



Annex K Butte County Fire Safe Council

K.1 Introduction

This Annex details the hazard mitigation planning elements specific to the Butte County Fire Safe Council (BCFSC or Fire Safe Council), a new participating jurisdiction to the 2014 Butte County Local Hazard Mitigation Plan (LHMP) Update. This Annex is not intended to be a standalone document but appends to and supplements the information contained in the Base Plan document. As such, all sections of the Base Plan, including the planning process and other procedural requirements apply to and were met by the BCFSC. This Annex provides additional information specific to BCFSC, with a focus on providing additional details on the risk assessment and mitigation strategy for the Fire Safe Council.

K.2 Planning Process

As described above, BCFSC followed the planning process detailed in Chapter 3 of the Base Plan. In addition to providing representation on the Butte County Hazard Mitigation Planning Committee (HMPC), the Fire Safe Council formulated their own internal planning team to support the broader planning process requirements. Internal planning participants, their positions, and how they participated in the planning process are shown in Table K-1. Additional details on plan participation and BCFSC representatives are included in Appendix A.

Table K-1 Butte County Fire Safe Council Planning Team

Name	Position/Title	How Participated
Calli-Jane DeAnda	Executive Director	Provided hazard information, attended meetings, provided past occurrences. Provided capabilities. Reviewed Plan Drafts
Jim Houtman	Project Manager	Attended meetings, provided support for fuels reduction planning.
Jim Broshears	Treasurer	Provided past occurrences and hazard information.

Source: BCFSC

K.3 District Profile

The Butte County Fire Safe Council provides wildland fire mitigation and recovery services to communities in Butte County, California. The BCFSC provides focused services in the wildland urban interface communities (Map of WUI provided) of Butte County including; Firewise education through voluntary home visits, presentations, events, workshops; no-cost hazardous fuels chipping services, roadside shaded fuel breaks, forest health projects and defensible space services for elderly, low income and disabled. Information about the organization can be found on the BCFSC website; buttefiresafe.net and the organization’s Facebook. The BCFSC is a key collaborator in the Butte Unit Plan/Community Wildfire Protection Plan which can be accessed at <https://osfm.fire.ca.gov/media/3122/fpppdf1621.pdf>. The BCFSC is also collaborating on a Wildfire Safety and Forest Health Data Portal with Sacramento River Watershed

Program which can be accessed at <https://data.sacriver.org/>. BCFSC boundaries are the same as Butte County and can be seen on Figure K-1.

K.4 Hazard Identification

BCFSC's planning team identified the hazards that affect the District and summarized their location, extent, frequency of occurrence, potential magnitude, and significance specific to the District (see Table K-2).

Table K-2 Butte County Fire Safe Council – Hazard Identification Assessment

Hazard	Geographic Extent	Probability of Future Occurrences	Magnitude/Severity	Significance	Climate Change Influence
Climate Change	–	–	–	–	–
Dam Failure	–	–	–	–	–
Drought & Water shortage	–	–	–	–	–
Earthquake	–	–	–	–	–
Floods: 100/200/500 year	–	–	–	–	–
Floods: Localized Stormwater	–	–	–	–	–
Hazardous Materials Transportation	–	–	–	–	–
Invasive Species: Aquatic	–	–	–	–	–
Invasive Species: Pests/Plants	–	–	–	–	–
Landslide, Mudslide, and Debris Flow	–	–	–	–	–
Levee Failure	–	–	–	–	–
Severe Weather: Extreme Heat	–	–	–	–	–
Severe Weather: Freeze and Winter Storm	–	–	–	–	–
Severe Weather: Heavy Rain and Storms (Hail, Lightning)	–	–	–	–	–
Severe Weather: Wind and Tornado	–	–	–	–	–
Stream Bank Erosion	–	–	–	–	–
Volcano	–	–	–	–	–
Wildfire	Extensive	Highly Likely	Catastrophic	High	High
<p>Geographic Extent Limited: Less than 10% of planning area Significant: 10-50% of planning area Extensive: 50-100% of planning area</p> <p>Probability of Future Occurrences Highly Likely: Near 100% chance of occurrence in next year, or happens every year. Likely: Between 10 and 100% chance of occurrence in next year, or has a recurrence interval of 10 years or less. Occasional: Between 1 and 10% chance of occurrence in the next year, or has a recurrence interval of 11 to 100 years. Unlikely: Less than 1% chance of occurrence in next 100 years, or has a recurrence interval of greater than every 100 years.</p> <p>Magnitude/Severity Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid</p> <p>Significance Low: minimal potential impact Medium: moderate potential impact High: widespread potential impact</p> <p>Climate Change Impact: Low: Not likely to increase the probability of this hazard. Medium: Is likely to increase the probability of this hazard. High: Is very likely to increase the probability of this hazard.</p>					

K.5 Hazard Profile and Vulnerability Assessment

The intent of this section is to profile BCFSC's hazards and assess the Fire Safe Council's vulnerability separate from that of the Planning Area as a whole, which has already been assessed in Sections 4.2 Hazard Profiles and 4.3 Vulnerability Assessment in the Base Plan. The hazard profiles in the Base Plan discuss overall impacts to the Planning Area and describes the hazard problem description, hazard extent, magnitude/severity, previous occurrences of hazard events and the likelihood of future occurrences. Hazard profile information specific to BCFSC is included in this Annex. This vulnerability assessment analyzes the property and other assets at risk to hazards ranked of medium or high significance specific to the District. For more information about how hazards affect the County as a whole, see Chapter 4 Risk Assessment in the Base Plan.

K.5.1. Hazard Profiles

Each hazard vulnerability assessment in Section K.5.3, includes a hazard profile/problem description as to how each medium or high significant hazard affects the District and includes information on past hazard occurrences. The intent of this section is to provide jurisdictional specific information on hazards and further describe how the hazards and risks differ across the Planning Area.

K.5.2. Vulnerability Assessment and Assets at Risk

This section identifies BCFSC's total assets at risk, including values at risk, populations at risk, critical facilities and infrastructure, natural resources, and historic and cultural resources. Growth and development trends are also presented for the Fire Safe Council. This data is not hazard specific but is representative of total assets at risk within the BCFSC.

Assets at Risk and Critical Facilities

This section considers the BCFSC's assets at risk, with a focus on key BCFSC assets such as critical facilities, infrastructure, and other Fire Safe Council assets and their values. Critical facilities are defined for this Plan as:

Any facility, including without limitation, a structure, infrastructure, property, equipment or service, that if adversely affected during a hazard event may result in severe consequences to public health and safety or interrupt essential services and operations for the community at any time before, during and after the hazard event.

The BCFSC does not own any facilities.

Natural Resources

BCFSC'S service area has a variety of natural resources of value to the Butte County Planning Area. These natural resources parallels that of the County as a whole. Information can be found in Section 4.3.1 of the Base Plan.

Historic and Cultural Resources

BCFSC's service area has a variety of historic and cultural resources of value to the Butte County Planning Area. These historic and cultural resources parallels that of the County as a whole. Information can be found in Section 4.3.1 of the Base Plan.

Growth and Development Trends

Growth in the BCFSC parallels that of the County as a whole. Information can be found in Section 4.3.1 of the Base Plan.

Special Populations

There are a high number of elderly, low income and disabled residents living in the Wildland Urban Interface Communities of Butte County. These residents need help with fuels reduction and forest management to protect their homes, evacuation routes and community infrastructure from Wildfire. The Butte County Fire Safe Council has partnered with the Butte County Sheriff work crews to provide this fuels reduction and forest thinning to residents when grant funding allows. This program has been in effect for over a decade and has helped many dozens of residents. However, the funding has been limited and need is much higher than the funding available.

These special populations also struggle with hazard trees, they can cost from \$1,000 to \$6,000 to remove depending upon proximity to houses and structures, and there has never been a funding source made available to Butte County, the fire safe council or any other local agencies to address this need. These hazard trees pose a risk to health and safety as well as to fire danger. The fire safe council office receives multiple requests a year for hazard tree removal. One elderly resident in particular from Paradise asked for help multiple times prior to the Camp Fire and no organization was able to find funding to help her. A local contractor had assessed the number of hazard trees she had and could not afford to take them down and reached back out to the Fire Safe Council. Funding was never identified to help this resident. At this time, it is unknown what that resident's status is since the Camp Fire. This will continue to be struggle for special needs residents in Butte County.

Future Development

The Fire Safe Council has no control over future development in the Butte County Planning Area. However, the Fire Safe Council participated in the Butte County General Plan update and continues to have an interest in seeing how planning tools can be utilized to make the WUI communities safer. The basic fact of the matter is that the foothill areas of Butte County where wildfire risks are recognized to be high to very high according to CAL FIRE continue to have development. There is a concern that more planning is needed to adequately address the development in the WUI. This planning should include fuels reduction needs along roadways and overall land stewardship for grazing, mowing, forestry and other techniques to maintain land health to reduce wildfire risks.

More general information on growth and development in Butte County as a whole can be found in "Growth and Development Trends" in Section 4.3.1 Butte County Vulnerability and Assets at Risk of the Base Plan and in the jurisdictional Annexes for the incorporated communities.

K.5.3. Vulnerability to Specific Hazards

This section provides the vulnerability assessment for those hazards identified above in Table K-2 as high or medium significance hazards. Impacts of past events and vulnerability of BCFSC to specific hazards are further discussed below (see Section 4.1 Hazard Identification in the Base Plan for more detailed information about these hazards and their impacts on the Butte County Planning Area).

An estimate of the vulnerability of the BCFSC to each identified priority hazard, in addition to the estimate of risk of future occurrence, is provided in each of the hazard-specific sections that follow. Vulnerability is measured in general, qualitative terms and is a summary of the potential impact based on past occurrences, spatial extent, and damage and casualty potential. It is categorized into the following classifications:

- **Extremely Low**—The occurrence and potential cost of damage to life and property is very minimal to nonexistent.
- **Low**—Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal.
- **Medium**—Moderate potential impact. This ranking carries a moderate threat level to the general population and/or built environment. Here the potential damage is more isolated and less costly than a more widespread disaster.
- **High**—Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past.
- **Extremely High**—Very widespread with catastrophic impact.

Given the structure and mission of the BCFSC, only one hazard was identified as a priority hazard of concern – Wildfire.

Wildfire

Likelihood of Future Occurrence—Highly Likely

Vulnerability—Extremely High

Hazard Profile and Problem Description

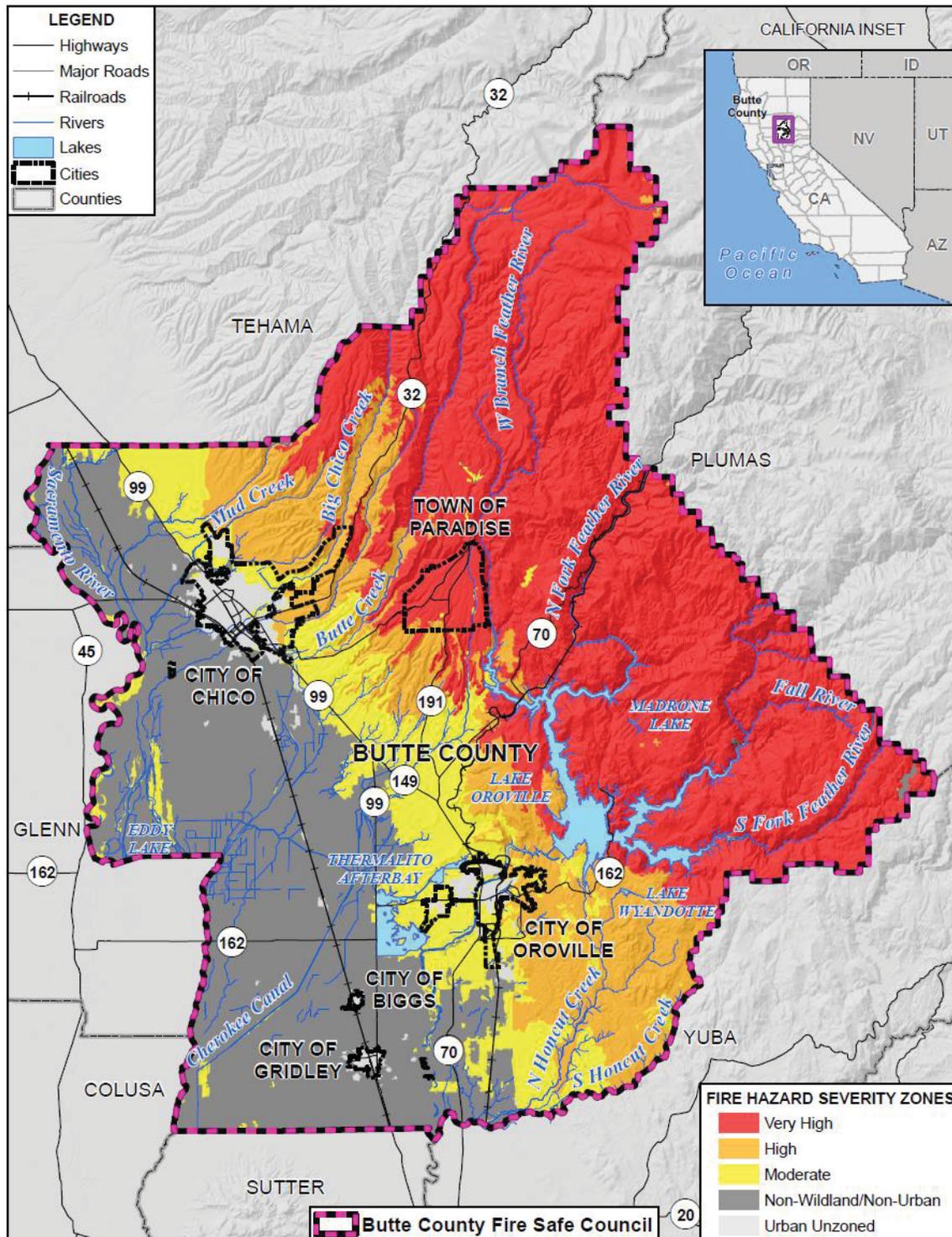
Wildland fire is a significant concern for the BCFSC and the greater County. Generally, the fire season extends from early spring through late fall of each year during the hotter, dryer months. Fire conditions arise from a combination of high temperatures, low moisture content in the air and fuel, accumulation of vegetation, and high winds. Throughout California, communities are increasingly concerned about wildfire safety as increased development in the foothills and mountain areas and subsequent fire suppression practices have affected the natural cycle of the ecosystem. While the fire season was considered to be predominantly May through October, it has now become a year around concern. The most recent Camp Fire in the Butte County Planning Area, along with years of large damaging fires in the County and northern California region, highlight the catastrophic nature these wildfires to communities such as those found in Butte County. Complicating the issue, PG&E shutdowns can occur during red flag days, which affects the Planning Areas.

The BCFSC responds to these risks and challenges by continuing community education with residents living in the Wildland Urban Interface. The more information residents have about disaster preparedness including; forest health, evacuation and defensible space the more safely they will be able to live in these areas.

Location and Extent

CAL FIRE maps areas of wildfire risk and categorizes them by Fire Hazard Severity Zone (FHSZ). The BCFSC parallels that of the County and lies in varying zones, from the Non-wildland/Non-Urban to the Very Fire Hazard Severity Zone. FHSZs in the District and County are shown on Figure K-2.

Figure K-2 Butte County Fire Safe Council – Fire Hazard Severity Zones



Data Source: CAL FIRE (Adopted SRA 11/2007 - fhzs06_3_4, Draft 9/2007 - c4fhsl06_1), Butte County GIS, Cal-Atlas; Map Date: 3/1/2019.

Wildfires tend to be measured in structure damages, injuries, and loss of life as well as on acres burned. Fire risk is also classified by the range of FHSZs mapped by CAL FIRE. Fires can have a quick speed of onset, especially during periods of drought, extreme heat, or high winds. Fires can burn for a short period of time or may have durations lasting for a week or more.

Past Occurrences

Past occurrences for the BCFSC are the same as those for the County. These past occurrences are shown in Section 4.2.19 of the Base Plan. The BCFSC Planning Team noted that there have been multiple wildfires throughout Butte County's Wildland Urban Interface over the years and is the most potentially catastrophic hazard Butte County faces. In addition to the recent Camp Fire, there have been multiple fires over 1,000 acres totaling over 300,000 acres in just the past 15 years alone.

Vulnerability and Impacts to Wildfire

Risk and vulnerability to the Butte County Planning Area from wildfire is of significant concern, with some areas of the planning area being at greater risk than others. High fuel loads in the planning area, along with geographical and topographical features, create the potential for both natural and human-caused fires that can result in loss of life and property. These factors, combined with natural weather conditions common to the area, including periods of drought, high temperatures, low relative humidity, and periodic winds, can result in frequent and sometimes catastrophic fires. During the May to October fire season, the dry vegetation and hot and sometimes windy weather, combined with continued growth in the WUI areas, results in an increase in the number of ignitions. Any fire, once ignited, has the potential to quickly become a large, out-of-control fire.

Major fires in California and Butte County Planning Area have generally been characterized as wildland or WUI fires. In recent years, fires such as the devastating Camp Fire and Woolsey (LA County) Fires in 2018 and the 2017 Tubbs Fire which burned part of Napa, Sonoma, and Lake Counties, have been characterized as "monster" conflagrations. As development continues throughout the Planning Area, especially in these interface areas, the risk and vulnerability to wildfires will likely increase.

Wildfires can cause short-term and long-term disruption to the Butte County Planning Area. Fires can have devastating effects on watersheds through loss of vegetation and soil erosion, which may impact the County by changing runoff patterns, increasing sedimentation, reducing natural and reservoir water storage capacity, and degrading water quality. Fires can result in casualties and can destroy buildings and infrastructure.

Although the physical damages and casualties arising from wildland-urban interface fires may be severe, it is important to recognize that they also cause significant economic impacts by resulting in a loss of function of buildings and infrastructure. In some cases, the economic impact of this loss of services may be comparable to the economic impact of physical damages or, in some cases, even greater. Economic impacts of loss of transportation and utility services may include traffic delays/detours from road and bridge closures and loss of electric power, potable water, and wastewater services. Fires can also cause major damage to power facilities and power lines needed to keep power online.

Also noted by the BCFSC are the emotional impacts to the community members in and adjacent to areas of the Wildland Urban Interface where these tragedies have taken place. The BCFSC staff, Board and volunteers remain sensitive to individuals experiences and perceptions of wildfire as our education efforts take place.

Assets at Risk

Although the BCFSC does not own physical assets in the County, it has taken on the responsibility and commitment through various grants to work with landowners to maintain forest health and fuels reduction in many areas. The forests and wildlands are an asset at risk from wildfire hazard which the organization continues to try to protect and enhance.

Future Development

The BCFSC recommends that community members in the Wildland Urban Interface join a local fire safe council or form recognized Firewise USA community groups. Both of these community type of groups share information on landscaping, home construction and maintenance which are critical to development decisions.

K.6 Capability Assessment

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment is divided into five sections: regulatory mitigation capabilities, administrative and technical mitigation capabilities, fiscal mitigation capabilities, mitigation education, outreach, and partnerships, and other mitigation efforts.

K.6.1. Regulatory Mitigation Capabilities

Table K-3 lists regulatory mitigation capabilities, including planning and land management tools, typically used by local jurisdictions to implement hazard mitigation activities and indicates those that are in place in the District.

Table K-3 Butte County Fire Safe Council – Regulatory Mitigation Capabilities

Plans	Y/N Year	Does the plan/program address hazards? Does the plan identify projects to include in the mitigation strategy? Can the plan be used to implement mitigation actions?
		Comprehensive/Master Plan
Capital Improvements Plan	Y	Grant writing and fundraising
Economic Development Plan	N	Higher Authority
Local Emergency Operations Plan	N	Higher Authority
Continuity of Operations Plan	N	Higher Authority
Transportation Plan	N	Higher Authority
Stormwater Management Plan/Program	N	Higher Authority

Engineering Studies for Streams	N	Higher Authority
Community Wildfire Protection Plan	Y	BCFSC is a lead partner in the development and maintenance of the plan.
Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)	N	Higher Authority
Building Code, Permitting, and Inspections		
	Y/N	Are codes adequately enforced?
Building Code	N/A	Higher Authority
Building Code Effectiveness Grading Schedule (BCEGS) Score	N/A	Higher Authority
Fire department ISO rating:	N/A	Higher Authority
Site plan review requirements	N/A	Higher Authority
Land Use Planning and Ordinances		
Zoning ordinance	N/A	Higher Authority
Subdivision ordinance	N/A	Higher Authority
Floodplain ordinance	N/A	Higher Authority
Natural hazard specific ordinance (stormwater, steep slope, wildfire)	N/A	
Flood insurance rate maps	N/A	
Elevation Certificates	N/A	
Acquisition of land for open space and public recreation uses	N/A	
Erosion or sediment control program	N/A	
Other	N/A	
How can these capabilities be expanded and improved to reduce risk?		
The Fire Safe Council will continue to work with the County to reduce risk from wildfire. The ability to expand is limited by budget and staff time.		

Source: BCFSC

The BCFSC noted the Butte Unit Plan/Community Wildfire Protection Plan was completed. The BCFSC informed areas of this Plan. This Plan is discussed in greater detail in the Capabilities discussion in Section 4.4.1 of the Base Plan.

K.6.2. Administrative/Technical Mitigation Capabilities

Table K-4 identifies the District staff/roles responsible for activities related to mitigation and loss prevention in the District.

Table K-4 Butte County Fire Safe Council – Administrative and Technical Mitigation Capabilities

Administration	Y/N	Describe capability Is coordination effective?
Planning Commission	N/A	We don't participate in the commission
Mitigation Planning Committee	N/A	We don't participate in the committee
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	Y	BCFSC has provided a no cost chipping service for 15 years and Residents Assistance for elderly, disabled low income, as well as roadside clearing, forest thinning and fuels reduction.
Mutual aid agreements	N/A	We don't have any
Other	N	
Staff	Y/N FT/PT	Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Chief Building Official	N/A	Higher Authority
Floodplain Administrator	N/A	Higher Authority
Emergency Manager	N/A	Higher Authority
Community Planner	N/A	Higher Authority
Civil Engineer	N/A	Higher Authority
GIS Coordinator	N/A	Higher Authority
Other		There is a strong need to manage forest health and fuels reduction in the Wildland Urban Interface, if we don't communities will continue to burn and disaster proportions will continue to exceed funding thresholds, to mitigate this we feel that Butte County would benefit by hiring a Forest Manager position which would coordinate with the rural WUI communities, interface with CAL FIRE and the Fire Safe Council and assist in protecting forest assets and values at risk, there is currently no position like this. The State of California designated a Forest Health Task Force in the summer of 2018, this is the first time an organized effort has been undertaken to bring partners together across large landscapes to work together to address the forest health issues that cause catastrophic wildfire. The county would benefit by having a representative in this task force and or a staff position designated to carry out the tactics and approaches codified by the state forest health task force.
Technical	Y/N	Describe capability Has capability been used to assess/mitigate risk in the past?
Warning systems/services (Reverse 911, outdoor warning signals)	Y	Supporting multiple warning systems is critical and the education outreach of these systems, like the Code Red, our OEM and BCSO has done an outstanding job attending events to promote these resources and make them available online.
Hazard data and information	Y	The tools from CAL FIRE have been very useful in identifying WUI risks, the BCFSC is developing a data portal in partnership with the Sacramento River Watershed Program for hazard data.

Grant writing	Y	There has been some support within CAL FIRE, OEM and Development Services to write grants for wildfire safety projects however there is need to leverage more funds for these purposes.
Hazus analysis		
Other		
How can these capabilities be expanded and improved to reduce risk?		
The Fire Safe Council will continue to work with the County to reduce risk from wildfire. The ability to expand is limited by budget and staff time.		

Source: BCFSC

K.6.3. Fiscal Mitigation Capabilities

Table K-5 identifies financial tools or resources that the District could potentially use to help fund mitigation activities.

Table K-5 Butte County Fire Safe Council – Fiscal Mitigation Capabilities

Funding Resource	Access/ Eligibility (Y/N)	Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Capital improvements project funding	N	
Authority to levy taxes for specific purposes	N	
Fees for water, sewer, gas, or electric services	N	
Impact fees for new development	N	
Storm water utility fee	N	
Incur debt through general obligation bonds and/or special tax bonds	N	
Incur debt through private activities	Y	BCFSC does have a line of credit to help pay invoices prior to grant reimbursements
Community Development Block Grant	N	
Other federal funding programs	Y	Multiple US Forest Service Grants
State funding programs	Y	Multiple State Grants
Other	Y	Small proportions of donations
How can these capabilities be expanded and improved to reduce risk?		
The problem of forest health and fuels reduction is a statewide/national issue. To have to compete for grants year after year is not an efficient way to address the problem. All suppression activities related to wildfire get paid bottom line, however prevention work does not have that same process. There should be a set amount of funding available to Butte County each year for wildfire mitigation activities.		

Source: BCFSC

K.6.4. Mitigation Education, Outreach, and Partnerships

Table K-6 identifies education and outreach programs and methods already in place that could be/or are used to implement mitigation activities and communicate hazard-related information. More information can be found below the table.

Table K-6 Butte County Fire Safe Council – Mitigation Education, Outreach, and Partnerships

Program/Organization	Yes/No	Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Y	BCFSC has multiple emergency preparedness education materials, attends events, has social media outreach and volunteers
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Y	Same as above
Natural disaster or safety related school programs	Y	6 th Grade Wildfire in the Foothills Education Program, youth wildfire safety books and mascot Wildfire Ready Raccoon
StormReady certification	N	
Firewise Communities certification	Y	There are 5 Firewise communities coordinated with BCFSC and local fire safe councils
Public-private partnership initiatives addressing disaster-related issues	Y	BCFSC has partnered with insurance agencies, banks and other businesses to support wildfire safety with displays, programs and handouts
Other		
How can these capabilities be expanded and improved to reduce risk?		
The Fire Safe Council will continue to work with the County to reduce risk from wildfire. The ability to expand is limited by budget and staff time.		

Source: BCFSC

Partners of the BCFSC organization include:

- Butte County Air Quality Management District
- Butte County Development Services - Planning
- Butte County Road dept.
- Butte County Agricultural Office
- Butte County Office of Emergency Services
- Butte County Sheriff's Office
- Butte County Forest Advisory Committee
- Bureau of Land Management
- Bare on the Ridge
- CALFIRE/Butte County Fire Dept.
- Dept. of Transportation

- California Conservation Corp
- CSU Chico
- Department of Water Resources
- Fire Safe Councils
 - ✓ Berry Creek Fire Safe Council
 - ✓ Cohasset Fire Safe Council
 - ✓ Feather Falls Fire Safe Council
 - ✓ Forbestown Fire Safe Council
 - ✓ Forest Ranch Fire Safe Council
 - ✓ Paradise Ridge Fire Safe Council
 - ✓ Yankee Hill Fire Safe Council
- South County Fire Safe Council Advisory Group
- Love Paradise
- Merry Mountain Village
- North Valley Animal Disaster Group
- Oroville Fire Department
- Oroville Union School District
- Pacific gas & Electric
- Paradise irrigation District
- Paradise Garden Club
- Paradise Recreation and Parks Department
- Paradise Pines Property Owners Association
- Paradise Unified School District
- Political Representatives - Various
- Butte County Resource Conservation District
- Ridge View Hi School
- Registered Professional Foresters - Pete Sundahl
- Sierra Nevada Conservancy
- Sierra Pacific Industries
- Soper Wheeler
- State Parks
- Terra Fuego
- Tribes
 - ✓ Mooretown Rancheria
 - ✓ Mechoopda Rancheria
 - ✓ Koncow Maidu
- Town of Paradise
- University of California Cooperative Extension
- Watershed Groups
 - ✓ Sacramento River Watershed Program
 - ✓ Friends of Butte Creek
 - ✓ Upper Feather River Integrated Watershed Management Group
- U.S.D.A Plumas Nat. Forest
- U.S.D.A. Natural Resources Conservation Service
- U S Fish and Wildlife Service
- Volunteers in Police Services
- Yuba Watershed and Fire Protection

K.6.5. Other Mitigation Efforts

BCFSC has many other ongoing mitigation efforts and past projects that include the following:

- Project Implementation – Completed; 8 roadside shaded fuel breaks, 4 landscape level forest health, watershed enhancement projects, 15 years of chipper and resident’s assistance program service, 12 years of youth education program.
- Financial Accountability – Processed over 100 grants, conducted 3 financial audits with no significant findings, received and put on the ground \$7,000,000 in grant and community funds in the past 10 years.
- Creating Wildfire Safety Community – Assist 5 Firewise Communities, act as fiscal sponsor to 5 community organizations, coordinate with 7 community fire safe councils, and plan through the Community Wildfire Protection Process/Butte Unit Plan.
- Partnerships – Developed and sustained over 40 partnerships with local, state, federal, and community organizations.

K.7 Mitigation Strategy

K.7.1. Mitigation Goals and Objectives

Butte County Fire Safe Council adopts the hazard mitigation goals and objectives developed by the HMPC and described in Chapter 5 Mitigation Strategy.

K.7.2. Mitigation Actions

The planning team for BCFSC identified and prioritized the following mitigation actions based on the risk assessment. Background information and information on how each action will be implemented and administered, such as ideas for implementation, responsible office, potential funding, estimated cost, and timeline are also included. Hazards of priority for the District are:

- Wildfire

It should be noted that many of the projects submitted by each jurisdiction in Table 5-4 in the Base Plan benefit all jurisdictions whether or not they are the lead agency. Further, many of these mitigation efforts are collaborative efforts among multiple local, state, and federal agencies. In addition, the countywide public outreach action, as well as many of the emergency services actions, apply to all hazards regardless of hazard priority. Collectively, this multi-jurisdictional mitigation strategy includes only those actions and projects which reflect the actual priorities and capacity of each jurisdiction to implement over the next 5-years covered by this plan.

Mitigation Actions

Action 1. Upper Ridge Fuels Reduction Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Conduct fuels reduction on multiple ownerships in the Upper Ridge; Paradise Irrigation District, Paradise Pines Property Owners Association, US Forest Service, BLM, Sierra Pacific Industries, Paradise Park and Recreation District and Paradise Unified School District.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1800 - \$2800 per acre treated. Approximately 300 acres: \$600,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding, US FS and BLM project work

Timeline: 2019 and ongoing

Project Priority: High

Action 2. Upper Ridge Fuels Reduction Maintenance Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Conduct fuels reduction maintenance on multiple ownerships in the Upper Ridge; Paradise Irrigation District, Paradise Pines Property Owners Association, US Forest Service, BLM, Sierra Pacific Industries, Paradise Park and Recreation District and Paradise Unified School District. Additionally, support private landowners with maintenance outreach education and the chipper program.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1800 - \$2800 per acre treated. Approximately 150 acres: \$300,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding, US FS and BLM project work

Timeline: 2019 and ongoing

Project Priority: High

Action 3. Concow/Yankee Hill Fuels Reduction Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Conduct fuels reduction on multiple ownerships with grants funding provided by CAL FIRE to the Yankee Hill Fire Safe Council.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1800 - \$2800 per acre treated. Approximately 100 acres: \$200,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: High

Action 4. Concow/Yankee Hill Fuels Reduction Maintenance Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Maintain fuels reduction on multiple ownerships with grants funding and partner support on USFS lands, Sierra Pacific Industries and private landowners. Leverage CAL FIRE prescribed fire resources to maintain brush regrowth from the CAMP Fire of November 8, 2018. Additionally, support private landowners with maintenance outreach education and the chipper program.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1800 - \$2800 per acre treated. Approximately 150 acres: \$300,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: High

Action 5. Berry Creek Fuels Reduction Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Construct fuels reduction on multiple ownerships with grant funding and partner support on US FS lands and private landowners. Work focusing along Bald Rock and Rockefeller Roads.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1800 - \$2800 per acre treated. Approximately 400 acres: \$800,000

Benefits (Losses Avoided): Reduced fire intensity within the fuel reduction zone; increased probability of containing a fire within the fuel reduction zone; reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding and US FS project work

Timeline: 2019 and ongoing

Project Priority: High

Action 6. Berry Creek Fuels Reduction Maintenance Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Maintain fuels reduction on multiple ownerships with grant funding and partner support on US FS lands and private landowners. Additionally, support private landowners with maintenance outreach education and the chipper program.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1800 - \$2800 per acre treated. Approximately 50 acres: \$100,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding and US FS project work

Timeline: 2019 and ongoing

Project Priority: High

Action 7. Butte Meadows Fuels Reduction Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Construct a shaded fuel break along Humboldt Road from Hwy 32 to the community of Jonesville as grant funds allow.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1,800 - \$2,800 per acre treated. Approximately 100 acres: \$200,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: Medium

Action 8. Cohasset Fuels Reduction Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Construct a shaded fuel break along Vilas Rd, Mann and Nolita Ridge Rd, and Mud Creek Rd in the community of Cohasset as grant funds allow.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1800 - \$2800 per acre treated. Approximately 182 acres: \$364,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: High

Action 9. Cohasset Fuels Reduction Maintenance Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Maintain a shaded fuel break along Vilas Rd, Mann and Nolta Ridge Rd, and Mud Creek Rd in the community of Cohasset as grant funds allow. Additionally, support private landowners with maintenance outreach education and the chipper program.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1800 - \$2800 per acre treated. Approximately 97 acres: \$195,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: High

Action 10. Forest Ranch Fuels Reduction Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Construct shaded fuel breaks along roadways including Doe Mill Road, Headwaters Road, and Schott Road in the community of Forest Ranch as grant funds allow.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1800 - \$2800 per acre treated. Approximately 227 acres: \$454,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.

- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: Medium

Action 11. Forest Ranch Fuels Reduction Maintenance Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Construct shaded fuel breaks along roadways including Doe Mill Road, Headwaters Road, and Schott Road in the community of Forest Ranch as grant funds allow.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1800 - \$2800 per acre treated. Approximately 227 acres: \$454,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: Medium

Action 12. Feather Falls Fuels Reduction Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Construct shaded fuel breaks along roadways including Lumpkin Road, Craig Access Road and side roads feeding into Lumpkin Road.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1800 - \$2800 per acre treated. Approximately 40 acres: \$80,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: High

Action 13. Feather Falls Fuels Reduction Maintenance Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Maintain shaded fuel breaks along roadways including Lumpkin Road, Craig Access Road and side roads feeding into Lumpkin Road. Additionally, support private landowners with maintenance outreach education and the chipper program.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1800 - \$2800 per acre treated. Approximately 40 acres: \$80,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: High

Action 14. Forbestown Fuels Reduction Maintenance Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Maintain shaded fuel breaks along roadways including Lumpkin Road, Craig Access Road and side roads feeding into Lumpkin Road. Additionally, support private landowners with maintenance outreach education and the chipper program.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions

- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1800 - \$2800 per acre treated. Approximately 40 acres: \$80,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: High

Action 15. Forbestown Fuels Reduction Maintenance Project

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Create shaded fuel breaks along roadways including Forbestown, Black Bart, Sweeds Flat and side roads feeding into main roads. Work with CAL FIRE on their community fuels reduction project funded by the State. Additionally, support private landowners with maintenance outreach education and the chipper program.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$1800 - \$2800 per acre treated. Approximately 50 acres: \$100,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: Medium

Action 16. Firewise Communities and Education Program

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Provide multiple forms of community outreach to youth, families and wildland urban interface residents about defensible space, evacuation preparedness, home hardening, ember storms, forest health, Firewise USA program and fire safe council programs.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: \$80,000 for prevention staffing

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: High

Action 17. Fuels Reduction Chipper Program

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Provide no cost or low cost service for chipping fire hazardous vegetation throughout the Wildland Urban Interface to improve defensible space and ingress/egress.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: 500 acres at total of \$500,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: High

Action 18. Residents Assistance Program - Fuels Reduction and Defensible Space

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Provide no cost or low cost service for creating and improving defensible space and ingress/egress for elderly, low income and disabled residents in the Wildland Urban Interface.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: 150 acres at total of \$300,000

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: High

Action 19. Camp Fire Hazard Tree Removal - Fuels Reduction

Hazards Addressed: Fire hazard / Fuel reduction

Goals Addressed: 1, 2, 3, 4, 5, 7, 9

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: Assist in efforts to improve community safety from hazard trees caused by the November 8, 2018 Camp Fire by cutting small and large diameter dead and dying trees near homes,

roadways and community locations. As well as removal of brush and stump regrowth from trees killed or removed.

Other Alternatives:

- Increased number of initial attack resources
- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: 200,000 trees estimated at 60 million dollars in removal and processing

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: FEMA, Local, State and Private Grant funding

Timeline: 2019 and ongoing

Project Priority: High

Action 20. Defensible Space and Hazardous Fuels Reduction Program - Butte County WUI

Hazards Addressed: Fire hazard / Fuel reduction

Issue/Background: Butte County has experienced many damaging wildland fires during the past century. Dense vegetative fuel loading provides the potential for future catastrophic wildland fires and damage to communities and assets at risk.

Project Description: The scope of the program is to reduce future fires' rate of spread, intensity, and hazard to homes and infrastructure. The program will accomplish this by creating defensible space fuels reduction. The program will be available to participants across the wildland-urban-interface (WUI) area, as long as their homes are within 500' of a main evacuation route. This ensures that work done under the grant will achieve the dual purpose of creating defensible space for homeowners while also improving evacuation route safety during wildfire events. Work can and will be done in any of the 25 Butte County WUI communities because all Butte County WUI communities are equally at risk and in need of mitigation.

Other Alternatives:

- Increased number of initial attack resources

- Public education to reduce ignitions
- Nothing

Existing Planning Mechanism(s) through which Action Will Be Implemented: Butte Unit Fire Plan/Community Wildfire Protection Plan

Responsible Office/Partners: CAL FIRE/Butte County Fire Department in cooperation with the Butte County Fire Safe Council

Cost Estimate: Federal cost \$7,906,400 with match of \$2,642,600 plus administration at 5% for a total of \$527,453 for a total of \$11,076,513 in project costs.

Benefits (Losses Avoided):

- Reduced fire intensity within the fuel reduction zone.
- Increased probability of containing a fire within the fuel reduction zone.
- Reduced risk to public safety, property, environment and other assets at risk.

Potential Funding: Grant funding

Timeline: 2019 and ongoing

Project Priority: High