



Town of Silt

Addendum to the Garfield County Natural
Hazards Mitigation Plan

2012

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Section 1: Planning Process

Overview

The Town of Silt developed this addendum to the Garfield County multi-jurisdictional Natural Hazards Mitigation Plan in an effort to increase the Town's resilience to natural hazards. The addendum focuses on the natural hazards that could affect the Town of Silt, which include flash flooding of drainage basins and the Colorado River. It is impossible to predict exactly when disasters may occur, or the extent to which they will affect the Town of Silt. However, with careful planning and collaboration among public agencies, private sector organizations, and citizens within the Town, it is possible to minimize the losses that can result from natural hazards. The addendum also addresses hazardous materials spills, which are possible secondary hazards resulting from wildfires, landslides, and transport accidents that can affect drinking water 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

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 through the Town's land use code, the Town's storm water management practices and through BEST management practices regarding construction of roadways, on-site drainages and creation of subdivisions. The actions described in the addendum are intended to be implemented through existing plans and programs within the Town of Silt.

How was the Addendum developed?

The Town of Silt 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 Town of Silt 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 Silt) and invited a broad range of participation from Town 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 Silt included:

- Police Chief Levy Burris
- Public Works Director Gerry Pace.

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

Following the workshop, the Town of Silt further developed its action items through departmental research conducted by: Janet Aluise, Planner; Gerry Pace, Public Works Director; and Levy Burris, Police Chief.

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
- 1987 Floodplain Management Study - Soil Conservation Service
- 2006 Adopted FEMA Mapping for Colorado River
- Town of Silt Municipal Code (Land Use Code)
- Town of Silt Public Works Manual
- Town of Silt Comprehensive Plan

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

- The public was provided an opportunity to comment when the plan was discussed and initially adopted on August 8, 2011. The Town meeting was a public meeting, with public notice and public access to the material one week prior to the meeting. Announcements of the meetings are

published via email to a subscribed group of interested persons as well as posted to the Town website.

- Additionally, Garfield County developed an on-line survey, which was advertised on its website, and via email in multiple list servs. In the initial distribution, 106 people took the survey. 21 of these respondents lived in Area 2 (the area in which Silt is located), 11 worked in the Area, and 18 claimed that Area 2 was the area with which they were most familiar (i.e. spend most of their time). Of those 18 respondents who associate most directly with Area 2, nearly 65% of them (11 people) agreed that the County's Risk Assessment of Area 2 was "accurate" or "very accurate".

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 Town'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.]
- Announcement of the addendum was included in an announcement on public access television, including how to obtain material and provide comment to the Community Development Director.
- The public was provided an opportunity to comment when the plan reviewed by the Town Council on January 3rd, 2012.
- 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 Town of Silt is adopting the plan maintenance and implementation process outlined in the Garfield County Natural Hazard Mitigation Plan.

Adoption

The Town of Silt adopted this addendum to the Garfield County Natural Hazard Mitigation Plan via resolution on August 8, 2011. The Town of Silt re-adopted this addendum following FEMA approval of the plan on {DATE}

FEMA approved the County Plan on [DATE].

Section 2: Community Profile

The following section describes the Town of Silt from a number of perspectives in order to help define and understand the Town'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 and climate

The Town of Silt is approximately 2.8 square miles in area. The community enjoys a fairly mild climate in the spring, fall and winter, with moderate temperatures and low rainfall and snowfall. However, wind can affect the area greatly, by producing dust storms in the spring and summer, and wind chill factor situations in the winter. Occasionally, spring flooding will occur both in terms of storm water (irrigation ditches and other channels overflowing) and main waterways like the Colorado River. This flooding general occurs during run-off and can cause significant damage to riparian vegetation and can scour riverbanks, especially in the designated and observed floodway, flood fringe and floodplain areas. The Town's storm water drainages include the 1st Street drainage, the 7th Street drainage, the 16th Street drainage, the Painted Pastures/Davis Point drainage and the Cactus Valley Ditch.

The Silt Mesa area has developed greatly with residential units in the last 15 to 20 years, and presents an interface with the more urbanized and the more rural area of that part of the County. Due to its generally dry summer months, the County and the Town high desert area is subject to wildfire, occasionally sparked by lightning, but oftentimes started by human activity. Since the area is served by a volunteer fire district, response times may not be as great as a full-service fire district. Houses in rural areas should minimize their wildfire risk by thinning or avoiding planting trees adjacent to structures.

Population and demographics

Silt's population grew from about 1,740 people in 2000 to 2,930 people in 2010, an increase of nearly 1,200 people at an average annual growth rate of 5.3%. Silt's population grew faster than Garfield County, accounting for 4% of the County's population in 2000 and 5% of County population in 2010.¹

¹ Colorado Division of Local Government, State Demography Office

The most vulnerable components of the population in a disaster are women, children, minorities, and the poor. In comparison to the County, Silt's population was:²

- **Younger than the County.** The median age of Silt's population was 30 years old in 2009, compared with the County average of 34.2 years old. The age-distribution of Silt's population has gotten younger since 2000, when the median age was 31.4 years. About 67% of Silt's population was under 40 years old in 2009, compared with 59% of the County's population. Silt had a smaller proportion of people over 60 years old (7%) than the County (13%).
- **About as ethnically diverse.** Since 2000, Silt grew more ethnically diverse. In 2000, 16% of Silt's population was Hispanic (270 people). By 2009, 24% of Silt's population was Hispanic (605 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 than the County.** The poverty rate in Silt (6.5% of people living below the federal poverty line) was lower than the County's poverty rate (8.1%) in 2009.

Employment and economics

Consideration of Silt's economy is important in recovery planning. The Town has historically had very little manufacturing, limited commercial growth, and low overall employment of the Town's residents. In fact, most of the Town's adult residents find employment in the upper valley towns and cities of Vail, Eagle, Snowmass, Carbondale, Aspen and Basalt, and for this reason, the Town of Silt has been called a "bedroom community". In the last five to seven years, Garfield County has had a fair amount of natural gas drilling activity, and this has led to the formation of a number of support businesses in the natural gas industry, such as excavation companies, water-hauling companies and man-camp support businesses. The median household income reported in 2010 was \$44,632, and the average 2010 salary was \$31,000.

Housing

Silt has a variety of housing types, but the most prevalent housing unit is the single family dwelling located on between 5,000 to 8,000 square feet of property, and includes site-built units, modular housing units, HUD manufactured housing and mobile homes. Duplexes (two-family structures) are sprinkled throughout the Town, as well as planned in specific multi-family communities. Multi-family dwellings have been approved in greater numbers in the last few years, but the Town has not seen many of the units actually built. There is one apartment building, a two-story structure, located on Main Street between 7th Street and 8th Street, as well as upper-level apartments located in some commercial zone districts, which would not

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

necessarily challenge the fire district should a fire erupt, since the maximum building height is just over thirty (30) feet. Overall, there are 1,077 residential units, according to the 2010 census.

Land use and development

The Town has approved approximately 325 additional residential units between 2005 and 2011. Many of the newer residential units have had difficulty in getting started, due to the tightening national and local economies. The Town has granted a number of time extensions in order for developers to obtain financing to construct infrastructure to serve proposed lots, but the Town should be careful not to decrease safety infrastructure within the subdivisions in an effort to save the developer money. Recently, the Town has had serious interest from commercial developers, and has produced a fiscal impact analysis in order to describe the Town's demographics and economic climate, including the filling of a wetlands area between 10th Street and 16th Street and relocating such a wetlands to the Town's Silt River Preserve in order to decrease the proximity of West Nile mosquito habitat within residential areas.

Transportation

The Town of Silt does not have extensive public transit facilities. There are two bus stops, one located at the Silt Trade Center on the eastern edge of Town along Highway 6, and the other located at the Burning Mountains Fire Protection District parking lot at 7th Street and Main Street. The Roaring Fork Transit Authority (RFTA) operates the bus route through Town, called the Hogback Route. Only a morning and an evening bus service serve the Town at this time, and take travelers from Rifle to Aspen along Highway 6, Interstate-70 and Highway 82. The Town is not a member of RFTA, but has expressed some interest in expanding the bus service. Most residents use their personal vehicles to get from Point A to Point B.

The Union Pacific Railroad goes through the Town of Silt south of Front Street. Construction supplies, chemical vats, coal hoppers and materials loads are just some of the items that travel through at 35 miles per hour within Town limits. The Town of Silt has no railroad crossings through a Town public street, but there is one crossing in the County on South 16th Street, and could present a problem for Town residents if there is a train/auto collision or in the case that a chemical vat rolls off a rail car and into the river or on the surface of the railway.

Since Interstate-70 is a major traffic artery on the south side of the Town, it is quite possible to see problems with ice, snow and large amounts of water on the roadway, causing accidents over the Colorado River bridges, potentially including vehicles entering the Colorado River.

Critical facilities and infrastructure

The Silt Town Hall is located at 231 N. 7th Street, on the southwest corner of 7th Street and Grand Avenue. The Town Hall is approximately 8,000 square feet of finished floor area, and can serve as an emergency meeting hall, if need be. The Burning Mountains Fire Protection District is located on the southeast corner of Main Street (Highway 6) and 6th Street. This building has been used as a civic

building by many non-profit groups for fund-raising and regular meetings, and could serve as a community meeting hall or a temporary emergency shelter in case of a catastrophic event.

The Town built a 750,000 gallons per day activated sludge wastewater treatment plant in 2003, which remains at less than half its intended capacity.

The Town built a microfiltration water plant in 2005 that can treat up to .9 million gallons per day. This is a state of the art facility that notifies the Water/Wastewater Director if there is an upset condition of water quality outside of acceptable standards.

The Town's treated water is also available at two separate bulk water facilities, one located on the east side of South 7th Street and the other located between the 500 and 600 block of Front Street. Many County residents utilize these bulk water facilities due to poor water quality and quantity at their residence, and the Town could indeed serve many more county residents in case of an aquifer contamination outside of Town limits. The Town has its source water on the Colorado River and seeks to protect this watershed.

Historic and cultural resources

The Silt area was originally home to the Northern Ute Indians, known as the "Blue Sky People", the only Native American tribe truly native to the area. In the 18th century, the Spanish explored the area, trading extensively with the Ute. Shortly thereafter, fur trappers came to the area in search of beaver and a temperate climate. In the 1880's, the Silt area saw many waves of immigrants from Italy, Wales, Ireland, Austria and Germany, with the majority of these immigrants finding work in the local coal mines, beet farms and cattle ranches.

The Town of Silt has endured many downtown fires and cannot boast many commercial buildings that over a century old, as they were nearly all destroyed in 1917 and in the 1950's. However, the Town's Community Center, first known as the Congregational Church, is one of the oldest buildings, having been built in 1909, and serving as a meeting place for generations of Silt residents.

Administrative structure

The Town of Silt is governed by a Board of Trustees, with an elected mayor and six (6) additional members. The Board of Trustees appoints key positions such as the Town Administrator, the Police Chief, the Town Treasurer and the Town Clerk. The Town Administrator administers the budget and the municipal code, through his/her designated staff members.

The Town of Silt is a home-rule municipal corporation that is not entirely subject to specific state statutes.

Existing plans and policies

The Town of Silt recently adopted its first amendment to the 2009 Comprehensive Plan, which detailed potential residential densities and more specific land uses for undeveloped property both inside and outside of the Town of Silt municipal

boundaries. This document is a guide for the Town's Planning & Zoning Commission and Board of Trustees to refer to during the annexation and development processes.

Community organizations & programs

The Town of Silt participates in the senior program Meals on Wheels, which assists seniors with hot meals at least once per day. The Town is also a member of the Chamber of Commerce, and helps to organize such events as Silt Hey Days, recreational events and holiday celebrations.

Section 3: Risk Assessment

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

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

Additionally, the Town of Silt has included secondary hazards that can impact the ability of the Town and residents to mitigation, prepare, respond and recover for natural hazard incidents. These hazards include:

- Transportation Accidents & Water Quantity and Quality

Flood

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: Flood Insurance; Floodplain Management; and Flood Hazard Mapping

The Town of Silt 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 August 2, 2006. There are no repetitive loss properties in the Town of Silt.

Town of Silt – NFIP Participation Information			
Category	Data	Category	Data
Date Joined NFIP	04/01/1987	Number of Policies in force	3
CRS class/discount	N/A	Insurance in Force	\$1,158,900.00
CAV date	10/25/2007	Number of Paid Losses	0
CAC date		Total Losses Paid	0
Date of Current FIRM	08/02/2006	Substantial Damage claims since 1978	0

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

Participants in the mitigation planning process noted 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 City's sewage and water treatment plant are both located in the 100 year floodplain. Flooding that damaged these facilities could impact their ability to function, affecting the City's supply of clean drinking water as well as the downstream water quality.
- The Lower Cactus Valley irrigation ditch, which runs through town roughly parallel to I-70, intersects with the floodplains for several smaller tributaries to the Colorado. A large rainstorm on First Street or on 7th Street would likely cause the Cactus Valley Ditch to breach its dike and flood. On 16th Street, a similar event is likely to cause flooding in Silt Trade Center
- The City's water main runs under I-70 through the 100 year floodplain. In a major flood event, this could become problematic.
- Some residential development in the southeastern corner of the City is in the 100 year floodplain, and could be affected by flooding.
- The Town of Silt owns two passive recreation areas along the Colorado River, one known as "Doggie Park" and the other known as the "Silt River Preserve". Each of these parks is closely monitored during run-off and is closed if conditions warrant due to flooding and unstable banks.

Mitigation Success:

The Town's Engineer, through various correspondences with FEMA, determined that the Town's various tributaries to the Colorado River were actually storm water drainage pathways that could be managed as such, thereby reducing the comprehensive detailed Town plans and funds needed for floodplain mapping through FEMA. Therefore, in 2005, the Town of Silt began to require developers to submit detailed engineering plans on a site specific basis, for inclusion in the Town's overall drainage plan. All properties located adjacent to, upstream or downstream from the 1st Street drainage, 16th Street drainage, the 7th Street drainage, the Painted Pastures/Davis Point drainage, and adjacent to the Cactus Valley Ditch are required to submit detailed site specific and drainage specific engineering plans prior to development.

Also, in 2006, the Town of Silt, with FEMA cooperation, mapped the Colorado River floodplain in order to identify those areas that were at risk for moderate to severe damage due to flooding of the Colorado River and its tributaries. As a result, the Town's land use code was modified in order to restrict or prohibit development in this floodplain, and to mitigate the problems associated with development currently located in the floodplain. The Town still utilizes the Soil Conservation Service and U.S. Army Corps of Engineer floodplain study from 1987.

Wildfire

In general, the County's Risk Assessment does an adequate job of describing the risk from wildfires with the areas surrounding the Town of Silt, given the data currently available. By some measures, the wildfire risk in Silt is lower than it is in other communities in the County, because of the surrounding topography and vegetation types.

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. Silt will work with the County and the surrounding rural fire protection districts to evaluate and understand the implications of the CWPP to the Town's wildfire risk and action items.

Participants in a mitigation planning workshop from the Town of Silt noted that the portion of the town east of 7th street at the northern end of town is subject to the possible spread of wildfires from the wildland-urban interface and into Silt. This area is primarily developed with residential uses; some remains undeveloped at this point.

A secondary issue associated with wildfire is water quality. Major fires that affect the water quality in the Colorado River, the City's source of drinking water, could also affect the water treatment facility's ability to supply clean water to Silt's businesses and residents.

Mitigation Success:

The Town's land use code provides for fire hydrants to be located within one hundred and fifty (150) feet of a lot line, but further measures will be implemented in the future for areas where wildfire would be especially prevalent.

Landslide and debris flow

The Garfield County Natural Hazard Mitigation Plan adequately describes the causes and characteristics, hazard history, and impacts of landslides and debris flows in the Town of Silt.

Participants in the mitigation planning process noted that the risk from landslides is generally lower in Silt than it may be in other communities in Garfield County, but that there is some potential for landslides in the following areas:

- North of Orchard Avenue just west of 7th St.
- Skyline Cemetery, located to the north of the Richards Addition between 7th Street and 5th Street and north of Richards Street, has a very steep incline for an entrance, and the road cut is a sheer vertical slope to the south, overlooking residential dwelling units. To minimize the chances of a landslide, the Town ensures that road maintenance is done with BEST Management Practices and that vegetation is maintained above the roadway.
- Stoney Ridge Planned Unit Development entrance west of 16th Street. This steep slope has been vegetated and the Town monitors the amount of irrigation applied to the hillside.

It is standard practice in the Town of Silt that debris is removed from culverts, ditches and storm water pathways on an event basis, in order to minimize a large storm or run-off event's impact to the community.

Earthquake

While rare, earthquakes do happen in the region. The Town has adopted a building code that requires that all construction acknowledge the region's earthquake hazards.

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

Severe weather

The Garfield County Natural Hazard Mitigation Plan adequately describes the causes and characteristics, hazard history, and impacts of severe weather in the Town of Silt. In general, severe weather events are frequent occurrences in the County that residents are aware of and prepared for. Existing programs target risk reduction and education related to severe weather.

Mitigation Success:

To facilitate emergency notification, Garfield County has implemented the reverse 911 system in order to communicate with residents about adverse weather conditions and to advise of shelters and emergency actions. The Town of Silt has a siren system, located at the Silt Town Hall, for use in times of emergency for notifying large numbers of residents.

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. In Silt, the railroad tracks run near the town's commercial core and residential development; spills there from accidents could result in economic loss and impact the health and safety of residents and retail patrons in this area. The Town's drinking water source is the Colorado River. Upstream events could affect the Town's drinking water.

Additional hazards

Transportation issues

- **Interstate-70 Accidents**

The Town of Silt has organized Adopt-A-Highway clean-up events along Interstate-70 in order to keep the state right-of-way in good shape in the event of a catastrophic multi-car accident related to ice, snow or fog. The

Town of Silt makes CDOT aware of any dangerous conditions along a two-mile stretch of Interstate-70 on a quarterly basis.

- **Railroad Crossings**

Although the Town has no railroad crossing within Town limits, there is a railroad crossing located in S. 16th Street, within the county and a short ways from town limits. The crossing has lights on both sides of the crossing, but has no protective arms and should be considered dangerous to cross. Heavy equipment and large vehicles typically cross at this juncture. In order to minimize the chances of an accident, the Town will monitor the crossing to ensure that the lights are functioning at the time of a train on the tracks at that location. The Town will report any non-functioning lights to the Union Pacific Railroad for repair.

Water quality and quantity

- The Town of Silt monitors the quality of its source water, the Colorado River. As a result, the Town is aware of concentrations of dissolved organic solids, inorganic compounds such as toluene and benzene, and other contaminants that affect water quality. Hazardous materials could enter the Colorado River due to a rail accident or a fire, which could result in loss of power at the water plant for a prolonged period. Additionally, the Town has only one ten inch (10”) water main that fills the domestic water tanks with treated water from the water plant. In the event of a problem with this water line, the Town could be out of water for the duration of the repair.

The Town also provides treated water for county residents that have problems with quantity and/or quality of water at their residences.

Section 4: Action Items

Mitigation Action Items

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

- Collaborate with regional, state, and federal agencies, and private industry to increase the extent of data available for hazard mapping, e.g., floodplain, landslide and debris flow, fire hazard, hazardous or volatile material.
- Develop a secondary source of domestic water

Flood Hazard

- Continue compliance with the National Flood Insurance Program (NFIP) through the enforcement of local floodplain ordinances
- Apply for grant funding to allow for an update of the Town's Flood Insurance Rate Maps (FIRMs).

Wildfire Hazard

- Increase coordination among mitigation planning efforts and actions with the soon-to-be-developed County-wide Community Wildfire Protection Plan (CWPP). Coordinate future updates of the mitigation plan with the CWPP updates.

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>Town of Silt</i>									
Collaborate with regional, state, and federal agencies, and private industry to increase the extent of data available for hazard mapping, e.g., floodplain, landslide and debris flow, fire hazard, hazardous or volatile material.	Silt Community Development Department	Town Administration	Garfield County GIS , FEMA, Oil and Gas industry, Bureau of Land Management, University of Colorado	Ongoing	X	X	X	X	X
Develop a secondary source of domestic water	Town of Silt Public Works	Silt Police	Garfield County, Colorado Department of Environment Quality	Short Term	X				
Continue compliance with the National Flood Insurance Program (NFIP) through the enforcement of local floodplain ordinances	Town Administration	Town Public Works		Short Term	X				X
Apply for grant funding to allow for an update of the Town's Flood Insurance Rate Maps (FIRMs).	Town of Silt Public Works	Town Administration	Garfield County Geographic Information Systems Department; NFIP	Short Term	X				X
Increase coordination among mitigation planning efforts and actions with the soon-to-be-developed County-wide Community Wildfire Protection Plan (CWPP). Coordinate future updates of the mitigation plan with the CWPP updates.	Emergency Manager		Fire Protection Districts	Short Term	X		X		

Attachment 1:

Town of Silt 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

- Collaborate with regional, state, and federal agencies, and private industry to increase the extent of data available for hazard mapping, e.g., floodplain, landslide and debris flow, fire hazard, hazardous or volatile material.
- Develop a secondary source of domestic water

Flood Hazard

- Continue compliance with the National Flood Insurance Program (NFIP) through the enforcement of local floodplain ordinances
- Apply for grant funding to allow for an update of the Town's Flood Insurance Rate Maps (FIRMs).

Wildfire Hazard

- Increase coordination among mitigation planning efforts and actions with the soon-to-be-developed County-wide Community Wildfire Protection Plan (CWPP). Coordinate future updates of the mitigation plan with the CWPP updates.

Proposed Action Item:		Goal Alignment / Hazards Addressed:
Collaborate with regional, state, and federal agencies, and private industry to increase the extent of data available for hazard mapping, e.g., floodplain, landslide and debris flow, fire hazard, hazardous or volatile material.		Multi-hazard All Goals
Rationale for Proposed Action Item:		
<p>The Disaster Mitigation Act of 2000 requires that communities identify their vulnerability to the hazards that affect the community, and how the community will be impacted [201.6(c)(2)(ii)(A)]. More current and accurate data will provide better estimates of vulnerability allow the County to better identify mitigation strategies that can assist the County in reducing its risk to earthquakes.</p> <p>Additionally, during the initial development of the County Risk Assessment, several key pieces of data were missing and were included as estimates only. Specifically, the geologic hazard information for the I-70 corridor was included as an estimate. The national, regional, and local significance of the railroad and highway that run through the canyon makes the I-70 a high priority for LIDAR mapping.</p>		
Ideas for Implementation:		
<ul style="list-style-type: none"> • Coordinate with the CWPP process to ensure that data layers are available in a format that's useful to future Risk Assessment updates. • Prioritize landslide hazard areas for LIDAR mapping • Prioritize areas of future development for LIDAR mapping 		
Coordinating Organization:	Silt Community Development Department	
Internal Partners:		External Partners:
Town Administration		Garfield County GIS , FEMA, Oil and Gas industry, Bureau of Land Management, University of Colorado
Timeline: (ongoing)		If available, estimated cost:
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)	
Form Submitted by:		
Action Item Status: New Action (2011)		

Proposed Action Item:		Goal Alignment / Hazards Addressed:	
Develop a secondary source of domestic water		Goal 1: Reduce the loss of life and personal injuries from natural hazard events. Multi Hazard (Flood Hazard, Wildfire Hazard, Water Quality / Quantity Issue)	
Rationale for Proposed Action Item:			
The Town's current domestic water source, the Colorado River, is highly susceptible to contamination due to a toxic spill from an overturned tanker truck on Interstate-70 or a County Road, from a wildfire, from oil/ gas extraction seep in a tributary to the Colorado River.			
Ideas for Implementation:			
In order to avoid a potential major calamity in the future, the Town of Silt is planning to drill domestic wells to the north of State Highway 6 to provide a secondary source of domestic water. The Town of Silt requests that Garfield County and other state and federal agencies keep the Town apprised of any problems with contamination of the Colorado River upstream of the Town's water intake.			
Coordinating Organization:		Town of Silt Public Works	
Internal Partners:		External Partners:	
Silt Police		Garfield County, Colorado Department of Environment Quality	
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:			
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. Goal 5: Reduce damage to personal property Flood Hazard
Rationale for Proposed Action Item:		
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.		
Ideas for Implementation:		
<ul style="list-style-type: none"> Actively participate with State OEM 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 town'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:	Town Administration	
Internal Partners:	External Partners:	
Town Public Works		
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:		
Action Item Status: New Action (2011)		

Proposed Action Item:		Goal Alignment / Hazards Addressed:	
Apply for grant funding to allow for an update of the Town's Flood Insurance Rate Maps (FIRMs).		Goal 1: Reduce the loss of life and personal injuries from natural hazard events. Goal 5: Reduce damage to personal property Flood Hazard	
Rationale for Proposed Action Item:			
The Town has not been able to FEMA map its floodplain of the Colorado River tributaries north of Interstate-70. Updated FIRMs would address new information and new vulnerabilities, as well as any new land use developments occurring in the community.			
Ideas for Implementation:			
The Town intends to apply for FEMA grant monies in order to accomplish this task, which could help to mitigate some of the problems anticipated for floodplain properties. 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.			
Coordinating Organization:		Town of Silt Public Works	
Internal Partners:		External Partners:	
Town Administration		Garfield County Geographic Information Systems Department; NFIP	
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:			
Action Item Status: New Action (2011)			

Proposed Action Item:		Goal Alignment / Hazards Addressed:
Increase coordination among mitigation planning efforts and actions with the soon-to-be-developed County-wide Community Wildfire Protection Plan (CWPP). Coordinate future updates of the mitigation plan with the CWPP updates.		Goal 1: Reduce the loss of life and personal injuries from natural hazard events. Goal 3: Reduce County costs of disaster response and recovery. Wildfire Hazard
Rationale for Proposed Action Item:		
<p>The Healthy Forests Restoration Act of 2003 requires at-risk WUI communities to develop CWPPs in order to be eligible to receive certain federal funds for mitigation projects. Being eligible for federal funds can assist the county in funding WUI fire mitigation projects, assisting the county in reducing its overall WUI fire risk.</p> <p>The CWPP is a targeted planning effort that mitigates against wildfire risk by identifying actions that fire districts can take, in collaboration with all jurisdictions within Garfield County, to reduce the risk to life and property from wildland fires. It will evaluate in detail issues such as access road codes, rural water supplies, and expected development patterns in the wildland urban interface and identify specific actions that will reduce opportunities for ignition and property damage. The actions identified by the County CWPP that relate to the Town of Silt should be incorporated into the mitigation plan when they are developed, to address wildfire risk.</p>		
Ideas for Implementation:		
<ul style="list-style-type: none"> - As requested, participate in the CWPP plan development process. - Coordinate fire mitigation priorities with the Burning Mountain Fire Protection District. 		
Coordinating Organization:	Emergency Manager	
Internal Partners:		External Partners:
		Fire Protection Districts
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:		
Action Item Status: New Action (2011)		

Attachment 3:

Town of Silt 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 Silt 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 Silt Community Development Department, the Garfield County Manager, or the Garfield County GIS Department.

Attachment 4:

Town of Silt Documentation

This Attachment includes documentation of the public meetings where the Natural Hazard Mitigation Plan and the planning process were discussed. Community input contributed to the Silt NHMP as well as influenced the development of the actions that will guide hazard mitigation over the next 5-year time frame.

**TOWN OF SILT
 PLANNING AND ZONING COMMISSION WORKSHOP AGENDA
 TUESDAY, JANUARY 3, 2012– 6:30 P.M.
 MUNICIPAL COUNCIL CHAMBERS**

ESTIMATED TIME	ELECTRONIC AGENDA ITEM	PUBLIC HEARING /ACTION ITEM	ELECTRONIC LOCATION AND PRESENTOR
	Agenda		Tab 1
6:30 P.M.	Call to order		Chairman Rinehart
	Roll call		Rec. Secretary Dyke
	Pledge of Allegiance		
6:32 P.M.	Consent agenda Minutes of the December 6, 2011 Planning and Zoning Commission Meeting	Action Item	Tab 2
6:35 P.M.	Public Comments - A "Sign In Sheet" is available in the Council Chambers. Each speaker will limit comments to no more than three (3) minutes, with a total time of 30 minutes allotted to public comments, pursuant to Section 2.28.020 of the Silt Municipal Code		
6:45 P.M.	Agenda changes		
7:00 P.M. 30 min	CAMARIO PLANNED UNIT DEVELOPMENT PHASE II ANNEXATION, ZONING & SKETCH/PRELIMINARY PLAN (Continued Public Hearing from 12/6/11)	Public Hearing	Tab 3 Director Aluisse
7:30 P.M. 30 min	DOLLAR GENERAL COMMERCIAL SITE PLAN (Recommendation to Board of Trustees)	Action Item	Tab 4 Director Aluisse
8:00 P.M. 10 min	GARFIELD COUNTY NATURAL HAZARDS MITIGATION PLAN WITH ASSOCIATED SILT ADDENDUM	FYI	Tab 5 Director Aluisse
8:10 P.M. 5 min	Future Business		
8:15 P.M. 5 min	Other Business		
8:20 P.M.	Adjourn		

The next regularly scheduled meeting of the Silt Planning & Zoning Commission is tentatively set for Tuesday, February 7, 2012. Items on the agenda are approximate and intended as a guide for the Planning and Zoning Commission. "Estimated Time" is subject to change, as is the order of the agenda. For deadlines and information required to schedule an item on the agenda, please contact Community Development Director Janet Aluisse at 876-2353, Ext. 14. Please be aware that this agenda is given to the public and to the Commission in electronic form. If you require a hard-copy, please request one before or after the scheduled meeting. Normal Town copying charges may apply. Thank you.

**TOWN OF SILT
REGULAR BOARD OF TRUSTEES AGENDA
MONDAY, AUGUST 8, 2011 – 7:00 P.M.
MUNICIPAL COUNCIL CHAMBERS**

ESTIMATED TIME	AGENDA ITEM	PUBLIC HEARING or ACTION ITEM	STAFF PRESENTOR
	Agenda		Tab A
7:00	Call to order		
	Roll call		
	Pledge of Allegiance and Moment of Silence		
7:05	Consent agenda – 1. Minutes of the July 25, 2011 Board of Trustees meeting	Action Item	Tab B
	Conflicts of Interest		
7:10	Public Comments - A "Sign In Sheet" is available in the Council Chambers. Each speaker will limit comments to no more than three (3) minutes, with a total time of 30 minutes allotted to public comments, pursuant to Section 2.28.020 of the Silt Municipal Code		
7:25	Agenda Changes		
	Convene as the Local Liquor Licensing Authority		
7:25 5 min	Gofer Foods – Renewal of 3.2 beer license	Action Item	Tab C S. McIntyre
	Reconvene as the Board of Trustees		
7:30 30 min	Garfield Clean Energy Long-term Structure and 2012 funding	Action Item	Tab D T. Baker
8:00 30 min	Resolution No. 18, Series 2011 , A RESOLUTION OF THE BOARD OF TRUSTEES OF THE TOWN OF SILT, COLORADO APPROVING A FIRST AMENDMENT TO THE 2009 COMPREHENSIVE PLAN FOR THE TOWN	Action Item	Tab E G. Pace J. Aluise
8:30 15 min	Resolution No. 17, Series 2011 , A RESOLUTION TO ENCOURAGE ECONOMIC DEVELOPMENT WITHIN THE TOWN OF SILT BY TEMPORARILY RELAXING THE TOWN OF SILT SIGN CODE, OTHERWISE KNOWN AS CHAPTER 17.60 FOR A PERIOD NOT TO EXCEED ONE YEAR	Action Item	Tab F G. Pace
8:45 5 min	Resolution No. 20, Series 2011 , A RESOLUTION TO FORMALLY ADOPT THE GARFIELD COUNTY NATURAL HAZARDS MITIGATION PLAN AND THE SILT ADDENDUM TO SUCH PLAN	Action Item	Tab G L. Burris G. Pace
8:50 5 min	Second reading of Ordinance No. 7, Series 2011 , AN ORDINANCE OF THE TOWN OF SILT, COLORADO AMENDING TITLE 13 OF THE SILT MUNICIPAL CODE AND ADDING A NEW CHAPTER 13.16 REGARDING DELINQUENT UTILITY PAYMENTS AND COLLECTION THEREOF	Public Hearing	Tab H P. Woods

8:55 5 min	Resolution No. 16, Series 2011 , A RESOLUTION APPROPRIATING ADDITIONAL SUMS OF MONEY TO DEFRAID EXPENSES IN EXCESS OF AMOUNTS BUDGETED FOR THE TOWN OF SILT, COLORADO FOR THE 2011 BUDGET YEAR	Public Hearing	Tab I P. Woods
9:00 10 min	Staff reports		Tab J
9:10 10 min	Updates from Board / Board Comments		
9:20	Adjournment		
<p>The next regularly scheduled meeting of the Silt Board of Trustees is Monday, August 22, 2011. Items on the agenda are approximate and intended as a guide for the Board of Trustees. "Estimated Time" is subject to change, as is the order of the agenda. For deadlines and information required to schedule an item on the agenda, please contact the Silt Town Clerk at 876-2353.</p>			

**TOWN OF SILT
RESOLUTION NO. 20
SERIES OF 2011**

COPY

A RESOLUTION TO FORMALLY ADOPT THE GARFIELD COUNTY NATURAL HAZARDS MITIGATION PLAN AND THE SILT ADDENDUM TO SUCH PLAN

WHEREAS, Garfield County (the "County") created the Garfield County Natural Hazards Mitigation Plan (the "Plan") in order to identify natural hazards, consolidate the County's risk assessment and all-hazards mitigation goals, strategies and activities into one document, and to apply sensible and appropriate risk management techniques in order to reduce the negative outcomes from natural hazard events; and

WHEREAS, the Federal Emergency Management Agency ("FEMA") requires that counties and municipalities create a mitigation plan that incorporates all the criteria of The Disaster Mitigation Act of 2000, and that all FEMA guidelines are met; and

WHEREAS, the County requested that the Town of Silt ("Town") participate in the Plan by creating a region-specific Addendum to the Plan, to identify the natural hazards in the Town's region and to state the Town's intended mitigation efforts; and

WHEREAS, the Board of Trustees ("Board") of the Town of Silt ("Town") recognizes that natural hazard identification and mitigation can save lives, decrease property loss and preserve public funds; and

WHEREAS, the Board agrees that the Town's Addendum to the Plan helps the County to identify potential partner organizations to help to mitigate any natural hazard, such as flooding of the Colorado River and its tributaries, storm water events, landslides, debris flow, Interstate-70 accidents, Colorado River hazards, contamination of the Town's water source, railroad crossings, wildfires, earthquakes and extreme weather; and

WHEREAS, the Board supports the County in their disaster mitigation efforts, and hopes that the Town's Addendum will help create a more cohesive and efficient disaster recovery effort, should a natural hazard affect the Town and/or the region.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE TOWN OF SILT COLORADO, that:

Section 1. The Board of Trustees of the Town of Silt hereby formally adopts the Garfield County Natural Hazards Mitigation Plan.