

# Comprehensive Emergency Management Plan (CEMP)

# Annex 1 Mitigation



***Butte–Silver Bow Homeland Security and Emergency  
Management Agency***

## Annex I Mitigation

### ***Disaster prevention is the best strategy.***

#### **A. General.**

##### **What is Hazard Mitigation?**

Hazard mitigation is defined by FEMA as “any action taken to reduce or eliminate the long-term risk to human life and property from natural hazards.” For the purposes of the HMP, hazards are both natural and human-caused.

Hazard mitigation differs from emergency preparedness, which focuses on activities designed to make a person, place, organization, or community more ready to take appropriate action in a disaster with emergency response, equipment, food, shelter, and medicine. However, hazard mitigation and emergency preparedness are closely associated because where time or financial resources may preclude certain desirable mitigation actions, emergency preparedness can make it possible to respond and recover appropriately despite losses that may be unavoidable.

Hazard mitigation is distinguished from other disaster management functions by measures that make development and the natural environment safer and more disaster-resilient. Mitigation generally involves alteration of physical environments, significantly reducing risks and vulnerability to hazards by altering the built environment so that life and property losses can be avoided or reduced. Mitigation also makes it easier and less expensive to respond to and recover from disasters.

1. Mitigation efforts include activities that will prevent or reduce the impact of emergency/ disaster results on people, property and environment. Efforts include building codes, land use planning, training and education, structural and non-structural safety measures.
2. Mitigation activities may be undertaken before a hazard event or afterwards. Pre-event mitigation activities are highly desirable, since the period immediately following a hazard event is often a difficult one in which to make mitigation decisions.
3. When an emergency or disaster is not occurring and there is no threat to life and property, every reasonable effort is made to ensure that when a disaster does strike, adverse impacts will be minimized. To do so, numerous ongoing activities are carried out by local, state and federal governments. Such activities include land use management; planning; emergency preparedness; training and education; and flood, hurricane, or other hazard damage reduction.

4. Essentially, there are three basic ways to engage in mitigation. We can:
  - Act on the hazard (the cause of the emergency);
  - Act on the people (the population affected by the emergency);
  - Act on the interface between the hazard and people.

***B. Policies.***

1. It is the policy of Butte-Silver Bow to support mitigation activities to eliminate or reduce disaster damages and to coordinate recovery efforts with long term development and hazard mitigation plans of the City-County.

This is done in a number of ways, including but not limited to, the land use planning process and the enforcement of existing codes, and mitigation requirement in the permit process.

2. Butte-Silver Bow Departments are encouraged to support mitigation efforts that fall within their respective mission areas.
3. It is the policy that City-County agencies will enforce all public safety mandates of the Butte-Silver Bow Municipal Code to include land use management and buildings, and recommend to the the Chief Executive and the Council of Commissioners legislation required to improve the emergency readiness of the community.
4. Each City-County agency director should become knowledgeable on mitigation issues and opportunities and develop agency mitigation strategies that may apply to that agency.

***C. Local Mitigation Strategy.***

Butte-Silver Bow maintains a Local Mitigation Strategy Program. The program includes individual agency activities to reduce the community's vulnerability to disasters and development of an overarching mitigation plan. The Hazard Mitigation Plan serves as a tool for directing ongoing efforts of the City-County to reduce impacts of identified natural and manmade hazards.

The ultimate objectives of the Local Mitigation Program process are to:

- Improve the community's resistance to damage from known natural, technological, and societal hazards;
- Place Butte-Silver Bow in a position to compete more effectively for pre- and post-disaster mitigation funding;
- Reduce the cost of disasters at all levels;
- Speed community recovery when disasters occur.

### **The 2010 Hazard Mitigation Plan**

The 2010 Hazard Mitigation Plan (HMP) is a comprehensive update of the 2004 HMP. It performs the following functions:

1. Documents local hazard mitigation systems implemented in Butte-Silver Bow;
2. Describes strategies and priorities for future mitigation activities;
3. Highlights new hazard mitigation initiatives since the 2004 HMP;
4. Describes and illustrates mitigation progress and success stories;
5. Attempts to integrate local, state, and private sector hazard mitigation activities into a comprehensive effort;
6. Meets state and federal statutory and regulatory requirements.

The 2010 HMP has also been designed to meet the requirements for a Mitigation Plan under Rule 44 Code of Federal Regulations (CFR) Part 201.4 published by FEMA.

Adoption of the HMP and FEMA approval of the HMP as a Standard Plan qualify Butte-Silver Bow to obtain federal assistance for hazard mitigation and for the repair and replacement of infrastructure damaged in natural disasters.

### ***D. Butte – Silver Bow Mitigation Programs and Agency Responsibilities.***

Note: Further information is contained in the Butte – Silver Bow Hazard Mitigation Plan.

#### **1. Department Specific Mitigation Activities.**

##### **a. Homeland Security and Emergency Management.**

- The Butte – Silver Bow Homeland Security and Emergency Management Agency (HSEMA) prepares and updates the local Comprehensive Emergency Management Plan (CEMP). HSEMA coordinates the activities of all departments within the City-County during an emergency or disaster, serving as a conduit of information and ensuring the most efficient use of resources.
- The Homeland Security and Emergency Management Agency also coordinates the Hazard Mitigation Plan development and the mitigation objective implementation process.

##### **b. Butte Silver-Bow Fire Department.**

- Participation in local and regional disaster exercises: airport table top

exercises, functional exercises and full-scale exercises; hazardous materials, chemical, biological, radiological, nuclear and explosive tabletop, functional and full-scale exercises; Butte School District and school system drills.

- Participation with the School District’s Safety Committee.
  - Participation with local corporate-industrial partners, Montana Resources and R.E.C. Silicon in a variety of drills and full-scale exercises.
  - Active participation in Local Emergency Planning Committee activities.
  - Active participation with all partners in the Butte Fire Protection Association: wildfire education awareness; grants management to conduct hazardous fuels reduction and the creation of defensible space in wildland-urban interface zones.
  - Ongoing training to comply with National Incident Management System framework to include incident command courses and Emergency Operations Center training courses.
  - Public outreach activities for fire prevention, fire extinguisher training, defensible space creation for wildland urban interface areas, preparation for the eventuality of wildland fire and evacuation and survival tactics.
  - Creation and implementation of fire protection standards for rural subdivisions.
  - Fire prevention projects for rural areas.
  - Maintenance of Tier II hazardous materials database.
  - Active participation in city-county communications committee that oversees and makes recommendations for emergency communications and public notifications.
- c. **Historic Preservation Office:**
- Repair or install automatic fire sprinkler systems and smoke alarms.
  - Install seismic retrofitting to resist lateral movement during an earthquake, especially reinforced steel connections at wall/floor interfaces and bracing of parapet walls.
  - Routinely inspect and maintain the exterior of the building, especially unreinforced brickwork, awnings, chimneys, signage, decorative details, i.e. cornice brackets, stone insets, etc. These elements are often lightly attached to the building and prone to separating due to connector failure or during even a minor event.

- Provide proper drainage systems to convey storm water safely away from buildings to protect the structural integrity of the roof and foundation systems from the effects of erosion and deterioration.
  - Avoid collection or storage of excessive amounts of combustible materials in and around buildings.
  - Ensure egress points and fire escapes are maintained and unobstructed. Primary exits must be secured or locked in a manner that allows operation by occupants without a key or combination.
- d. **Butte-Silver Bow Planning Department:** is involved with local disaster mitigation activities through the administration of ordinances and regulations. The ordinances and regulations administered by the Planning Department are as follows: (1) Growth Policy, (2) Subdivision Regulations, (3) Floodplain Ordinance, and (4) Zoning Ordinance. In addition, the Planning Department includes the Superfund Reclamation Specialist.

**Growth Policy:** The underlying document in regards to regulation of land uses within Butte-Silver Bow is the Growth Policy. The Growth Policy includes a review of existing land uses, including lands within and outside of the zoned area. The Growth Policy also includes goals and objectives for land use regulations. These goals and objectives include the future use of land that have natural and manmade hazards. In that regard, the Growth Policy defines areas of Butte-Silver Bow that are not considered safe for development, i.e. flood prone hazard areas, slopes over 30%, wildland/urban interface, and historic mining properties, etc. Based on those goals and objectives, the Growth Policy includes future land use designations. e.g. Open Space designation that includes lands that have a slope greater than 30 percent, flood prone land, and reclaimed and un-reclaimed mining land.

**Subdivision Regulations:** The Planning Department administers Butte-Silver Bow’s Subdivision Regulations. The Subdivision Regulations are the Planning Department’s best tool for mitigating potential disaster situations, as it requires all subdivisions be developed to: “promote public health, safety and general welfare”. Specifically, the subdivision regulations promote the following: “the avoidance of danger or injury by reason of natural hazard or the lack of water, drainage, access, transportation or other public improvements”.

The Subdivision Regulations also recognizes there are: “lands unsuitable for subdivisions because of natural or human caused hazards identified during the subdivision review process. These lands must not be subdivided for building or residential purposes unless the hazards are eliminated, or will be overcome by approved design and construction techniques. Examples include, but are not limited to the following: flooding, steep slopes and/or areas that are prone for rock falls, landslides or avalanches, high potential for wildfire, subsidence, high water table as defined by the Sanitation in Subdivision Act, polluted or non-potable water supply, high voltage lines, high pressure gas lines, air or vehicular

traffic hazards or congestion, mine tailings contaminated soils, severe toxic wastes, etc.” When one of these natural and/or manmade hazards is identified during the subdivision review process conditions of approval would require mitigation. For instance, Subdivision Regulations require a setback for all structures from the 100-year floodplain. This requirement is stricter than the Floodplain Ordinance, which permits construction within the 100-year floodplain. If approved mitigation measures are not available, a portion of or all of the subdivision will be denied.

**Floodplain Regulations:** The Butte-Silver Bow Planning Department administers the local Floodplain Ordinance. The Floodplain Ordinance defines and regulates uses within the regulated floodplains of Butte-Silver Bow.

There are two zones that are regulated by the Floodplain Ordinance. The area identified as the “floodway” must remain free of any encroachment that will reduce the ability of the floodway to contain the main flow of a flood or impede the flow of floodwater within the floodway. As such, no structure or encroachments can be located within the floodway. The other zone is commonly referred to as the 100-year floodplain. While the Floodplain Ordinance does allow residential, commercial and industrial structures to be located within the 100-year floodplain, any encroachment (including structures) must be issued a floodplain development permit by the Planning Department. The floodplain development permit must include floodplain modeling (HECRAS) that proves the encroachment will not result in an increase in the base flood elevation of ½ foot or more, upstream and downstream from the proposed encroachment. T

The floodplain development permit is submitted to the Planning Department for review. The permit is also forwarded for peer review, either to the Montana Department of Natural Resources – Flood Management Program or another private engineering firm familiar with floodplain modeling. The peer review ensures that the results of the floodplain modeling are accurate and that an encroachment will not result in an increase of ½ foot above the established base flood elevation. Encroachments include, but are not limited to the following: residential, commercial and industrial structures, bridges, culverts, roadways, dams, fill and/or other alterations to the topography of the 100-year floodplain. The Planning Department meets with contractors, homeowners, landowners, State and Federal agencies, etc. prior to construction projects to determine if a property and/or a structure are or would be located in either the floodway or the 100-year floodplain.

Based on that review, the Planning Department informs the individuals or agency whether development is permitted or not permitted, or whether a floodplain development permit will be required. The Planning Department is also responsible for the enforcement of any violation of the Floodplain Ordinance.

**Zoning Ordinance:** The Zoning Ordinance regulates land uses within the zoned area of Butte-Silver Bow. The Zoning Ordinance has separated the Butte Urban area into primarily three zoning districts; residential, commercial, and

industrial. The purpose for each zoning district is to ensure the separation of more intensive land uses, e.g. commercial and industrial, from less intensive land uses, such as residential. In addition, there are development standards for each zone that promote the safe development of each parcel of land. For example, the “RM-2” (Rural Industrial) zone was created for heavy industrial land uses that: “may utilize or store hazardous material or produce by-products or final products which are determined to be potentially hazardous, thus requiring special review to ensure their proper placement.”

Depending on the potential for a proposed use to create and/or use hazardous material, a statement regarding the source of fire and police protection and a statement of how the use shall comply with any and all required state and local permits for disposal, handling or treatment of hazardous wastes. The development standards require that the properties be developed so that potential hazard materials, by-products or final products are produced and/or stored in such a way that adjacent property owners will not be adversely affected. The RM-2 zone was also created to provide large parcels of land for those industries that need and/or that require greater separation between themselves and other land uses than what is normally required or needed.

The Planning Department meets with prospective developers (residential, commercial and industrial) to determine where a particular use is permitted. In addition, the Planning Department discusses required development standards that will affect any proposed development. For large residential, commercial and industrial developments the Planning Department may require a traffic study to ensure that the development will not create hazardous traffic situations. In addition, all commercial and industrial developments are required to have a storm water plan reviewed and approved by the Public Works Department.

The Planning Department also enforces violations of the Zoning Ordinance, including uses of land that are in violation of the permitted uses of each zoning district.

e. **Public Health Department.**

- Prevention programs to include emergency preparedness to investigate and prevent communicable disease outbreaks or food borne outbreaks by inspection of food establishments
- Protective ordinance development and enforcement.
- Public outreach efforts regarding safety, disaster preparation.
- Environmental mitigation efforts.
- Participation in training and exercise activities.

f. **Law Enforcement Department.**

## **I. MITIGATION**

- Conducts annual training with local entities on disaster response.
- Develops and enforces local ordinances related to crime prevention.
- Supports and Participates in crime prevention activities including: the DUI Taskforce, Crime Stoppers, School Resource Officer Program, National Night Out, Meth Watch, the Public Housing Authority Officer Program, and Neighborhood Watch.
- Outreach program to daycare and school settings related to safety and crime prevention.
- Creation of Crime Prevention position with the department dedicated to enhancing current crime prevention programs.

g. **Geographic Information Systems.**

- The City-County's GIS office has developed maps showing repetitive loss, historical flooding and HazMat sites, flood zone maps, and other information.
- GIS has also developed maps of public facilities for disaster recovery.

## **C. References.**

1. Butte-Silver Bow Hazard Mitigation Plan.

## **D. Attachments.**

1. Butte-Silver Bow Mitigation Goals and Objectives 2010-2015 from the 2010 Hazard Mitigation Plan.

*Attachment 1*

**Butte-Silver Bow Mitigation Goals and Objectives 2010-2015**

**Goal 1 - Prevent Damages from Earthquakes**

- Objective 1.1 Conduct mapping/analysis/planning projects to mitigate impacts from earthquakes
- Objective 1.2 Develop information/outreach and public education projects to mitigate impacts from earthquakes
- Objective 1.3 Perform hazard management activities to mitigate impacts from earthquakes
- Objective 1.4 Implement regulatory projects to mitigate impacts from earthquakes

**Goal 2 - Minimize Suffering During Extended Cold Periods and Winter Storms**

- Objective 2.1 Objective from winter storms and extended cold. Prepare a guide book for special needs populations on winter weather

**Goal 3 - Reduce the Impact of Wildfires and Structure Fires on the Community**

- Objective 3.1 Develop information/outreach and public education projects to mitigate impacts from wildfires and structure fires.
- Objective 3.2 Perform hazard management activities to mitigate impacts from wildfires and structure fires.
- Objective 3.3 Obtain capital equipment to mitigate impacts from wildfires and structure fires.
- Objective 3.4 Conduct mapping/analysis/planning projects to mitigate impacts from wildfires and structure fires.
- Objective 3.5 Implement regulatory projects to mitigate impacts from wildfires and structure fires.

**Goal 4 - Reduce the Impacts of a Hazardous Material Incident**

- Objective 4.1 Develop information/outreach and public education projects to mitigate impacts from hazardous material incidents.
- Objective 4.2 Implement regulatory projects to mitigate impacts from hazardous material incidents.
- Objective 4.3 Perform hazard management activities to mitigate impacts from hazardous material incidents.

**Goal 5 - Reduce Losses from Flooding**

- Objective 5.1 Perform hazard management activities to mitigate impacts from flooding.
- Objective 5.2 Develop information/outreach and public education projects to mitigate impacts from flooding.

Objective 5.3 Implement regulatory projects to mitigate impacts from flooding.

**Goal 6 - Minimize effects of Terrorism, Violence, Strikes, and Civil Unrest**

Objective 6.1 Conduct mapping/analysis/planning projects to mitigate impacts from Terrorism, Violence and Civil Unrest.

**Goal 7 - Protect residents from Near Surface Ground Control Failure**

Objective 7.1 Conduct mapping/analysis/planning projects to mitigate impacts from near surface ground control failure.

Objective 7.2 Develop information/outreach and public education projects to mitigate impacts from near surface ground control failure.

**Goal 8 - Reduce Impacts from All Hazards**

Objective 8.1 Obtain capital equipment to mitigate impacts from all hazards.

Objective 8.2 Perform hazard management activities to mitigate impacts from all hazards.

Objective 8.3 Develop information/outreach and public education projects to mitigate impacts from all hazards.