforts.

Table 160. Education & Outreach Capabilities

Mitigation Capability	Utilized?	Comments
Public Hazard Education / Outreach Program	No	
Local Citizen Groups That Communicate Hazard Risks	No	
Firewise	No	
NOAA StormReady Program	Yes	SE Weld Fire Protection District
Other:	No	

#### 7.12.4 Integrating Hazard Mitigation into Local Planning

The Town of Keenesburg has just begun a comprehensive plan update and will incorporate relevant elements of the HMP. When considering capital expenditures for budgeting, hazard mitigation items will be prioritized in all departments.

#### 7.12.5 Mitigation Actions

The mitigation actions identified by the Town during the Plan update are included in Table 161. Three actions from the 2016 Plan have been carried over into the Town's updated mitigation strategy.

Table 161. 2021 Mitigation Actions

ID	Organization	Action
2021-67	1-Keenesburg	Floodplain Training
2021-68	2-Keenesburg	Notify Travelling Public about Shelter Locations
2021-69	3-Keenesburg	Tornado Warning System Public Education
2021-103	4-Keenesburg	Community Impact Study -Vulnerable Populations-Shelter Capabilities Planning