



City of Rifle

Addendum to the Garfield County Natural Hazards Mitigation Plan

2012

Table of Contents

Section 1: Planning Process	1
Overview	1
How was the Addendum developed?.....	1
Plan Maintenance and Implementation.....	3
Adoption.....	3
Section 2: Community Profile.....	5
Geography, population, and demographics.....	5
Employment and economics.....	6
Housing	6
Land use and development.....	7
Transportation	7
Critical facilities and infrastructure.....	7
Historic and cultural resources.....	7
Administrative structure	8
Community organizations and programs.....	8
Section 3: Risk Assessment.....	9
Flood.....	9
Wildfire	11
Landslide and debris flow	11
Earthquake	11
Severe weather	11
Hazardous materials.....	11
Section 4: Action Items	13
Mitigation Action Items.....	13

Attachments

- Attachment 1: Action item Forms
- Attachment 2: Risk Assessment Map
- Attachment 3: Critical Infrastructure Map

Section 1: Planning Process

Overview

The City of Rifle developed this addendum to the Garfield County multi-jurisdictional Natural Hazards Mitigation Plan in an effort to increase the community's resilience to natural hazards. The addendum focuses on the natural hazards that could affect Rifle, which include wildfire, flood, landslide and debris flow, earthquake, and severe weather. The addendum also addresses hazardous materials spills, which are possible secondary hazards resulting from wildfires, landslides, and transport accidents that can affect drinking water, public safety and wildlife habitat.

This addendum has the following attachments:

- Attachment 1 provides detailed action items for risk reduction
- Attachment 2 provides a map which is the output of a risk assessment discussion early in the process of plan development
- Attachment 3 provides critical infrastructure maps, generated by Garfield County Geographic Information Systems (GIS) staff, using best available digital data

It is impossible to predict exactly when disasters may occur, or the extent to which they will affect the city. However, with careful planning and collaboration among public agencies, private sector organizations, and citizens within the community, it is possible to minimize the losses that can result from natural hazards.

The addendum provides a set of actions that aim to reduce the risks posed by natural hazards through education and outreach programs, the development of partnerships, and the implementation of preventative activities. These may include the following::

- Hazard Identification in the City's Comprehensive Plan;
- Building and Land Use Codes;
- Community Emergency Operations Plan;
- Water System Operations Plan;
- Web Site Information (GIS Mapping and Publications)
- Multi-Jurisdiction Public Safety Officials Meetings

The actions described in the addendum are intended to be implemented through existing plans and programs within the City.

How was the Addendum developed?

The City of Rifle developed this addendum in a collaborative process that Garfield County initiated in April of 2011. At that time, the County Risk Assessment had been completed in draft form, using data that covered many of the County's jurisdictions and all of its unincorporated areas. The County had initiated the

process of developing its action items. The County organized an initial outreach meeting, held in April of 2011, and invited all towns and cities, fire districts, school districts, and other overlapping districts. State of Colorado Division of Emergency Management (DEM) and Federal Emergency Management Agency (FEMA) representatives described the mitigation planning process and plan requirements. The City of Rifle opted to create an addendum to the County Plan after that meeting.

The County then organized an intensive workshop for the jurisdictions developing addendums (including Rifle) and invited a broad range of participation from City staff. The purpose of the workshop, which was held on June 27, 2011, was to identify areas in the jurisdictions where risk was greater than that identified in the County Risk Assessment, and to begin to develop action items. One of the maps that was the output of this workshop and focused on community-level risk is included in this plan addendum as Attachment 2. Participants from Rifle included:

- Matt Sturgeon, Assistant to City Manager.
- Daryl Meisner, Police Chief

The agenda for the workshop follows:

Agenda item	Topic	Time
Presentation / Intro	<ul style="list-style-type: none"> • What is a multi-jurisdictional plan; requirements from FEMA • County Risk Assessment and Community profile • Questions / Discussion 	9:00 – 10:00
Breakout #1, by jurisdiction	<ul style="list-style-type: none"> • Addendum document: overview and discussion • How is risk in your jurisdiction greater than the risk in the County? 	10:00 – 11:30
Breakout #2, by jurisdiction	<ul style="list-style-type: none"> • Action item development: What steps will we take to reduce risk? 	12:30 to 2:00
Presentation	<ul style="list-style-type: none"> • Plan adoption requirements • Plan maintenance and update process • Outreach at jurisdictional level • Next steps • Discussion / questions 	2:00 to 3:00

Prior to and following the workshop, the City of Rifle developed its action items by:

- Joint meetings with staff from Public Health, Fire, Sheriff, and City agencies;
- Outreach to City Council and Planning and Zoning Commission, and;
- Internal City staff evaluation

The following plans, reports, and studies were reviewed in the development of this addendum:

- Public outreach survey of Garfield County residents
- Garfield County Risk Assessment
- Census and other demographic and economic data
- Garfield County Community Wildfire Protection Plan

- City of Rifle Comprehensive Plan and Development Code

Citizens of Rifle contributed to the development of this plan as follows:

- During plan development:
 - The County developed an on-line survey, which was advertised on its website, and via email in multiple list serves. In the initial distribution, 106 people took the survey. 42 of those who took the survey indicated that they either live or work in Area 3, the area in which Rifle is located. Of those 42 people, 38 indicated that they were most familiar with Area 3 and were then asked about the overall risk assessment for that area. 25 people indicated that the risk assessment was either “very accurate” or “somewhat accurate”
 - Additionally, the Plan was discussed at a meeting of the Rifle Rotary Club and at several public meetings including the Rifle Planning and Zoning Commission and at the Rifle City Council meetings.
- The public was also given an opportunity to comment on the draft addendum document, as follows:
 - The final draft addendum document was posted on the City’s website, and also on the County website, which clearly included a phone number and email address for provision of comments. The City received X comments, which were [addressed, incorporated into document, etc.]
 - A work session was held with the Board of County Commissioners to review the draft County NHMP including the Rifle Addendum and to take public comment on March 13, 2012.
 - The public was provided an opportunity to comment when the plan was adopted via resolution, in a public meeting, on [DATE].

Plan Maintenance and Implementation

The jurisdiction is adopting the plan maintenance and implementation process outlined in the County Natural Hazard Mitigation Plan.

[Rifle will participate directly in the update and maintenance schedule outlined in the County Plan by participating on the Public Safety Council subcommittee responsible for ongoing update of the Plan.

Adoption

This section will be filled out at a later date, following adoption

FEMA approved the County Plan on [DATE]. The City of Rifle adopted this addendum to the Garfield County Natural Hazard Mitigation Plan via resolution on [date].

Section 2: Community Profile

The following section describes the City of Rifle from a number of perspectives to define and describe Rifle's sensitivity and resilience to natural hazards. Sensitivity factors can be defined as those assets and characteristics that may be impacted by natural hazards, (e.g., special populations, economic factors, and historic and cultural resources). Resilience factors can be defined as the ability to manage risk and adapt to hazard event impacts (e.g., governmental structure, agency missions and directives, and plans, policies, and programs). The information in this section represents a snapshot in time of the current sensitivity and resilience factors when the plan was developed. The information documented below, along with the risk assessments in Section 3 below, should be used as the local level rationale for the risk reduction actions identified in the plan.

Geography, population, and demographics

Rifle is located in Garfield County and it about 4.3 square miles in area.

Rifle's population grew from about 6,784 people in 2000 to 9,172 people in 2010, an increase of more than 2,300 people at an average annual growth rate of 3.1%. Rifle's population grew faster than Garfield County, accounting for 15% of the County's population in 2000 and 16% of County population in 2010.¹

The following highlights Rifle's population characteristics:²

- **Younger than the County.** The median age of Rifle's population was 30 years old in 2009, compared with the County average of 34.2 years old. The age-distribution of Rifle's population grew younger since 2000, when the median age was 30.9 years. About 68% of Rifle's population was under 40 years old in 2009, compared with 59% of the County's population. Rifle had a smaller proportion of people over 60 years old (8%) than the County (13%).
- **More ethnically diverse.** Since 2000, Rifle grew more ethnically diverse. In 2000, 16% of Rifle's population was Hispanic (1,150 people). By 2009, about 28% of Rifle's population was Hispanic (2,400 people). This trend is similar to increasing ethnic diversity in Garfield County, where Hispanic population increased from 17% to 24% of the population between 2000 and 2009.
- **In poverty less frequently as the County.** The poverty rate in Rifle (5.0% of people living below the federal poverty line) was lower than the County's poverty rate (8.1%) in 2009.

¹ Colorado Division of Local Government, State Demography Office

² Based on data from U.S. Census, 2000 and U.S. Census American Community Survey 2005-2009

Employment and economics

Consideration of Rifle's economy is important in recovery planning. In comparison to Garfield County, Rifle's economy had:³

- **Similar mix of industries.** Rifle's major employment sectors, accounting for 10% or more of employment each, were: Construction, Leisure Activities (e.g., Accommodations, Food Service, or Entertainment), Retail Trade, Health Care and Social Assistance, and Government.
- **Higher household income.** Rifle's median household income in 2009 (about \$71,650) was more than \$6,800 higher than the County (about \$64,800).
- **More short commutes.** More than 50% of Rifle's workers commuted for fewer than 15 minutes, compared with about one-third of workers in Garfield County. Nearly 40% of Rifle's workers commuted 30 minutes or more, consistent with the County average of 40%. This is an indicator of the importance of the transportation infrastructure within the City and the connection to County infrastructure for the local economy.

Housing

Understanding the characteristics of Rifle's housing stock is important to recovery planning. Housing that is in poor condition is more likely to be at-risk in recovery than housing in good condition. Some indicators of condition include housing tenure and housing age, with older renter-occupied housing is more likely to be in poor condition than newer owner-occupied housing. In comparison to Garfield County, Rifle's housing stock was:⁴

- **More renter-occupied.** About 41% of Rifle's housing was renter-occupied, compared with about one-third of Garfield County. About 59% of Rifle's housing was owner-occupied, compared with two-thirds of the County's housing stock.
- **About the same age.** The median year build of Rifle's housing stock was 1983, compared with 1984 in Garfield County. Rifle had a larger share of housing stock built between 1970 and 1989 (44%) than Garfield County (38%) and a smaller share of housing built since 1990, 37% of the City's housing stock compared with 40% of the County's stock.
- **Fewer mobile homes and more attached housing.** The predominant housing type in Rifle was single-family detached (58%), consistent with the County's housing stock (60% single-family detached). Rifle had a

³ Based on data from U.S. Census American Community Survey 2005-2009

⁴ Based on data from U.S. Census American Community Survey 2005-2009

smaller share of mobile and manufactured housing (6%) compared to the County (13%). Rifle had a larger share of attached housing of all types (35%) compared with the County (27%).

Land use and development

Rifle maintains a fairly compact urban form. The original town site is located north of I-70 and the Colorado River. The majority of the residential districts are within 1-mile of the historic Central Business District. Employment centers are located on Airport Road south of I-70 and west of town along Hwy 6. Regional commercial and lodging is also found south of I-70 adjacent to Airport Road.

North Rifle, comprised mainly of single-family residential, is bisected by Highway 13. Highway 13 is one of the most heavily used Hazardous Material shipping routes in the State of Colorado. This section of highway also serves as part of the east-west alternate route through the State when I-70 is closed by severe weather or accident.

Transportation

The City of Rifle serves as gateway to Northwest Colorado. Rifle is served by Interstate 70 (east/west) and Highway 13 (north/south). The State maintains two interchanges and several bridges in Rifle. The City maintains four bridge structures critical to local traffic circulation. Garfield County Regional Airport is located in southeast Rifle. Finally, Union Pacific operates its east-west rail corridor through Rifle.

Highway 13 passes through Rifle, and is one of the highest volume hazardous materials routes in the State. This route passes in close proximity to important community assets, including a school, police and fire stations, and commercial areas.

Critical facilities and infrastructure

Rifle's potable water supply comes directly from the Colorado River. The City's water intake pond is located within the 100-year floodplain and can be threatened by large run-off events. It is also vulnerable to potential train derailment.

Additionally, the County NHMP identifies vulnerability and risk incurred by critical facilities and infrastructure in each Study Area. Rifle is included in Study Area 3.

Historic and cultural resources

Rifle, through a "local" historic preservation ordinance, listed the Post Office, Rifle House, Mclearn Building, and Ute Theatre as historic structures. In addition, the Rifle Post Office is listed on the U.S. National Register of Historic Places. All of the listed structures are located in the Rifle Central Business District. The only identified natural hazard threat is failure of the Rifle Gap Dam.

Administrative structure

The City of Rifle operates and a City Council – City Manager form of government. The City is a Home Rule municipality. The City Council is comprised of seven (7) members elected at-large for four (4) year terms. The Mayor is appointed by Council following each election. The City Manager is hired to serve at the will of City Council and manage day-to-day City operations.

Community organizations and programs

Rifle could call upon the following community organizations/programs to assist in implementing mitigation measures:

- Garfield County Public Safety Council
- Oil & Gas Community Investment Programs
- Colorado Department of Local Affairs

Section 3: Risk Assessment

This section expands on Garfield County's Natural Hazards Mitigation Plan by addressing Rifle's unique risks to the following natural hazards:

- Flood
- Wildfire
- Landslide and debris flow
- Earthquake
- Severe Weather
- Hazardous Materials (as a secondary hazard to the natural hazards outlined above)

Flood

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:

- Failure of Rifle Gap Dam holds back an active reservoir capacity of 12,168 acre feet. Complete dam failure would result in serious impacts to the City of Rifle. Waters would submerge and inundate the downtown area and two schools; police and fire stations; grocery stores; City Hall; and major transportation infrastructure (I-70, Hwy 6, and the railroad). This would result in isolation of residential populations. The County NHMP includes the dam inundation maps.
- The intake pond for the City's water supply is susceptible to failure during significant flood events. The pond is also adjacent to the Union Pacific Rail line which carries hazardous materials.
- The waste treatment center is located in the 100-year floodplain.
- The City's hospital and medical center is within a 100-year floodplain and situated near an alluvial fan with potential debris flow opportunity. The facility was built in compliance with floodplain development standards and engineered to mitigate anticipated potential impacts. The floodplain has not experienced a 100-year or greater event since the construction of the facility.
- Some of the City's major commercial retail outlets are impacted by a 100-year floodplain, including a WalMart that serves a regional market and some industrial employment base.
- Housing located along the river near the interchange with I-70 is located in the Colorado River floodplain, and has experienced flooding in the past. The homes were built in early 1900s and experience

flooding about once every 10 – 15 years. The flooding impacts have grown with the introduction I-70 and associated drainage structures.

- Residents along Rifle Creek immediately west and north of the Central Business District experience flash flooding. Tributaries of Rifle Creek (Government Creek and Hubbard Gulch) are prone to flooding during the monsoon season (July and August). This historically occurs every 7 – 10 years.

Mitigation successes

The City of Rifle is not new to risk reduction and mitigation activities, though this is its first adopted and FEMA-approved mitigation plan. The following projects show a track record of success in implementation:

- Construction of the Slaughter House Gulch retention structure;
- Evaluation and cost assessment for Government Creek floodwater mitigation;
- Preparation of evacuation plan for Garfield RE-2 School District in the event of a catastrophic failure on Rifle Gap Dam;
- Rifle Creek flood mitigation along Acacia Ave through Deerfield Subdivision; and
- Flood mitigation on Rifle Creek through Centennial Park design.

The National Flood Insurance Program (NFIP)

The Flood Insurance and Mitigation Administration, a component of the Federal Emergency

Management Agency (FEMA), manages the National Flood Insurance Program (NFIP). The three components of the NFIP are: 1) Flood Insurance; 2) Floodplain Management; 3) Flood Hazard Mapping.

The City of Rifle 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 current and effective as of 1/03/86. There are no repetitive flood loss properties in City of Rifle.

City of Rifle – NFIP Participation Information			
Category	Data	Category	Data
Date Joined NFIP	06/15/1973	Number of Policies in force	58
CRS class/discount	N/A	Insurance in Force	\$10,729,400
CAV date	07/22/2009	Number of Paid Losses	5
CAC date	05/03/1993	Total Losses Paid	44,686.15
Date of Current FIRM	01/03/1986	Substantial Damage claims since 1978	1

Notes: CAC = Community Assistance Contact; CAV = Community Assistance Visit; CRS = Community Rating System; FIRM = Flood Insurance Rate Map; NFIP = National Flood Insurance Program

Wildfire

In general, the County's Risk Assessment does an adequate job of describing the risk from wildfires within the areas surrounding the City of Rifle, given the data currently available. However, the County is also in the process of updating its Community Wildfire Protection Plan (CWPP), and more accurate and detailed risk assessment data will be available in the early years of implementing this natural hazard mitigation addendum. The City of Rifle 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:

- The northernmost portion of the City, which is currently undeveloped, is expected to be developed with residential uses in the future. This area is vulnerable to wildfires.
- Along the City's western border, and part of the southern border, wildland-urban interface fires may spread into urbanized areas.

Landslide and debris flow

Some 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. Participants in the plan process from Rifle highlighted that a commercial and industrial employment area located at the base of a debris flow area at Ramsey Gulch and could be impacted.

Earthquake

The Garfield County Natural Hazard Mitigation Plan adequately describes the causes and characteristics, hazard history, and impacts of earthquakes in the City of Rifle. In general, the risk is low in Garfield County for this type of event.

Severe weather

The Garfield County NHMP adequately describes the causes and characteristics, hazard history, and impacts of severe weather in the City of Rifle. In general, severe weather events are frequent occurrences in the County and residents are aware and prepared. Existing programs target risk reduction and education related to severe weather. The only discussion from plan participants was related to the importance of regional transportation infrastructure that serves northwest Colorado (Highway 13 and I-70), which could both be shut down in a major snow event.

Hazardous materials

The Garfield County risk assessment describes hazardous materials spills as possible secondary hazard events resulting from landslides or debris flows / rock falls, wildfires, or earthquakes that impact storage areas. Additionally, 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 many communities in the County, including Rifle.

In Rifle, the risk from hazardous materials spills is amplified by the intersection of three major hazardous materials routes: Highway 13, I-70, and the railroad. Highway 13 runs through town, and adjacent to important City critical infrastructure, including a school, a dispatch center, the County Health and Human Services Medical Clinic, and the historic commercial district.

Section 4: Action Items

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.

Multi Hazard

- Assess the resilience of the wastewater treatment plant and water intake pond and develop improvements accordingly as part of the capital facilities plans for water and wastewater infrastructure.
- Review comprehensive plan and development codes for opportunities to more effectively reduce risks to new development.
- Develop a catastrophic recovery plan.

Flood

- Continue compliance with the National Flood Insurance Program (NFIP) through the enforcement of local floodplain ordinances
- Update the city's Flood Insurance Rate Maps (FIRMs) if funding becomes available.
- Evaluate flow capacity beneath the 14th St. Bridge, and, if necessary, replace.
- Evaluate historic and potential future property loss along Rifle Creek and its tributaries to determine whether mitigation or property acquisition is warranted.
- Develop an inundation evacuation plan related to the failure of the Rife Gap Dam.

Wildfire

- Coordinate with Rifle Fire Protection District to review development codes and improve opportunities to mitigate wildfires near residential communities.

Summary of Multi-Jurisdictional NHMP Action Items

Proposed Action Title	Coordinating Organization	Internal Partners	External Partners	Timeline	1) Reduce the loss of life and personal injuries from natural hazard events.	2) Reduce damage to County assets	3) Reduce County costs of disaster response and recovery.	4) Minimize economic losses.	5) Reduce damage to personal property.
<i>City of Rifle</i>									
Assess the resilience of the wastewater treatment plant and water intake pond and develop improvements accordingly as part of the capital facilities plans for water and wastewater infrastructure.	City of Rifle Utility Director	City Engineer, Planning Dept, and City Council	Colorado Department of Public Health and Environment	Short Term	X				
Review comprehensive plan and development codes for opportunities to more effectively reduce risks to new development.	City of Rifle Planning Department	City Engineer, City Council	Garfield County	Short Term	X				X
Continue compliance with the National Flood Insurance Program (NFIP) through the enforcement of local floodplain ordinances	City Engineer	Planning Department, City Attorney,	Garfield County	Short Term	X				
Update the city's Flood Insurance Rate Maps (FIRMs) if funding becomes available.	City Engineer	Rifle Geographic Information Coordinator	Garfield County Geographic Information Systems Department	Long Term	X	X	X	X	X
Coordinate with Rifle Fire Protection District to review development codes and improve opportunities to mitigate wildfires near residential communities.	Rifle Fire		Rifle Planning Department, Garfield County, Rifle Police Department	Short Term	X				X
Evaluate flow capacity beneath the 14th St. Bridge, and, if necessary, replace.	City Engineer	City of Rifle Public Works	FEMA, Colorado Department of Transportation	Long Term		X			
Evaluate historic and potential future property loss along Rifle Creek and its tributaries to determine whether mitigation or property acquisition is warranted.	City Engineer	Planning and Development Dept.	Property owners, Garfield County, FEMA, State OEM	Long Term					X
Develop an inundation evacuation plan related to the failure of the Rife Gap Dam.	City of Rifle Planning Department	Engineering Department	Garfield County	Long Term	X				
Develop a catastrophic recovery plan.	City of Rifle Planning Department	Engineering Department	Garfield County	Long Term	X				

Attachment 1:

City of Rifle Action Item Worksheets

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.

Multi Hazard

- Assess the resilience of the wastewater treatment plant and water intake pond and develop improvements accordingly as part of the capital facilities plans for water and wastewater infrastructure.
- Review comprehensive plan and development codes for opportunities to more effectively reduce risks to new development.
- Develop a catastrophic recovery plan.

Flood

- Continue compliance with the National Flood Insurance Program (NFIP) through the enforcement of local floodplain ordinances
- Update the city's Flood Insurance Rate Maps (FIRMs) if funding becomes available.
- Evaluate flow capacity beneath the 14th St. Bridge, and, if necessary, replace.
- Evaluate historic and potential future property loss along Rifle Creek and its tributaries to determine whether mitigation or property acquisition is warranted.
- Develop an inundation evacuation plan related to the failure of the Rife Gap Dam.

Wildfire

- Coordinate with Rifle Fire Protection District to review development codes and improve opportunities to mitigate wildfires near residential communities.

Proposed Action Item:		Goal Alignment/ Hazards Addressed:
Assess the resilience of the wastewater treatment plant and water intake pond and develop improvements accordingly as part of the capital facilities plans for water and wastewater infrastructure.		Goal 1: Reduce the loss of life and personal injuries from natural hazard events. All Hazards
Rationale for Proposed Action Item:		
<p>The water intake pond and wastewater treatment plant are in the 100 year floodplain and are subject to flood inundation and damage.</p> <p>This would include a focus on drinking water availability and resilience in addition to existing actions for the sewage plant.</p>		
Ideas for Implementation:		
<p>Conduct an assessment of the sewage treatment plant and drinking water intake for potential impacts from flood risk.</p> <p>Contract with an engineer to assess potential of inundation and propose alternative mitigation options including a cost-benefit analysis.</p> <p>Seek funding from FEMA to develop improvements of the sewage treatment plant and water treatment facility, if needed.</p>		
Coordinating Organization:	City of Rifle Utility Director	
Internal Partners:		External Partners:
City Engineer, Planning Dept, and City Council		Colorado Department of Public Health and Environment
Timeline:		If available, estimated cost:
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)	
XX		
Form Submitted by:	City of Rifle	
Action Item Status: New Action (2011)		

Proposed Action Item:		Goal Alignment / Hazards Addressed:	
Review comprehensive plan and development codes for opportunities to more effectively reduce risks to new development.		Goal 1: Reduce the loss of life and personal injuries from natural hazard events. Goal 5: Reduce damage to personal property All Hazards	
Rationale for Proposed Action Item:			
The Comprehensive Plan provides the long-term vision and City policies for implementing plans and land use regulations, this is one of the best places to implement mitigation because risks can be eliminated before development occurs.			
Ideas for Implementation:			
Incorporate new hazard information in the Comprehensive Plan's Periodic Review process.			
Review latest vulnerability assessment information and policies that address hazards. Information can be obtained from the risk assessment portion of the Garfield County Natural Hazard Mitigation Plan (NHMP) and other state agencies.			
Coordinating Organization:		City of Rifle Planning Department	
Internal Partners:		External Partners:	
City Engineer, City Council		Garfield County	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
XX			
Form Submitted by:		City of Rifle	
Action Item Status: New Action (2011)			

Proposed Action Item:		Goal Alignment / Hazards Addressed:	
Develop a catastrophic recovery plan.		Goal 1: Reduce the loss of life and personal injuries from natural hazard events. Multi Hazard	
Rationale for Proposed Action Item:			
<p>Failure of the Rifle Gap dam would cause significant flooding in downtown Rifle within 20 minutes. Commercial property, public infrastructure, and personal property would all be devastated. Additionally, wildfires are a frequent occurrence and a severe fire incident could significantly damage the city's public and private development.</p> <p>Developing a catastrophic recovery plan will allow the community to identify priorities for rebuilding the community follow an incident of this magnitude and facilitate the recovery process</p>			
Ideas for Implementation:			
<ul style="list-style-type: none"> - Conduct an impact assessment to determine how the town would be affected by this incident - Host community workshops to identify community values and characteristics as the foundation of the recovery plan. - 			
Coordinating Organization:		City of Rifle Planning Department	
Internal Partners:		External Partners:	
Engineering Department		Garfield County	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
	XX		
Form Submitted by:		City of Rifle	
Action Item Status: New Action (2011)			

Proposed Action Item:		Goal Alignment / Hazards Addressed:	
Continue compliance with the National Flood Insurance Program (NFIP) through the enforcement of local floodplain ordinances		Goal 1: Reduce the loss of life and personal injuries from natural hazard events. Flood Hazard	
Rationale for Proposed Action Item:			
<p>The National Flood Insurance Program provides communities with federally backed flood insurance to homeowners, renters, and business owners, provided that communities develop and enforce adequate floodplain management ordinances. The benefits of adopting NFIP standards for communities are a reduced level of flood damage in the community and stronger buildings that can withstand floods. According to the NFIP, buildings constructed in compliance with NFIP building standards suffer approximately 80 percent less damage annually than those not built in compliance.</p> <p>Rife is currently participating in the new flood mapping project of the Colorado River and watershed.</p>			
Ideas for Implementation:			
<ul style="list-style-type: none"> Actively participate with State of Colorado Emergency Management and FEMA during Community Assistance Visits. The Community Assisted Visit (CAV) is a scheduled visit to a community participating in the NFIP for the purpose of 1) conducting a comprehensive assessment of the community's floodplain management program; 2) assisting the community and its staff in understanding the NFIP and its requirements; and 3) assisting the community in implementing effective flood loss reduction measures when program deficiencies or violations are discovered. Conduct an assessment of the city's floodplain ordinances to ensure they reflect current flood hazards. Coordinate with the county to ensure that floodplain ordinances and NFIP regulations are maintained and enforced. Continue to assess the need for updated ordinances. Mitigate areas that are prone to flooding and/or have the potential to flood. 			
Coordinating Organization:		City Engineer	
Internal Partners:		External Partners:	
Planning Department, City Attorney,		Garfield County	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
xx			
Form Submitted by:		City of Rifle	
Action Item Status: New Action (2011)			

Proposed Action Item:		Goal Alignment / Hazards Addressed:	
Update the city's Flood Insurance Rate Maps (FIRMs) if funding becomes available.		All goals Flood Hazard	
Rationale for Proposed Action Item:			
The city has Flood Mitigation Rate Maps current as of 1986. However, if funding becomes available, the FIRMs should be updated to address new information and new vulnerabilities, as well as any new land use developments occurring in the community.			
Ideas for Implementation:			
If there are areas that need to be revised for the flood map, complete the MT-2 Forms Package (Application Forms for Conditional Letters of Map Revision and Letters of Map Revision). The forms and instructions are designed to assist requesters (community officials or individuals via community officials) in gathering the data that the FEMA needs to determine whether the effective NFIP map and Flood Insurance Study report for a community should be revised.			
In 2012, the update of these maps is underway.			
Coordinating Organization:		City Engineer	
Internal Partners:		External Partners:	
Rifle Geographic Information Coordinator		Garfield County Geographic Information Systems Department	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
	xx		
Form Submitted by:		City of Rifle	
Action Item Status: New Action (2011)			

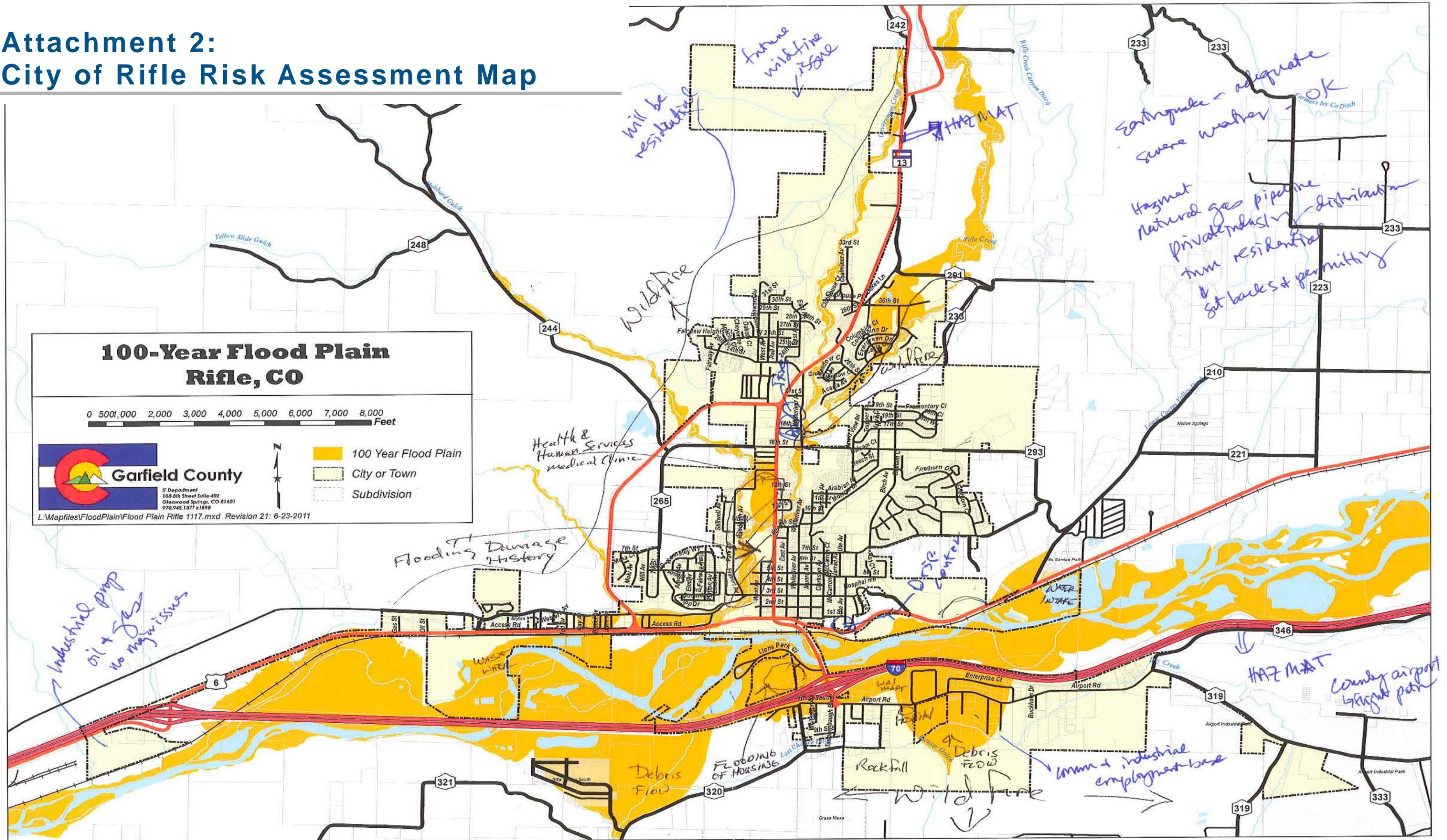
Proposed Action Item:		Goal Alignment / Hazards Addressed:
Evaluate flow capacity beneath the 14 th St. Bridge, and, if necessary, replace.		Goal 2: Reduce damage to county assets. Flood Hazard
Rationale for Proposed Action Item:		
Flows, particularly when debris catches, can cause backwater flooding and impact property and City streets.		
Ideas for Implementation:		
Evaluate proper sizing for this facility. Seek funding assistance to replace.		
Coordinating Organization:	City Engineer	
Internal Partners:		External Partners:
City of Rifle Public Works		FEMA, Colorado Department of Transportation
Timeline:		If available, estimated cost:
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)	Evaluation Cost: \$20,000-\$30,000 Replacement Cost: \$600,000 – 1M
	XX	
Form Submitted by:	City of Rifle	
Action Item Status: New Action (2011):		

Proposed Action Item:		Goal Alignment / Hazards Addressed:
Evaluate historic and potential future property loss along Rifle Creek and its tributaries to determine whether mitigation or property acquisition is warranted.		Goal 5: Reduce damage to personal property Flood Hazard
Rationale for Proposed Action Item:		
<p>There has been a history of flood events between 16th St. and Hwy 6 and 24 along Rifle Creek causing property damage. The risk of flash flood is greatest in the summer month. Also, even though current development code accounts for this flood risk, historic area and infill / redevelopment in those areas remain vulnerable. A 1999 study of creeks in the area recommended that flood basins be built to reduce the flooding on Government Creek, which could alleviate the flood on downstream waterways such as Rifle Creek.</p> <p>The Creek is included in the new FIRM mapping effort that is underway in 2012.</p>		
Ideas for Implementation:		
<ul style="list-style-type: none"> *Use City GIS to map sites / study area and show property valuations *Review historic damage / claims *Cost –benefit analysis for detention and / or property acquisition *Implement mitigation and / or acquisition 		
Coordinating Organization:	City Engineer	
Internal Partners:		External Partners:
Planning and Development Dept.		Property owners, Garfield County, FEMA, State OEM
Timeline:		If available, estimated cost:
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)	\$1M - \$4M
	XX	
Form Submitted by:	City of Rifle	
Action Item Status: New Action (2011)		

Proposed Action Item:		Goal Alignment / Hazards Addressed:	
Develop an inundation evacuation plan related to the failure of the Rife Gap Dam.		Goal 1: Reduce the loss of life and personal injuries from natural hazard events. Dam Inundation Hazard	
Rationale for Proposed Action Item:			
Failure of the Rifle Gap dam would cause significant flooding in downtown Rifle within 20 minutes. Identification of evacuation routes and high ground area will ensure that people are able to escape rising water levels,			
Ideas for Implementation:			
<ul style="list-style-type: none"> - Utilize existing topographical maps to identify routes and high-ground areas. - Collaborate with Garfield County GIS to produce maps to be used in outreach and education about the evacuation route. 			
Coordinating Organization:		City of Rifle Planning Department	
Internal Partners:		External Partners:	
Engineering Department		Garfield County	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)		
	XX		
Form Submitted by:		City of Rifle	
Action Item Status: New Action (2011)			

Proposed Action Item:		Goal Alignment / Hazards Addressed:	
Coordinate with Rifle Fire Protection District to review development codes and improve opportunities to mitigate wildfires near residential communities.		Goal 1: Reduce the loss of life and personal injuries from natural hazard events. Goal 5: Reduce damage to personal property Wildfire Hazard	
Rationale for Proposed Action Item:			
Wildfires beginning in Garfield County near the urban fringe could easily spread to the City. Reviewing City development codes to develop ways to mitigate wildfires will reduce the likelihood that wildfires will spread through neighborhoods.			
Ideas for Implementation:			
Review City development codes together with the Rifle FPD to identify potential wildfire issues. Develop strategies for addressing these issues. Strategies could include conducting education and outreach with the public on wildfire risks and mitigation actions. Strategies could also include updates to development code that would affect new developments.			
Coordinate efforts with the Garfield County Community Wildfire Protection Plan Steering Committee			
Show the wild fire zones directly in the comprehensive plan			
Coordinating Organization:		Rifle Fire	
Internal Partners:		External Partners:	
		Rifle Planning Department, Garfield County, Rifle Police Department	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)	minimal	
XX			
Form Submitted by:		City of Rifle	
Action Item Status: New Action (2011)			

Attachment 2: City of Rifle Risk Assessment Map



Attachment 3:

City of Rifle Critical Infrastructure Map

A significant component of the Natural Hazard Mitigation Plan is identifying where and how critical infrastructure and key resources could be impacted by natural hazards. The Garfield County GIS department developed maps of Rifle that identify public facilities, utilities, agriculture and natural resources, water supply and treatment infrastructure, oil and gas facilities, and transportation facilities. These maps contribute to the understanding of community vulnerability. Due to the sensitive nature of some of the information included in this map, the map is not available upon request from Rifle Planning and Development Department, the Garfield County Manager, or the Garfield County GIS Department.