

CHAPTER 13. MITIGATION GOALS AND PROJECTS

How the Goals and Mitigation Actions Were Developed

Previous work by the county had identified six draft goals. These goals were validated by the Local Emergency Planning Committee and a seventh goal was added after holding the public meetings. Objectives and mitigation projects were developed under each of the goals.

Projects in this updated plan were identified from:

- the history of hazards in the county,
- the probability of future occurrences,
- the vulnerability of key systems and facilities,
- the review of other plans,
- the citizen survey conducted for the project,
- the Community Wildfire Protection Plan,
- the 2006 plan (and carried over into the Wyoming state plan), and
- problem statements developed at public meetings in each of the incorporated communities (see Appendix A for problem statements),
- input from the LEPC
- input from elected officials.

Hazards of Most Concern

Participants were asked to validate the list of hazards at the initial LEPC meeting. Citizens were also asked in the sample survey which hazards they were most concerned about.

The top hazard of concern in the citizen survey was hail (89% were either very or somewhat concerned), winter storms (87% were either very or somewhat concerned), windstorms (82% were either very or somewhat concerned), wildfire (80% were either very or somewhat concerned), and tornado (78% were either very or somewhat concerned.) In descending order of concern following these top five hazards were drought (67%), hazardous material spills (54%), and flood, landslide, dam failure, and land subsidence all with less than 50% of the respondents either very or somewhat concerned.

Project Costs

Costs were estimated to fall within three ranges low, medium, or high.

Low Cost Projects: from \$0 to \$5000

Medium Cost Projects: from \$5001 to \$50,000

High Cost Projects: Over \$50,000

Project Priorities

Priority rankings of High, Medium, or Low were also assigned. The projects were ranked initially by the contractor based on the following criteria. The LEPC validated the rankings.

- perceived cost effectiveness and feasibility of obtaining funding,
- level of risk to life and property posed by hazard which project addresses,
- reasonableness of project and extent to which it provides a long-term solution
- potential consequences of not implementing
- support from the public and elected officials
- compatibility with other plans and policies

Project Types

The citizen survey indicated a strong preference for emergency response and education and awareness types of projects. However, a range of types of mitigation actions or projects were identified by the participants in the planning process. A range of project types have been included in the mitigation actions including Coordination, Education and Awareness, Prevention, Preparation, Property Protection, Structural, and Natural Resource Protection.

Table 13.1 Project Types

Goal	Project Types
1.	Coordination, Education and Awareness, Prevention, Preparation
2.	Education and Awareness, Prevention, Property Protection
3.	Education, Natural Resource Protection, Prevention, Preparation, Property Protection, Structural
4.	Coordination, Education, Natural Resource Protection, Prevention, Preparation, Property Protection, Structural
5.	Coordination, Education, Natural Resource Protection, Prevention
6.	Education, Prevention, Preparation, Property Protection
7.	Coordination, Education, Preparation

Reducing Effects of Hazards on Existing Buildings and Infrastructure

This MHMP update contains a range of types of projects, including some projects that will reduce the effects of natural hazards on existing buildings and infrastructure.

Projects under Goals 2, 3, 4, 6, and 7 contain projects that will reduce potential effects of natural hazards on existing buildings and infrastructure.

See projects numbered 2.1.2, 3.1.1, 3.4.1, 3.4.2, 3.4.3, 3.4.5, 4.1.1, 4.1.2, 4.2.1, 4.2.3, 6.1.3, and 7.3.1.

Reducing Effects of Hazards on New Buildings and Infrastructure

This MHMP update contains a range of types of projects, including some projects that will reduce the effects of natural hazards on new buildings and infrastructure. Projects under Goals 2, 3, 4, and 7 contain projects that will reduce potential effects of natural hazards on new buildings and infrastructure.

See projects numbered 2.2.1, 3.3.1, 3.3.2, 3.3.3, 3.4.3, 4.2.1, 4.2.3, 4.3.2, 6.1.3, and 7.3.1.

Project Selection and Implementation

The jurisdictions will need to revisit and determine the priority of the identified mitigation actions for their jurisdictions on an annual basis in light of the available resources. Each spring prior to the annual budget setting, the County Emergency Management Coordinator will contact the mayors of Douglas, Glenrock, Lost Springs, and Rolling Hills, and the Chair of the Board of County Commissioners by letter or appearance at a regularly-scheduled meeting. The purpose of the contact will be to update the elected officials on projects in the plan, request the local jurisdiction's project priorities for the coming year, and determine any support needed from County Emergency Management. The county can assist in applying for grant funds, and obtaining information, training, and technical expertise.

Use of Cost-Benefit Analysis

The county can also make available information regarding the STAPLEE method for evaluating and prioritizing mitigation actions. The STAPLEE method looks at Social, Technical, Administrative, Political, Legal, Economic, and Environmental aspects of projects to weigh pros and cons of implementing specific projects. Information on this analysis method can be found in FEMA's *Developing the Mitigation Plan* (FEMA 386-3). The jurisdictions will need to consider compatibility with goals and objectives in the state's plan, compatibility with goals in this plan, impacts of the project on other jurisdictions, costs and benefits, funding priorities, and compatibility with other plans and programs when selecting projects to implement.

Each goal statement below is followed by a table giving information about the specific mitigation actions or projects. The project tables identify parties responsible for implementation, project priority, cost range, and the status of the projects.

**Table 13.2 Goal One:
Reduce the threat of contamination from Hazardous Materials incidents.**

Action	Jurisdiction	Funding	Lead agencies	Priority/Time
<i>Objective 1.1 Protect residents of Converse County from hazardous material spills through education.</i>				
Action 1.1.1. Raise awareness and educate the public on sheltering in place, disaster/emergency supplies and plans, and evacuation.	County	State Mitigation Fund	Converse County Emergency Management (CCEMA), Red Cross, Homeland Security	Medium On-going
1.1.2. Train and equip local emergency responders to enhance their ability to respond to HazMat incidents.	County	Homeland Security grants, Hazard Mitigation Program Grant (HMPG), HazMat State Program Support, State Disaster Preparedness Grants	Dept of Justice, Dept. of Defense, Federal Emergency Management Agency (FEMA), Wyoming Office of Homeland Security (WOHS)	High On-going
<i>Objective 1.2 Protect residents of Converse County from hazardous material spills through enforcement.</i>				
Action 1.2.1. Implement and enforce city ordinances to restrict where trucks are hauling.	Douglas	N/A	Elected officials , Law enforcement	Medium One year
<i>Objective 1.3 Be prepared for hazmat incident in Douglas or Glenrock.</i>				
1.3.1. Review and exercise Douglas evacuation plan.	Douglas	N/A	CCEMA, Douglas	Medium Three Years
1.3.2. Conduct hazmat tabletop exercise in Glenrock for a yellow cake spill at junction of Hwys 26 and 95	Glenrock	N/A	CCEMA, Douglas	Medium Three Years



Tanker rollover, 55 Ranch Road, February 2009



Funnel west of Glenrock, June 2009

**Table 13.3 Goal Two:
Reduce tornado damage in the county**

Action	Jurisdiction	Funding	Lead agencies	Priority/Time
<i>Objective 2.1. Minimize injuries, casualties, and property damage due to tornadoes through education.</i>				
2.1.1 Put on severe weather spotter training for the public	County	National Weather Service	CCEMA, National Weather Service (NWS)	High On-going
2.1.2 Educate the public on tornado awareness and what to do in case of a tornado	County	State Mitigation Fund	CCEMA, Red Cross, NWS	Medium On-going
<i>Objective 2.2 Minimize injuries, casualties, and property damage due to tornadoes through code enforcement.</i>				
2.2.1. Enforce building codes (to include use of hurricane clips)	Douglas Glenrock	N/A	Code enforcement officers Douglas, Glenrock	Medium On-going

**Table 13.4 Goal Three:
Reduce flood damage in the county**

Action	Jurisdiction	Funding	Lead agencies	Priority/Time
<i>Objective 3.1 Reduce potential for flood damage through education.</i>				
3.1.1 Work with existing floodplain residents to elevate or flood proof their structures. Obtain funding assistance and technical guidance.	County Douglas	HMGP, FEMA funds	County Planning Dept Town and city planning Depts, CCEMA	Medium Five Years
<i>Objective 3.2. Minimize potential for loss of life and property damage from dam breach or failure.</i>				
Action	Time Frame	Funding	Staffing	Priority
3.2.1 Participate in annual tour of LaPrele Dam. Jointly review Emergency Action Plan.	County	N/A	CCEMA, La Prele Irrigation District	High One Year
<i>Objective 3.3 Reduce flood damage through programs and policies.</i>				
3.3.1 Continue to participate in the National Flood Insurance Program.	County, Douglas, Glenrock	N/A	CCEMA, Douglas, Glenrock, Converse County	High On-going
3.3.2 Implement direction in CCTNT to steer development away from floodplains in Douglas and Glenrock or require mitigation.	Douglas, Glenrock	N/A	Town and City Planning Departments	High On-going
3.3.3 Acquire property in the floodplain and transition those areas into green spaces.	Douglas	Community Development Block Grant (CDBG), Flood Mitigation Assistance Program, HMGP, State Disaster Preparedness Grants	Planning Departments, Elected officials	Low Five yeras
<i>Objective 3.4 Reduce potential for flood damage to property.</i>				
Action	Jurisdiction	Funding	Lead agencies	Priority/Time
3.4.1 Obtain funding to implement engineers' recommendation for drainage plans in West Plains Subdivision	County, Douglas	HMGP, FEMA	CCEMA, Douglas, Converse County	High Three Years
3.4.2 Engineer and construct a berm to protect the Deer Creek RV Park.	County	HMGP	CCEMA, Glenrock	Medium Five Years
3.4.3 Make stormwater system improvements identified in Glenrock.	Glenrock	Glenrock, HMGP	Glenrock, FEMA	Medium Five Years

3.4.4 Monitor snowpack in Deer Creek and devise method to warn RV Park operator of floods.	County	County, Natural Resource Conservation Service (NRCS)	CCEMA, NRCS	Medium On-going
3.4.5 Address debris collection on Coal Shadow Rd and Hwy 20/26 Deer Creek bridges	County	County	CCEMA, County Road and Bridge	Low Five Years

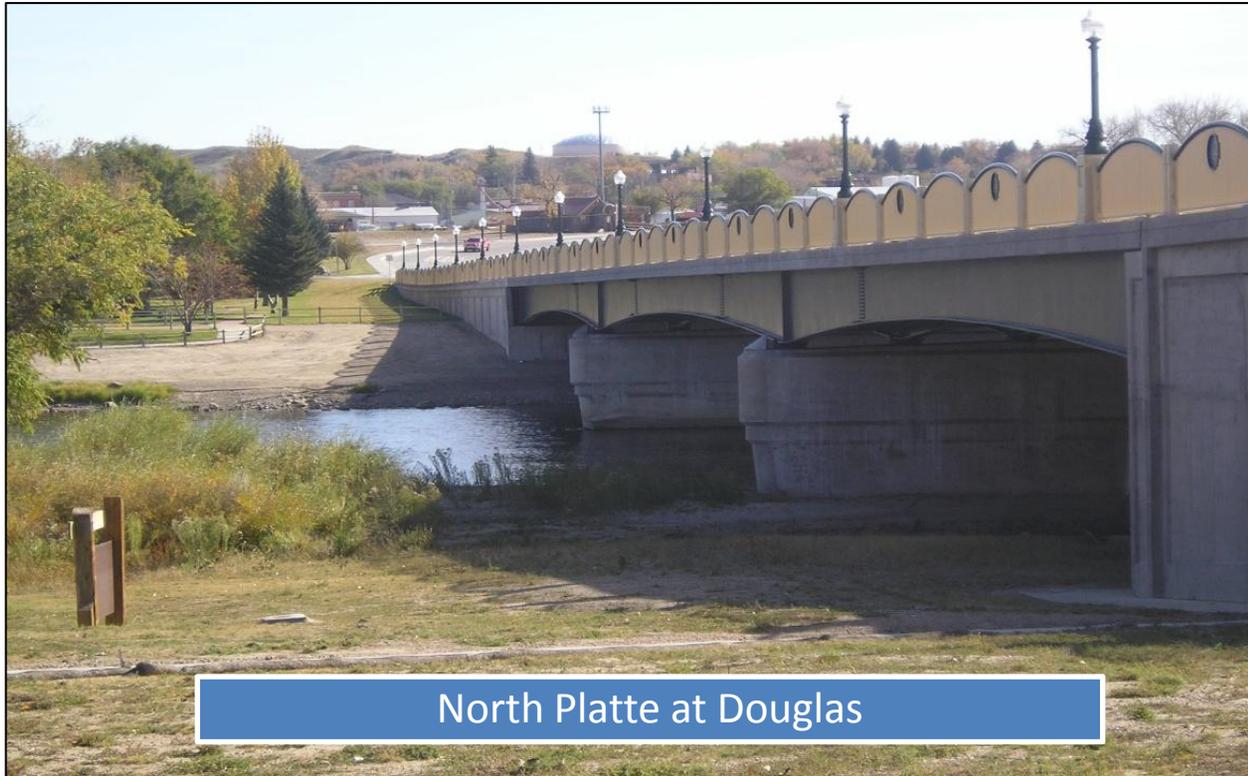


Table 13.5 Goal Four: Reduce damage and potential loss of life from wildland fire in the county

(Note: CCEMA is not the lead agency for this goal. Projects have been taken from the CWPP.)

Action	Jurisdiction	Funding	Lead Agencies	Priority/Time
<i>Objective 4.1. Minimize future damages through education.</i>				
4.1.1. Expand defensible space program begun by State Forestry Division to include more areas of the forested southern part of the County.	County	State Disaster Preparedness grant, EMPA Grant, DRI, NWS, E911 funds	WY Division of Forestry, Bureau of Land Management (BLM), Forest Service 9FS), Rural Fire Districts	High Five Years
4.1.2. Educate rural residents about the use of defensible space to protect property from wildland fire. Educate public on fire resistant construction materials.	County	State Mitigation Fund, BLM, County Extension Office	CCEMA, County Extension, BLM	Medium On-going
<i>Objective 4.2 Improve wildland fire response capability.</i>				
4.2.1 Improve access to rural water sources for fire trucks. Fit stock ponds, rural water tanks, etc. with valves compatible to fire apparatus.	County	Unknown	Private land owners	Medium On-going
4.2.2 Implement communications interoperability for emergency responders via the use of cooperative infrastructure to meet all agencies' wireless communications needs.	County, Douglas, Glenrock, Rolling Hills	Unknown	PSMC Steering Committee	High Five Years
4.2.3 Drill strategically-placed deep source water wells around rural areas for firefighting.	County	State of Wyoming	Private land owners, Converse Co Rural Fire Department	Low Five years On-going
Action	Jurisdiction	Funding	Lead Agencies	Priority/Time
<i>Objective 4.3 Ensure adequate access for suppression and evacuation.</i>				
4.3.1 Sign county bridges with GVW limits	County	County Road and Bridge	County Road and Bridge	Medium Five Years
4.3.2 Identify water sources for all subdivisions located in the Wildland Urban Interface (WUI.)	County	County, Subdivisions	Wyoming Division of Forestry (WDF)	High Three Years
4.3.3 Develop a map of all water sources. Provide to appropriate fire departments.	County	County staff	WDF, CCEMA	Medium Three Years
4.3.4 Incorporate Firewise access requirements into county subdivision review for WUI areas.	County	County staff	County Planning, CCEMA	Medium Three Years
4.3.5 Assist in addressing access issues in Downey Park, Little Medicine, Boxelder Roads, driveways.	County	County, Subdivisions, Forest Service	WDF, BLM, FS, Co Road and Bridge, Subdivisions	High On-going
<i>Objective 4.4 Reduce hazard fuels.</i>				
4.4.1 Support hazard fuel reduction projects on all ownerships.	County	BLM, Forest Service, WDF	CCEMA	High On-going



Grass fire northwest of Douglas, October 2010

**Table 13.6: Goal Five:
Reduce economic impacts of droughts**

Action	Jurisdiction	Funding	Lead Agencies	Priority/Time
<i>Objective 5.1. Minimize damages due to drought.</i>				
5.1.1. Continue to implement water rationing measures in Douglas (regulatory) and Glenrock (voluntary) as necessary during drought situations.	Douglas, Glenrock	N/A	Elected officials	High One Year
5.1.2. Educate residents on benefits of conserving water not just during drought. Include education on drought-tolerant plantings (crops & residential.)	County	County, Water Utilities	CEEMA, University of WY, County Extension Office, Converse Conservation District (CCD)	Medium On-going
5.1.3 Develop or increase water storage capabilities for livestock industry.	County	Private, NRCS	Private land owners, CCD, Ag. Organizations	Medium On-going

**Table 13.7 Goal Six:
Reduce the threat to safety of citizens imposed by winter storms**

Action	Jurisdiction	Funding	Lead Agencies	Priority/Time
<i>Objective 6.1. Minimize injuries, casualties, and property damage through education and coordination.</i>				
6.1.1. Educate the public on winter storm preparedness including emergency supplies.	County	State Mitigation Fund	CC EMA, Red Cross, National Weather Service	High On-going
6.1.2 Publish snow plowing priorities for county roads. Sign road locations where people are repeatedly stranded by snow.	County	County Road and Bridge	County Road and Bridge, CCEMA	Medium On-going
6.1.3 Enhance tree trimming program near utility lines and other vulnerable areas.	County Douglas, Glenrock	County and municipalities	Town/city maintenance, County Road and Bridge	Medium On-going
6.1.4 Continue to work with WYDOT on location and timing of Interstate closures	County	N/A	CCEMA, Wyoming Department of Transportation (WYDOT)	High On-going
<i>Objective 6.2 Improve capability to shelter and rescue people.</i>				
6.2.1 Outfit Lost Spring community building with shelter supplies for 15 people.	Lost Springs	Red Cross, CCEMA, Lost Springs	Lost Springs, Red Cross, CCEMA	High Two Years
6.2.2 Obtain 2 snowmobiles for Search and Rescue.	County	County	County Sheriff, CCEMA	Medium Five years
6.2.3 Acquire a back-up generator for the Glenrock Senior Citizens' and Recreation Centers—the designated shelters.	Glenrock	CDBG, EMPA Grant, DRI, HMGP, Public Assistance	Senior Center Staff, Glenrock, CCEMA	Medium One Year

**Table 13.8 Goal Seven:
Enhance overall preparedness for natural hazard incidents.**

<i>Objective 7.1 Improve communications capability.</i>				
Action	Jurisdiction	Funding	Lead Agencies	Priority/Time
7.1.1 Set up mobile command center as a dual console dispatch.	County	CCEMA, FEMA	CCEMA	Medium Three Years
7.1.2 Identify two additional areas outside the downtown core of Douglas to access into 911 if needed. Hardwire these locations ahead of time.	County	CCEMA, FEMA	CCEMA and LEPC	High Two Years
7.1.3 Install a 911 trunk in the Rolling Hills Fire Station.	Rolling Hills	CCEMA, FEMA	CCEMA	High Two Years
7.1.4 Develop and run a PSA educating people to listen to their car radios during a loss of power.	County	CCEMA	CCEMA, Radio station	Low Three Years
7.1.5 Evaluate communications means for Lost Spring during a disaster.	Lost Springs	CCEMA	CCEMA, Lost Springs	High Two Years
<i>Objective 7.2 Strengthen power back-up for emergencies.</i>				
7.2.1 Obtain back-up power for the radio station in Douglas.	County	CCEMA, Radio station	CCEMA	High Two Years
7.2.2 Obtain means of back-up power for Rolling Hills town hall.	Rolling Hills	Rolling Hills, CCEMA	Rolling Hills, CCEMA	Medium Three Years
<i>Objective 7.3 Ensure adequate access and services during emergencies</i>				
7.3.1 Obtain emergency access easement to Dunham Road in Rolling Hills	Rolling Hills	Rolling Hills, FEMA	Rolling Hills, CCEMA	Medium Five Years
7.3.2 Develop plan to deliver potable water to Glenrock if water pipelines are compromised.	Glenrock	Glenrock	Glenrock Public Works, CCEMA	Medium Three Years