

SECTION 3: MITIGATION STRATEGY

Introduction

The Mitigation Strategy establishes a policy framework and implementation pathway for reducing risk from natural hazards over the long term. This section outlines Baker County's strategy to reduce or avoid long-term vulnerabilities to the hazards in the Risk Assessment. This section also presents a mission, goals, and mitigation actions to reduce risk of damage from these hazards. The Baker County Natural Hazards Mitigation Plan (NHMP) Steering Committee reviewed the goal as stated in the *2014 NHMP* and revised the mission statement but retained goal statements. The Steering Committee reviewed and updated the mitigation actions from the 2014 plan adding some new actions while marking some actions completed. Additional planning process documentation is in Appendix B: Planning and Public Process providing detail on the process by which the Steering Committee accomplished this work.

Mission Statement and Goals

The mission of the *2014 NHMP* stated the broad purpose of the plan in language adaptable to future changes made to the plan. It stated the mission of the plan as follows: *To create a disaster-resilient Northeast Oregon*. The Baker County NHMP Steering Committee reviewed the mission statement of the prior plan and agreed to the revised specific wording proposed by the project manager. The revised mission statement accurately describes the overall purpose and intent of this NHMP and is as follows:

Mission: To promote sound public policy designed to protect citizens, critical facilities, infrastructure, private property, and the environment from natural hazards.

Mitigation plan goals are more specific statements of direction that form a bridge between the broad mission statement and particular mitigation actions. The goals were retained as written from the *2014 NHMP* and are listed below. They will serve as checkpoints for agencies and organizations when implementing mitigation actions.

Goals

Goal 1: Protect human welfare, property, and natural resources.

Goal 2: Increase the resilience of local and regional economies.

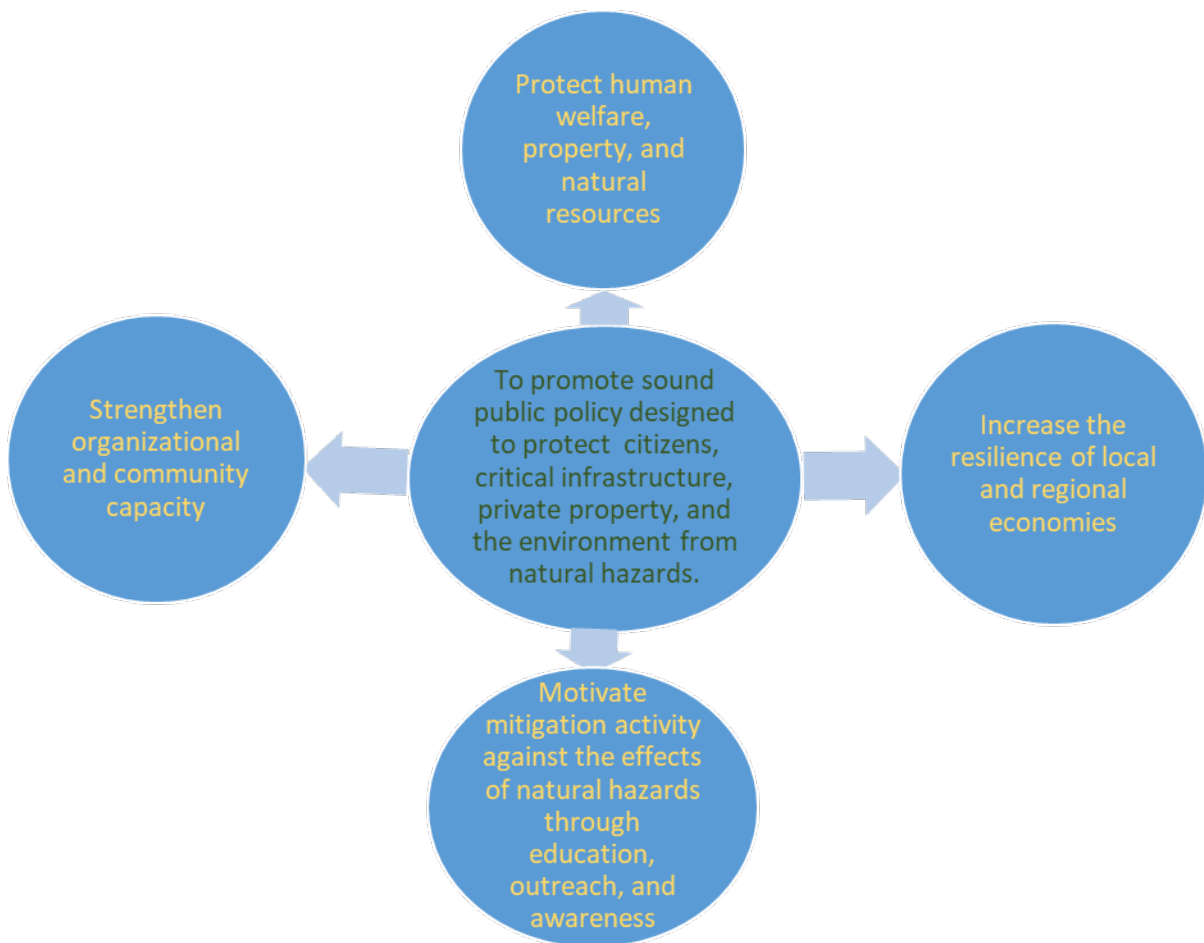
Goal 3: Motivate mitigation activity against the effects of natural hazards through education, outreach, and awareness.

Goal 4: Strengthen organizational and community capacity.

Public participation is a key aspect in developing the NHMP goals. During the 2014 four county NHMP update, meetings with the Steering Committee, stakeholder interviews, surveys, and public workshops all served as methods to obtain input and priorities in developing goals for reducing risk and preventing loss for natural hazards in Baker County.

Public participation was also a key aspect in this 2020 update to the NHMP. The Baker County NHMP Steering Committee reviewed the existing four multi-jurisdictional goals and considered an expanded set of goals proposed by the project manager. The Steering Committee did not opt to revise the goals as set forth in the previous plan. The graphics in Figure 18 illustrate the relationship between the mission and the goals.

Figure 18. Relationship between mission statement and goals of the NHMP.



Mitigation Actions

Mitigation actions are specific actions, projects, activities, or processes that reduce risk to people, property, and the environment from the impacts of natural hazard events. The *2014 Northeast Oregon Multi-Jurisdictional NHMP (2014 NHMP)* contains mitigation actions for the entire region covered by that plan. Mitigation actions identified through the planning process are an important part of the mitigation plan. There are detailed recommendations for activities that local

departments, citizens, and others could engage in to reduce risk. They address both multi-hazard (MH) and hazard-specific issues.

The 2020 Baker County NHMP Steering Committee considered a subset of the mitigation actions contained in the *2014 NHMP* by selecting those actions that pertain to Baker County. This list of actions was the basis for development of the 2020 Baker County NHMP mitigation action list.

Development of the mitigation action list was a multi-step, iterative process that involved brainstorming, discussion, review, and revisions. The bulk of this work occurred during the third Steering Committee meeting held on September 10, 2019 and during the Risk MAP Discovery meeting held September 12, 2019.

One of the first steps was to discuss the status of the mitigation actions from the *2014 NHMP*. The Steering Committee went through each mitigation action and ascertained if the action was completed, removed (and why), retained or in progress.

- *Completed mitigation actions* noted in the table.
- *No longer included mitigation actions* were removed from the table due to resource constraints or other factors.
- *Mitigation actions that were retained* were retained in full or modified to more accurately reflect the current situation.
- *New mitigation actions* were also identified during the process.

Table 4 lists each of the 2020 Mitigation Actions. Appendix C: Mitigation Action Worksheets provides information about how the mitigation action items from the *2014 NHMP* relate to the current prioritization. A selection of the 2020 Mitigation Actions is detailed in Mitigation Action Item Worksheets located in Appendix C. The Mitigation Actions that were classified as High Priority and that were not Routine actions being carried out on a regular basis already were used to develop the Mitigation Action Item Worksheets. These Worksheets identifying the rationale for the project, ideas for implementation, and potential coordinating and partner organizations. The action item worksheets are intended to assist Baker County, the cities of Baker City and Halfway as summaries of potential projects that might be used for seeking grant funding.

Table 4. 2020 Mitigation Actions

Multi-Hazard Action Items	Priority	Proposed Action Title	Jurisdiction	Lead Agency	Partner Organization(s)	2020 Timeline	2020 Status	Plan Goals			
								1	2	3	4
MH 1	Medium	Complete Continuity of Operations Plans (COOPs) within all interested municipalities and the county.	All	Interested City Managers and/or City Council; County Commissioners, Emergency Management	Relevant Public Works and Emergency Services / Emergency Management, Law Enforcement, Fire Department, Department of Homeland Security, County Road Department, ODOT, relevant private industries, OEM	Short Term	In Progress	X	X		X
MH 2	Low	Incorporate the Natural Hazards Mitigation Plan into the Comprehensive Plan (in particular Goal 7)	All	County/ City Planning Department	Department of Land Conservation and Development, Oregon Office of Emergency Management, Federal Emergency Management Agency	Long Term	Deferred				X
MH 3	Low	Inform public officials about mitigation awareness and the Natural Hazards Mitigation Plan	All	County Steering Committee Convener	Counties and participating cities in Baker County	Short Term	Routine			X	
MH 4	High	Develop and implement education and outreach programs to increase public awareness of the risk associated with natural hazards. Specifically target vulnerable populations	All	Baker County Public Library District; Emergency Services / Emergency Management	Blue Mountain Translator District; Eastern Oregon Head Start, Chambers of Commerce, American Red Cross, Oregon Education Association, Families First, Oregon Rural Action, Baker County Children and Families, County Extension Offices, Eastern Oregon Medical Associates, Elks Lodge, Girl Scouts of the USA, People Mover, Community Connections of Northeast Oregon	Short Term	Routine, but additional programs and projects were identified	X		X	
MH 4.1	Medium	Improve outreach for the local mass notification system. The county would like to increase the number of registered participants in the program.	All	Baker County Library District; Emergency Services / Emergency Management;	Blue Mountain Translator District, Sheriff's Office	Short Term	Routine			X	
MH 4.2	High	Requesting multi-hazard outreach materials and messaging strategies for earthquake. At this time all questions about earthquake risk are re-directed to county officials.	Halfway	Baker County Public Library District; Emergency Services / Emergency Management;	Blue Mountain Translator District, DLCD, DOGAMI, OEM, FEMA	Short Term	New Action			X	
MH 5	Medium	Increase the resilience of small businesses to natural hazards	All	Northeast Oregon Economic Development District	Blue Mountain Translator District; Northeast Oregon Counties' Chambers of Commerce, Regional Solutions Team, Greater Eastern Oregon Development Corporation, Oregon Rural Alliance, Baker Enterprise Growth Initiative, Economic and Community Development Department Regional Development Officer, Oregon Trail Electric, Southeast Regional Alliance, Historic Baker Center, Baker County Economic Development	Short Term			X		
MH 6	High	Enhance communication and response coordination among all of the incorporated areas in Baker County	All	Emergency Services / Emergency Management; Consolidated Dispatch Center	County Planning Department, Local fire departments and fire districts, Bureau of Land Management, Oregon Department of Forestry, Oregon Department of Transportation, OSU Extension, Amateur Radio Emergency Services, OSP, FBI, Public Works, USFS, local irrigation districts	Routine	Routine				X
MH 7	High	Complete and implement the Pine Creek Floodplain Management Plan	City of Halfway	City of Halfway	Silver Jackets	Long Term	In Process				X

MH 8	High	Collect lidar data for the following locations: <ul style="list-style-type: none"> • Main horizontal county and highway routes • Headwaters of the Powder River • North of Sumpter (location of mineral extraction) • Powder River Tributaries that contribute to the high water • Hole in the Wall - near Halfway • lidar gaps near Sumpter • State highway I-84 post fire and flood areas 	Baker County	FEMA, Baker County	DOGAMI, USFS	Short Term	New Action in progress	X	X		
MH 9	Medium	Develop a warning and evacuation protocol for vulnerable populations	All	County Sheriff; Emergency Services / Emergency Management	Blue Mountain Translator District	Short Term	In process, part of CWPP	X	X	X	X
MH 9.1	Medium	Address a city-wide evacuation plan that would gain consensus on how best to communicate evacuation routes to residents. The plan would internally clarify evacuation plans and account for contingencies.	City of Halfway	City of Halfway; Emergency Services / Emergency Management	Baker County Public Library District; Blue Mountain Translator District	Short Term	New Action	X	X	X	X
Drought Action Items	Priority	Proposed Action Title	Jurisdiction	Lead Agency	Partner Organization(s)	2020 Timeline	2020 Status	Plan Goals			
								1	2	3	4
DR 1	High	Identify incentive programs to increase water efficiency among both agricultural and domestic water users	All	Powder River Watershed Council, County Watermasters, City Public Works Departments	Baker Soil and Water Conservation District, Natural Resources Conservation Service; landowners, irrigation districts	Routine	Baker City and the Powder River Watershed District have completed actions. See Mitigation Action sheets in Appendix C.	X			X
DR 2	High	Develop community drought emergency plans and policies	All	County Emergency Services / Emergency Management; Water Resources Department; Public Works Departments	County and City Governments, County and City Planning Departments, Natural Resources Conservation Service, Baker County Cattleman's Association, Relevant Irrigation Districts, OSU Extension Office, US Department of Agriculture	Routine	Routine				X
DR 3	High	Conduct aquifer studies for the Pine and Baker Valleys.	Baker County, Baker City, Haines, Halfway	Powder River Watershed Council, Baker County Emergency Management,	Oregon Watershed Enhancement Board, Oregon Water Resources Department, DOGAMI, Baker County Planning Department, Baker County Public Works, Baker City, City of Halfway, City of Haines	Long Term	Baker Valley well data study funded for work by the Powder River Watershed Council. Baker City aquifer study and ARS well into it completed in 2009, Appendix C.	X			

Earthquake Action Items	Priority	Proposed Action Title	Jurisdiction	Lead Agency	Partner Organization(s)	2020 Timeline	2020 Status	Plan Goals			
								1	2	3	4
EQ 1	Low	Perform an earthquake risk evaluation in critical buildings not listed in the DOGAMI RVS report	All	Emergency Management	County Public Works Department, Incorporated Cities, Business Oregon, Relevant Utility Companies, DOGAMI	Long Term	Deferred	X			
EQ 1.1	Medium	Baker City would like to conduct seismic analysis of critical infrastructure and historic and older buildings downtown that are vulnerable to earthquakes and heavy snow loads. The city is also concerned about the vulnerability of City Hall and the Emergency Operation centers. The city would like to retrofit City Hall and the fire station.	Baker City	Baker City, Business Oregon	Oregon Emergency Management, FEMA, DLCD	Short Term	New Action	X			
EQ 1.2	Medium	Complete recently awarded retrofit project at Baker Middle School.	Baker City	Baker City, Business Oregon		Short Term	New Action	X			
EQ 1.3	High	Prioritize and complete remaining seismic retrofits to critical facilities.	All	Baker City, Business Oregon	These facilities include Baker City Municipal Airport, Baker RFPD, Greater Bowen RFPD, Keating RFPD, Baker City Fire Dept, Baker City Warehouse and Shop, Baker County Road Dept, St. Elizabeth Hospital, Pine Valley VFD and Eagle Valley Fire Dept	Long Term	New Action.	X			
EQ 2	Low	Seismically retrofit The Unity Fire Department to reduce the building's vulnerability to seismic hazards. Consider both structural and non-structural retrofit options	City of Unity	City of Unity	County Emergency Management, County/City Public Works Departments, Unity Fire Department, Business Oregon DOGAMI, OEM, FEMA, ODE	Long Term	Deferred	X			
EQ 3	Low	Seismically retrofit all School District's primary buildings to reduce their vulnerability to seismic hazards. This action was modified to include North Baker Elementary School, South Baker Elementary School, Pine Eagle Charter School, and Burnt River School. Consider both structural and non-structural retrofit options	Baker City, Halfway, Unity	Baker 5J School District, Burnt River School District, Pine Eagle School District	County Emergency Management, County/City Public Works Departments, Baker City, Business Oregon, DOGAMI, OEM, FEMA, ODE	Long Term	Deferred / Modified to include all main buildings at all school districts in Baker County	X			
EQ 5	Complete	Seismically retrofit Baker High School to reduce the building's vulnerability to seismic hazards. Consider both structural and non-structural retrofit options						X			
EQ 7	Complete	Seismically retrofit Brooklyn Elementary School to reduce the building's vulnerability to seismic hazards. Consider both structural and non-structural retrofit options						X			
Flood Action Items	Priority	Proposed Action Title	Jurisdiction	Lead Agency	Partner Organization(s)	2020 Timeline	2020 Status	Plan Goals			
								1	2	3	4
FL 1	High	Explore flood mitigation opportunities for homes and critical facilities subject to flooding.	All	Relevant City and County Public Works Departments / Emergency Services and Emergency Management	County Roads Departments, Public Works Departments, County Planning Departments; Baker City, Incorporated Cities, Silver Jackets, Relevant Water Treatment Facilities, Federal Emergency Management Agency, Homeowners, Army Corps of Engineers, Oregon Department of Fish and Wildlife, Department of State Lands, ODOT, DLCD	Routine	Routine	X			
FL 1.1	Medium	Floodplain restoration on the headwaters of Pine Creek is needed to reduce flooding downstream near Halfway.	Baker County	Halfway	County Emergency Management, OEM, DLCD, FEMA, Army Corps of Engineers	Medium Term	New Action	X			

FL 1.2	High	Develop strategy for management of standing water that may accumulate on 4th Street during seasonal irrigation or rain events.	Haines	Haines Public Works		Long Term	New Action	X			
FL 1.3	Medium	Characterize source of flooding hazards for the two local schools on Bell Street. Develop a mitigation strategy to reduce flooding	Halfway	Halfway	OEM, DLCD, FEMA, Army Corps of Engineers	Medium Term	New Action	X			
FL 2	High	Explore the costs and benefits for participation in the NFIP's Community Rating System	All	Interested Cities and Baker County	County and city planning departments, county emergency services / emergency management, county public works, Silver Jackets, FEMA, DLCD	Routine	Deferred	X	X		
FL 3	High	Increase awareness concerning the NFIP program.	All	Local floodplain managers, County Emergency Manager	City Planning Departments, Emergency Services / Emergency Management, NFIP Floodplain Coordinator (DLCD), insurers, realtors FEMA	Routine	Deferred			X	X
FL 4	High	Update the County and City FEMA Flood Insurance Rate Maps and digitize the updated maps.	All	FEMA, DOGAMI	Baker County, Baker City, and City of Halfway floodplain administrators, Public Works Departments, Emergency Services and Emergency Management Army Corps of Engineers, elected officials	Long Term	In Progress	X	X		
FL 4.1	Low	Map along Highway 86 for flooding and washout risk. Highway 86 and the Burnt River Corridor on Pine Creek below Halfway needs maps and assessment of the area.	Baker County	Baker County and Halfway	FEMA, Army Corps of Engineers, DOGAMI, DLCD	Short Term	New Action	X	X		
FL 4.2	High	New flood analysis is requested in and around Baker City with the following details: <ul style="list-style-type: none"> The current FIRM has areas in the floodplain that the city does not agree with. Not a lot of flooding has occurred within the current SFHA. LOMAs are an indicator of inaccuracy (many found in South Baker City). The irrigation ditch near the industrial part in the west region of the city floods. Sheet flow is a problem throughout the city. Seasonal snow causes flash flooding - if a rain or snow event occurs the city does not have a way to control high water. Ice jams are common on the north side of the city along the Powder River. Undeveloped residential land has growth limitations due to flood zones. The school district purchased land for future development at Hughes Lane and Sports Complex. This area is currently mapped in the floodplain. The FIRM does not seem to take into account the Mason Dam that has a primary use in flood control.	Baker City	Baker City	FEMA, Army Corps of Engineers, DOGAMI, DLCD	Short Term	New Action	X	X		
FL 4.3	Medium	Develop stream restoration strategies for Rock Creek, which has become clogged with silt.	Haines	Watermaster	Powder River Watershed Council, Baker SWCD	Medium Term	New Action	X			

FL 4.4	Low	New flood analysis is requested for the west side of Halfway floods, which is not reflected in the current SFHA. <ul style="list-style-type: none"> The current FIRM only maps flooding on the east side of Halfway - in proximity to creeks. Flooding, however, is more observed on the west side of the city, near ditches. McMullen Slough is identified in the SFHA; however, not a lot of flooding occurs in this area. Flooding occurs at Pine Creek and Highway 414. Flooding occurs near West Bell Street. 	Halfway	Halfway	FEMA, Army Corps of Engineers, DOGAMI, DLCD, Watershed Council	Short Term	New Action	X		X		
FL 5	High	Seek Silver Jackets assistance to investigate opportunities to prevent infiltration of flood waters into the wastewater treatment facility in Halfway.	Halfway	Halfway Public Works Department	Silver Jackets, ACOE (Portland – regulatory) (Walla Walla --Structural), US EPA, OR DEQ, Adjacent land owners, Powder River Watershed Council	Short Term	In Progress					X
Landslide Action Items	Priority	Proposed Action Title	Jurisdiction	Lead Agency	Partner Organization(s)	2020 Timeline	2020 Status	Plan Goals				
								1	2	3	4	
LS 1	High	Identify, obtain, and evaluate detailed risk assessments in landslide prone areas and develop mitigation strategies to reduce the likelihood of a potential hazardous event.	All	County Emergency Management Department	County Planning Department, Incorporated Cities, ODOT, DOGAMI, USGS, Irrigation Districts	Long Term	Deferred	X				X
LS 1.1	High	Conduct an assessment of landslide risk along railroads, highways and roads, and utilities.	Baker County	County Emergency Management Department	Baker County Road Department, DOGAMI	Medium Term	New Action	X		X		
Severe Weather Action Items	Priority	Proposed Action Title	Jurisdiction	Lead Agency	Partner Organization(s)	2020 Timeline	2020 Status	Plan Goals				
								1	2	3	4	
SW 1	Medium	Participate in the NOAA Storm Ready Program	Baker County	Emergency Services / Emergency Management	County Public Works Department, County Roads Department, Incorporated Cities, NOAA, NWS (Boise office), HAMM, Oregon Department of Transportation, local fire departments, American Red Cross, local radio stations, USGS	Short Term	In Progress	X				
SW 2	Medium	Shorten spans and anchor poles on utility lines in high wind or heavy icing areas	All	Oregon Trail Electric Cooperative	County Emergency Management, County Public Works, Other relevant utility companies	Routine	Routine	X				
SW 3	Medium	Bury overhead power lines in winter storm and windstorm prone areas	All	Oregon Trail Electric Cooperative	County Emergency Management, County Public Works, Other relevant utility companies	Routine	Routine	X				
SW 4	Medium	Conduct structural assessment of sample structures to develop recommendations for construction to mitigate heavier snow loads.	All	Baker County	Building Codes Division, County Planning Department	Medium	New Action	X	X	X	X	

Wildfire Action Items	Priority	Proposed Action Title	Jurisdiction	Lead Agency	Partner Organization(s)	2020 Timeline	2020 Status	Plan Goals			
								1	2	3	4
WF 1	High	Advocate for the implementation of the actions identified the most current Baker County Community Wildfire Protection Plan.	All	County Steering Committee Convener, Emergency Management, Fire Division	County Emergency Services / Emergency Management, County Planning Departments, City of Baker City, City of Halfway, Local Public Safety Coordinating Council (LPSCC), Oregon Department of Forestry, Bureau of Land Management, local fire departments, OSU Extension Services, US Forest Service, Soil and Water Conservation Districts, Oregon Department of Fish and Wildlife; Homeowners in Wildland/Urban Interface zones; Hells Canyon Preservation Council	Routine	Routine	X			X
WF 2	High	Develop and implement smoke mitigation plan for Baker County	All	Baker County Natural Resource	OEM, FEMA	Short Term	New Action	X		X	
WF 3	High	Coordinate with the Sage-grouse Local Implementation Team to support actions reducing the risk and impacts of wildfire in Sage-grouse habitat, including but not limited to invasive weed reduction and prevention or resources for improved firefighting response.	Baker County	Baker County Emergency Management	All County fire agencies with a response area that includes sage grouse habitat, Baker County Sage-grouse Local Implementation Team		New Action	X	X	X	X

Source: Baker County NHMP Steering Committee work product

Integration

To achieve risk reduction, it is necessary to consider natural hazards mitigation in common planning processes, from land use regulation to infrastructure planning to emergency response. Baker County and its incorporated cities have existing authorities, policies, programs and resources in place. Integrating the existing capacity of local governments into the planning process improves the ability of local governments to implement the NHMP and to reduce risk of damage from natural hazards.

Communities often have existing plans and policies that guide and influence land use, land development, and population growth. Such existing plans and policies can include comprehensive plans, zoning ordinances, and technical reports or studies. Plans and policies already in existence have support from local residents, businesses and policy makers. Many land-use, comprehensive, and strategic plans get updated regularly, and can adapt to changing conditions and needs.

The Natural Hazards Mitigation Plan includes a range of recommended action items that, when implemented, may reduce the county's vulnerability to natural hazards. All of these recommendations are consistent with the goals and objectives of the county's existing plans and policies. Linking existing plans and policies to the Natural Hazards Mitigation Plan helps identify what resources already exist that can be used to implement the action items identified in the NHMP. Implementing the natural hazards mitigation plan's action items through existing plans and policies increases their likelihood of being supported and getting updated, and maximizes the county's resources. Incorporating the NHMP into the Comprehensive Plan strengthens the provisions within the plan. Revising zoning regulations to identify hazardous areas and identify strategies for development is another method of implementing the goals of the NHMP.

Governmental Capacity

Baker County and Baker City departments involved in natural hazard mitigation include the following:

Emergency Management: The Emergency Management Program works to minimize the effects of major emergencies and disasters on the community.

Planning: The Baker County Planning Department is responsible for implementing Baker County's Comprehensive Land Use Plan and Zoning Ordinance as well as Oregon Revised Statutes and Administrative Rules when considering proposals to use or develop property.

Road Department: The Road Department is responsible for maintaining county roads and bridges within the County. The department has 14 employees and the county consists of over 950 miles of roads of all surfaces.

Fire Departments and Fire Districts: The Baker City Fire Department (BCFD) is the only professional fire department in the county. BCFD provides paramedic ambulance service and fire suppression for Baker ASA and will assist with the other areas through mutual aid with the fire districts. There are nine Rural Fire Protection Districts throughout the county.

Natural Resource Coordinator: The county Natural Resource Coordinator is involved in the development and implementation of the Smoke Mitigation Plan to mitigate the effect of smoke generated during proscribed burning to reduce fuel loads and therefore the severity of wildfire.

Health Department: The Baker County Health Department provides a wide range of public health services including health education and primary care services.

Baker City Municipal Airport: The Baker City Municipal Airport (GCRA) is a city-owned, public use general aviation airport.

OSU Extension Service: The Oregon State University (OSU) Extension Service provides research-based knowledge and education that strengthens Baker County's economy, sustains natural resources, and promotes healthy communities, families, and individuals.

Watermaster: The Oregon Water Resource Division's Eastern District offices and District 8 Watermaster's Office are both located in Baker City. The District 8 Watermaster manages water rights in the Powder River basin.

Other county social and transportation services are listed below in the section on Community Organizations and Programs.

The following are existing plans and policies already in place within the community

Table 5. Existing Plans in Baker County and incorporated jurisdictions

Jurisdiction	Plan	Effective date
Baker County	Community Wildfire Protection Plan	2015
Baker County	Emergency Operations Plan	2015
Baker County	Natural Resource Plan	2016
City of Baker City	Comprehensive Plan	2016
City of Baker City	Capital Improvement Plan	2018
City of Baker City	Watershed Management Plan	2014
City of Baker City	Baker City Vision 2030	2010
City of Baker City	Water Facility Plan	2014
City of Baker City	Wastewater Facilities Plan	1998
City of Halfway	Comprehensive Plan	1979

The county is in the process of developing a Smoke Mitigation Plan with funds provided through the FMAG program. Although air quality was not named as a specific hazard, a specific mitigation action was added to the *2020 Baker County NHMP* listing the development and implementation of the Smoke Mitigation Plan. In order to manage the effects of proscribed burns, the county is developing a plan that focuses on detection of smoke levels, public information about actions individuals can take to protect themselves from heavy smoke levels and seeks to develop smoke refuges for the most vulnerable populations.

Community Organizations and Programs

In planning for natural hazard mitigation, it is important to know what social systems exist within the community because of their existing connections to the public. Social systems can be defined as community organizations and programs that provide social and community-based services, such as health care or housing assistance, to the public. Community organizations and programs are another avenue through which the mitigation strategy is integrated into the existing capacity of the community to implement specific mitigation actions.

Often, actions identified by the plan involve communicating with the public or specific subgroups within the population (e.g. elderly, children, low income). The County can use existing social systems as resources for implementing such communication-related activities because these service providers already work directly with the public on a number of issues, one of which could be natural hazard preparedness and mitigation.

Table 6. Baker County Community Organizations

Organization Name	Address	Phone number/email	Services
American Red Cross Central and Eastern Oregon Chapter	2020 Church Street, Baker City, OR 97814	541-962-0952 https://www.redcross.org/local/oregon/about-us/locations/central-and-eastern-oregon-chapter.html	Collect and provide blood plasma to the community. Assist in emergency preparedness and response.
Baker County Chamber of Commerce	490 Campbell St. Baker City, OR 97814	541-523-5855 http://www.visitbaker.com/	Provides economic development assistance to local businesses.
Baker County Children and Families	1995 Third St. Baker City, OR 97814	541-523-8231	Works with children and families to promote a positive

			atmosphere in which children are raised.
Baker County OSU Extension Office	2600 East St. Baker City, OR 97814	541-523-6418 https://extension.oregonstate.edu/baker	Provide research-based education and outreach on natural resources, community economics, and family health.
Community Connection-Baker County Senior Center	2801 Cedar St. Baker City, OR 97814	541-523-6591 https://ccno.org/	Senior Center offering activities, information and meals.
Eastern Oregon Head Start	1927 16 th Street Baker City, OR 97814	541-523-2696 https://www.eou.edu/head-start/	Head Start's mission is to support the healthy development of children.
Elk's Lodge	1896 2 nd St. Baker City, OR 97814	541-523-3338 https://www.elks.org/	Service organization that conducts programs for youth, veterans and the community.
Hell's Canyon Chamber of Commerce	P.O. Box 841 Halfway, OR 97834	541-540-4222/ https://www.hellscanyonchamber.com/	Promotes the businesses that serve the residents and visitors to Hell's Canyon.

Meadowbrook Place	4000 Cedar St. Baker City, OR 97814	541-523-6333 http://meadowbrookplace.org/	Assisted Living
Settler's Park	2895 17 th St. Baker City, OR 97814	541-790-2011	Assisted Living
Ashley Manor Senior Living	1040 Lund Ln. Baker City, OR 97814	541-524-9880	Assisted Living and Memory Care
Heart 'n Home Hospice & Palliative Care	3370 10 th St. Baker City, OR 97814	541-524-7688	Hospice care
St. Alphonsus Medical Clinic	3325 Pocahontas Rd. Baker City, OR 97814	541-524-8000 https://www.saintalphonsus.org/location/saint-alphonsus-baker-city-family-medicine	Family medical clinic
St. Luke's Clinic	3950 17 th St. Baker City, OR 97814	541-523-1001 https://www.stlukesonline.org/communities-and-locations/facilities/clinics/st-lukes-clinic--eastern-oregon-medical-associates	Family medical clinic
New Directions Northwest	3425 13th Street Baker City, Oregon 97814	541-523-7400 https://newdirectionsnw.org/	Drug and alcohol treatment
Northeast Oregon Housing Authority	2608 May Lane La Grande, OR 97850	541-963-5360 https://www.neoha.org	Promotes economic development, home-ownership, and self-sufficiency opportunities.

Tools and Assets

Beyond the planning process and other processes available for integration, each jurisdiction has a variety of tools and assets available for implementing natural hazards mitigation. Both human

assets and financial tools are currently available or potentially available in the future to Baker County and the cities of Baker City and Halfway that form this plan.

Among the human assets currently in place in Baker County are an Emergency Management Department, Land Use Planners, a Natural Resources Coordinator and a Floodplain Manager. Baker City employs a City Manager, a Planner/Floodplain Manager as well as a Public Works Department and Fire Department along with volunteer commissions. Smaller cities employ commensurately smaller staff. Typically all of these jurisdictions have staff who fill multiple roles.

None of the jurisdictions employ a Civil Engineer, a GIS expert or a Grant Writer. To the extent that these functions are carried out in Baker County and Baker City, they are rolled into the existing staff positions of the jurisdictions. The ability of these jurisdictions to move mitigation strategy actions forward may be improved by incorporating skills in these areas from other staff or from local, state or regional partners.

There are a wide range of federally funded, state funded or non-profit grant programs that may be accessed to accomplish mitigation actions. Navigating the landscape of grant funding for local mitigation projects requires significant time and effort as well as match funding. [FEMA's 2013 publication Mitigation Funding: A Resource for Funding Mitigation Projects](#) is a useful guide to federal funding. State funding sources for mitigation projects include the Oregon Business Infrastructure Finance Authority and Oregon Department of Environmental Quality Clean Water State Revolving fund. Other local sources of funding for local projects may include the following:

- Capital Improvement funding,
- Use of the authority to levy taxes,
- Water, Sewer, Electric, Gas Fees
- Impact Fees
- General Obligation bonds
- Special Tax Bonds

Prioritizing Natural Hazard Mitigation Projects

Prioritization of mitigation projects involves not only public input on relative importance and attention to funding streams from federal and state agencies, but also an analysis of the costs and benefits of the project. Three approaches for conducting economic analysis of natural hazard mitigation projects that have been developed by the Oregon Partnership for Disaster Resilience fall into three general categories: benefit/cost analysis, cost-effectiveness analysis and the STAPLE/E approach. Appendix X summarizes information on these methods of prioritizing based on a research paper developed by the Oregon Partnership for Disaster Resilience at the University of Oregon's Community Service Center.