# **City of Glenwood Springs Community Profile**

**Planning Team** 

Name	Title
Terri Partch	Glenwood Springs City Engineer
Chad Whiting	Garfield County Emergency Management
Doug Gerrald	Glenwood Springs Fire Dept – Battalion Chief/EMS Coordinator
Gary Tillotson	Glenwood Springs Fire Dept - Fire Chief
Greg Bak	Glenwood Springs Fire Dept – Fire Marshal
Hannah Klausman	Assistant Economic/Community Development Director
Joseph Deras	Glenwood Springs Police Chief
Scott Schreiber	Wright Water Engineers

## **Location and Geography**

Glenwood Springs is located in Garfield County in northwestern Colorado. Glenwood Springs covers an area of 5.69 square miles.

## **Population and Demographics**

Glenwood Springs' population grew from 9,756 people in 2015 to 9,915 people in 2019. Glenwood Springs' population accounted for 16.8 percent of County population in 2019. The local planning team noted the city is seeing a continued growth pattern for the community as people move into the area. Tourism and recreational opportunities in the area have contributed to this growth. However, there is a lack of available housing in town with both rentals and the for sale market incredibly limited.

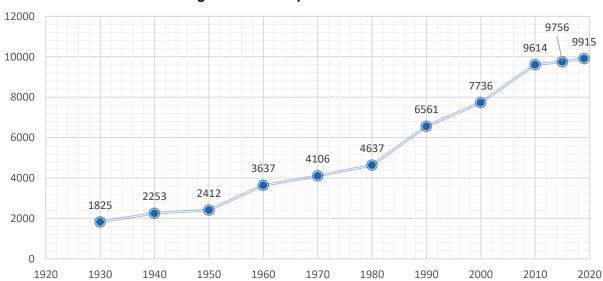


Figure GLW.1: Population 1930 - 2019

Source: US Census Bureau

The most vulnerable components of the population in a disaster are women, children, minorities, and the poor. In comparison to the County, Glenwood Spring's population was:

- Slightly older. The mean age of Glenwood Springs was 37.1 years old in 2019, compared with the County average of 36.5 years. The mean age of Glenwood Springs' population has decreased since 2015, when the mean age was 36.8 years old. Glenwood Springs had a smaller proportion of people under 20 years old (24.9 percent) than the County (27.7 percent). 1
- Increasing in ethnic diversity. Since 2015, Glenwood Springs grew more ethnically diverse. In 2015, 25 percent of Glenwood Springs' population was Hispanic or Latino (2,478 people). By 2019, about 27.2 percent of Glenwood Springs' population was Hispanic or Latino (2,701 people). When compared to the county, however, Glenwood Springs is less diverse than the population at large. The Hispanic population in the County increased from 28.1 percent in 2015 to 28.4 percent in 2019.<sup>2</sup>
- More likely to be below the federal poverty line. The poverty rate in Glenwood Springs (9.2 percent of people living below the federal poverty line) was higher than the County's poverty rate (8.6 percent) in 2019.3

## **Employment and Economics**

The City's economic base is a mixture of tourism and commercial uses. Consideration of Glenwood Springs' economy is important in mitigation planning. In comparison to Garfield County, Glenwood Springs' economy had:

- Similar mix of industries. Glenwood Springs' major employment sectors, accounting for 10 percent or more of employment each, were: Retail Trade, Construction, Professional and Scientific industries, and Educational Services and Health Care. Garfield County's industries include Construction, Retail Trade, Professional and Scientific jobs, Educational Services, and Arts and Entertainment.4
- Higher household income. Glenwood Springs' median household income in 2019 (\$86,929) was about 11,000 greater than the County (\$75,937).5
- Fewer long-distance commuters. About 39 percent of workers in Glenwood Springs commuted for fewer than 15 minutes, compared with an estimated 27.7 percent of workers in Garfield County, Approximately 36.1 percent of workers in Glenwood Springs commute 30 minutes or more to work, compared to about 45.4 percent of the County workers. This is an indicator of the importance of the transportation infrastructure within the city and the connection to County infrastructure for the local economy. 6

# Housing

Understanding the characteristics of Glenwood Springs' housing stock is important to mitigation planning. Housing that is in poor condition is more likely to be at-risk during recovery than housing in good condition. Some indicators of condition include housing tenure and housing age, older renter-occupied housing is more likely to be in poor condition than newer owner-occupied housing. Garfield County has adopted the 2015 International Building Codes as of July 1, 2016. All residential and commercial developments must follow these regulations. However, homes and structures built prior to building code adoption may not meet current regulatory standards. In comparison to Garfield County, Glenwood Springs' housing stock was:

<sup>&</sup>lt;sup>1</sup> United States Census Bureau. "2019 American Fact Finder: S0101: Age and Sex." [database file]. <a href="https://factfinder.census.gov/">https://factfinder.census.gov/</a>.
<sup>2</sup> United States Census Bureau. "2019 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <a href="https://factfinder.census.gov/">https://factfinder.census.gov/</a>.

United States Census Bureau. "2019 American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <a href="https://factfinder.census.gov/">https://factfinder.census.gov/</a>.
 United States Census Bureau. "2019 American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <a href="https://factfinder.census.gov/">https://factfinder.census.gov/</a>.
 United States Census Bureau. "2019 American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <a href="https://factfinder.census.gov/">https://factfinder.census.gov/</a>.

<sup>&</sup>lt;sup>6</sup> United States Census Bureau. "2019 American Fact Finder: S0802: Means of Transportation to Work by Selected Characteristics." [database file]. https://factfinder.census.gov/.

- More renter-occupied. About 49.6 percent of occupied housing units in Glenwood Springs are renter occupied compared with 33.4 percent of occupied housing in Garfield County.7
- **Older.** Glenwood Springs had a larger share of housing built prior to 1970 than the County (33.7 percent compared to 17.6 percent).8
- More multifamily. Although the predominant housing type in the city is single family detached, Glenwood Springs had a larger percentage of multifamily housing with five or more units per structure (27.4 percent) than the County average (13.4 percent). An estimated 43.4 percent of housing in Glenwood Springs was single-family detached. compared with 62.4 percent on the County's housing. Glenwood Springs had a smaller share of mobile and manufactured housing (4.9 percent) compared to the County (9.7 percent).9

The housing market in Glenwood Springs is incredibly limited as both for sale homes and rentals are quickly filled by the growing population. Additionally, the cost of housing in Glenwood Springs is very high which limits some families from moving fully to the area. The surrounding geographic barriers around the city limit potential subdivision development. Houses and residential lots are more commonly being developed on the surrounding hills and further away from central Glenwood Springs. The local planning team noted there are approximately 200 mobile homes or manufactured homes scattered throughout the city. Additional mobile home parks are located outside of the city limits including one west of town with others south of the city. These parks are served by city resources. A new mobile home park is planned to be constructed to the northwest of town.

## Land use, Development, and Transportation

Several regional transportation routes bisect the city: I-70 (which is also a hazardous materials transportation route), a rail line, and several State highways. A network of recreational trails also surrounds the city.

The city has seen some significant growth in the past five years. More than 450 multi-family homes have been constructed with an additional 98 multi-family units currently under construction as of fall 2021 and 765 multi-family units approved with plans for construction in the coming years. Several new apartment buildings and residential homes are anticipated to be built in the coming five years. These residential homes are primarily being built as in-fill for the city and the city is working to redevelop in neighborhoods with established infrastructure. Other dwelling units have been built in mobile home parks outside the city limits.

The 4-Mile Road corridor has also been developed up in the past five years with primarily singlefamily homes. The city noted this area is of concern due to lack of available evacuation routes. In the case of an emergency in this area, residents would need to come through Glenwood Springs itself. A unique feature of Glenwood Springs is the often greater than reported daily population. The city sees a large amount of residents from neighboring communities and tourists who regularly travel through and spend time in Glenwood Springs. Interstate 70 and Highway 82 are major transportation corridors in the county. This greater population is an important consideration for infrastructure development and risk management for the community.

<sup>&</sup>lt;sup>7</sup> United States Census Bureau. "2019 American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/. United States Census Bureau. "2019 American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.

<sup>9</sup> United States Census Bureau. "2019 American Fact Finder: DP04: Selected Housing Characteristics." (database file). https://factfinder.census.gov/.

#### **Critical Facilities and Infrastructure**

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update. The following table and figure provide a summary of the critical facilities for Glenwood Springs and whether they are in known hazard areas.

**Table GLW.1: Glenwood Springs Critical Facilities** 

#	Name	Generator (Y/N)	Floodplain	Dam Inundation	Wildfire Hazards	Geologic Hazards
1	Glenwood Springs Amtrak Station	N	No	Yes	Low	Soils
2	Glenwood Springs Fire Station #2	N	No	Yes	Low	Landslides
3	Glenwood Springs City Hall	N	No	Yes	Low	Soils
4	Glenwood Springs Branch Library	N	No	Yes	Low	Landslides
5	Garfield County Sheriff & Jail	N	No	Yes	Low	Soils
6	Garfield County Courthouse	N	No	Yes	Low	Landslides
7	Glenwood Springs Elementary School	N	No	Yes	Low	Soils
8	Garfield County Administration Building	N	No	Yes	Low	Landslides
9	Glenwood Springs Fire Station 1	N	No	Yes	Moderate	Soils
10	Glenwood Springs Post Office	N	No	Yes	Low	Landslides
11	Municipal Operations Center	N	No	No	Moderate	Landslides , Soils
12	Glenwood Springs Community Center	N	No	Yes	Moderate	Landslides , Soils
13	Yampah Mountain High School	N	No	Yes	Moderate	Landslides , Soils
14	Glenwood Springs Middle School	N	No	Yes	Moderate	Soils
15	Bolitho Elementary School	N	No	Yes	Low	Soils
16	Glenwood Springs High School	N	No	Yes	Low	Soils
17	Saint Stephens Catholic School and Parish Center	N	No	No	Low	Soils
18	Glenwood Springs Police	N	No	Yes	Low	Soils
19	Colorado Mountain College Glenwood Center	N	No	No	Low	Soils
20	Colorado Mountain College Administration	N	No	Yes	Low	Landslides
21	US Forest Service	N	No	Yes	Low	Landslides
22	Sopris Elementary School	N	No	No	Low	None

#	Name	Generator (Y/N)	Floodplain	Dam Inundation	Wildfire Hazards	Geologic Hazards
23	Glenwood Springs Fire Protection District Station #3	N	No	No	Moderate	Soils
24	Glenwood Springs Municipal Airport	N	No	No	Moderate	None
25	Roaring Fork Transit Authority Garage	N	No	No	Moderate	Landslides , Soils
26	Glenwood Center for the Arts	N	No	Yes	Low	None
27	Glenwood Springs Recycle Center	N	No	Yes	Low	Soils
28	Garfield County Administration Annex	N	No	Yes	Low	Landslides
29	Garfield County Human Resources	N	No	Yes	Low	Landslides
30	Glenwood Springs Wastewater Treatment Plant	N	No	Yes	Moderate	Landslides , Soils
31	Grocery Store	N	No	No	Low	Soils
32	Natural Grocers	N	No	No	Low	None
33	Regional Transit Service -	N	No	No	Low	None
34	Streets/SWAT Facility	N	No	Yes	Low	None
35	Electrical Operations Center (under construction)	N	No	No	Low	None
36	Glenwood Springs Water Treatment Plant	N	No	Yes	Moderate	Landslides , Soils
37	Red Mountain Water Treatment Plant	N	No	No	High	Landslides

Other critical facilities or key infrastructure of concern in the city include lift stations, booster stations, pipelines or storage tanks, electrical substations, radio towers, and major transportation corridors such as Midland Avenue, Interstate 70, State Highway 82, State Highway 6, and State Highway 24. While not mapped here, these facilities should be considered when evaluating localized risks and disaster response activities.

## Health and Medical Facilities

The following medical and health facilities are located within the community.

**Table GLW.6: Glenwood Springs Medical Facilities** 

Type of Facility	Facility Name	Operating Status
Assisted Living Residence	Creekside Assisted Living	Closed – Owner
Nursing Home	Glenwood Springs Healthcare	Active
IDD – Group Home	Grand Avenue Group Home	Active
Home Care Agency/Home Health Agency	Homecare of the Valley	Active
Hospice	Hospice of the Valley	Active
Home Health Agency	Innovage Home Care Aspen	Pending
IDD – Program Approved Services	Life Resources LLC	Active

Type of Facility	Facility Name	Operating Status
Home Care Agency/IDD -	Mountain Valley Developmental	Active
Program Approved Services	Services Inc	
IDD – Group Home	Oakhurst House	Active
IDD – Group Home	Pitkin House	Active
Assisted Living Residence	Renew Roaring Fork	Active
Home Care Agency	Sopris Home Care LLC	Active
IDD – Group Home	Sopris House	Active
IDD – Program Approved	Splendor Services	Active
Services		
Hospital	Valley View Hospital Association	Active
IDD – Group Home	Yampah House	Active

Source: Colorado Department of Public Health and Environment

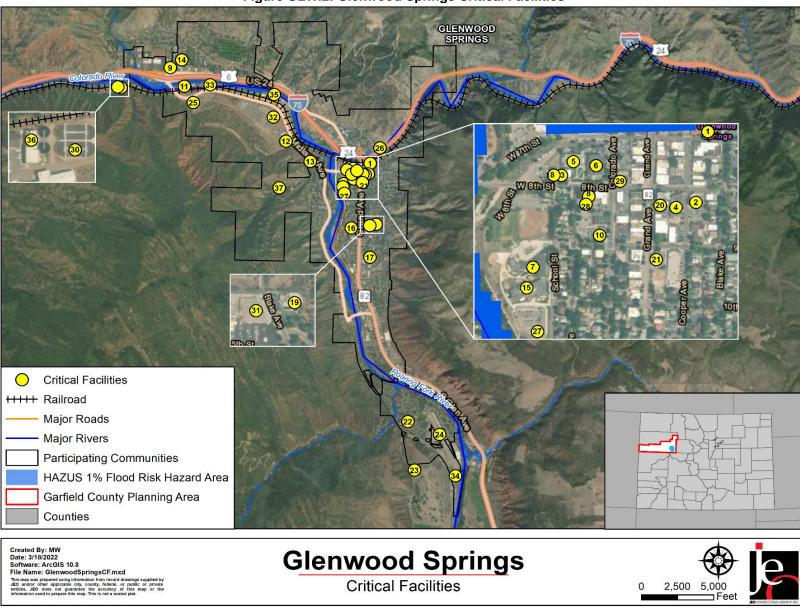


Figure GLW.2: Glenwood Springs Critical Facilities

#### **Historic and Cultural Resources**

Downtown Glenwood Springs is an important retail center and tourist destination with significant historical and cultural importance. The Spa of the Rocky Mountains and the hot springs pool are important to the local economy and are also significant cultural and historical resource. Doc Holiday's grave located within Linwood Cemetery is a common tourist destination for people visiting the area. Glenwood Springs also has many trails and amenities that add to the tourist industry.

#### **Historic Places**

The following table lists Historic Sites in the City of Glenwood Springs according to the National Register of Historic Places.

Table GLW.6: City of Glenwood Springs Historical Sites

Name	Location	Date Listed
Canyon (Canon) Creek School, District No. 32	0566 County Road 137	1/6/2004
Cardiff Coke Ovens	County Road 116, approximately 1.5 miles south of Glenwood	11/15/1996
Citizens National Bank Building	801 Grand Ave	7/15/1999
Earnest Ranch	6471 County Road 117	5/1/1998
Glenwood Springs Hydroelectric Plant	601 6 <sup>th</sup> St	10/14/1998
Hotel Colorado	526 Pine St	5/26/1977
South Canon Bridge	County Road 134	2/4/1985
Starr Manor	901 Palmer Ave	6/20/1986
Sumers Lodge	1200 Mountain Dr	6/20/1997
Edward T. Taylor House	903 Bennett Ave	10/14/1986
Western Hotel	716 Cooper Ave	3/15/2016

Source: National Register of Historic Places, 202110

## **Community Organizations & Programs**

There are several community organizations and programs in Glenwood Springs that could assist in implementing mitigation measures:

- Kiwanis Club
- Roaring Fork Conservancy
- Rotary Club
- Chamber of Commerce
- Colorado River Fire District
- Homeowners Associations
- Neighborhood Watch Groups

Additionally, the City has established several Boards and Commissions to guide decision making and implementation of its programs and services:

- Downtown Development Authority
- Financial Advisory Board
- Volunteer Firefighter Pension Board
- Historic Preservation Commission
- Parks and Recreation Commission
- Planning and Zoning Commission

<sup>&</sup>lt;sup>10</sup>National Register of Historic Places: Garfield County Colorado. 2021. https://www.nationalregisterofhistoricplaces.com/co/garfield/state.html

- River Commission
- Transportation Commission
- Tourism Promotion Board

- Victims and Witnesses Assistance and Law Enforcement Board
- Housing Commission

#### **Administrative Structure**

Glenwood Springs is guided by a 7-member City Council and 13 departments:

- Information Services
- Finance
- Community Development
- Fire Department
- Parks and Recreation
- Public Works
- City Clerk
- Human Resources
- Legal Department
- Broadband
- Electric Department
- Police Department
- Municipal Court
- Engineering

#### **Hazard Prioritization**

The Garfield County Hazard Mitigation Plan evaluates a range of natural and man-made hazards which pose a risk to the county and communities. However, during the planning process, the local planning team identified specific hazards of top concern for Glenwood Springs which required a more nuanced and in-depth discussion of local events, vulnerabilities, and mitigation actions the community wishes to pursue. The following section expands on the hazards of top concern identified by the City of Glenwood Springs local planning team, including:

- Wildfire
- Flood
- Landslide, Mud/Debris Flow, and Rockfall
- Hazardous Materials

For a review and analysis of other natural hazards, please see the county-wide summary in *Section Four: Risk Assessment.* 

#### Wildfire

Wildfire is one of the most prevalent concerns in the county and for Glenwood Springs. Wildfires occur regularly throughout the county and have impacted the city in the past. Concerns for wildfire pertain to residential safety, property damage, damaged or compromised soils, and debris managements especially during secondary hazard events such as flooding. Areas of concern include the Wildland-Urban Interface (WUI) or the areas where developed and undeveloped land meet around the community.

In 1994 Storm King Fire in Garfield County killed 14 fire fighters. In 2002, the Coal Seam Fire damaged 20+ homes on the west side of town. This fire led to the evacuation of the north and south sides of Glenwood Springs. In 2020 the Grizzly Creek Fire burned 32,631 acres in Glenwood Canyon west of Glenwood springs, including the No Name and Grizzly creek

watersheds, the sources of the City's water supply for irrigation and domestic uses. The Grizzly Creek fire has caused multiple debris flows affecting the City's water supply, interstate commerce and food and gasoline deliveries to the city.

In general, the County's Risk Assessment adequately describes the risk from wildfires within the areas surrounding the City of Glenwood Springs, given the data currently available (refer to Section Four: Risk Assessment). The County is also in the process of updating its Community Wildfire Protection Plan (CWPP) alongside the 2022 HMP. The CWPP will continue to inform the wildfire risk related information included in the HMP. The City of Glenwood Springs will work with the County and the surrounding rural fire protection districts to evaluate and understand the implications of the CWPP to the City's wildfire risk and action items.

With this mitigation plan addendum, the City wishes to acknowledge the following geographic areas and related vulnerabilities in which local risk is greater than the risk described in the County's risk assessment, and in which additional actions are warranted to reduce the risk to life and property:

- Glenwood Springs is surrounded by development that is considered to be wildland urban interface, these areas pose a risk for wildfire to move from forested areas into the corporate boundaries. Glenwood has a unique topography merging steep hillsides adjacent to the city boundary and is generally surrounded by major transportation routes. Wildfire from any one of these slopes would have a negative impact to the residents and businesses adjacent to the hillside slopes. The City's water plant on Red Mountain may be more vulnerable to wildfire than other critical facilities.
- The city is concerned about evacuation routes and transportation corridor capacity for both residents and non-residents who may be working, traveling, or visiting Glenwood Springs. The city is currently working on an evacuation plan with FHWA and DCOT. The City is also designing and working to fund an evacuation route for the City and County residents on the south side of the city.

#### Flood

The Colorado River and Roaring Fork River are major waterways which bisect the city. Garfield County and the City of Glenwood Springs are currently in the process of updating floodplain maps. The flood plains in the city are currently being remapped by FEMA and Wood Associates with revised hydrology. New mapping is anticipated to be effective in 2024.

The City has identified the following geographic areas and related vulnerabilities in which local flood risk is greater than the risk described in the County's risk assessment, and in which additional actions are warranted to reduce the risk to life and property from flooding. The bullets below are ordered according to their importance to the community (highest priority infrastructure is listed first):

- The Three Mile Creek culvert at southern end of the city has been partially replaced to
  pass the 100-year floodplain mark. The culvert under Midland Road at Three Mile Creek
  could experience flooding that may lead to washouts of the road, removing an important
  transportation and evacuation route for both City and County residents
- The Mitchell Creek floodplain at the northwestern corner of the City is prone to flooding and has the potential to block important transportation corridors on Donegan Rd, as well as impacting population and private property. Mitchell Creek is currently under review as part of the floodplain mapping project with FEMA.

- The east side debris basins. In the early 70's, the city experienced debris flows from the surrounding hillsides impacting numerous residence and City infrastructure. To help reduce the impact of these debris flows, debris basins were constructed above the properties in this area of town. A debris basin has also been constructed to provide protection to the local hospital.
- A mobile home park located on the Roaring Fork River is prone to flooding.
- The main water supply for the city is piped over the Colorado River. While this line was recently raised, it remains critical infrastructure that should be monitored.
- The 7th St interchange, near the confluence of the Colorado River and the Roaring Fork, is subject to flooding.
- Veltus Park is subject to flooding; the handicapped fishing ramp was closed for several weeks during the floods in June of 2011.

# **Mitigation Success:**

The City of Glenwood Springs is not new to risk reduction activities. The following are some of the past mitigation actions that the City has taken:

- Raised the water main line, which transfers water over the Colorado River
- Constructed drainage basins on the east side of town
- Build debris collection basins above the alluvial fan on Midland Road and the Meadows
- The 27th St. bridge has had scouring repairs completed to its pillars, per Colorado Department of Transportation recommendations and was upgraded to handle a 500-year scour event.

## The National Flood Insurance Program (NFIP)

Glenwood Springs participates in the NFIP by adopting and enforcing floodplain management ordinances to reduce future flood damage. In exchange, the NFIP makes federally backed flood insurance available to homeowners, renters, and business owners in these communities. Preliminary Flood Insurance Study (FIS) Flood Insurance and Rate Maps (FIRM) are effective as of October 15, 1985. There are no repetitive loss properties in the City of Glenwood Springs.

FEMA and Wood Associates are the process of updating the FIRMs throughout the county. Planned adoption of new mapping is anticipated for 2024. The city will continue to participate in the NFIP by enforcing its local Floodplain Ordinance, zoning requirements in flood hazard risk areas, and by adopting the new FEMA FIRMs when completed.

Table GLW.2: Glenwood Springs NFIP Statistics

Jurisdiction	Policies In-	Total	Total	Closed	Total
	Force	Coverage	Premiums	Losses	Payments
Glenwood Springs	20	\$8,467,100	\$44,263	10	\$26,590.03

Source: NFIP HUDEX Data by Geography, August 2021

## Landslides, Mud/Debris Flow, Rockfall

Small landslides/debris flows are an annual occurrence in Glenwood Springs. The local planning team noted in particular that due to the unique geography of the area and limited transportation corridors in Glenwood, landslides, debris flows, or rockfall events can significantly hinder the ability of residents to evacuate or traverse through the city. Interstate 70, Midland Avenue, State Highway 82, and State Highway 6 are concerns for the planning area. Residents in Glenwood Springs have shown strong community support for debris management projects and priorities.

In 2016, severe storms led to significant debris flows. The following geographic areas and related vulnerabilities experience local landslide and debris flow risk that is greater than the risk described in the County's risk assessment. Additional actions are warranted to reduce the risk to life and property from landslides and debris flows in these areas:

- The Meadows area, which was recently developed with new commercial development, is located on an alluvial fan at the base of a steep slope that is subject to rockslides and landslides. Debris basins were built to reduce the vulnerability but continuing to maintain and monitor this area is important. Since 2016 a maintenance and management program has been developed between the city and developers.
- Debris flows are possible on all portions of the city; debris basins have been built on the
  eastern portion of the city but it is not known if these basins are sized adequately or for
  what criteria. In particular a basin is in place to protect the community hospital. There is
  continued rock fall and smaller debris flows on the western portion of town which has no
  protection. This is an ongoing issue that continues to be monitored

#### Hazardous Materials

Several hazardous materials transfer routes (most notably I-70 and the rail line) bisect the County; spills or accidents along these lines, which also run near the Colorado River, could result in contamination of the source of drinking water for communities in the County and downstream of the County.

In Glenwood Springs, the railroad tracks run adjacent to the historic downtown area; spills there from accidents could result in economic loss and impact the health and safety of residents and retail patrons in this area. The City's drinking water source is No Name Creek, a tributary of the Colorado River. As a result, spills upstream on the Colorado River would not affect the Town's drinking water source, but would affect wildlife habitat and recreational resources. Additional local concern focuses on hazardous material storage sites located near residential areas. The Forest Service is currently removing underground fuel tanks to reduce this risk.

The local planning team noted that any closures in the canyon, and specifically along the I-70 corridor, should be shared through emergency text alerts or online in both English and Spanish. Converting available messages into Spanish is an ongoing priority for both the city and the county.

#### **Capability Assessment**

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Table GLW.3: Capability Assessment

Surv	Survey Components/Subcomponents						
Planning	Comprehensive Plan	Yes (2014)					
& Regulatory	Capital Improvements Plan	Yes					
Capability	Economic Development Plan	Yes (1997)					
	Emergency Operational Plan	Yes					
	Floodplain Management Plan	No					
	Storm Water Management Plan	No					
	Zoning Ordinance	Yes					

Surv	vey Components/Subcomponents	Yes/No
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	
Administrative &	Planning Commission	Yes
Technical	Floodplain Administration	Yes
Capability	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Yes
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal	Capital Improvement Plan/ 1 & 6 Year plan	Yes
Capability	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	Yes
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	Yes
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.  Ex. CERT Teams, Red Cross, etc.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes
	Natural Disaster or Safety related school programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	Yes
	Other (if any)	

Overall Capability	2017 Plan Limited, Moderate, High	2022 Plan Limited, Moderate, High
Does the jurisdiction have the financial resources needed to implement mitigation projects?	Moderate	High
Does the jurisdiction have the staff/expertise to implement projects?	Moderate	High
Does the jurisdiction have the community support to implement projects	Moderate	High
Does the jurisdiction have the time to devote to hazard mitigation?	Moderate	Moderate

# Plan Integration

Plans listed in the following section were reviewed by the local planning team to identify opportunities to integrate the HMP with current planning mechanisms. These documents were also used by the local planning team to assist in identifying risks, vulnerabilities, and potential mitigation actions. The documents directly contributed to the hazard prioritization and mitigation action items sections of this community profile. These documents have not been updated since the adoption of the previous HMP and therefore have not incorporated the HMP into them. When these plans and other relevant community planning mechanisms are updated, the local planning team will review the HMP for opportunities to incorporate the goals, risk and vulnerability data, and mitigation actions into the plan update as appropriate.

# 6th Street Corridor Master Plan

The Grand Avenue-State Highway 82 Bridge over the Colorado River was demolished and realigned in 2016. To guide future plans for the corridor and North Glenwood neighborhood, Glenwood Springs adopted the 6<sup>th</sup> Street Corridor Master Plan in 2017. The plan provides a framework for evaluating development projects and prioritizing funding opportunities.

# **Comprehensive Plan**

The City of Glenwood Springs Comprehensive Plan was last updated in 2014 and contains goals to maintain its small-town character, retain cultural and natural resources, address transportation issues (primarily along State Highway 82), and grow the economy sustainably. The comprehensive plan also aims to grow safely, directs development away from hazardous areas including the floodplain, encourages infill, encourages the elevation of structures located in the floodplain, and encourages the preservation of open space.

The 2014 Glenwood Springs Comprehensive Plan has a natural hazards subsection. Within this subsection, geologic, wildfire, and flooding hazards are discussed. The plan identifies strategies to reduce the risk to these hazards. The plan also identifies strategies to encourage water conservation. Like the hazard mitigation plan, the construction of the comprehensive plan reinforces and builds upon other plans and programs required or supported by the town. The city's future land use plan emphasizes infill and redevelopment, noting their limited capacity to grow outward. The future land use plan proposes mixed-use urban centers and building on vacant parcels.

The Comprehensive Plan is currently being updated in 2022. The new plan will examine resiliency as well as evacuation routes within the community.

#### **Confluence Redevelopment Plan**

Glenwood Springs developed a Confluence Redevelopment Plan in 2017. This plan outlines strategies and benefits of redeveloping and promoting infill development in the along the confluence adjacent to Glenwood's historic downtown area. The city's Comprehensive Plan noted the confluence area as a primary opportunity for growth and economic expansion. Major goals for the redevelopment process included: improve connectivity, redevelop Vogelaar Park, redevelop the riverfront, and redevelop the 7<sup>th</sup> Street Corridor. The plan includes plan to improve usability, recreation, and tourism along the Colorado River and Roaring Fork River; however, does not address ways to reduce potential flood risk during redevelopment.



As Glenwood Springs's population continues to grow, the city will be required to develop a storm water management program as a small MS4 in order to comply with the National Pollutant Discharge Elimination System of the EPA.

#### **Downtown Plan**

Glenwood Springs developed a downtown plan after conducting community-wide surveys and holding public meetings in 1997. Seeking to actively revitalize their downtown area, they aimed to preserve its historic character while encouraging economic growth and connections to the Roaring Fork and Colorado River.

#### **Development Code**

The Glenwood Springs Municipal Code establishes Hazard Avoidance Districts and Hazard Mitigation Districts. These districts limit development in the area unless the proposed developments meet engineering standards. The City's engineering standards are built into the development review process. Consideration for hazard areas is incorporated within those engineering standards. Additionally, the 2015 International Building Code has been adopted. The City is currently looking into the 2021 International Building Code.

#### **Preservation Plan**

Building on the foundation from the town's 1999 downtown plan, the city developed a preservation plan to maintain the historical character of Glenwood Springs. Recognizing the potential risk to historic buildings or areas during economic expansion, the city crafted this plan to guide development while protecting the city's architecture and cultural heritage.

#### **Source Water Protection Plan**

The 2014 Glenwood Springs Source Water Protection Plan identifies potential risks to surface water and groundwater quality within the watershed, promotes management practices to protect and enhance the drinking water supply, and provides for a comprehensive action plan in case of an emergency that threatens or disrupts the community water supply.

## **Grants and Funding**

The Glenwood Springs local planning team indicated that available municipal funds for mitigation projects are always limited. Some mitigation projects like the South Bridge and evacuation planning are currently included in the municipal budget. The community may have to utilize other funding mechanisms such as grants, street tax, and bonds to fund mitigation projects.

# **Plan Maintenance**

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Revolving State Fund, or other identified funding mechanisms.

Glenwood Springs plans on a group of municipal offices reviewing the plan annually around the first quarter of the year. This group will include Community Development, Engineering, Water/Wastewater, Police, Fire, and County officials. The group will make any needed revisions during this annual review. Any findings or revisions will be shared at a regularly scheduled City Council meeting.

# **Mitigation Action Items**

Short and long-term action items identified through the planning process are an important part of the mitigation plan. Action items are detailed recommendations for activities that local departments, citizens and others could engage in to reduce risk.

**New and Ongoing Actions:** 

Action and Description	Hazards Addressed	Goals	Estimated Cost	Potential Funding	Timeline	Priority	Lead Agency	Status
Evaluate and Improve Bridges: Continue to evaluate and improve bridges in Glenwood Springs in collaboration with CDOT and County	All Hazards	1,2	Unknown	Glenwood Springs General Fund, CDOT	Ongoing	High	Assistant City Manager	This action was originally identified in the 2012 plan. The Grand Avenue Bridge and 27th Street Bridge have been replaced. The South Bridge is currently at 90% design. Glenwood Springs will continue to improve bridges as well as evaluate the need for additional bridges.
Comprehensive Plan: Review comprehensive plan and development codes for opportunities to more effectively reduce risks to new development	All Hazards	1,5	Unknown	Glenwood Springs General Fund	1 year	High	Planning Department	This is a continued action. Glenwood Springs is in the process of updating the development code. The current development code addresses flood damage prevention, and development in areas of geologic hazards.

Action and Description	Hazards Addressed	Goals	Estimated Cost	Potential Funding	Timeline	Priority	Lead Agency	Status
National Flood Insurance Program: Continue compliance with the NFIP through the enforcement of local floodplain ordinances	Flooding	1,5	Staff Time	Glenwood Springs General Fund	Ongoing	High	Floodplain Administrator	This is a continued mitigation action. Glenwood Springs is in good standing with the NFIP.
Update Flood Insurance Rate Maps: Update the city's FIRMs if funding becomes available	Flooding	4,5	Staff Time	Glenwood Springs General Fund, Garfield County General Fund	1 Year	High	Floodplain Administrator, Garfield County Senior Planner	This is a continued mitigation action. FEMA and Wood Associates are the process of updating the FIRMs throughout the county. Planned adoption of new mapping in 2024.
Reduce Debris in Tributaries Work with BLM and other project partners to develop a plan for removing debris in tributaries.	Flooding	2,3	Unknown	Glenwood Springs municipal Fund, Bureau of Land Management	2-5 years	Medium	Engineering Department, Fire Department	This is a continued action. The City regularly communicates with project partners to identify and discuss opportunities for mitigation.
Public Education: Continue to educate the public about opportunities to mitigate hazards.	All Hazards	4,5	Staff Time	Glenwood Springs Municipal Fund	Ongoing	Medium	Public Information Officer	This is a continued action. The City and County should develop and keep a public education plan for disasters, particularly for wildfire. The plan should help residents prepare their homes and have an evacuation plan for

Action and Description	Hazards Addressed	Goals	Estimated Cost	Potential Funding	Timeline	Priority	Lead Agency	Status
								people, pets and critical documents.
Evaluate Sufficient Access for Evacuation: Evaluate sufficient access for evacuation on north, west, and south side of town	All Hazards	1	Unknown	Glenwood Springs Municipal Fund	2-5 years	Medium	Engineering Department	This is a new mitigation action. City is currently evaluating areas for access and evacuation routes
Implement Rockfall Mitigation: Implement rockfall mitigation measures in areas with slopes greater than 10 percent	Rockfall	1,5	Unknown	Glenwood Springs Municipal Fund	Ongoing	Medium	Engineering Department	This is a continued action. The City implements rockfall mitigation projects as opportunities are identified and funds are available.
Stormwater Management: Implement stormwater management projects as they are identified.	Flooding	1,2,3,4,5	Varies by Project	Glenwood Springs Municipal Fund	Ongoing	Medium	Engineering Department	This is a continued action. In progress - The city is currently evaluating multiple drainageways.
Soil and Rockfall Mitigation: Utilize the development process to require the development of soil remediation and	Geologic Hazards	1,3,4,5	Staff Time	Glenwood Springs Municipal Fund	Ongoing	Low	Engineering Department	This is a continued action. The municipal code requires rockfall mitigation measures through the City's geologic hazard ordinance.

Action and Description	Hazards Addressed	Goals	Estimated Cost	Potential Funding	Timeline	Priority	Lead Agency	Status
rockfall mitigation in known risk areas.								Engineering staff would like to remap the geologic hazards. They were last mapped in 1978.
Update Hazard Maps: Update Geologic Hazard Maps	Geologic Hazards	1,2,4,5	Staff Time	Glenwood Springs Municipal Fund	2-5 years	Low	Engineering Department	This is a continued action. Many of the Geologic Hazard maps are from the 1970's. Some sections of town are not covered. City will look to partner with Garfield County and USGS.
South Bridge	All Hazards	1,2	\$65 Million	Glenwood Springs Municipal Fund, Bond, Grants	1-3 years	High	Engineering Department	This is a new mitigation action. Currently identifying potential funding. The City is looking to bid in 2023 with potential construction in 2024.
Traffic Management Projects: Projects and equipment along I-70 and Highway 82	All Hazards	1,2	Varies by Project	Glenwood Springs Municipal Fund	2-5 Years	Medium	Engineering Department	This is a new mitigation action. Not yet started.
Cottonwood Pass: Collaborate with County and CDOT on potential solutions for Cottonwood Pass	All Hazards	1,2	Unknown	Glenwood Springs Municipal Fund	2-5 Years	Medium	Engineering Department	This is a new mitigation action. Not yet started.

**Completed Actions:** 

Action and Description	Hazards Addressed	Goals	Funding	Lead Agency	Status
Assess the Resilience of Facilities: Assess the resilience of the wastewater treatment plan and develop improvements accordingly as part of the capital facilities plans for water and wastewater infrastructure.	All Hazards	1,2	Bond	Engineering Department, City Administration	A new treatment plant was built in 2012. Glenwood Springs has a direct intake on stream. This infrastructure is sufficient for current and future needs.
Asset Management: Develop asset management system to inventory trees	High Winds, Winter Storms	4,5	Glenwood Springs Municipal Fund	Engineering Department	Asset Management is now in place.
Replace Culvert: Replace the culvert at Three Mile Creek	Flooding	1,2	Glenwood Springs Municipal Fund	Engineering Department	The City replaced half of the culvert in 2013 and the other half in 2019.

# Removed Actions:

Action and Description	Hazards Addressed	Reason for Removal
72-Hour Kits:	All Hazards	This action was originally identified in the 2012
Continue to encourage citizens to prepare and maintain 72-hour kits.		plan. Continue to encourage citizens to prepare and
		maintain 72-hour kits.
Collaborate with the County to Educate Citizens about	All Hazards	This action was originally identified in the 2012
Weatherization:		plan. Glenwood Springs has some rebate programs
Collaborate with the County to educate citizens about ways to		for energy efficiency. However, this action was
weatherize their homes, as well as safe emergency heating		determined to be a County led effort.
equipment		