RESOLUTION - ACTION REQUESTED 2017-677

MEETING: October 3, 2017

TO: The Board of Supervisors

FROM: Sarah Williams, Planning Director

RE: General Plan Safety Element Amendment for LHMP

RECOMMENDATION AND JUSTIFICATION:
Public Hearing to Consider Approving General Plan Amendment No. 2015-002, a General Plan Safety Element Amendment, Resolution with Findings, Including an Environmental Determination; Directing Staff to File a Notice of Exemption; and Approving Mariposa County’s Responses to State Board of Forestry and Fire Protection Recommendations.

Recommended action is based on the Planning Commission’s recommendation [Resolution No. 2017-010 (executed copy not yet available)].

BACKGROUND AND HISTORY OF BOARD ACTIONS:
December, 2006: Board adopted the Mariposa County General Plan, including the Safety Element, Chapter 16.

June 23, 2015: Resolution No. 2015-313 adopting an update to the Local Hazard Mitigation Plan (LHMP)

July 21, 2015: Resolution No. 2015-371 initiating amendments to the Safety Element to incorporate, by reference, the LHMP

ALTERNATIVES AND CONSEQUENCES OF NEGATIVE ACTION:
Alternatives: Amend text in Safety Element Amendments. This may necessitate the project be referred back to the Planning Commission.

Negative action: Not approving amendment would mean that Mariposa County would not be in compliance with the Disaster Mitigation Act of 2000, Senate Bill 1241 and Assembly Bill 2140. This potentially jeopardizes disaster funding.

FINANCIAL IMPACT:
none

ATTACHMENTS:
Staff Report to Board (DOC)
Attachment 1 PC Resolution (PDF)
Attachment 2 Draft NOE (DOC)
Attachment 3-1 Don Florence Comments (PDF)
Attachment 3-2 Russ Marks Comments (DOCX)
Attachment 3-3 MPUD Comments (PDF)
Attachment 4 Draft Board Resolution (DOC)

CAO RECOMMENDATION
Requested Action Recommended

Dallin Kimble
Dallin Kimble, County Administrative Officer 9/28/2017

RESULT: ADOPTED [UNANIMOUS]
MOVER: Kevin Cann, District IV Supervisor
SECONDER: Rosemarie Smallcombe, District I Supervisor
AYES: Smallcombe, Jones, Long, Cann, Menetrey
TO: County Clerk, County of Mariposa
     P.O. Box 247
     Mariposa, CA 95338

FROM: Mariposa County
       Planning Department
       P.O. Box 2039
       Mariposa, CA 95338

Project Title: General Plan Amendment No. 2015-002

Project: Text Amendment to Countywide General Plan

Project Parcels: N/A

Description of Project: Amendment to the Mariposa County General Plan to incorporate by reference the Local Hazard Mitigation Plan into the Safety Element (Chapter 16) of the Mariposa County General Plan and to address requirements of Senate Bill 1241.

Name of Public Agency Approving Project: Mariposa County Board of Supervisors

Name of Proponent Carrying Out Project: Mariposa County

Exempt Status: General Rule Exemption; Section 15061, CEQA Guidelines

Reason Why Project is Exempt: The amendment incorporates by reference the Local Hazard Mitigation Plan into the Safety Element of the Mariposa County General Plan and addresses requirements of Senate Bill 1241. This amendment does not have the potential to cause a significant effect on the environment.

Lead Agency Contact Person: Sarah Williams, Planning Director

Phone Number: (209) 742-1215

Mariposa County Board of Supervisors by

Sarah Williams
Planning Director

Date 10/4/17
STATE OF CALIFORNIA  
COUNTY OF MARIPOSA  
BOARD OF SUPERVISORS  

Resolution  
No 2017-677  
A resolution approving General Plan Amendment No. 2015-002; amendments to Chapter 16 – Safety Element of the Mariposa County General Plan to incorporate by reference the Local Hazard Mitigation Plan and address requirements of Senate Bill 1241

WHEREAS, the Mariposa County General Plan includes a Safety Element which addresses the safety of people and property in Mariposa County with the intent of reducing the risk of loss of life, injuries, damage to property, and economic and social dislocations from identified hazards to the smallest amount or degree within practical limitations; and

WHEREAS, the standards in the Safety Element were deemed adequate at the time of General Plan adoption in December of 2006 to meet the goals of addressing the safety and people and property in Mariposa County; and

WHEREAS, subsequent to the adoption of the General Plan, the governor of the state of California signed into law Senate Bill 1241, which went into effect on January 1, 2013, mandating that Safety Elements, upon the next revision of the Housing Element on or after January 1, 2014, be reviewed as necessary to address the risk of fire for State Responsibility Areas (SRAs) and very high fire hazard severity zones including review of fire hazard severity zone maps; and

WHEREAS, subsequent to the adoption of the General Plan, the Board of Supervisors adopted Resolution No. 2015-313, adopting an update to the Local Hazard Mitigation Plan (LHMP) on June 23, 2015; and

WHEREAS, the LHMP was prepared in accordance with the provisions of the federal Disaster Mitigation Act (DMA) of 2000, including the DMA’s mitigation planning section, and assesses risks posed by natural and human-caused hazards and describes a mitigation strategy for reducing the County’s risks; and

WHEREAS, the DMA’s mitigation planning section provides the legal basis for the Federal Emergency Management Agency’s mitigation plan requirements for mitigation grant assistance; and

WHEREAS, incorporating by reference the LHMP into the Safety Element of the General Plan satisfies DMA requirements for such incorporation, and

WHEREAS, the Board of Supervisors adopted Resolution No. 2015-371 on July 21, 2015, initiating amendments to the Safety Element of the General Plan and this project is known as General Plan Amendment No. 2015-002; and

WHEREAS, the proposed amendment text satisfies the review requirements of Senate Bill 1241 and properly references the County’s Community Wildfire Protection Plan.
(Mariposa Countywide Community Wildland Fire Protection Plan) in the Safety Element, in accordance with SB 1241, and

WHEREAS, incorporating the LHMP by reference into the General Plan establishes conformance with state Assembly Bill 2140 which will allow Mariposa County to be eligible for maximum state disaster assistance funding; and

WHEREAS, the draft Safety Element amendment was provided to the California Geological Survey of the Department of Conservation for review and comment in accordance with Section 65302.5(a) of the State Government Code; and

WHEREAS, the draft Safety Element amendment was provided to the California Emergency Management Agency for consultation in accordance with Section 65302(g)(6) of the State Government Code; and

WHEREAS, a duly noticed Mariposa County Planning Commission public hearing was scheduled for the 18th day of August 2017; and

WHEREAS, the Planning Commission did hold a public hearing on the noticed date and considered all of the information in the public record, including the Staff Report packet, the proposed environmental determination, input from the Board of Forestry and testimony presented by the public; and

WHEREAS, the Planning Commission did recommend that the Board of Supervisors approve General Plan Amendment No. 2015-002 with findings, including a finding that the project is exempt from CEQA, and direct staff to file a Notice of Exemption for the project, and approve responses to recommendations on the Safety Element amendment provided by the state Board of Forestry and Fire Protection; and

WHEREAS, a duly noticed Board of Supervisors public hearing was scheduled for the 3rd day of October 2017; and

WHEREAS, a staff report was prepared pursuant to the California Government Code, Mariposa County Code, and local administrative procedures; and

WHEREAS, the Board of Supervisors did hold a public hearing on the noticed date and considered all of the information in the public record, including the staff report packet and testimony presented by the public.

NOW BE IT THEREFORE RESOLVED THAT the Board of Supervisors of the County of Mariposa does hereby approve General Plan Amendment No. 2015-002 as shown in Exhibit 1.

NOW BE IT THEREFORE FURTHER RESOLVED THAT the Board of Supervisors does hereby approve responses to recommendations on the Safety Element amendment provided by the state Board of Forestry and Fire Protection as shown in Exhibit 2.

NOW BE IT THEREFORE FURTHER RESOLVED THAT the project approval is based on the following findings supported by substantial evidence in the public record.
1. **Finding:** The amendment is in the general public interest, and will not have a significant adverse effect on the general public health, safety, peace, and welfare.

   **Evidence:** The amendment will have a positive effect on and enhance the general public health, safety, peace, and welfare. The General Plan is the county's governing document and incorporating by reference the Local Hazard Mitigation Plan (LHMP) into its Safety Element will ensure County documents are consistent with respect to addressing public health and safety. The LHMP and its incorporation into the Safety Element will allow the county to seek grants under the Federal Emergency Management Agency's Hazard Mitigation Assistance program and be eligible for maximum available state disaster assistance funding under AB 2140. The amendment will meet the requirements of Senate Bill 1241 which are designed to provide enhanced fire protection in State Responsibility Areas.

2. **Finding:** The amendment is desirable for the purpose of improving the Mariposa County General Plan with respect to providing a long term guide for county development and a short term basis for day-to-day decision making.

   **Evidence:** This amendment will improve the Mariposa County General Plan by providing an enhanced long term guide for protecting public health and safety. The amendment will bring into consistency adopted county documents addressing public health and safety. The amended Safety Element will provide a guide in the short term for day-to-day decision making through attainment of specific goals, policies and implementation measures and ensuring development projects conform to health and safety policies.

3. **Finding:** That such an amendment conforms to the requirements of state law and county policy.

   **Evidence:** This project has been processed in accordance with State Law. Senate Bill 1241 mandates the county to review its Safety Element to ensure conformance with state law relating to fire protection in State Responsibility Areas. It is the policy of the county to maximize public health and safety as shown in the Safety Element's goals, policies and implementation measures. The amendment brings into consistency the county's planning documents relating to health and safety. Applicable state agencies were given the opportunity to review and provide recommendations on the proposed amendment in accordance with state Government Code.

4. **Finding:** This amendment is consistent with other guiding policies, goals, policies and standards of the Mariposa County General Plan.

   **Evidence:** The amendment, which incorporates by reference the county's adopted Local Hazard Mitigation Plan and addresses requirements of state law, is consistent with other guiding policies, goals, policies and standards of the Mariposa County General Plan.
NOW BE IT THEREFORE FURTHER RESOLVED THAT the Board of Supervisors finds that the project is exempt from environmental review pursuant to a General Rule Exemption of the California Environmental Quality Act. It can be found with certainty that there is no possibility that the activity in question may have a significant effect on the environment. This amendment only incorporates an adopted LHMP by reference into the Safety Element of the General Plan and addresses the requirements of SB 1241.

NOW BE IT THEREFORE FINALLY RESOLVED THAT the Board of Supervisors directs staff to file a Notice of Exemption for the project.

ON MOTION BY Supervisor Cann, seconded by Supervisor Smallcombe, this resolution duly passed and adopted this 3rd day of October 2017 by the following vote:

AYES: SMALLCOMBE, JONES, LONG, CANN, MENETREY

NOES: NONE

ABSENT: NONE

ABSTAIN: NONE

Marshall Long, Chair
Mariposa County Board of Supervisors

Attest:
René LaRoche,
Clerk of the Board of Supervisors

APPROVED AS TO LEGAL FORM:

Steven W. Dahlem
County Counsel
Exhibit 1

(Additions are shown in italicized, double underlined type; deletions are shown in double strikethrough type.)

16 Safety

The Safety Element identifies issues and delineates programs related to safety in the County.

16.1 Safety Issues and Summary of Findings

Fire, flood, seismic and geologic hazards, winter storms, as well as airport operations and use or transport of hazardous materials may create hazards for people and property in the County. It is the County’s intent to reduce the risk of loss of life, injuries, damage to property, and economic and social dislocations from those hazards to the smallest amount or degree within practical limitations.

This Safety Element incorporates by reference the Local Hazard Mitigation Plan (LHMP) dated February 2015 that was prepared in accordance with the federal Disaster Mitigation Act (DMA) of 2000 and adopted by the Board of Supervisors in November of 2012 and the update to the LHMP dated February 2015 that was adopted on June 23, 2015. This plan has been approved by the Federal Emergency Management Agency (FEMA). (Subsequent LHMPs are also incorporated by reference into this Element.) This DMA amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (Title 42 of the United States Code Section 5121 et seq.) by repealing the Act’s previous mitigation planning section (409) and replacing it with a new mitigation planning section (322). This new section emphasizes the need for state, tribal, and local entities to closely coordinate mitigation planning and implementation efforts. This new section also provides the legal basis for FEMA’s mitigation plan requirements for mitigation grant assistance. The provisions of this plan are summarized within the appropriate sections of this element.

The LHMP and its incorporation into this Safety Element satisfies the requirements of state Senate Bill (SB) 1241, which went into effect on January 1, 2013. This legislation mandated that safety elements, upon the next revision of the Housing Element on or after January 1 2014 cities and counties in the state must be reviewed and update their Safety Elements as necessary to address the risk of fire for State Responsibility Areas (SRAs) and very high fire hazard severity zones and conduct detailed surveying and mapping to determine areas of high fire danger—including review of fire hazard severity zone maps. (Appendix C in the adopted LHMP contains such mapping.) SB 1241 requires that Safety Elements must minimize fire risks and provide guidance on local decision-making to achieve this goal. The approval of tentative maps, or parcel maps for which a tentative map is not required by county legislative bodies must include three specific findings relating to the provision of adequate fire protection for projects in a SRA and/or an area of high fire danger.

SB 1241 requires cities and counties with fire safety plans adopted separately from the General Plan to attach such plans to the General Plan or reference them in the General Plan. Mariposa County adopted a fire hazard plan in 2010. This plan, a Community Wildfire Protection Plan specifically titled
"Mariposa Countywide Community Wildland Fire Protection Plan," contains protection plans for 13 communities or areas within Mariposa County. This plan and subsequent revisions to the plan are incorporated into the Safety Element of the General Plan by reference.

Mariposa County is served by the Madera-Mariposa-Merced Unit of CAL FIRE. A fire management plan for this area, which includes Battalions 1 and 2 covering Mariposa County, was adopted by CAL FIRE in 2015. CAL FIRE also adopted a Fire Hazard Severity Zone map for State Responsibility Areas in Mariposa County. The map, adopted on November 7, 2007, was prepared under CAL FIRE's Fire and Resource Assessment Program.

The original LHAM was approved by the Mariposa County Board of Supervisors in November 2012 and was subsequently approved by FEMA. The LHAM Update, dated February 2015, was deemed eligible for final approval by FEMA in February 2015 pending adoption by the board of supervisors, which occurred on June 23, 2015.

The Safety Element addresses the safety of people and property in Mariposa County in coordination with other local, state, tribal and federal agencies. Issues addressed in this Element include:

- fire hazard,
- flood hazard,
- geologic hazards,
- seismic hazards,
- airport safety,
- hazardous materials and hazardous waste, and
- emergency management and evacuation plans, and
- winter storms

16.1.01 FIRE HAZARD

Uncontrolled wildfires damage life, property, and critical natural resources, including scenic resources. Uncontrolled wildfires also damage grazing lands, public infrastructure and local businesses. The potential risk from wildfire depends upon the amount of flammable vegetation and other fuel sources in an area, combined with meteorological and topographic factors. The risk of wildfire is high in a large portion of Mariposa County because the County is covered by a combination of grasslands, chaparral, and forests that can become very flammable during dry weather. The wind and heat from June to September contribute to the fire danger. Even during the winter months the fire danger persists, because the drying effects of several days of wind can reduce the water content of brush to a level that makes it susceptible to burning. Various factors, including humidity, wind speed and direction, fuel load and fuel type, and topography, contribute to the intensity and spread of wildland fires.

Every community in Mariposa County has been threatened by major wildland fires within the past 200 years. Since 1954, the town of Mariposa has burned down several times. The original county seat, Agua Fria, was destroyed by fire in the 1800s and was not rebuilt. Structures that have survived for more than 100 years, except for the Mariposa County Courthouse, have steel roofs, steel shutters for doors and windows, and adobe, stone, or brick walls. Other structures that have survived are located in areas that
were defendable from wildland fires and had some sort of defensible space such as pastures, orchards, or recent clearance around the structure.

The most notable fire in Mariposa's history is the Harlow Fire of July 1961. Its notability is due to the rapidity of its spread; in two hours it burned 20,000 acres making it one of the fastest burning fires recorded in the United States. The fire eventually burned 43,329 acres, destroyed 104 structures and claimed two lives. One of the most active and destructive fire seasons for Mariposa County occurred in 2008. The Telegraph Fire in July of that year, a 50-year fire event, consumed 18,000 acres in the first day and a half alone. It eventually burned 32,000 acres. The Carsten's Fire in June 2013 burned 1,708 acres. The Detwiler Fire in July 2017 burned 81,826 acres and destroyed 63 residences, 67 minor structures and one commercial structure.

There is a distinction between wildland fires and non-wildland fires involving homes, businesses, and other improvements. The Mariposa County Fire Department has the responsibility of determining the threat and mitigation measures needed for non-wildland fires. The California Department of Forestry and Fire Protection (CAL FIRE), the USDA Forest Service, the Department of Interior National Park Service, and Bureau of Land Management have responsibility for wildland fires within their jurisdictions. The threats, the mitigation, and the approaches are different.

While wildfires are caused by both natural and human means, human error has historically been the cause of most large fires in Mariposa County. The threat of wildfires is greatest in the central, northeast, and southeast portions of the County because these areas consist primarily of chaparral and conifer communities and are prone to high winds. These areas are the most developed in the County (Mariposa Town and Coulterville are located here) and are where the largest amount of future development is likely to occur. Topography, fuel and weather are three factors that contribute most significantly to wildland fire behavior and can be used to identify wildland fire hazard areas.

The LHMP Update displays the locations of past wildland fires throughout Mariposa County and illustrates the wildland fire hazard areas based upon fuel rank. As illustrated by both figures, the entire County is susceptible to wildland fires, but the central portion of the County is most susceptible, falling in the very high hazard zone.

According to CAL FIRE, 443,891 acres in Mariposa County, the vast majority located in the central and western portion of the county, are located within the State Responsibility Area. The State Responsibility Area (SRA) is the area of the state where the State of California is financially responsible for the prevention and suppression of wildfires.

The LHMP provides information regarding the total acres burned and the perimeter of past wildland fires. The Plan illustrates fuel rank; this map is based on the California fires and Resources Assessment Program fuel rank model. This model ranks the fuel type, slope, brush density (ladder), and tree density (crown cover) present.

As the fuel loading increases in the County the potential for more firefighter and civilian fatalities also increases. There has been a significant improvement in prevention that has dramatically reduced the number of human caused fires. For instance, CAL FIRE/USDA Forest Service Team Teaching in elementary schools has reduced the number of children-caused fires to almost zero within the past 25 years. Lightning is the number one natural threat to Mariposa County and historically it is lightning-caused fires that have been the most costly.
Based on previous occurrences, Mariposa County can expect a wildland fire of over 3,000 acres to occur about every other year, a 60 percent chance per year (12 years out of 20 years have had large wildland fires of over 3,000 acres.)

According to CAL FIRE, and the U.S. Forest Service responded to over 300 wildland fires in Mariposa County from 1950-2011.

The 2002 Standards of Coverage prepared by Mariposa County Fire Department create a system to increase fire prevention and protection opportunities for property owners. The Standards of Coverage ensure the County is able to maintain its Insurance Services Office (ISO) ratings. As the ISO ratings number decreases (improvement to fire protection services), the cost of property insurance costs also decrease. Further implementation of the concentric development pattern policies of the General Plan implement the Standards.

Basically, residential development needs to occur in areas where fire protection can be supplied. The County has standards of response time and coverage for fire protection. There are county fire stations countywide and one fire station under construction; these include Co# 21 Midpines, Co# 22 MPUD Mariposa, Co# 23 Catheys Valley, Co# 24 Don Pedro, Co# 25 Mt. Bullion Airport, Co# 26 Coulterville, Co # 27 Mormon Bar, Co# 28 Bridgeport (planning for construction, 2005), Co# 29 Lushmeadows, Co# 31 Greeley Hill, Co# 32 Ponderosa Basin, Co# 33 Fish Camp, Co# 34 El Portal, Co# 36 Hunters Valley, and Co# 37 Bootjack. The Mariposa Public Utilities District (MPUD), which serves the community of Mariposa, provides fire protection within its service area boundaries.

To maintain quality fire protection and not lose ISO ratings, development potential is tempered by the available ISO rating. Communities with hydrant systems are classed as ISO Rural 5 or 6. MPUD's service area is currently assigned an ISO rating of 3. Outlying rural areas are classified as ISO Rural 8, 9, or 10. ISO 8 is within the coverage response time of a fire station. ISO 9 areas have fire protection, but longer response times. Areas rated as ISO 10 are considered unprotected. Appendix E-B of the General Plan includes the 2005 Mariposa County ISO Rating map. In 2005, the County had an ISO rating of “5.”

From CAL FIRE’s perspective, the ISO ratings assist with determining mitigation for structures, but the Fire Hazard Preplanning conducted by CAL FIRE provides the planning for wildfire. CAL FIRE needs to be able to manage fuel breaks through the wildland-urban interface. When new subdivisions are created, CAL FIRE’s review of the project can result in mitigation measures requiring fuel breaks, fire roads, limited dead end road lengths, and increased setback areas from property lines adjacent to USFS lands, and other methods of protecting property from wild fire. Establishing these fire management features requires long-term maintenance and efforts by property owners and CAL FIRE. Such requirements are incorporated into the development process. Development projects are subject to all applicable state fire safe standards, including Public Resources codes 4290 and 4291. CAL FIRE professional staff review and inspect all development projects, parcel maps, use permits and building permits for state fire safe standards compliance.

In addition, all construction in Mariposa County (for all occupancies, other than those in a Special Occupancy Park or a public school facility) is required to comply with all state Uniform Building Code and Fire Code requirements.

The Local Hazard Mitigation Plan, which is incorporated into this Safety Element by reference, contains potential mitigation actions to address potential hazards described within that document, including wildfire. This element contains the goal of implementing the mitigation actions contained in the LHMP.
16.1.02 Flood Hazard

Flooding and resulting flood hazards to life and property have been relatively rare in Mariposa. Flooding can cover roads and makes transportation hazardous. Flood hazard areas have been defined by the Department of Housing and Urban Development in the populated areas of Mariposa, El Portal, Coulterville, Wawona, and Hornitos.

In Mariposa County two types of flooding occur: riverine flooding, also known as overbank flooding due to excessive rainfall, and localized flooding. Riverine floodplains range from narrow, confined channels in the steep valleys of mountainous and hill regions to wide, flat areas in plains and coastal regions. Flooding in steep, mountainous areas is usually confined, strikes with less warning time, and has a short duration. Localized flooding may occur outside of recognized drainage channels or delineated floodplains due to a combination of locally heavy precipitation, increased surface runoff, and inadequate facilities for drainage and storm water conveyance.

There have been two major floods within the County’s limits since 1950. In January 1997, the largest flood in over 80 years occurred on the Merced River. The river ran over its banks and inundated most of Yosemite Valley; all roads within the valley were under several feet of water. All bridges on the Merced River were covered with water. The cost for damages due to this flood was in excess of $194 million. In April 2006 floods were not as damaging, but were more widespread throughout the County. The floods caused significant damage to several small communities and led to a landslide that closed State Route 140. This incident had a cost of damage estimate of $4.1 million.

According to the National Climatic Data Center’s Storm Event Database, from 1995 to the present, there have been 28 different flooding events that affected Mariposa County. Damages for the County and additional affected counties was $3 million.

Floodplains in Mariposa County encompass important resource values. These include natural moderation of floods; water quality maintenance; groundwater recharge; habitat and food for fish, wildlife and plants; open space and natural beauty; outdoor education and recreation; and economic value for agriculture, aquaculture, and forestry. Flooding is increased when obstructions such as sediment, vegetation, and constructed structures and facilities occur in the floodway.

The major areas of concern for flood hazards in Mariposa County are:

- damage to homes and other structures that already exist in floodplains,
- increasing development pressures within floodplains or along watershed drainage channels,
- erosion along established stream channels and sedimentation of instream channels caused by cut and fill activities,
- potential development below dams which might be subject to inundation caused by dam failure, and
- lack of adequate access for emergency equipment during periods of flooding.

Floods are described in terms of their extent (including the horizontal area affected and the vertical depth of floodwaters) and the related probability of occurrence. Factors ranging from rainfall intensity to availability of sediment for transport contribute to the frequency and severity of riverine flooding.
The magnitude of flood used as the standard for floodplain management in the U.S. is a flood having a probability of occurrence of 1 percent in any given year, also known as the 100-year flood or base flood. The most readily available source of information regarding the 100-year flood is the system of Flood Insurance Rate Maps (FIRM) prepared by FEMA. The FIRMs show 100-year floodplain boundaries for identified flood hazards. These areas are also referred to as Special Flood Hazard Areas and are the basis for flood insurance and floodplain management requirements. FEMA has prepared a FIRM for Mariposa County and prepared a digital FIRM (DFIRM), effective September 25, 2009. Figure C-2 in Appendix C of the LHMP shows the locations of the 100-year floodplains in Mariposa County: per the FEMA Flood Insurance Rate Maps (FIRMs) there are no 500-year floodplains in Mariposa County.

Almost 80 percent of the total annual precipitation for Mariposa County occurs between November and March. The mean annual precipitation for the County is just under 34 inches. In the last 19 years Mariposa County has experienced seven flood events that have caused more than $10K in damage (a 7 in 19 years chance of occurring), therefore, the probability of future flooding in Mariposa County is roughly a 37 percent chance per year.

Local area plans in Mariposa County contain standards for protection of creeks and floodplains within plan boundaries. The Mariposa Town Plan contains setbacks from major and minor drainages and prohibits buildings, fill placements and additional development within the 100-year floodway of Mariposa and Stockton Creeks. The Coulterville Town Plan restricts development within the 100-year flood level of Maxwell Creek. The Fish Camp Town Planning Area Specific Plan contains standards for the protection of Big Creek and restricts development within the creek’s flood channel. The Wawona Town Planning Area Specific Plan contains an overlay district for the South Fork of the Merced River which prohibits new dwelling units and subdivisions within its boundaries. The Coulterville Community Plan mandates the development of setback standards for the flood prone areas of blue line drainages.

The Local Hazard Mitigation Plan, which is incorporated into this Safety Element by reference, contains potential mitigation actions to address potential hazards described within that document, including flood. This element contains the goal of implementing the mitigation actions contained in the LHMP.

16.1.03 GEOLOGIC HAZARDS

The most common geologic hazards in Mariposa County are landslides and rock falls. Much of the landslide activity in Mariposa County is associated with the process of liquefaction, which occurs when very wet sediment behaves like a liquid. Landslide is a general term for the dislodgement and fall of a mass of soil or rocks along a sloped surface or for the dislodged mass itself. The term is used for varying phenomena, including mudflows, mudslides, debris flows, rock falls, rockslides, debris avalanches, debris slides, and slump-earth flows. Landslides may result from a wide range of combinations of natural rock, soil, or artificial fill. The susceptibility of hillside and mountainous areas to landslides depends on variations in geology, topography, vegetation, and weather. Landslides may also occur because of indiscriminate development of sloping ground or the creation of cut-and-fill slopes in areas of unstable or inadequately stable geologic conditions. Landslides can also occur together with other natural hazards, such as seismic activity and wildfires.

In April 2006 one of the most costly landslides in the County occurred on State Route 140: 7.6 miles west of El Portal in the Merced River canyon. Known as the Ferguson Rock Slide, this event completely buried the highway necessitating rerouting of the roadway to the opposite side of the canyon.
Each year small landslides/rockslides affect Mariposa County, though few impact communities or the infrastructure. Historically, landslide/significant soil movement has occurred in the Merced River drainage or along steep cut banks on roads in the central southwest areas of the County.

In 2011 the California Geological Survey developed a landslide map for the State of California which illustrates the susceptibility to deep-seated landslides. The map shows the relative likelihood of deep landsliding based on regional estimates of rock strength and steepness of slopes. Based upon this study, much of Mariposa, specifically the western portion of the County, falls into the low landslide susceptibility range. However, the mountainous areas in the eastern portion of the County, along the Merced River canyon and the Yosemite Valley reach the high landslide susceptibility range.

The extent of size of a landslide will vary depending on the proportion of and type of material it carries, the geology of the area, and the initial cause of the slide. Landslides triggered by rainfall are smaller (usually 100-5,000 cubic yards) than those resulting from earthquakes. The hazard potential is greatest in areas with steep slopes and certain geologic and soils conditions, such as expansive soils. The risk of injury or property damage increases when houses and roads are constructed in these areas. These landslides can directly injure people and damage property, can also block evacuation and emergency response routes (see the discussion of Emergency Management and Evacuation Plans below), or damage structures, such as septic systems, causing them to release pathogens or other hazardous substances to the environment. The hazard potential is greatest in areas with steep slopes and certain geologic and soil conditions, such as expansive soils (clay soils that expand when wet). The risk of injury or property damage increases when houses and roads are constructed in these areas. Human activities may further increase the risk by removing or disturbing soil-stabilizing vegetation to construct building pads and roads.

The County addresses old mine shafts, vents, and adits when new subdivisions are created. Part of the California Environmental Quality Act (CEQA) process is to identify such hazards and incorporate appropriate mitigation measures. Landslides in the foothill and mountain areas of Mariposa County, such as in the steep slopes of the Sierra Nevada, are typically deep-seated landslides which are hundreds to thousands of feet in length or width and only move fractions of an inch per year. However, during heavy rainfall events, a landslide can move several yards a minute or faster.

In 1974 a Five County Seismic Safety Element was developed for the general plans for Fresno, Kings, Madera, Mariposa and Tulare counties. This effort involved a generalized landslide risk appraisal and found that there was minimal risk of landslides caused by earthquakes in areas of low relief. The study found moderate to high risk in the remaining mountainous areas of the County. Most of the soils found in the County have minimal amounts of clay and low shrink-swell potential and do not result in landslide hazards. However, the soils found in the hills along Highway 49 North (Hagg-Henneke extremely rock clay loam) have a high risk of sliding and are a special concern. The middle and eastern portions of Yosemite National Park are closer to the Owens Valley Fault and were also found to be at a greater risk of landslide hazards.

Landslides in Mariposa County are generally a secondary hazard resulting from winter storms and heavy rain. Every landslide event reported in Mariposa County has followed a winter storm/rain event, therefore, it is assumed that probability of a future landslide event will be highly tied to winter/rain events. Based upon history of events (7 occurrences in the last 10 years) the probability of a future winter storm/rain induced landslide is a 70 percent chance per year.

Landslides are also a secondary hazard resulting from an earthquake. However, Mariposa has a low susceptibility to earthquake damage and historically there have been no reported earthquake induced
landsides in Mariposa County. Therefore, the probability of an earthquake induced landslide is less than 10 percent per year.

The Local Hazard Mitigation Plan, which is incorporated into this Safety Element by reference, contains potential mitigation actions to address potential hazards described within that document, including landslide. This element contains the goal of implementing the mitigation actions contained in the LHMP. The County addresses old mine shafts, vents, and adits when new subdivisions are created. Part of the California Environmental Quality Act (CEQA) process is to identify such hazards and incorporate appropriate mitigation measures.

16.1.04 Seismic Hazards

Historic earthquake activity in Mariposa County has been low. Secondary seismic hazards are listed in Table 16-1 of this Element; no significant damage related to seismic activity has been recorded. Nevertheless, the Foothills Fault System, which terminates in mid-County, is seismically active. This system includes the Bear Mountain fault and the Melones fault. The system is bound on the east by the northward trending Melones fault zone and on the west by the northwestward trending Bear Mountain fault zone. The Foothills Fault system is 360km long and the maximum magnitude earthquake from the system is assumed to be 6.5 on the Richter magnitude scale. The northern portion of the system produced a magnitude 5.7 earthquake near Oroville in 1975. A few days after the Oroville earthquake, a magnitude 4.1 earthquake was centered south of Cathey's Valley. This smaller earthquake reportedly caused no damage.

The Five-County Seismic Safety Study considered Mariposa County only in light of its distance from the San Andreas Fault to the west and the Owens Valley Fault System to the east. Based on information known at the time of that study, the major part of Mariposa County was shown in Seismic Zone S-1. Zone S-1 is described as having general features of hard rock, alluvium on valley floors, and weathered bedrock in mountain meadows. The zonal characteristics of Seismic Zone S-1 indicate that there is a low damage potential from generalized ground shaking.

Table 16-1: Secondary Seismic Hazards

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Damage potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landslide</td>
<td>Moderate to high</td>
</tr>
<tr>
<td>Subsidence/settlement</td>
<td>Minimal</td>
</tr>
<tr>
<td>Liquefaction</td>
<td>Minimal</td>
</tr>
<tr>
<td>Seiches</td>
<td>Low</td>
</tr>
</tbody>
</table>

Source: Mariposa County, 2005.

Only the mid to eastern portions of Yosemite National Park were shown in Seismic Zones S-2 and S-3, both of which are subject to more severe primary and secondary hazards due to the area’s proximity to the Owens Valley Fault Zone.

The LHMP shows the level of ground motion that has an annual probability of being exceeded in 50 years. As such, this map shows that Mariposa County is susceptible to strong shaking, but does not reach the severe to violent shaking that most counties within the state are susceptible to.

Over past years a group called the Working Group on California Earthquake Probabilities (WGCEP), a multi-disciplinary collaboration of scientists and engineers developed earthquake forecasts for California. In 2007, the WGCEP was commissioned to develop the Uniform California Earthquake Rupture Forecast (UCERF) – the first comprehensive framework for comparing earthquake likelihoods
throughout all of California. UCERF provided important new information for improving seismic safety engineering, revising building codes, setting insurance rates, and helping communities prepare for inevitable future earthquakes.

Taking into account the earthquake histories and relative rates of motion on many faults, the UCERF study concluded that there is a probability of more than 99 percent that in the next 30 years California will experience one or more magnitude 6.7 or greater quakes, as illustrated by Figure 4-1 in the LHMP.

This study, however, also illustrates that for Mariposa County the probability is significantly less. For Mariposa County the probability of having a nearby earthquake rupture (within 3 to 4 miles) of 6.7 or greater in the next 30 years is less than .1 percent and in most areas of the County closer to .01 percent.

The Local Hazard Mitigation Plan, which is incorporated into this Safety Element by reference, contains potential mitigation actions to address potential hazards described within this document, including earthquake. This element contains the goal of implementing the mitigation actions contained in the LHMP.

16.1.05 AIRPORT SAFETY

The Mariposa-Yosemite Airport, located on Highway 49 North approximately four miles northwest of Mariposa, is the only public airport in Mariposa County. It serves Mariposa County and the eastern half of Madera County. It is classified as a General Aviation Basic Utility Airport and has one runway with an adjacent full-length taxiway. The most common types of aircraft using the airport are single engine fixed-wing general aviation with some use by twin-engine aircraft and helicopters.

The principal concerns associated with the Mariposa-Yosemite Airport are the safety of the general public in over flight areas during take-off and landing and noise compatibility. To reduce the safety risk, the Federal Aviation Administration requires runway protection zones and height limits on structures near airports. In addition, airport planning boundaries define areas near airports within which safety or noise restrictions are imposed. Development around the airport must comply with the Mariposa-Yosemite Airport Comprehensive Land Use Plan and Airport Overlay Zone regulations (Chapter 17.64, Mariposa County Code).

Land use compatibility standards have been established by the Mariposa-Yosemite Airport Comprehensive Land Use Plan to provide consistency with the requirements of the County General Plan and the Mount Bullion Town Planning Area, within which the airport is located. Land uses have been classified into three safety zones surrounding the Airport. These safety zones are intended to protect people from hazards and prevent property damage. They restrict building height and ensure compatible uses in areas surrounding the airport.

To be consistent with the County standard, a 55-Community Noise Equivalent Level (CNEL) noise contour has been established extending approximately 3,200 feet east and 5,700 feet west of State Highway 49. This contour is intended to protect residents from potential harm of excessive noise. There are 250 acres zoned Mountain Home (MH) located between the 55 and 60 CNEL (between Old Toll Road and Mt. Bullion Town Planning Area).

Airport safety issues are critical in order to attain the facility’s maximum economic development potential. Mariposa-Yosemite airport is a major component of the County’s economic diversity opportunities if its uses are allowed to continue and expand.
16.1.06 NATURALLY-OCCURRING ASBESTOS

Asbestos is a term used for several types of naturally-occurring fibrous minerals found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. Serpentine rock often contains chrysotile asbestos. Serpentine rock, and its parent material, ultramafic rock, is abundant in the Sierra foothills, the Klamath Mountains, and Coast Ranges. Serpentine rock is typically grayish-green to bluish-black in color and may have a shiny appearance.

Asbestos is commonly found in ultramafic rock, including serpentine, and near fault zones. The amount of asbestos that is typically present in these rocks range from less than 1% up to about 25%, and sometimes more. Asbestos is released from ultramafic and serpentine rock when it is broken or crushed. This can happen when cars drive over unpaved roads or driveways which are surfaced with these rocks, when land is graded for building purposes, or at quarrying operations. It is also released naturally through weathering and erosion. Once released from the rock, asbestos can become airborne and may stay in the air for long periods of time.

All types of asbestos are hazardous and may cause lung disease and cancer. Health risks to people are dependent upon their exposure to asbestos. The longer a person is exposed to asbestos and the greater the intensity of the exposure, the greater the chances for a health problem. Asbestos-related disease, such as lung cancer, may not occur for decades after breathing asbestos fibers. Cigarette smoking increases the risk of lung cancer from asbestos exposure.

There are many laws pertaining to asbestos. The California Air Resources Board adopted two statewide control measures which prohibits the use of serpentine or ultramafic rock for unpaved surfacing and controls dust emissions from construction, grading, and surface mining in areas with these rocks.

16.1.07 HAZARDOUS MATERIALS AND HAZARDOUS WASTE

Hazardous materials and hazardous waste are a potential hazard to County residents primarily through upsets or accidental releases to the environment. The risk of exposure increases when hazardous materials or waste facilities are located near where people live; when facilities are located in areas that contain other hazards (e.g., floodplains, landslide areas, and wildland fire areas); or when hazardous materials or waste are transported. For these reasons, the State and Federal governments closely regulate the storage, handling, and transport of hazardous materials and waste.

Hazardous materials are generally classified by their primary health effects on humans. Some common types include the following:

- Asphyxiants, substances that interfere with normal breathing and can cause suffocation.
- Flammables, combustibles and explosives.
- Corrosives and irritants causing burns or irritation to body tissues such as eyes, nose, throat, lungs, or skin.

The County Health Department is responsible for enforcing State and Federal hazardous waste regulations and implementing the County's Comprehensive Hazardous Waste Management Plan is the Certified Unified Program Agency (CUPA) for the County. The CUPA is responsible for implementing six hazardous materials related programs: Hazardous Materials Business Plans, Hazardous Waste Generators, Underground storage tanks, Above Ground Storage Tanks, California Accidental Release

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1 California Environmental Protection Agency, Air Resources Board, January 2002.
Prevention, and for maintaining the County’s Area Plan for Emergency Response to Hazardous Materials Incidents. The Management Plan is a guide for the reduction, treatment, recycling, and disposal of hazardous waste generated in Mariposa County. Mariposa County has a County Landfill and four transfer stations, although none of these sites accept hazardous waste. Because there are no commercial or public hazardous waste treatment, storage, disposal, or recycling facilities within Mariposa County, all hazardous waste is exported out of the County. Much of the hazardous waste produced in Mariposa County is waste oil. The County collects waste oil at the Mariposa County Airport, the Mariposa County Landfill, and the Den Pedro transfer station for recycling. Since there are no hazardous waste treatment facilities in the County, all other waste was exported to the Merced County Landfill.

There are several sites within the County where there have been reported releases of hazardous materials or wastes to the environment. The most common among these are leaking underground storage tanks (USTs) at former or active service stations. The County Health Department has an underground storage tanks program, which is responsible for ensuring that all USTs meet current state regulations and are inspected and permitted on an annual basis.

The County has taken steps to reduce the generation of hazardous waste by businesses and homeowners in the County. Household waste reduction has been addressed through public information and education about conservation and re-use. There are also bi-annual household hazardous waste collection days that have yielded positive results and will continue to be implemented.

Mobile Incident
Mobile incidents include those that occur on a roadway or a rail facility. For the years 1993-2012, 12 mobile incidents were reported by the County Health Department. In Mariposa County, a mobile hazardous material event is most likely to occur along highways 140 and 49. Trucks and cars that use these transportation corridors commonly carry a variety of hazardous materials, including gasoline, other petroleum products, and other chemicals known to cause human health problems, including fertilizers, pesticides, and industrial chemicals. Sections of State Route 132, State Route 120, and State Route 41 also run through Mariposa County. A hazardous material event could potentially occur on one of these routes, but highways 140 and 49 are of greatest concern to the County.

Comprehensive information on the probability and magnitude of a hazardous material event along transportation corridors is not available. Wide variations among the characteristics of hazardous material sources and among the materials themselves make such an evaluation difficult. As such, the potential extent of a hazardous material mobile incident is unknown.

Based on previous occurrences, mobile hazardous material events are relatively common, and occur almost every year (12 occurrences in 11 years). While incidents do not occur every year, the average number of events by year led to a probability of 100 percent likely per year.

Fixed Incident
The release of hazardous substances from stationary sources can be caused by human error, equipment failure, intentional dumping, acts of terrorism, or natural phenomena. Earthquakes pose a particular risk, because they can damage or destroy facilities containing hazardous substances. The threat posed by a hazardous-material event can be amplified by restricted access, reduced fire suppression and spill containment capability, and even complete cutoff of response personnel and equipment.

Mariposa County is home to many businesses that use and store hazardous materials and generate hazardous wastes. Most of them are small to mid-sized operations such as automotive shops and maintenance yards. Gas stations, public facilities, fire stations, and water and wastewater treatment
operations also comprise a large portion of regulated facilities with the potential for hazardous material releases. Much of the hazardous waste produced in Mariposa County is waste oil. The County collects waste oil at the Mariposa County Airport, the Mariposa County Landfill, and the Don Pedro transfer station for recycling.

There are no hazardous waste treatment facilities in the County, therefore all other hazardous materials must be disposed of through a licensed hazardous waste hauler or through a County Household Hazardous Waste Collection event. The County has two Permanent Household Hazardous Waste Collection Facilities, one at the County landfill and one at the Don Pedro transfer station. These facilities are severely limited by funding and therefore there is still a large unmet need for household hazardous waste disposal in Mariposa County.

According to the Mariposa County Health Department, 68 fixed site incidents occurred between 1993-2012.

Comprehensive information on magnitude of a hazardous material event at fixed locations is not available due to unpredictable factors such as equipment maintenance, operator training, natural phenomena, and weather. As such, the extent of a potential hazardous material fixed incident is unknown.

Since 2002 Mariposa County has experienced 47 hazardous material spills at a fixed location. Based on previous occurrences, fixed hazardous material events are very common and are expected to continue to occur yearly (47 occurrences in 11 years). The potential for a hazardous material spill is greater than 100 percent likely per year.

The Local Hazard Mitigation Plan, which is incorporated into this Safety Element by reference, contains potential mitigation actions to address potential hazards described within that document, including hazardous material. This element contains the goal of implementing the mitigation actions contained in the LHMP.

16.1.08 EMERGENCY MANAGEMENT AND EVACUATION PLANS

Mariposa County manages and coordinates its emergency response activities in conjunction with the California State Standardized Emergency Management System (SEMS). The State Office of Emergency Services administers the SEMS, which provides a framework for coordinating multi-agency emergency response. Among other things, SEMS incorporates mutual aid agreements, establishes lines of communication during emergencies, and standardizes incident command structures. By participating in SEMS, Mariposa County is eligible for reimbursement of response costs under disaster assistance programs.

The Draft Evacuation Plan of Mariposa County, which is part of the County's Draft Emergency Plan (August 2003), which also includes initial response operations, extended response operations, and recovery operations, and provides guidance for field responders for initial response to emergencies. The Evacuation Plan is updated annually by the local Office of Emergency Services and Sheriff's Department. In depth evacuation staging areas and sheltering locations were updated in 2012 in a cooperative effort with the American Red Cross. The Plan includes a general response checklist for the initial response operations at the field level in order to standardize emergency response procedures. The field response level is where emergency response personnel and resources, under the command of an appropriate authority, carry out tactical decisions and activities in direct response to an incident or threat. SEMS
requires the use of an Incident Command System (ICS) and the Incident Commander to coordinate with the Emergency Operations Center.

In addition, the Evacuation Plan provides an evacuation procedure including the establishment of evacuation staging areas. Evacuation is a short-term method to gather evacuees in the case of a fire, flood, or other disaster. The need for an evacuation shall be determined by an authority having jurisdiction. Predetermined sites will be used as staging areas for evacuees and citizens seeking information.

The Evacuation Plan provides for emergency response agencies, such as the Sheriff’s Office, County Fire/OES, Human Services, Red Cross, and others as appropriate, to set up a public information center at the sites and continue the operation until the particular incident is under control. If an actual shelter operation becomes necessary, the Evacuation Plan provides for the Department of Human Services to request and coordinate the opening of congregate care facilities with the Merced/Mariposa Chapter of the American Red Cross. The County Department of Human Services Staff would also contact the Salvation Army and other organizations involved in disaster services.

The Mariposa County Fairgrounds has been determined to be the main shelter site for large-scale disasters. If that location is utilized by emergency operations, it may not be available for shelter use. In that instance, other safe locations will need to be found. The Draft Evacuation Plan provides Emergency Alert System (EAS) Guidelines, which include the procedures from Emergency Communications Areas (EC Areas) that cover the Mariposa Operational Area. They are intended to standardize the format for communicating basic information needed by the public in an emergency.

**Mapping**

*On July 7, 2015, the Board of Supervisors authorized the distribution (and regular updating) of the Mariposa County Road Atlas for First Responders. This Atlas was prepared to provide first responders with current, accurate and comprehensive information for use in responding to emergencies as quickly as possible and in planning for emergency evacuations. The value of this Atlas is unprecedented as there was previously no other single data source available in the county which contains all of the information potentially needed by a first responder during an emergency. It is intended that the Atlas information be available to local first responders as well as to strike teams from out of the county, assisting during fire season.*

*This atlas is available in hard copy, and georeferenced PDFs of the Atlas are also available for use on tablets and smartphones.*

**Preparation of the Atlas was a cooperative effort and included input and data from many sources, including Madera County, Merced County, Stanislaus County, Tuolumne County, the Mariposa County Agricultural Commissioner, the Mariposa County Health Department, the Mariposa County Planning Department, the Mariposa County Public Works Department, the Mariposa County Sheriff’s Department, the Mariposa County Surveyor, the Mariposa County SCOPE Program, the Mariposa County Technical Services, the Bureau of Land Management (BLM), CalFIRE, CAL FIRE, the National Park Service (NPS), the United States Forest Service (USFS) Sierra National Forest, the United States Forest Service (USFS) Stanislaus National Forest and the United States Army Corps of Engineers.*

**The Atlas contains locational information regarding all county parcels, all roads in county (regardless of maintenance) and road names, parcel addresses (if assigned), drainages, named rapids on the Merced River, landmarks, fire hydrants, structures, locked gates, bridges with weight limits, narrow roads, boundaries of USNPS, USFS and BLM lands and other topographic features. The Atlas also contains an index, mileage table and emergency water source information.**
16.1.09 **Winter Storms**

The time period between mid-autumn to mid-spring comprises the rainy season for California’s Central Valley (roughly October to April). During these months winter storms, characterized by freezing temperatures, snowfall and high winds, may occur. Winter storms can lead to high winds. Winter storm events from 2000 to the present (2015), as identified by the National Climatic Data Base, were characterized by heavy snowfall. However, strong winds have caused damage. There are six events that resulted in property damage (one even included crop damage as well); five were wind events and the sixth was a winter storm event that included wind.

The LHMP Update shows that the entire County is susceptible to the hazards of winter storms. The areas, however, that are most susceptible to all aspects of winter storm, including freezing temperatures, snowfall and high winds, are the higher elevations in the eastern half of the County.

All of Mariposa County experiences temperatures of 32 degrees F or below. The coldest portions of the County, on average, experience more than 121 days per year of freeze, while the warmest portions of the County experience less than 30 days of freeze per year. Areas in the County most susceptible to snowfall can average over 72 inches per year, while the areas least susceptible average less than 3 inches per year.

The areas in the County most susceptible to wind experience between 41 and 51 days of high wind per year; the less windy areas experience between 31 and 41 days of high wind per year.

Power disruption is a sub-hazard of a winter storm. Minor power outages from time to time are inevitable; more significant incidents are typically caused by winter storms. Disruptions that have affected Mariposa County have been caused by winter storm events. An event in January 2010 left 10,000 residents without power blacking out over 50% of the County and a March 2011 snow storm forced a closure of Yosemite National Park. Nine-thousand residents in Mariposa and Madera counties were left without power, some for hours and some for days.

The probability of a major winter storm is roughly 71 percent per year. Since every winter storm does not lead to a major power disruption the probability of future events is unknown, but it is less than a 71 percent chance per year.

The Local Hazard Mitigation Plan, which is incorporated into this Safety Element by reference, contains potential mitigation actions to address potential hazards described within that document, including winter storms. This element contains the goal of implementing the mitigation actions contained in the LHMP.

16.1.10 **Local Hazard Mitigation Plan Mitigation Strategy**

The LHMP includes a mitigation strategy which identifies four steps to be taken in accordance with the federal Disaster Mitigation Act. They are identifying local mitigation goals; identification and analysis of mitigation actions; implementation of mitigation actions; and identification and analysis of mitigation actions for National Flood Insurance Program (NFIP) compliance. Mariposa County does not currently participate in the NFIP.
**Local Mitigation Goals:**
The LHMP shows the mitigation goals designed to reduce or avoid long-term vulnerability to each hazard included in the vulnerability analysis of the LHMP, including flood, hazardous material event, landslide (including earthquake), wildlife, and winter storm (including power disruption). (Note: These issues identified in the LHMP are in addition to, or augment discussion of, the issues identified and discussed in other sections of the Safety Element.) The LHMP identifies five broad-based public policy statements upon which the mitigation goals are based:

- Represent basic desires of the community;
- Encompass all aspects of community, public and private;
- Are nonspecific, in that they refer to the quality (not the quantity) of the outcome;
- Are future-oriented, in that they are achievable in the future; and
- Are time independent, in that they are not scheduled events

**Mitigation Goals:**

Goal No. 1: Reduce the possibility of damages and losses due to seismic hazards, landslide and ground shaking.

Goal No. 2: Reduce the possibility of damages and losses due to weather-related hazards, including flood and winter storms.

Goal No. 3: Reduce the possibility of damages and losses due to other hazards, including wildfire, power disruption and hazardous material event.

Goal No. 4: Reduce the possibility of damages and losses due to public health emergencies.

**Mitigation Actions:**
Mitigation actions are activities, measures, or projects that help achieve the goals of the mitigation plan. Mitigation actions are usually grouped into five broad categories: prevention, property protection, public education and awareness, natural resource protection, and structural projects. The LHMP includes potential mitigation actions that used the following criteria:

- 2011 Hazard Mitigation Assistance project criteria eligibility
- Disaster Mitigation Act 2000 requirements for the identification and analysis of mitigations actions
- Results of the 2014 LHMP vulnerability analysis

For each potential mitigation action, the following information is listed in the adopted LHMP: mitigation action description; mitigation action category; hazard(s) addressed; and type of development affected by mitigation action.

**Implementation of Mitigation Actions:**
Five criterion were considered to determine which mitigation actions should become part of the County’s Mitigation Plan. They are as follows:

A. A local jurisdiction department or responsible agency currently exists or can be identified
B. The action can be implemented during the 5-year lifespan of the LHMP
C. The action may reduce expected future damages and losses (a positive cost-benefit analysis appears likely)
D. The action mitigates a high-risk hazard
E. The action mitigates multiple hazards
The Mitigation Action Plan consists of a description of each mitigation action; prioritization criteria for selecting each action; the potential facility or facilities to be mitigated by the action (if known); the department or agency responsible for implementing the action; and the implementation time frame for the action. Each of the mitigation actions met prioritizing criteria shown in B, C, and E above. Timeframes for implementation range from 12 months to 72 months from the adoption date of the LHMP.

Identification and Analysis of Mitigation Actions: NFIP Compliance:

Mariposa County does not participate in the National Flood Insurance Program (NFIP). The County is mapped by FEMA for flood involvement though it has never participated in NFIP. The governing body, departments, and identified communities have not shown repetitive loss nor have they shown significant damage due to rising water. Severe flooding has been documented along the Merced River, though due to its status as a Wild and Scenic River very little development can take place.

Monitoring, Evaluating, and Updating the LHMP:

Monitoring the Plan
The Mariposa Office of Emergency Services (OES), or an identified point of contact will continue to coordinate all local efforts to monitor, evaluate and update the LHMP. This Safety Element will be reviewed in conjunction with the LHMP and updated and amended accordingly and if necessary, at five-year intervals.

The local Planning Committee for the LHMP will have the opportunity to evaluate the Plan through an Annual Review Questionnaire every 12 months under the auspices of the Mariposa OES, or a point of contact. Responses to questionnaires will help determine if the LHMP needs updating to address new or more threatening hazards, new technical reports or findings, and new or better-defined mitigation projects.

Evaluating the Plan
Evaluation of progress can be achieved by monitoring changes in vulnerabilities identified in the Plan. Changes in vulnerability can be identified by noting:

- Decreased vulnerability as a result of implementing recommended actions;
- Increased vulnerability as a result of failed or ineffective mitigation actions; and/or
- Increased vulnerability as a result of new development (and/or annexation).

Additionally, mitigation actions will be monitored and evaluated through the use of the Mitigation Project Progress Report. During each annual review, each department or agency currently administering a mitigation project will submit a progress report to Mariposa County OES to review and evaluate. For projects that are being funded by a FEMA mitigation grant, FEMA quarterly reports may be used as the preferred reporting tool. The progress report will discuss the current status of the mitigation project, including any changes made to the project, identify implementation problems, and describe appropriate strategies to overcome them. After considering the findings of the submitted progress reports, Mariposa County OES may request that the implementing department or agency meet to discuss project conditions.

Updating the Plan
In addition to the Annual Review Questionnaire, Mitigation Project Progress Report or FEMA quarterly report, and any annual meetings, the Planning Committee will meet to update the LHMP every five years.
16.2 GENERAL PLAN IMPLEMENTATION

Goal 16-1: Enforce development standards lessening fire hazard danger.

Policy 16-1a: Non-residential development activity shall be within acceptable fire department response time limits and coverage areas; or a development project shall provide its own on-site fire protection facilities and firefighters as approved by the County Fire Department.

*Implementation Measure 16-1a(1):* Establish appropriate standards for development projects wishing to provide alternative, on-site fire protection services.

- **Timing:** Intermediate-term.
- **Responsibility:** Fire Department.
- **Fiscal Impact:** Staff time and preparation costs to develop appropriate fire safety standards.
- **Consequences:** Alternative means for developers to satisfy fire protection safety.

Policy 16-1b: Establish attainable standards for new subdivisions and development for fire safety.

*Implementation Measure 16-1b(1):* Enact amendments to the Mariposa County Code to implement fire safe standards. The ordinance(s) shall include the following requirements:

- Minimum construction standards or template (width, grade, and surfacing) for public roads, private roads, and private driveways sufficient for emergency vehicles access.
- Requirements for connecting and maintaining a circulation system within a road system using roads connecting through other parcels or developed secondary routes dedicated for emergency access.
- Minimum standards for emergency water supply standards for firefighting purposes.
- Standards for siting of flammables.
- Signage and address standards providing easy identification of roads, driveways and buildings.
- Site design specifications for buildings in locations of extremely high fire danger.

- **Timing:** Short-term.
- **Responsibility:** Fire Department.
- **Fiscal Impact:** Staff resource cost and possible outside costs for ordinance preparation and hearing process.
- **Consequences:** Fire protection.

*Implementation Measure 16-1b(2):* Implement the countywide Wildfire Hazard Safety Plan Community Wildfire Protection Plan, which includes standards for fire prevention, fuel management, and fire suppression, including but not limited to the following:

- Requirements for development in areas with high and very high fuel hazards, including adequate emergency access and water supply; “defensible space” standards; and the use of fire-resistant exterior construction materials, such as fire safe roofing and fire-resistant plants.
- Wildland fire management activities such as controlled burning, fuel removal, vegetation management, and firebreaks.
- Specific fire protection and prevention requirements for hillside, open space, and rural area development.
- Public wildfire safety education through the Mariposa County Fire Safe Council (MFSC).
- Standards specific to geographic areas in the County based on fire hazard potential.
  
  **Timing:** Intermediate-term.
  **Responsibility:** Fire Department.
  **Fiscal Impact:** Staff resource cost and possible outside costs.
  **Consequences:** Fire protection

**Policy 16-1c:** All subdivisions and development projects shall conform to adopted fire code and other fire prevention regulations.

**Implementation Measure 16-1c(1):** Amend, if necessary, the County Subdivision code to ensure formal review of subdivisions by the Fire Agencies.
  
  **Timing:** Short-term.
  **Responsibility:** Mariposa County Planning Department, Fire Department.
  **Fiscal Impact:** Initial Staff time and ongoing review time; to be incorporated into the update of Title 17, Zoning.
  **Consequences:** Fire protection.

**Goal 16-2:** Utilize the most efficient multi-level fire prevention and protection system.

**Policy 16-2a:** Develop and maintain cooperative arrangements with CDF CAL FIRE to maximize the efficient deployment of fire prevention and protection resources.

**Implementation Measure 16-2a(1):** Cooperate with the CDF CAL FIRE in providing advice to landowners on vegetation management programs keeping forest fuel values at acceptable levels.
  
  **Timing:** Ongoing.
  **Responsibility:** Fire Department.
  **Fiscal Impact:** Ongoing.
  **Consequences:** Fire protection.

**Policy 16-2b:** Support programs to involve and educate County residents in fire prevention.

**Implementation Measure 16-2b(1):** Continue to work with the Mariposa County Fire Safe Council or other appropriate agency or group as a major avenue for educating residents and coordinating citizen efforts in fire prevention.
  
  **Timing:** Ongoing.
  **Responsibility:** Fire Department.
  **Fiscal Impact:** Staff time and incidental costs.
  **Consequences:** Fire protection.

**Goal 16-3:** Sustain adequate fire protection service levels.

**Policy 16-3a:** Adopt a strategic plan for fire safety.

**Implementation Measure 16-3a(1):** Adopt a strategic plan for fire safety incorporating the Standards of Cover for the Mariposa County Fire Department identifying current and future fire service areas and standards.
  
  **Timing:** Short-term.
Responsibility: Fire Department.
Fiscal Impact: Staff time and preparation costs.
Consequences: Fire protection.

Implementation Measure 16-3a(2): The strategic plan shall identify the long term capital improvements, rolling stock, equipment and supplies, and other major purchase items needed to maintain and improve fire safety.
Timing: Short-term.
Responsibility: Fire Department.
Fiscal Impact: Staff time and preparation costs.
Consequences: Fire protection.

Implementation Measure 16-3a(3): The strategic plan shall identify thresholds and capital facility needs for each of the existing and future service areas.
Timing: Short-term.
Responsibility: Fire Department.
Fiscal Impact: Staff time and preparation costs.
Consequences: Fire protection.

Implementation Measure 16-3a(4): Revise and update the “Standards of Cover” and its service area maps.
Timing: Short-term.
Responsibility: Fire Department.
Fiscal Impact: Staff time and preparation costs.
Consequences: Fire protection.

Policy 16-3b: Increase emergency response personnel training opportunities.

Implementation Measure 16-3b(1): Enable facilities for “heavy” fire suppression helicopter operations at the Mariposa Yosemite Airport.
Timing: Short-term.
Responsibility: Fire Department and Public Works.
Fiscal Impact: Capital improvement—potential construction costs; ongoing operating costs.
Consequences: Fire protection.

Goal 16-4: **Reduce the risk of flood loss to preserve property and save lives.**

Policy 16-4a: Control development in flood hazard areas.

Policy 16-4b: All new construction in a flood hazard area shall be flood proofed.

Implementation Measure 16-4a and b(1): Adopt a comprehensive County Flood Protection Ordinance that includes at a minimum the following requirements:

- All structures in flood hazard areas are constructed with materials and equipment resistant to flood damage.
- All mobile homes shall be anchored by providing over-the-top and frame ties to ground anchors.
- All new and replacement water systems shall be designed to prevent infiltration of floodwaters into the system.
- On-site sewage disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

Timing: Short-term.
Responsibility: Mariposa County Planning Department, Public Works Department.
Consequences: Increased preparation and protection from flood event.

Policy 16-4c: Control development in dam inundation areas.

Implementation Measure 16-4c(1): The update to Title 17, Mariposa County Code, Zoning shall include a dam inundation overlay district.
Responsibility: Mariposa County Planning Department.
Fiscal Impact: Part of the development of updates to Title 17, Mariposa County Code, Zoning.
Consequences: Increased preparation and protection from flood event.

Goal 16-5: Minimize the impact of floods on the people and businesses of Mariposa County.

Policy 16-5a: Ensure adequate capacity is maintained in flood plains and drainage channels to handle flood flows.

Implementation Measure 16-5a(1): Enact an ordinance to require a hydrologic evaluation for subdivisions and development projects located within flood plains and drainage channels to ensure potential flood hazard is minimized.
Timing: Short-term.
Responsibility: Public Works Department.
Fiscal Impact: Ordinance development costs.
Consequences: Increased preparation and protection from flood event.

Implementation Measure 16-5a(2): Subdivision parcel and final maps and building permit site plans shall provide for on-site detention for normal storm water flows in excess of the capacity of natural drainage courses receiving runoff from the development.
Timing: Ongoing review standard.
Responsibility: Building Department.
Fiscal Impact: Has the potential to add cost to project review and site development.
Consequences: Minimized flooding impacts from increased development.

Policy 16-5b: Minimize the loss of access across floodways and in flood hazard areas.

Implementation Measure 16-5b(1): Amend Title 16 of the Mariposa County Code, Subdivisions, to require subdivision parcels and development projects to provide at least one means of vehicular access not crossing a flood hazard area, or be constructed above the maximum flood elevation.
Timing: Short-term.
Responsibility: Mariposa County Planning Department.
Fiscal Impact: Incorporated into the costs of updating Title 17.
Consequences: Increased preparation and protection from flood event.

Policy 16-5c: Water retention facilities shall be constructed to prevent flooding and to ensure that pre-development off- and on-site surface flows are maintained with no net increase.

Implementation Measure 16-5c(1): Enact an ordinance requiring ponds and facilities for retaining water to be designed to prevent downstream flooding.
Timing: Short-term.
Responsibility: Building Department and Director of Public Works.
Fiscal Impact: Ordinance development.
Consequences: Increased preparation and protection from flood event.
Goal 16-6: Preserve the values of floodplains as natural features.

Policy 16-6a: Retain flood plains within project design in such a way as to ensure that no net change occurs upstream or downstream.

Implementation Measure 16-6a(1): Amend Title 17 of the Mariposa County Code, Zoning, to require flood and drainage channels to be designed into landscaping plans.

Timing: Short-term.
Responsibility: Mariposa County Planning Department.
Fiscal Impact: Incorporated into the update of Mariposa County Code Title 17.
Consequences: Minimized flooding impacts from increased development.

Implementation Measure 16-6a(2): Land use maps shall maintain low intensity zoning in floodplain areas.

Timing: Short-term.
Responsibility: Mariposa County Planning Department.
Fiscal Impact: Ongoing.
Consequences: Minimized flooding impacts from increased development.

Goal 16-7: Protect life and property endangered by landslides and rockfalls.

Policy 16-7a: Reduce risk of injury or property damage by landslides and rockfalls.

Policy 16-7b: Avoid development in geologic hazard areas.

Implementation Measure 16-7a and b(1): Site inspections and maps (topographic, soils and geologic) will be used to identify geologic hazard areas (e.g., landslide-prone areas) in the County. The maps will be retained and available in the County Planning Department.

Timing: Ongoing review standard.
Responsibility: Mariposa County Planning Department.
Fiscal Impact: Staff time and administrative costs.
Consequences: Public safety.

Implementation Measure 16-7a and b(2): The County Building Official will review plans for new construction in geologic hazard areas and will determine whether engineering studies, including structural and soils analyses, are required prior to issuing permits for construction in these areas.

Timing: Ongoing review standard.
Responsibility: Mariposa County Planning Department, Building Department.
Fiscal Impact: Staff time and administrative costs.
Consequences: Public safety.

Goal 16-8: Protect life and property endangered by seismic activity.

Policy 16-8a: Develop and enforce standards to reduce risk of injury or property damage by seismic activity.

Implementation Measure 16-8a(1): New development projects in or near a seismic risk area (fault zone) or geologic hazard area shall be discouraged or designed to such standards as to minimize or eliminate such risk.

Timing: Ongoing review standard.
Responsibility: Mariposa County Planning Department, Building Department.
Fiscal Impact: Staff time and administrative costs.
Consequences: Public safety.

Policy 16-8b: Avoid seismic dangers for public facility construction.
Implementation Measure 16-8b(1): Public facilities shall be sited to avoid known seismic dangers and shall be constructed to meet seismic safety requirements of the Uniform Building Code Title 24, California Code of Regulations.

- **Timing:** Ongoing review standard.
- **Responsibility:** Building Department.
- **Fiscal Impact:** Staff time and administrative costs.
- **Consequences:** Public safety.

**Goal 16-9:** Engineer and locate development in areas not endangered by secondary seismic effect to protect life and property.

**Policy 16-9a:** Develop and enforce standards to reduce risk of injury or property damage by secondary effects of seismic activity.

**Implementation Measure 16-9a(1):** Review development and subdivision proposals to avoid building sites in areas subject to secondary seismic effects.

- **Timing:** Ongoing review standard.
- **Responsibility:** Mariposa County Planning Department.
- **Fiscal Impact:** Staff time and administrative costs.
- **Consequences:** Public safety.

**Goal 16-10:** Provide a safe airport environment to ensure its success and expansion.

**Policy 16-10a:** Implement the Mariposa-Yosemite Airport Comprehensive Land Use Plan.

**Implementation Measure 16-10a(1):** No land development incompatible with the airport land use plan shall be permitted in the airport’s area of influence.

- **Timing:** Ongoing review standard.
- **Responsibility:** Mariposa County Planning Department; Planning Commission.
- **Fiscal Impact:** Staff time and administrative costs.
- **Consequences:** Airport protection.

**Goal 16-11:** Manage hazardous materials and hazardous waste to prevent unnecessary exposure and risk.

**Policy 16-11a:** Maintain the effectiveness of the Comprehensive Hazardous Waste Management Plan.

**Implementation Measure 16-11a(1):** Enforce the requirements of the County’s Comprehensive Hazardous Waste Management Plan.

- **Timing:** Ongoing review standard.
- **Responsibility:** Mariposa County Health Department.
- **Fiscal Impact:** Staff time and administrative costs.
- **Consequences:** Public safety.

**Goal 16-12:** Minimize risks to people and property during emergencies through pre-planning.

**Policy 16-12a:** Coordinate local and State emergency response efforts.

**Implementation Measure 16-12a(1):** Review and update the Mariposa County Emergency Management Plan every five years.

- **Timing:** Ongoing.
- **Responsibility:** Emergency Services.
- **Fiscal Impact:** Staff time, administrative costs, training costs.
| **Implementation Measure 16-12a(2):** | Undertake full operation emergency situation drills and training periodically. |
| Timing: | Ongoing. |
| Responsibility: | Emergency services. |
| Fiscal Impact: | Creates a mandated program with higher than normal training costs. |
| Consequences: | Enhanced emergency preparation |
Exhibit 2
Responses dated July 12, 2017 to State Board of Forestry and Fire Protection recommendations on Safety Element amendment

Mariposa County

Land Use Planning – CSR – MMU General

Plan Safety Element Assessment
Tier 1

February 24, 2016

Board of Forestry and Fire Protection

Contents

Purpose and Background
Methodology for Review and Recommendations
Review Process and Timeline
Tier 1 List of Recommendations

May 2015
Purpose and Background: The State Board of Forestry and Fire Protection (Board) is required to review and make recommendations for the safety element of general plan updates in accordance with Government Code (GC) 65302.5. The review and recommendations apply to those general plans with State Responsibility Area (SRA) (Public Resources Code (PRC) 4125) or Very High Fire Hazard Severity Zone Local Responsibility Area (VHFHSZ LRA) (GC 51177(i), PRC 4125).

The statutory requirements for the Board review and recommendations pursuant to GC 65302.5 (a)(1) and (2), and (b) are as follows:

- "The draft elements to the fire safety element of a county's or a city's general plan...shall be submitted to the Board at least 90 days prior the adoption or amendment to the safety element of its general plan [for each county or city with SRA or VHFHSZ]."
- "The Board shall review the draft or an existing safety element and report its written recommendations to the planning agency within 60 days of its receipt of the draft or existing safety element."
- "Prior to adoption of the draft element, the Board of Supervisors shall consider the recommendations made by the Board if the Board of Supervisors determines not to accept all or some of the recommendations the Board of Supervisors shall communicate in writing to the Board its reasons for not accepting the recommendations."

Methodology for Review and Recommendations: The Board established a standardized method to review the safety element of general plans. The methodology includes 1) examining the safety element for inclusion of factors that are important for mitigation of wildfire hazard and risks, and 2) making recommendations related to these factors. The evaluation factors and recommendations below were developed using CAL FIRE technical documents and input from local fire departments.

Enclosed is the most expansive set of recommendations suggested by the Board, known as a Tier 1 Assessment. These recommendations are directed at communities that include:

- Overall high population densities; or
- High proportion of SRA or 20% or more of a city's acreage is VHFHSZ LRA; or
- Population centers in or adjacent to VHFHSZ SRA, if there is no designated VHFHSZ LRA in the county; or
- Within the context of neighboring jurisdictions, the location of VHFHSZ in the jurisdiction creates an overall picture of contiguous fuels that threaten population or economic centers.

As local fuels, boundaries, populations, and other variables change throughout time, Board staff have the discretion to re-assign a jurisdiction into a lower or higher assessment tier. Staff will consider:

- Variations in population and population density; or
- Changes in proportion of land designated VHFHSZ (lower or higher); or
- Firefighting capabilities (paid, volunteer, equipment, etc) and contract changes; or
- Past planning efforts and involvement of organizations such as local Fire Safe Councils and new initiatives or efforts that have emerged over time; or
- Changes to the context of VHFHSZ within the region – does the VHFHSZ in a jurisdiction combine with neighboring fuels to create a continual pattern of very high fire risk in a way that it hadn’t previously?

A full list of communities to be evaluated under Tier 1 are listed below.

### Counties (alphabetical)

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### Cities (alphabetical by county)

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Review Process and Timeline

The county/local jurisdiction and CAL FIRE Land Use Planning staff will receive and review technical guidance documents, the Board assessment, and relevant information from CAL FIRE and the Governor's Office of Planning and Research.

The county or local jurisdiction will work closely with CAL FIRE Land Use Planning staff during the development of the general plan and the safety element in particular.

At least 90 days prior to the adoption or amendment of the General Plan: The county or local jurisdiction will submit the safety element to the Board of Forestry & Fire Protection for review. Jurisdictions are encouraged to send safety elements to the Board prior to the 90 day statutory requirement for greater collaboration.

No more than 60 days later: The Board will consider staff recommendations and approve as-is or with changes at the next Board meeting. This deadline may be modified upon mutual agreement between Board staff and local jurisdictions.

The county’s responses are shown in red, italicized, underlined type. Not all checklist items on the BOF form received responses. Only those sections where the “Partial” or “No” boxes under subheadings were checked contain responses. “Yes” responses on the BOF form indicate the county’s safety element has adequately addressed that particular issue.
Tier 1 General Plan Safety Element Recommendations

Please click on the appropriate box to “check” whether the plan satisfies each point. Standard recommendations are included in the checklist but please highlight or add additional comments as necessary.

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<td>Kevin Lindo</td>
<td>Unit Contact:</td>
<td>Nancy Koerperich</td>
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1.0 Wildfire Protection Planning

1.1 General Plan references and incorporates County or Unit Fire Plan.  
Recommendation: Identify, reference or create (if necessary) a fire plan for the geographic scope of the General Plan. General Plan should incorporate the general concepts and standards from any county fire plan, fire protection agency (federal or state) fire plan, and local hazard mitigation plan. Identify or reference the local Unit Fire Plan and, if applicable, the Community Wildfire Prevention Plan.  
Priority: □ High □ Medium □ Low □ N/A

Recommendation: Ensure fire plans incorporated by reference into the General Plan contain evaluations of fire hazards, assessment of assets at risk, prioritization of hazard mitigation actions, and implementation and monitoring components.  
Priority: □ High □ Medium □ Low □ N/A

2.0 Land Use Planning:

2.1 Goals and policies include mitigation of fire hazard for future development. □ Yes □ Partial □ No

Recommendation: Establish goals and policies for specific ordinances addressing evacuation and emergency vehicle access; water supplies and fire flow; fuel modification for defensible space; and home addressing and signing.  
Priority: □ High □ Medium □ Low □ N/A

Recommendation: Specify the local ordinances, code sections, or regulations addressing the above standards, particularly any ordinances that address right-of-way, easement, and other reasonable offsite and onsite improvements for a division of land which qualifies for a Parcel Map rather than a Tentative/Final Map under the Subdivision Map Act.  
Priority: □ High □ Medium □ Low □ N/A

Text has been added to the draft Safety Element to confirm that all subdivisions in Mariposa County, including both minor and major subdivisions, are currently required to comply with all applicable codes and policies for adequate access for the total number of parcels to be served, including existing and proposed parcels. The applicable provisions

Board of Forestry Safety Element Assessment Tier 1
for adequate access are established by the Mariposa County General Plan; the Mariposa County Code, Title 16 (the Mariposa County Subdivision Ordinance; the Mariposa County Road Improvement and Circulation Policy; the Mariposa County Improvement Standards; and the California State Fire Safe Regulations (Title 14 California Code of Regulations Section 1270 et seq.).

**Recommendation:** Develop fire safe development codes used as standards for fire protection for new development in State Responsibility Area (SRA) within the entity’s jurisdiction that meet or exceed statewide standards in Title 14 California Code of Regulations Section 1270 et seq.

**Priority:** □ High □ Medium □ Low □ N/A

**Recommendation:** Adopt, and have certified by the BOF, local fire safe ordinances which meet or exceed standards in 14 CCR § 1270 for State Responsibility Area.

**Priority:** □ High □ Medium □ Low □ N/A

*When the California State Fire Safe Regulations became effective in 1992, the Mariposa County Board of Supervisors took affirmative action to not adopt a local fire safe ordinance (thus, allowing the state standards to apply and allowing state employees to implement the state requirements). This was done in recognition of limited local staff resources available in the county and the fact that the regulations were an unfunded state mandate.*

*As of 2017, the Mariposa County Board of Supervisors has still not adopted local fire safe ordinances; the state standards apply. All development projects in State Responsibility Areas (SRAs) in Mariposa County, including but not limited to all building permits, subdivisions, conditional use permits, lot line adjustments, variances, and general plan/zoning amendments are routed to local CAL FIRE staff for review and application of standards established by 14 CCR §1270 for SRAs. Building permits are not given a Certificate of Occupancy until CAL FIRE staff has inspected and certified compliance with State Fire Safe Standards. Development projects and subdivisions are not finalized or completed until CAL FIRE staff has inspected and certified compliance with State Fire Safe Standards.*

*The procedures as described above have been effective in Mariposa County for the past 25 years. All development in Mariposa County is reviewed by CAL FIRE professional staff, for compliance with State Fire Safe Regulations. Text has been added to the draft Safety Element to confirm this review procedure for State Fire Safe Regulations.*

**Recommendation:** Consider mitigation of previously developed areas that do not meet Title 14 California Code of Regulations Section 1270 et seq. or equivalent local ordinance.

**Priority:** □ High □ Medium □ Low □ N/A

2.2 Disclose wildland urban interface hazards, including Fire Hazard Severity Zone designations and other vulnerable areas as determined by CAL FIRE or fire prevention organizations. Describe or map any Firewise Communities or other firesafe communities as determined by the National Fire Protection Association, Fire Safe Council, or other organizations.

**Priority:** □ Yes □ Partial □ No

Board of Forestry Safety Element Assessment Tier 1
**Recommendation:** Specify whether the entity has a Very High Fire Hazard Severity Zones (VHFHSZ) designation pursuant GC 51175 and include a map of the zones that clearly indicates any area designated VHFHSZ.

**Priority:** □ High □ Medium □ Low ❌ N/A

**Recommendation:** Adopt CAL FIRE recommended Fire Hazard Severity Zones including model ordinances developed by the Office of the State Fire Marshal for establishing VHFHSZ areas.

**Priority:** □ High □ Medium □ Low ❌ N/A

*Implementation measures 16-1b(1) and 16-1b(2) in the Safety Element address fire safe standards, including for very high hazard areas. The proposed amendments include implementing the Community Wildfire Protection Plan, but standards have not been specifically codified by ordinance. The LHMP contains fire hazard area mapping and provides for mitigation of fire hazards. It should be noted that a General Plan is a policy document and does not contain ordinance language. Ordinances implement the General Plan. The Board of Supervisors may consider adopting ordinances addressing such issues at a future date.*

**Recommendation:** Discuss and/or include local fire hazard maps.

**Priority:** □ High □ Medium □ Low ❌ N/A

2.3 The design and location of new development provides for adequate infrastructure for the safe ingress of emergency response vehicles and simultaneously allows civilian egress during an emergency: ☑ Yes □ Partial □ No

**Recommendation:** Develop a policy that approval of parcel maps and tentative maps is conditional based on meeting regulations adopted pursuant to §4290 and 4291 of the Public Resources Code, particularly those regarding road standards for ingress, egress, and fire equipment access.

**Priority:** □ High □ Medium □ Low ❌ N/A

**Recommendation:** Develop pre-plans for fire prone areas that address civilian evacuations to temporary safety locations.

**Priority:** □ High □ Medium □ Low ❌ N/A

2.4 When approving parcel maps and use permits, consideration is given to providing adequate water supply infrastructure that meets zoning and fire protection needs. ☑ Yes □ Partial □ No

**Recommendation:** Develop a policy that approval of parcel maps is conditional based on meeting zoning requirements and fire safe development codes.

**Priority:** □ High □ Medium □ Low ❌ N/A

---

Board of Forestry Safety Element Assessment Tier 1
Additional Land Use Planning Recommendations:
2.1- Recommend specifying local ordinances and code sections that support implementation of PRC 4290 & 4291.

See response above. Mariposa County has not adopted local ordinances implementing PRC 4290 and 4291. PRC 4290 and 4291 are applied to all development projects, parcel maps, use permits, building permits and other development projects in Mariposa County by CAL FIRE, through review of project plans.

3.0 Housing/Structures and Neighborhoods:

3.1 Incorporation of current fire safe building codes. ☒Yes ☐Partial ☐No

Recommendation: Adopt building codes for new development in State Responsibility Areas or incorporated areas with VHFHSZ that are based on those established by the Office of the State Fire Marshal in Title 19 and Title 24 CCR, referred to as the “Wildland Urban Interface Building Codes.”
Priority: ☐High ☐Medium ☒Low ☒N/A

3.2 Identification and actions for substandard fire safe housing and neighborhoods relative to fire hazard area. ☒Yes ☐Partial ☐No

Recommendation: Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in VHFHSZ or SRA by fire hazard zone designation.
Priority: ☐High ☐Medium ☒Low ☒N/A

Recommendation: Identify plans and actions to improve substandard housing structures and neighborhoods. Plans and actions should include structural rehabilitation, occupancy reduction, demolition, reconstruction, neighborhood-wide fuels hazard reduction projects, community education, and other community based solutions.
Priority: ☐High ☐Medium ☒Low ☒N/A

Recommendation: Identify plans and actions for existing residential structures and neighborhoods, and particularly substandard residential structures and neighborhoods, to be improved to meet current fire safe ordinances pertaining to access, water flow, signing, and vegetation clearing.
Priority: ☐High ☐Medium ☒Low ☒N/A

3.3 Consideration of diverse occupancies and their effects on wildfire protection.
□Yes ☒Partial ☐No

Recommendation: Ensure risks to uniquely occupied structures, such as seasonally occupied homes, multiple dwelling structures, or other structures with unique occupancy characteristics,
are considered for appropriate and unique wildfire protection needs.

**Priority:** □ High  ☑ Medium  □ Low □ N/A

This recommendation is currently achieved through permitting requirements implemented by the Mariposa County Building Department. The Building Department implements state building codes, which contain fire protection measures, for all structures. This includes uniquely occupied structures, such as those identified above. The Building Department does not have authority over construction of mobile homes or recreational vehicles; this authority lies with California Housing and Community Development (HCD). Additionally, all projects for which a building permit is submitted are routed for review by local CAL FIRE professional staff to ensure compliance with state fire safe standards. Text has been added to the Safety Element in Section 16.1.01 stating that all construction in Mariposa County is required to comply with all state Uniform Building Code and Fire Code requirements. The Board of Supervisors may consider implementing a specific policy to further address this issue at a future date.

3.4 Fire engineering features for structures in VHFHSZ.  ☑ Yes □ Partial □ No

**Recommendation:** Ensure new development proposals contain specific fire protection plans, actions, and codes for fire engineering features for structures in VHFHSZ. Examples include codes requiring automatic sprinklers in VHFHSZ.

**Priority:** □ High  □ Medium  □ Low  ☑ N/A

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**Additional Housing/Structures and Neighborhoods Recommendations:**

3.1- Intent has been met; however recommend providing a link or reference to applicable Building Codes.

3.4- Intent has been met; however recommend specifying local ordinances and code sections that support fire engineering features for structures in VHFHSZ.

Specific reference to Building Codes and Fire codes is included in the updated element. Because a General Plan is a policy document, it is not appropriate for it to contain actual ordinance language. Ordinances implement the General Plan. All construction in Mariposa County is subject to all applicable Uniform Building Code and state Fire Code requirements. The Uniform Building Code and state Fire Codes are updated on regular cycles, which is another reason to not include actual ordinance language in the General Plan. The applicable building and fire codes do require fire resistive construction and sprinklers.

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4.0 Conservation and Open Space:

4.1 Identification of critical natural resource values relative to fire hazard areas. □ Yes □ Partial ☑ No

**Recommendation:** Identify critical natural resources and other “open space” values within the geographic scope of the General Plan.

**Priority:** ☑ High  □ Medium  □ Low □ N/A

Board of Forestry Safety Element Assessment Tier 1
The General Plan Conservation and Open Space Element contains goals, policies and implementation measures for the preservation of scenic and natural resources, but does not directly link these goals to impacts of fire on such resources located in fire hazard areas. Amending the General Plan Conservation and Open Space Element is beyond the scope of this Safety Element amendment effort as initiated by the Board.

Implementation Measure 11-1b(1) in the Safety Element states that the County should participate in conservation management planning with Federal and State and other public and private agencies. This could be construed to include impacts of fire on natural and open space resources.

The Safety Element’s Updated Section 16.1.01 Fire Hazard does identify that uncontrolled wildfires damage natural resources, including scenic resources.

Finally, the Safety Element’s Updated Section 16.1.03 Geologic Hazards does identify that landslides and erosion can occur together with other natural hazards such as seismic activity and wildfires. This section identifies the Local Hazard Mitigation Plan as containing potential mitigation actions to address hazards, including landslide.

4.2 Inclusion of resource management activities to enhance protection of open space and natural resource values. ☒Yes ☐Partial ☐No

Recommendation: Develop plans and action items for vegetation management that provides fire damage mitigation and protection of open space values. Plans should address protection of natural resource financial values, establishment of fire resilient natural resources, protection of watershed qualities, and protection of endangered species habitats. Actions should consider prescribed burning, fuel breaks, and vegetation thinning and removal.
Priority: ☐High ☐Medium ☐Low ☒N/A

Recommendation: Establish goals and policies for reducing the wildland fire hazards within the entity’s boundaries, especially on vacant residential lots and greenbelts and, with the relevant partners, on adjacent private wildlands or federal lands with fire hazards that threaten the entity’s jurisdiction.
Priority: ☐High ☐Medium ☐Low ☒N/A

4.3 Integration of open space into fire safety effectiveness. ☒Yes ☐Partial ☐No

Recommendation: Establish goals and policies for incorporating systematic fire protection improvements for open space. Specifics policies should address facilitation of safe fire suppression tactics, standards for adequate access for firefighting, fire mitigation planning with agencies/private landowners managing open space adjacent to the GP area, water sources for fire suppression, and other fire prevention and suppression needs.
Priority: ☐High ☐Medium ☐Low ☒N/A

4.4 Urban forestry plans relative to fire protection. ☐Yes ☐Partial ☒No

Board of Forestry Safety Element Assessment Tier 1
**Recommendation**: Ensure residential areas have appropriate fire resistant landscapes and discontinuous vegetation adjacent to open space or wildland areas.

**Priority**: □ High □ Medium □ Low ☒ N/A

*This issue of urban forestry plans is not applicable to Mariposa County.*

**Recommendation**: Evaluate and resolve existing laws and local ordinances which conflict with fire protection requirements. Examples include conflicts with vegetation hazard reduction ordinances and listed species habitat protection requirements.

**Priority**: □ High □ Medium □ Low ☒ N/A

4.5 Mitigation for unique pest, disease and other forest health issues leading to hazardous situations. □ Yes ☒ Partial □ No

**Recommendation**: Establish goals and policies that address unique pest, disease, exotic species and other forest health issues in open space areas for purposes of reducing fire hazard and supporting ecological integrity.

**Priority**: ☒ High □ Medium □ Low □ N/A

*Implementation measures 11-4a(3) and 11-4a(5) in the Conservation and Open Space Element address the eradication of invasive plant species, however such measures are not specifically linked to reducing fire hazards. The General Plan does not contain specific policies relating to forest health issues in open space areas and the linkage of that issue with reducing fire hazards. This effort could be undertaken during a comprehensive review of the Safety Element and/or General Plan.*

**Additional Conservation and Open Space Recommendations:**

4.4- Non applicable

4.5- Recommend providing goals, policies and implementation measures that address the growing tree mortality issues. *Addressing this issue is in process. Mariposa County has executed a contract with a professional planning consultant to prepare a General Plan Implementation Strategy. The scope of work includes addressing new issues since 2006. Tree mortality is specifically named. The kick-off meeting for this contract is Monday, July 17th.*

5.0 **Circulation and Access:**

5.1 Adequate access to high hazard wildland/open space areas. ☒ Yes □ Partial □ No

**Recommendation**: Establish goals and policies for adequate access in Very High Fire Hazard Severity Zones that meet or exceed standards in Title 14 CCR 1270 for lands with no structures, and maintain conditions of access in a suitable fashion for suppression access or public evacuation.

Board of Forestry Safety Element Assessment Tier 1
5.2 Standards for evacuation of residential areas in high hazard areas. Yes □ Partial □ No

**Recommendation:** Goals and policies should be established to delineate residential evacuation routes and evacuation plans in high or very high fire hazard residential areas.

**Priority:** High □ Medium □ Low □ N/A

5.3 Incorporate a policy that provides for a fuel maintenance program along roadways in the agency having jurisdiction. Yes □ Partial □ No

**Recommendation:** Develop an adaptive vegetation management plan that considers fuels, topography, weather (prevailing winds and wind event specific to the area), fire ignitions and fire history.

**Priority:** High □ Medium □ Low □ N/A

5.4 Adequacy of existing and future transportation system to incorporate fire infrastructure elements. Yes □ Partial □ No

**Recommendation:** Establish goals and policies for proposed and existing transportation systems to facilitate fire infrastructure elements such as turnouts, helispots and safety zones.

**Priority:** High □ Medium □ Low □ N/A

Requirements for turnouts are addressed during development review. Projects are reviewed for consistency with State fire safe code. For certain projects, such as organized camps, guest ranches, etc., safety zones are also addressed during project review. Section 16.1.01 Fire Hazard in the Safety Element contains language relating to the ability of CAL FIRE to review new subdivision development and other development applications to ensure fire safe measures such as fuel breaks, fire roads, and dead-end road length issues; these issues are addressed as recommended by CAL FIRE and conditions / mitigation measures are applied. Text has been added to the Safety Element in Section 16.1.01 stating that development projects are subject to all applicable state fire safe standards, including Public Resources codes 4290 and 4291.

**Additional Circulation and Access Recommendations:**

5.4- Recommend including existing transportation systems.

Existing transportation systems are considered when development projects are reviewed. In addition, CEQA, the California Environmental Quality Act, applies to development projects and if a significant issue related to a project’s potential impact on transportation systems is identified during the environmental review process, measures can be implemented to reduce the impact to a less than significant level.
6.0 **Defensible Space**

6.1 Develop geographic specific fire risk reduction mitigation measures using fuel modification.

- Yes ☑ Partial ☐ No

**Recommendation:** Include policies and recommendations that incorporate fire safe buffers and greenbelts as part of the development planning. Ensure that land uses designated near very fire hazard severity zones are compatible with wildland fire protection strategies/capabilities.

**Priority:** ☐ High ☐ Medium ☐ Low ☑ N/A

6.2 Fuel modification around homes. ☐ Yes ☐ Partial ☑ No

**Recommendation:** Establish ordinances in SRA or VHFHSZ for vegetation fire hazard reduction around structures that meet or exceed the Board of Forestry and Fire Protection's Defensible Space Guidelines for SRA and the Very High Fire Hazard severity zones, including vacant lots.

See [http://www.bof.fire.ca.gov/pdfs/Copyof4291finalguidelines9_29_06.pdf](http://www.bof.fire.ca.gov/pdfs/Copyof4291finalguidelines9_29_06.pdf)

**Priority:** ☑ High ☐ Medium ☐ Low ☐ N/A

*Implementation Measure 16-1b(2) in the Safety Element requires implementation of the Community Wildfire Protection Plan, which is to include wildland fire management activities such as controlled burning, fuel removal, vegetation management, and firebreaks. In addition, mitigation actions in the LHMP address fuel reduction and modification and defensible space issues. A general plan, of which a safety element is a part, is a policy document and is not the proper (or legal) venue for the establishment of ordinances. Ordinances implement a general plan.*

Vegetation clearance requirements as established by the state fire safe standards are routinely enforced in Mariposa County by professional CAL FIRE staff.

**Recommendation:** Reduce fuel around communities and subdivisions, considering fuels, topography, weather (prevailing winds and wind event specific to the area), fire ignitions and fire history.

**Priority:** ☐ High ☐ Medium ☐ Low ☑ N/A

6.3 Fire suppression defense zones. ☑ Yes ☐ Partial ☐ No

**Recommendation:** Establish goals and policies that create wildfire defense zones for emergency services, including fuel breaks or other staging areas where WUI firefighting tactics could be most effectively deployed.

**Priority:** ☐ High ☐ Medium ☐ Low ☑ N/A
Additional Defensible Space Recommendations:

6.2- Recommend to include vacant lots into existing policies for fire hazard reduction.

_This would be difficult to implement due to limited staff and funding, and based on the large size of many undeveloped parcels in rural areas of Mariposa County (including parcels used for livestock grazing). The Board of Supervisors may consider implementing a specific policy (but worded to address parcel size) to address this issue at a future date._

_State Fire Safe regulations for fuel reduction are currently enforced in Mariposa County by professional CAL FIRE staff._

7.0 Emergency Services:

7.1 Map/describe existing emergency service facilities and areas lacking services, specifically noting any areas in SRA or VHFHSZs. ☒Yes ☐Partial ☐No

**Recommendation:** Include descriptions of emergency services including available equipment, personnel, and maps of facility locations.

**Priority:** ☐High ☐Medium ☑Low ☒N/A

**Recommendation:** Initiate studies and analyses to identify appropriate staffing levels and equipment needs commensurate with the current and projected emergency response environment.

**Priority:** ☐High ☐Medium ☑Low ☒N/A

7.2 Assessment and projection of future emergency service needs. ☒Yes ☐Partial ☐No

**Recommendation:** Ensure new development includes appropriate facilities, equipment, personnel and capacity to assist and support wildfire suppression emergency service needs. Future emergency service needs should be:

- Established consistent with state or national standards.
- Developed based on criteria for determining suppression resource allocation that includes elements such as identified values and assets at risk, ignition density, vegetation type and condition, as well as local weather and topography.
- Local Agency Formation municipal services reviews for evaluating level of service, response times, equipment condition levels and other relevant emergency service information.

**Priority:** ☐High ☐Medium ☑Low ☒N/A

7.3 Adequacy of training. ☒Yes ☐Partial ☐No

**Recommendation:** Establish goals and policies for emergency service training that meets or exceeds state or national standards.

**Priority:** ☐High ☐Medium ☑Low ☒N/A
7.4 Inter-fire service coordination preparedness/mutual aid and multi-jurisdictional fire service agreements. [X] Yes □ Partial □ No


Priority: □ High □ Medium □ Low □ N/A

Additional Emergency Services Recommendations:

8.0 Post Fire Safety, Recovery and Maintenance:
The post fire recommendations address an opportunity for the community and landowners to re-evaluate land uses and practices that affect future wildfire hazards and risk. They also provide for immediate post-fire life and safety considerations to mitigate potential losses to life, human assets and critical natural resources.

8.1 Evaluation of redevelopment. □ Yes □ Partial □ No

Recommendation: In High and Very hazardous areas, ensure redevelopment utilizes state of the art fire resistant building and development standards to improve past ‘substandard’ fire safe conditions.

Priority: [X] High □ Medium □ Low □ N/A

Although there are no requirements for new construction specific to High and Very hazardous areas, such construction (and all construction) is required to adhere to regularly updated uniform Building and state Fire code standards. All construction must comply with Uniform Building Code and state Fire Code requirements. These existing codes, which apply statewide, require use of fire resistive building materials and sprinkler systems.

Implementation Measure 16-1b(1) in the Safety Element requires site design specifications for buildings in locations of extremely high fire danger within new subdivisions and development.

Implementation Measure 16-1b(2) requires implementation of the Community Wildfire Protection Plan, which is to include requirements for fire-resistant exterior construction materials, such as fire safe roofing and fire-resistant plants.

8.2 Long term maintenance of fire hazard reduction mitigation projects. □ Yes □ Partial □ No

Recommendation: Provide polices and goals for maintenance of the post-fire-recovery projects, activities, or infrastructure.

Priority: [X] High □ Medium □ Low □ N/A

All new construction and development projects are reviewed for conformance with Board of Forestry Safety Element Assessment Tier 1
current standards. Limited staffing and financial resources, as well as limited authority, would make monitoring of post-fire recovery projects, activities, or infrastructure difficult to accomplish after a certificate of occupancy is issued, a map is recorded, or a project is completed.

One of the purposes of adopting the LHMP and incorporating it into the Safety Element is to ensure the County is eligible for disaster relief funding. Such funding may provide for post-fire recovery monitoring of such activities.

8.3 Reevaluate hazardous conditions and provide for future fire safe conditions. □Yes □Partial □No

Recommendation: Incorporate goals and policies that provide for reassessment of fire hazards following wildfire events. Adjust fire prevention and suppression needs for both short and long term fire protection.
Priority: □High □Medium □Low □N/A

This could be accomplished during a more comprehensive review and update to the Safety Element and/or the General Plan; however this type of program would most appropriately be in a fire department management and operations guide type document. This would require a commitment by the Board of Supervisors to allocate staff time and provide funding. Implementing such goals and policies will necessarily require a partnership between the County and CAL FIRE (CAL FIRE and Mariposa County recently entered into a contract for CAL FIRE to take over management of the county fire functions as of July 1, 2017). Funding for such a program may be available through grants. The Board of Supervisors may consider implementing specific goals and policies to address this issue at a future date.

Recommendation: Develop burn area recovery plans that incorporate strategic fire safe measures developed during the fire suppression, such as access roads, fire lines, safety zones, and fuelbreaks, and helispots.
Priority: □High □Medium □Low □N/A

This would involve private property, so enforcement to ensure that access roads, fire lines and fuelbreaks, etc. are maintained may be difficult to effect. Mitigation Action No. 24 contained in Table 7-4 – Mitigation Action Plan in the LHMP states “in cooperation with other organizations, complete a fire break around the foothills communities and mountain areas.” Other mitigating actions contained in the LHMP address fuel modification and reduction programs.

Implementation Measure 16-2a(1) in the Safety Element promotes County cooperation with CAL FIRE in providing advice to landowners on vegetation management programs keeping forest fuel values at acceptable levels. Implementation of this measure could assist in implementing this recommendation. The development of a recovery plan such as is suggested would most appropriately be done by a fire department management and operations guide type document. Implementing such a plan will necessarily require a partnership between the County and CAL FIRE (CAL FIRE and Mariposa County
recently entered into a contract for CAL FIRE to take over management of the county fire functions as of July 1, 2017). The Board of Supervisors may consider implementing burn area recovery plans at a future date. Development of such plans would be a significant undertaking and a considerable commitment of staff and funding. Cooperation on the part of landowners would be critical.

8.4 Post fire life and safety assessments. □ Yes □ Partial □ No

Recommendation: Develop frameworks for rapid post-fire assessment and project implementation to minimize flooding, protect water quality, limit sediment flows and reduce other risks on all land ownerships impacted by wildland fire.
Priority: □ High □ Medium □ Low □ N/A

The Safety Element contains goals, policies and implementation measures that address flood-related issues. However, these measures do not specifically address post-fire issues. Section 16.1.3 Geologic Hazards does acknowledge that landslides can occur as a result of wildfire events. Development and implementation frameworks as described in this recommendation would necessarily be detailed and complex and would require intensive cooperation between all firefighting agencies and landowners. Such an undertaking is beyond the scope of this amendment to the Safety Element, which is primarily to incorporate the LHMP into the Element. Establishing General Plan goals, policies and implementation measures would involve the Conservation and Open Space Element since it would entail policies for the protection of water resources and watersheds. Establishing such frameworks and addressing post fire issues as identified in recommendations for section 8.4 below could be undertaken upon direction from the Board of Supervisors during a more comprehensive review and update to the General Plan and/or through grant funding should such funding be available. The development of a program for rapid post-fire assessment and project implementation would most appropriately be done by a fire department management and operations guide type document. Staff notes that CAL FIRE and Mariposa County recently entered into a contract for CAL FIRE to take over management of the county fire functions as of July 1, 2017.

Recommendation: Identify flood and landslide vulnerability areas related to post wildfire conditions.
Priority: □ High □ Medium □ Low □ N/A

See response above. This is an action type recommendation that could be included in a fire department management and operations guide type document. CAL FIRE and Mariposa County recently entered into a contract for CAL FIRE to take over management of the county fire functions as of July 1, 2017.
See response above.

**Recommendation:** Encourage rapid post-fire assessment, as appropriate, and project implementation to minimize flooding, protect water quality, limit sediment flows and reduce other risks on all land ownerships impacted by wildland fire.

**Priority:** ☒ High ☐ Medium ☐ Low ☐ N/A

See response above

8.5 Restore sustainable landscapes and restore functioning ecosystems. ☐ Yes ☐ Partial ☒ No

**Recommendation:** Develop burn area recovery plans, evaluation processes and implementation actions that encourage tree and biomass salvage, reforestation activities, create resilient and sustainable landscapes, and restore functioning ecosystems.

**Priority:** ☒ High ☐ Medium ☐ Low ☐ N/A

_The development and implementation of these actions would necessarily involve the Conservation and Open Space Element since they would address ecosystems and sustainable landscapes. Establishing such goals and policies would be beyond the scope adopted by the Board of Supervisors relating to this Safety Element amendment. The intent of this amendment is to incorporate the LHMP into the Safety Element and to address requirements of SB 1241. Development and implementation of such plans may be funded by grants should such funding be available. (For additional response to this issue, see response to the recommendation regarding burn area recovery plans in 8.3 above.)_

_Mariposa County has executed a contract with a professional planning consultant to prepare a General Plan Implementation Strategy. The scope of work includes addressing new issues since 2006. Tree mortality is specifically named, and biomass salvage, reforestation, etc. are appropriately included in this issue. The kick-off meeting for this contract is Monday, July 17th._

8.6 Incorporate wildlife habitat/endangered species considerations. ☐ Yes ☐ Partial ☒ No

**Recommendation:** Establish goals and policies for consideration of wildlife habitat/endangered species into long term fire area recovery and protection plans, including environmental protection agreements such as natural community conservation plans.

**Priority:** ☐ High ☒ Medium ☐ Low ☐ N/A

See responses above.

8.7 Native species reintroduction. ☐ Yes ☐ Partial ☒ No

**Recommendation:** Incorporate native species habitat needs as part of long term fire protection and fire restoration plans.

**Priority:** ☐ High ☒ Medium ☐ Low ☐ N/A

Board of Forestry Safety Element Assessment Tier 1
See responses above.

Additional Post Fire Safety, Recovery and Maintenance Recommendations:

9.0 **Terrorist and homeland security impacts on wildfire protection:**
These recommendations are included to address fire protection needs related to terrorist acts or other homeland security preparedness and response actions. Both preparedness and incident response can adversely impact fire protection. Adverse effects include substantially decreasing emergency resources’ availability, responsiveness and effectiveness by diverting resources, interrupting communications, or restricting emergency access.

9.1 Emergency response barriers. [ ] Yes [ ] Partial [ ] No

**Recommendation:** Identify goals and policies that address vital access routes that if removed would prevent fire fighter access (bridges, dams, etc.). Develop an alternative emergency access plan for these areas.

**Priority:** [ ] High [ ] Medium [ ] Low [ ] N/A

9.2 Prioritizing asset protection from fire when faced with a lack of suppression forces.
[ ] Yes [ ] Partial [ ] No

**Recommendation:** Identify and prioritize protection needs for assets at risk in the absence of response forces.

**Priority:** [ ] High [ ] Medium [ ] Low [ ] N/A

**Goals, policies and implementation measures could be incorporated into the Safety Element under a more comprehensive update to the Element and/or the General Plan and upon direction from the Board of Supervisors. They could be incorporated into existing implementation measures within the Element, specifically under Goal 16-2, which states “Utilize the most efficient multi-level fire prevention and protection system.” Policy 16-2 under the goal states “Develop and maintain cooperative arrangements with CalFire to maximize the efficient deployment of fire prevention and protection resources.” This development and implementation effort would need to be coordinated with CAL FIRE and asset prioritization information disseminated to all firefighting agencies. Mitigation Action Plan No. 20 in Table 7-4 in the LHMP calls for the implementation of a fuel reduction program including within open spaces and around critical facilities located in hazardous fuel buildup areas. A list of critical facilities and assets may be developed as part of the implementation of this mitigation action.**

**Staff notes that CAL FIRE and Mariposa County recently entered into a contract for CAL FIRE to take over management of the county fire functions as of July 1, 2017.**

**Recommendation:** Establish fire defense strategies (such as fire ignition resistant areas) that Board of Forestry Safety Element Assessment Tier 1
provide adequate fire protection without dependency on fire resources (both air and ground) and could serve as safety zones for the public or emergency support personnel.

**Priority:** ☐ High ☐ Medium ☐ Low ☒ N/A

9.3 Communication channels during incidents. ☒ Yes ☐ Partial ☐ No

**Recommendation:** Establish goals and policies consistent with the Governor's Blue Ribbon Fire Commission of 2005 for communications and interoperability. Example goals and policies should address fire personnel capability to communicate effectively across multiple frequency bands and update and expansion of current handheld and mobile radios used on major mutual aid incidents.

**Priority:** ☐ High ☐ Medium ☐ Low ☒ N/A
MARIPOSA PLANNING STAFF REPORT

From: Sarah Williams, Planning Director

Board of Supervisors Meeting Date: October 3, 2017

PROJECT: General Plan Amendment No. 2015-002

PROPOSAL: Amendment to the Mariposa County General Plan to incorporate by reference the Local Hazard Mitigation Plan into the Safety Element (Chapter 16) of the General Plan and to address requirements of Senate Bill 1241.

PROPOSENT: County of Mariposa

BOARD ACTION: The Planning Commission recommends the Board of Supervisors adopt a resolution

1) approving General Plan Amendment No. 2015-002 with findings, including a finding that the project is exempt from CEQA,
2) directing staff to file a Notice of Exemption for the project, and
3) approving Mariposa County’s responses to state Board of Forestry and Fire Protection recommendations.

PROJECT DESCRIPTION AND DISCUSSION:

Processing Background:
This amendment project was originally scheduled for a Planning Commission hearing on January 22, 2016. The project was duly noticed and the packet was prepared for the commission. However, just prior to that hearing Planning staff learned that the state Board of Forestry and Fire Protection (BOF) had not been given full opportunity to review and provide recommendations on the proposed amendment as per Government Code Section 65302.5(b)(1). This section of code requires local agencies whose jurisdictions contain state responsibility areas to provide BOF the opportunity to review amendments to safety elements prior to their adoption. BOF is given 90 days to provide recommendations after which the county must provide the agency through written communication the reasons for not accepting all or some of the agency’s recommendations. This communication is required by Section 65302.5(b)(4) of State Government Code. This review and recommendation process was not complete by January 22, 2016 and the Planning Commission tabled recommendation action on the amendment pending completion of that process.
State Government Code Section 65302.5(a) requires that proposed amendments to safety elements be forwarded to the California Geological Survey for consultation 45 days prior to the adoption of amendments to the element. Proposed amendments are also required to be sent to the California Emergency Management Agency for consultation in accordance with Section 65302(g)(6) of State Government Code. (Cities and counties within the boundaries of the Sacramento and San Joaquin Drainage District must also send proposed revisions to the Central Valley Flood Protection Board. Mariposa County is not located within the boundaries of that district.)

Background:

The Board of Supervisors adopted the Local Hazard Mitigation Plan (LHMP) on June 23, 2015 and subsequently initiated this amendment to incorporate LHMP into the General Plan Safety Element on July 21, 2015. This action authorizes Planning staff to allocate time to process the amendment.

Following adoption of the LHMP by the Board, the County’s Office of Emergency Services was informed in a July 20, 2015 letter from FEMA that the agency had approved the LHMP.

FEMA’s approval of the Plan ensures Mariposa County continued eligibility for project grants under FEMA’s hazard mitigation assistance programs.

This is the link to the county’s Local Hazard Mitigation Plan:

http://www.mariposacounty.org/DocumentCenter/View/40505

Amendment Summary:

LHMP’s are prepared in accordance with the federal Disaster Mitigation Act (DMA) of 2000. The DMA amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 by repealing the Act’s previous mitigation planning section (409) and replacing it with a new mitigation planning section (322). This new section emphasizes the need for state, tribal, and local entities to closely coordinate mitigation planning and implementation efforts. This new section also provides the legal basis for FEMA’s mitigation plan requirements for mitigation grant assistance.

As shown in Exhibit 1 in the Planning Commission resolution in Attachment 1, the amendments to the Safety Element incorporate the adopted LHMP by reference and very generally summarize the LHMP. The LHMP included a section on winter storms, thus necessitating a new section be added to the Safety Element. Other sections in the original Safety Element adopted as part of the General Plan in December of 2006 have been augmented by the information contained in the LHMP.
This Safety Element amendment process affords the opportunity to update information contained in the element such as the number of fire stations currently in operation in the county, changing CDF reference to CAL FIRE, etc.

Senate Bill 1241:
The LHMP and its incorporation into the Safety Element satisfy the requirements of state Senate Bill 1241, which went into effect on January 1, 2013. Senate Bill 1241 mandated that Safety Elements, upon the next revision of the Housing Element on or after January 1, 2014, (the county’s Housing Element update was adopted in October 2016) be reviewed as necessary to address the risk of fire for State Responsibility Areas (SRAs) and very high fire hazard severity zones including review of fire hazard severity zone maps. (Appendix C in the adopted LHMP contains such mapping.) SB 1241 requires that Safety Elements must minimize fire risks and provide guidance on local decision-making to achieve this goal. The incorporation of the LHMP into the Safety Element satisfies this review requirement. The approval of tentative maps, or approval of a parcel map for which a tentative map is not required, must include three specific findings relating to the provision of adequate fire protection for projects in a SRA and/or an area of high fire danger. The prescribed language has been incorporated into the standard findings for approval of tentative maps and parcel maps not requiring a tentative map.

SB 1241 requires cities and counties with fire safety plans adopted separately from the General Plan to attach such plans to the General Plan or reference them in the General Plan. Mariposa County adopted a fire hazard plan in 2010. This plan, which is known as the Community Wildfire Protection Plan, contains protection plans for 15 communities or areas within Mariposa County. This plan is incorporated into the Safety Element of the General Plan by reference.

State Disaster Assistance Funding:
State Assembly Bill 2140 was signed into law on September 29, 2006. This bill would prohibit the state share for any eligible disaster relief project from exceeding 75% of total state eligible costs unless the local agency is located within a city, county, or city and county that has adopted a local hazard mitigation plan in accordance with the federal Disaster Mitigation Act of 2000 as part of the Safety Element of its General Plan, in which case the Legislature may provide for a state share of local costs that exceed 75% of total state eligible costs. Incorporating the LHMP by reference into the General Plan establishes conformance with AB 2140 which will allow Mariposa County to be eligible for maximum available state disaster assistance funding.

Agency Comments: Request for Comments letters on the proposed amendment were sent to the Mariposa County Public Works, Environmental Health, Sheriff’s and County Fire departments; Southern Sierra Miwok Nation; CAL FIRE; Mariposa County Resource Conservation District; Mariposa County
Superintendent of Schools; and the county Office of Emergency Services.

Comments were received from Russ Marks, Mariposa County Surveyor (Public Works Department). Those comments are shown in Attachment 3 and are stated verbatim below. (Note: References to Safety Element page numbers below correspond to the page numbers in Exhibit 1 in the Planning Commission resolution in Attachment 1 and may be different from those shown in Mr. Marks's original comments.)

Pg. 4, 7th paragraph, last sentence, “...ISO Rating of “5”. I do not believe that is true. The County has had mixed ratings, with some areas an ISO 7, but overall the County has had the rating of ISO Rural 8.  

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Policy 16-1a: at the end of the statement should be “as approved by the Local Agency Fire Department”. As County Fire does not have authority within MPUD, unless asked.

Page 18
Policy 16-1b: bullet points,

Does Mariposa County want to set road development standards? Or should Cal Fire standards be the standard? Is this a duplication of PRC 4290/4291? Why not just adopt CalFire Standards?

4th bullet, “Standards for sitting of flammables” does that read right?

Page 18

Implementation Measure 16-1b(2):

Does Mariposa County really want to oversee these items? When already overseen by CalFire and USFS?

Page 20

Implementation Measure 16-3b(1):

What does “Enable facilities for heavy fire suppression helicopter ....” mean? Will this be a mandate? Are we setting up for something that cannot be obtained due to the budget?

Page 20

The updated Mariposa County General Plan was adopted in December of 2006. The specific language referred to states that in 2005 the county’s ISO rating was “5”. This reference will be considered during a more general review of the Safety Element and/or a broader update to the General Plan.
Goal 16-4
Implementation Measure 16-4a and b(1)
Who will define flood areas?

Most of this is already regulated by the State. Why does Mariposa County want to step into this mess?

This would be time and staff intensive, with no budget. Public Works cannot meet this measure without drastic changes in staff and budget.

Policy 16-4c:

Who is going to define the zones? This would be an engineering function, likely to be a consultant.

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Goal 16-5
Implementation Measure 16-5a(1)

How will PW oversee this? Lack of staff and budget will make this unobtainable at this time.

Implementation Measure 16-5a(2)

Regulated by the State, why duplicate?

Implementation Measure 16-5b(1)

This will limit development due to potential costs. Does Mariposa County want to go there?

Implementation Measure 16-5c(1)

I believe it is already regulated by the State. Therefore why?

Don’t think we should over/duplicate regulate or set up something we don’t have the resources to support. Given the current General Fund shortfalls, I would see not being able to meet these goals for quite some time.

Planning Staff Response: Mr. Marks’s input on this issue is appreciated. Many of the comments are related to Safety Element goals, policies, and implementation measures as well as budgeting issues. The Board’s July 23, 2015 resolution to initiate the process to amend the Safety Element dealt specifically with incorporating the Local Hazard Mitigation Plan into the Element and addressing the mandates of SB 1241. The Board did not initiate a process to conduct a general or comprehensive review of the Element and consider potential
amendments to it. Planning staff proposes addressing his comments, including those relating to fire protection such as the reference to Policy 16-1a, under a more comprehensive review of the Element. Mr. Marks’s comments will be valuable when such an effort is undertaken.

Comments were received from Don Florence, who at the time was Emergency Planner – Mariposa County Office of Emergency Services. The following are those comments and Planning staff’s response. Email with comments is shown in Attachment 3.

- “Fire” should be capitalized in references to CalFire.

  Staff response: Staff accessed CAL FIRE’s website and that agency capitalizes every letter in the title. Those changes have been made in the proposed Safety Element update.

- A new fire management plan for the Madera-Mariposa-Merced unit was adopted by CAL FIRE in 2015.

  Staff response: The text in the Planning Commission’s recommendation replaces the “2014” date with 2015 in the third paragraph on page 2 of the element text.

- The date of November 7, 2007 in the reference to CAL FIRE’s adoption of a Fire Hazard Severity Zone map for State Responsibility Areas in Mariposa County should be updated to 2012.

  Staff response: Staff reviewed CAL FIRE’s reference to this issue on its website. There is not a reference to a 2012 date, so staff proposes leaving the reference to 2007 in the proposed Safety Element update. The issue can be reviewed further under a general update to the Safety Element.

- Referring to the term “landslide” starting on pg. 7 in Section 16.1.03 – Geologic Hazards, Mr. Florence states that most landslide activity in the County is liquefaction.

  Staff response: The Planning Commission proposes adding a sentence to that effect in the introductory paragraph in that section.

- Mr. Florence suggests an update to the language addressing the County’s Emergency Evacuation Plan in the last paragraph on pg. 13 of the proposed update.
Staff response: The Planning Commission recommends amending that language based on Mr. Florence’s input.

- In reference to the first paragraph under Section 16.1.10 – Local Hazard Mitigation Plan Mitigation Strategy on pg. 15, Mr. Florence notes that the County does not participate in the National Flood Insurance Program.

  Staff response: The Planning Commission recommends adding the following sentence to the end of that paragraph: “Mariposa County does not currently participate in the NFIP.”

- Mr. Florence addresses Goal 16-5 on pg. 21 of the Safety Element update which states “Minimize the impact of floods on the people and businesses of Mariposa County” and corresponding Implementation Measure 16-5a which states: “Ensure adequate capacity is maintained in flood plains and drainage channels to handle flood flows.” He suggests revisiting this issue.

  Staff response: Mr. Florence’s input on this issue is appreciated. As noted above under staff response to Mr. Marks’ comments, the Board’s July 23, 2015 resolution to initiate the process to amend the Safety Element dealt specifically with incorporating the Local Hazard Mitigation Plan into the Element and addressing the mandates of SB 1241. The Board did not initiate a process to conduct a comprehensive review of the Element and consider potential amendments to it. Planning staff proposes addressing Mr. Florence’s comments under a more comprehensive review of the Element.

Comments were received from Dave Conway, Director – Environmental Health Division of the Mariposa County Health Department. He proposed amendments to text in the third paragraph on page 11 in Section 16.1.07 – Hazard Materials and Hazardous Waste. The Planning Commission recommends adding this language into the text as described via footnote in the proposed amendment as shown in the Commission’s resolution in Attachment 1.

Board of Forestry Recommendations: As noted in the introductory “Project Description and Background” section of this staff report, state Government Code mandates that the State Board of Forestry and Fire Protection (BOF) be afforded the opportunity to provide recommendations on a proposed revision to a city or county safety element if the local jurisdiction contains lands identified as State Responsibility Areas. Section 65302.5(b)(4) of State Government Code requires that counties provide BOF through
written communication the reasons for not accepting all or some of the agency’s recommendations.

Planning staff sent the proposed amendment to BOF on January 19, 2016. The item was placed on BOF’s March 1, 2016 agenda. Planning received BOF’s recommendations on March 14, 2016. The recommendations were prepared by Fire Captain Kevin Lindo of the Southern Region Fresno office. He is a member of the department’s Land Use Planning team.

Staff prepared draft responses to those comments which were sent via email to BOF and contacts at the local CAL FIRE office in Mariposa on May 11, 2017. Planning was notified by BOF staff that the County’s responses would be placed on BOF’s June 13, 2017 agenda. State Government Code does not contain a provision for BOF to respond to the County’s responses to BOF comments. Planning has not received any written communication from BOF following its June 13, 2017 meeting. However, Planning staff met with Mr. Lindo and Gene Potkey, also of CAL FIRE, on June 28, 2017 to discuss and clarify BOF’s recommendations and the county’s draft responses to those recommendations. Staff augmented draft county responses as a result of that meeting. The BOF again discussed the county’s draft responses at their meeting on July 18, 2017. No communication regarding that discussion was forwarded to Planning.

The document showing BOF’s recommendations and the county’s draft responses to those recommendations is included in this staff report Exhibit 2 in the Planning Commission’s resolution in Attachment 1. Draft county responses are shown in italicized/underlined/red type. Not all checklist items on the BOF form received responses. Only those sections where the “Partial” or “No” boxes under subheadings were checked contain responses. “Yes” responses on the BOF form indicate the county’s safety element has adequately addressed that particular issue.

Upon receipt of the County’s draft responses, Mr. Lindo stated he would appreciate being notified of the hearing dates for the Safety Element amendment project. He stated that he could attend the hearings and provide any clarification to the BOF’s recommendations. Planning sent him the notice of the Commission and Board hearings.

**MPUD Recommendations:**

State Government Code section 65302.5(b)(1) also mandates that local agencies providing fire protection in the county be given the opportunity to provide recommendations on the proposed amendment. The proposed amendment was hand-delivered to the Mariposa Public
Utilities District (MPUD) on April 19, 2017. Mark Rowney, general manager of MPUD, responded with a letter via email on April 20, 2017 providing two recommendations.

In reference to paragraph on page 7 in Section 16.1.01 Fire Hazard in the Safety Element, Mr. Rowney stated that the paragraph addressing Insurance Services Office (ISO) ratings of communities in Mariposa should also include the Mariposa Public Utility District (MPUD). The letter stated MPUD's service area is currently assigned an ISO rating of ‘3’. The letter further stated that reference to “Insurance Services Office” should include “(ISO)” as a definition of Insurance Services Office.

Section 16.1.02 Flood Hazard planning should consider a reference to the Mariposa Town Planning Area Specific Plan, which includes setback requirements for new development near minor and major streams. Such reference, as well as references to other area plan setbacks, are recommended by the Commission. This text is shown as paragraph 6 on page 6.

MPUD’s recommendations have been included in the recommended safety element amendment text. Those additions are accompanied by footnotes in the amendment text shown in Exhibit 1 in the Planning Commission’s resolution in Attachment 1. The letter from MPUD is included in Attachment 3.

**State Agency Recommendations:**

As noted in the introductory “Project Description and Background” section of this staff report, State Government Code Section 65302.5(a) requires that proposed amendments to safety elements be forwarded to the California Geological Survey for consultation at least 45 days prior to the adoption of amendments to the element. Receipt of the amendment text triggers a 30-day review period by the Survey. The Survey’s findings are considered to be advisory to the planning agency and legislative body. State Government Code allows the Survey to review safety elements, including amendments to elements, to determine whether they incorporate known seismic and other geological hazard information, and report its findings to the planning agency within 30 days of receipt of the draft of the safety element or amendment pursuant to state Government Code.

The draft amendment was sent via email to the Survey on April 19, 2017. Planning did not receive any comments from the Survey during the 30-day period.
Proposed amendments are also required to be sent to the California Emergency Management Agency for consultation. The proposed Safety Element amendment was sent to this agency on April 19, 2017. The agency provided no comment on the amendment.

Prior to the Board’s public hearing, a 1/8th page notice was published in the Mariposa Gazette on September 7, 2017 and September 21, 2017. A 1/8th page notice is required in lieu of direct mailed notice when there are more than 1,000 persons affected by a project. Notices were also posted in 19 community locations throughout the County and on the County’s website.

Staff has not received any comments from a member of the public as a result of this noticing. If any comments are received prior to the public hearing, copies will be provided to the Board at the hearing.

Since this project is a General Plan amendment the County was required to provide opportunity for Native American tribes on the Mariposa County contact list to request a consultation on the project. The tribe contact list is maintained by the state Native American Heritage Commission.

In accordance with the process mandated by state Government Code Section 64352.3(2), Planning staff mailed certified letters, dated August 7, 2015, to the County’s prescribed Native American contacts notifying them that they had 90 days, until November 5, 2015, to request a consultation on the project. None of the four tribes on the list requested a consultation.

Attachment 1 is the Planning Commission’s resolution recommending approval of the amendment. As referenced above, included in the resolution as Exhibit 1 is the full amendment text as recommended for adoption by the commission. The resolution also recommends approval of the county’s responses to Board of Forestry’s comments on the amendment. These responses are shown as Exhibit 2 in the resolution. The Commission’s resolution includes explanatory footnotes reviewed by the Commission. Except for footnote No. 12, which was included in the original adopted Safety Element, all footnotes shown in Exhibit 1 of the Commission’s resolution will be deleted from the final draft adopted by the Board.

The commission discussed a number of issues relating to the Safety Element amendment project. Among them were the issues of
increased fire danger caused by uncontrolled weeds along county-
maintained roadways, the potential for mudslides onto roads and
private property from slopes scarred by the Detwiler Fire, and the fact
that Mariposa County does not participate in the FEMA National Flood
Insurance Program. These are program management level concerns
and are not necessarily appropriate to be addressed in this Safety
Element amendment project. Acknowledgment of discussion of these
concern areas was placed in the commission’s resolution.

As was discussed by the commission, potential mitigating actions in
the LHMP help to address these areas of concern. It should be noted
that the Mariposa County Countywide Community Wildland Fire
Protection Plan, which is recommended to be incorporated into the
Safety Element by reference, addresses concerns related to fire safe
issues in the county.

The commission also discussed issues relating to management of
waste from industrial processes. The commission understood that this
general plan amendment does not represent a comprehensive review
of and update to the Safety Element and that the project as initiated by
the Board is of limited scope.

The commission’s action made only slight changes to the actual
proposed amendment text they reviewed. These recommended
additions are accompanied by footnotes in Exhibit 1 of the
commission’s resolution.

Environmental
Review

The Planning Commission recommends a finding that the project is
exempt from environmental review pursuant to a General Rule
Exemption of the California Environmental Quality Act. It can be found
with certainty that there is no possibility that the activity in question may
have a significant effect on the environment. This amendment only
incorporates an adopted LHMP by reference into the Safety Element of
the General Plan and addresses the requirements of SB 1241.

Recommended Findings for Approval of
General Plan Amendment 2015-002

1. Finding: The amendment is in the general public interest, and will not have a
   significant adverse effect on the general public health, safety, peace, and welfare.
Evidence: The amendment will have a positive effect on and enhance the general public health, safety, peace, and welfare. The General Plan is the county’s governing document and incorporating by reference the Local Hazard Mitigation Plan (LHMP) into its Safety Element will ensure County documents are consistent with respect to addressing public health and safety. The LHMP and its incorporation into the Safety Element will allow the county to seek grants under the Federal Emergency Management Agency’s Hazard Mitigation Assistance program and be eligible for maximum available state disaster assistance funding under AB 2140. The amendment will meet the requirements of Senate Bill 1241 which are designed to provide enhanced fire protection in State Responsibility Areas.

2. Finding: The amendment is desirable for the purpose of improving the Mariposa County General Plan with respect to providing a long term guide for county development and a short term basis for day-to-day decision making.

Evidence: This amendment will improve the Mariposa County General Plan by providing an enhanced long term guide for protecting public health and safety. The amendment will bring into consistency adopted county documents addressing public health and safety. The amended Safety Element will provide a guide in the short term for day-to-day decision making through attainment of specific goals, policies and implementation measures and ensuring development projects conform to health and safety policies.

3. Finding: That such an amendment conforms to the requirements of state law and county policy.

Evidence: This project has been processed in accordance with State Law. Senate Bill 1241 mandates the county to review its Safety Element to ensure conformance with state law relating to fire protection in State Responsibility Areas. It is the policy of the county to maximize public health and safety as shown in the Safety Element’s goals, policies and implementation measures. The amendment brings into consistency the county’s planning documents relating to health and safety. Applicable state agencies were given the opportunity to review and provide recommendations on the proposed amendment in accordance with state Government Code.

4. Finding: This amendment is consistent with other guiding policies, goals, policies and standards of the Mariposa County General Plan.

Evidence: The amendment, which incorporates by reference the county’s adopted Local Hazard Mitigation Plan and addresses requirements of state law, is consistent
with other guiding policies, goals, policies and standards of the Mariposa County General Plan.

**Recommended Findings for Categorical Exemption**

General Plan Amendment No. 2015-002 is exempt from environmental review pursuant to the General Rule Exemption, Section 15061, of CEQA Guidelines. It can be seen with certainty that there is no possibility that the amendment will have a significant effect on the environment. The project enhances the Safety Element of the Mariposa County General Plan thereby further maximizing public health and safety.

**Fish and Game Fees**
Because the project is exempt from environmental review, the Department of Fish and Wildlife fees for the filing of a Negative Declaration do not apply to the project. A Notice of Exemption will be filed with the county clerk upon approval of the project by the board of supervisors.

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Attachment 1: Planning Commission Resolution
Attachment 2: Draft Notice of Exemption
Attachment 3: Comments Received
Attachment 4: Draft Board Resolution
WHEREAS, the Mariposa County General Plan includes a Safety Element which addresses the safety of people and property in Mariposa County with the intent of reducing the risk of loss of life, injuries, damage to property, and economic and social dislocations from identified hazards to the smallest amount of degree within practical limitations; and

WHEREAS, the standards in the Safety Element were deemed adequate at the time of General Plan adoption in December of 2006 to meet the goals of addressing the safety and people and property in Mariposa County; and

WHEREAS, subsequent to the adoption of the General Plan, the governor of the state of California signed into law Senate Bill 1241, which went into effect on January 1, 2013, mandating that Safety Elements, upon the next revision of the Housing Element on or after January 1, 2014, be reviewed as necessary to address the risk of fire for State Responsibility Areas (SRAs) and very high fire hazard severity zones including review of fire hazard severity zone maps; and

WHEREAS, subsequent to the adoption of the General Plan, the Board of Supervisors adopted Resolution No. 2015-313, adopting an update to the Local Hazard Mitigation Plan (LHMP) on June 23, 2015; and

WHEREAS, the LHMP was prepared in accordance with the provisions of the federal Disaster Mitigation Act (DMA) of 2000, including the DMA’s mitigation planning section, and assesses risks posed by natural and human-caused hazards and describes a mitigation strategy for reducing the County’s risks; and

WHEREAS, the DMA’s mitigation planning section provides the legal basis for the Federal Emergency Management Agency’s mitigation plan requirements for mitigation grant assistance; and

WHEREAS, incorporating by reference the LHMP into the Safety Element of the General Plan satisfies DMA requirements for such incorporation, and

WHEREAS, the proposed amendment text satisfies the review requirements of Senate Bill 1241 and properly references the County’s Community Wildfire Protection Plan (Mariposa Countywide Community Wildland Fire Protection Plan) in the Safety Element, in accordance with SB 1241, and
WHEREAS, incorporating the LHMP by reference into the General Plan establishes conformance with state Assembly Bill 2140 which will allow Mariposa County to be eligible for maximum state disaster assistance funding; and

WHEREAS, the Board of Supervisors initiated the amendment process on July 21, 2015; and

WHEREAS, a duly noticed Planning Commission public hearing was scheduled for the 22nd day of January 2016; and

WHEREAS, the Planning Commission did hold a public hearing on the noticed date and considered all of the information in the public record, including the Staff Report packet, the proposed environmental determination and testimony presented by the public; and

WHEREAS, the Planning Commission did not take action on the amendment on that date in order to ensure that all required review and consultation by and with state agencies was undertaken in accordance with State Government Code; and

WHEREAS, the draft Safety Element amendment was provided to the State Board of Forestry and Fire Protection for review and recommendation in accordance with Section 65302.5(b)(1) of the State Government Code and received the County’s draft responses to those recommendations in accordance with Section 65302.5(b)(4) of State Government Code; and

WHEREAS, the draft Safety Element amendment was provided to the California Geological Survey of the Department of Conservation for review and comment in accordance with Section 65302.5(a) of the State Government Code; and

WHEREAS, the draft Safety Element amendment was provided to the California Emergency Management Agency for consultation in accordance with Section 65302(g)(6) of the State Government Code; and

WHEREAS, a duly noticed Planning Commission public hearing was scheduled for the 21st day of July 2017, but that hearing was canceled due to the Detwiler fire and rescheduled for August 18, 2017 and appropriately noticed; and

WHEREAS, the Planning Commission did hold a public hearing on the noticed date and considered all of the information in the public record, including the Staff Report packet, the proposed environmental determination, input from the Board of Forestry and testimony presented by the public; and

WHEREAS, The Planning Commission expressed concerns regarding three related issues: 1) The potential for uncontrolled weeds along county-maintained roads to create increased fire hazard; 2) The potential for significant mudslides onto roads and private property due to fire-scarred slopes resulting from the Detwiler Fire; and 3) The fact that Mariposa County does not participate in the FEMA National Flood Insurance Program. These are program management level concerns and are not necessarily appropriate to be addressed in this Safety Element amendment project, which has a limited scope.
NOW BE IT THEREFORE RESOLVED THAT the Planning Commission does hereby recommend the Board of Supervisors approve General Plan Amendment 2015-002 as shown in Exhibit 1.

BE IT THEREFORE FURTHER RESOLVED THAT the Planning Commission does hereby recommend the Board of Supervisors approve responses to recommendations on the Safety Element amendment provided by the state Board of Forestry and Fire Protection as shown in Exhibit 2.

BE IT THEREFORE FURTHER RESOLVED THAT the Planning Commission recommends the Board direct staff to file a Notice of Exemption for the project.

BE IT THEREFORE FINALLY RESOLVED THAT the recommendation for project approval is based on the following recommended findings supported by substantial evidence in the public record.

1. Finding: The amendment is in the general public interest, and will not have a significant adverse effect on the general public health, safety, peace, and welfare.

Evidence: The amendment will have a positive effect on and enhance the general public health, safety, peace, and welfare. The General Plan is the county’s governing document and incorporating by reference the Local Hazard Mitigation Plan (LHMP) into its Safety Element will ensure County documents are consistent with respect to addressing public health and safety. The LHMP and its incorporation into the Safety Element will allow the county to seek grants under the Federal Emergency Management Agency’s Hazard Mitigation Assistance program and be eligible for maximum available state disaster assistance funding under AB 2140. The amendment will meet the requirements of Senate Bill 1241 which are designed to provide enhanced fire protection in State Responsibility Areas.

2. Finding: The amendment is desirable for the purpose of improving the Mariposa County General Plan with respect to providing a long term guide for county development and a short term basis for day-to-day decision making.

Evidence: This amendment will improve the Mariposa County General Plan by providing an enhanced long term guide for protecting public health and safety. The amendment will bring into consistency adopted county documents addressing public health and safety. The amended Safety Element will provide a guide in the short term for day-to-day decision making through attainment of specific goals, policies and implementation measures and ensuring development projects conform to health and safety policies.

3. Finding: That such an amendment conforms to the requirements of state law and county policy.

Evidence: This project has been processed in accordance with State Law. Senate Bill 1241 mandates the county to review its Safety Element to ensure conformance with state law relating to fire protection in State Responsibility
Areas. It is the policy of the county to maximize public health and safety as shown in the Safety Element’s goals, policies and implementation measures. The amendment brings into consistency the county’s planning documents relating to health and safety. Applicable state agencies were given the opportunity to review and provide recommendations on the proposed amendment in accordance with state Government Code.

4. Finding: This amendment is consistent with other guiding policies, goals, policies and standards of the Mariposa County General Plan.

Evidence: The amendment, which incorporates by reference the county’s adopted Local Hazard Mitigation Plan and addresses requirements of state law, is consistent with other guiding policies, goals, policies and standards of the Mariposa County General Plan.

ON MOTION BY Commissioner McCamman, seconded by Commissioner Kennec, this resolution duly passed and adopted this 18th day of August 2017 by the following vote:

AYES: Kennec, Becker, Herman, Kehoe, McCamman

NOES: None

ABSENT: None

ABSTAIN: None

Mick Herman, Chair
Mariposa County Planning Commission

Attest:

Carol Suggs, Secretary to the Planning Commission
Exhibit 1

(Recommended additions are shown in italicized, double underlined type; Recommended deletions are shown in double strikethrough type. Except for footnote 12, which was in the originally-adopted Safety Element, all explanatory footnotes are to be removed from the final draft adopted by the Board.)

16 Safety

The Safety Element identifies issues and delineates programs related to safety in the County.

16.1 SAFETY ISSUES AND SUMMARY OF FINDINGS

Fire, flood, seismic and geologic hazards, winter storms, as well as airport operations and use or transport of hazardous materials may create hazards for people and property in the County. It is the County’s intent to reduce the risk of loss of life, injuries, damage to property, and economic and social dislocations from those hazards to the smallest amount or degree within practical limitations.

This Safety Element incorporates by reference the Local Hazard Mitigation Plan (LHMP) dated February 2015 that was prepared in accordance with the federal Disaster Mitigation Act (DMA) of 2000 and adopted by the Board of Supervisors in November of 2012 and the update to the LHMP dated February 2015 that was adopted on June 23, 2015. This plan has been approved by the Federal Emergency Management Agency (FEMA). (Subsequent LHMPs are also incorporated by reference into this Element.) This DMA amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (Title 42 of the United States Code Section 5121 et seq.) by repealing the Act’s previous mitigation planning section (409) and replacing it with a new mitigation planning section (322). This new section emphasizes the need for state, tribal, and local entities to closely coordinate mitigation planning and implementation efforts. This new section also provides the legal basis for FEMA’s mitigation plan requirements for mitigation grant assistance. The provisions of this plan are summarized within the appropriate sections of this element.1

The LHMP and its incorporation into this Safety Element satisfies the requirements of state Senate Bill (SB) 1241, which went into effect on January 1, 2013. This legislation mandated that safety elements, upon the next revision of the Housing Element on or after January 1, 2014, cities and counties in the state must be reviewed and updated their Safety Elements as necessary to address the risk of fire for State Responsibility Areas (SRAs) and very high fire hazard severity zones and conduct detailed surveying and mapping to determine areas of high fire danger including review of fire hazard severity zone maps. (Appendix C in the adopted LHMP contains such mapping.) SB 1241 requires that Safety Elements must minimize fire risks and provide guidance on local decision-making to achieve this goal. The approval of tentative maps, or parcel maps for which a tentative map is not required by county legislative bodies

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1 This paragraph is proposed for alteration by Planning staff to remove reference to the LHMP being an "update" that was shown in the version the Board reviewed in initiating the amendment. This plan replaces the prior LHMP. Subsequent references to "update" in the amendment text are also proposed for removal.
must include three specific findings relating to the provision of adequate fire protection for projects in a SRA and/or an area of high fire danger.2

SB 1241 requires cities and counties with fire safety plans adopted separately from the General Plan to attach such plans to the General Plan or reference them in the General Plan. Mariposa County adopted a fire hazard plan in 2010. This plan, a Community Wildfire Protection Plan specifically titled “Mariposa Countywide Community Wildland Fire Protection Plan,” contains protection plans for 13 communities or areas within Mariposa County. This plan and subsequent revisions to the plan3 are incorporated into the Safety Element of the General Plan by reference.

Mariposa County is served by the Madera-Mariuposa-Merced Unit of CAL FIRE. A fire management plan for this area, which includes Battalions 1 and 2 covering Mariposa County, was adopted by CAL FIRE in 2015. CAL FIRE also adopted a Fire Hazard Severity Zone map for State Responsibility Areas in Mariposa County. The map, adopted on November 7, 2007, was prepared under CAL FIRE’s Fire and Resource Assessment Program.

The original LUMP was approved by the Mariposa County Board of Supervisors in November 2012 and was subsequently approved by FEMA. The LUMP Update, dated February 2015, was deemed eligible for final approval by FEMA in February 2015 pending adoption by the board of supervisors, which occurred on June 23, 2015.4

The Safety Element addresses the safety of people and property in Mariposa County in coordination with other local, state, tribal and federal agencies. Issues addressed in this Element include:

- fire hazard,
- flood hazard,
- geologic hazards,
- seismic hazards,
- airport safety,
- hazardous materials and hazardous waste, and
- emergency management and evacuation plans, and
- winter storms

16.1.01 FIRE HAZARD

Uncontrolled wildfires damage life, property, and critical natural resources, including scenic resources. Uncontrolled wildfires also damage grazing lands, public infrastructure and local businesses.5 The potential risk from wildfire depends upon the amount of flammable vegetation and other fuel sources in an area, combined with meteorological and topographic factors. The risk of wildfire is high in a large portion of Mariposa County because the County is covered by a combination of grasslands, chaparral, and

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2 This paragraph was altered for clarity by Planning staff after Board initiation of amendment.
3 The reference to subsequent revisions to the plan is proposed by staff to be added for clarification.
4 This paragraph, included in the Board’s resolution to initiate the amendment, is proposed for removal by Planning staff. It’s content has been updated and added to the first paragraph on page 1.
5 This sentence recommended to be added by the Planning Commission.
forests that can become very flammable during dry weather. The wind and heat from June to September contribute to the fire danger. Even during the winter months the fire danger persists, because the drying effects of several days of wind can reduce the water content of brush to a level that makes it susceptible to burning. Various factors, including humidity, wind speed and direction, fuel load and fuel type, and topography, contribute to the intensity and spread of wildland fires.

Every community in Mariposa County has been threatened by major wildland fires within the past 200 years. Since 1954, the town of Mariposa has burned down several times. The original county seat, Agua Fria, was destroyed by fire in the 1800s and was not rebuilt. Structures that have survived for more than 100 years, except for the Mariposa County Courthouse, have steel roofs, steel shutters for doors and windows, and adobe, stone, or brick walls. Other structures that have survived are located in areas that were defendable from wildland fires and had some sort of defensible space such as pastures, orchards, or recent clearance around the structure.

The most notable fire in Mariposa's history is the Harlow Fire of July 1961. Its notability is due to the rapidity of its spread; in two hours it burned 20,000 acres making it one of the fastest burning fires recorded in the United States. The fire eventually burned 43,329 acres, destroyed 104 structures and claimed two lives. One of the most active and destructive fire seasons for Mariposa County occurred in 2008. The Telegraph Fire in July of that year, a 50-year fire event, consumed 18,000 acres in the first day and a half alone. It eventually burned 32,000 acres. The Carsten's Fire in June 2013 burned 1,708 acres. The Detwiler Fire in July 2017 burned 81,826 acres and destroyed 63 residences, 67 minor structures and one commercial structure.  

There is a distinction between wildland fires and non-wildland fires involving homes, businesses, and other improvements. The Mariposa County Fire Department has the responsibility of determining the threat and mitigation measures needed for non-wildland fires. The California Department of Forestry and Fire Protection (CALFIRE), the USDA Forest Service, the Department of Interior National Park Service, and Bureau of Land Management have responsibility for wildland fires within their jurisdictions. The threat, the mitigation, and the approaches are different.

While wildfires are caused by both natural and human means, human error has historically been the cause of most large fires in Mariposa County. The threat of wildfires is greatest in the central, northeast, and southeast portions of the County because these areas consist primarily of chaparral and conifer communities and are prone to high winds. These areas are the most developed in the County (Mariposa Town and Coulterville are located here) and are where the largest amount of future development is likely to occur. Topography, fuel and weather are three factors that contribute most significantly to wildland fire behavior and can be used to identify wildland fire hazard areas.

The LHMP Update displays the locations of past wildland fires throughout Mariposa County and illustrates the wildland fire hazard areas based upon fuel rank. As illustrated by both figures, the entire County is susceptible to wildland fires, but the central portion of the County is most susceptible, falling in the very high hazard zone.

According to CALFIRE, 443,891 acres in Mariposa County, the vast majority located in the central and western portion of the county, are located within the State Responsibility Area. The State Responsibility Area (SRA) is the area of the state where the State of California is financially responsible for the prevention and suppression of wildfires.

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6 Reference to the Detwiler Fire recommended to be added by the Planning Commission.
The LHMP provides information regarding the total acres burned and the perimeter of past wildland fires. The Plan illustrates fuel rank; this map is based on the California fires and Resources Assessment Program fuel rank model. This model ranks the fuel type, slope, brush density (ladder), and tree density (crown cover) present.

As the fuel loading increases in the County the potential for more firefighter and civilian fatalities also increases. There has been a significant improvement in prevention that has dramatically reduced the number of human caused fires. For instance, CAL FIRE/USDA Forest Service Team Teaching in elementary schools has reduced the number of children-caused fires to almost zero within the past 25 years. Lightning is the number one natural threat to Mariposa County and historically it is lightning-caused fires that have been the most costly.

Based on previous occurrences, Mariposa County can expect a wildland fire of over 3,000 acres to occur about every other year, a 60 percent chance per year (12 years out of 20 years have had large wildland fires of over 3,000 acres.)

According to CalFire CAL FIRE, CalFire CAL FIRE and the U.S. Forest Service responded to over 300 wildland fires in Mariposa County from 1950-2011.

The 2002 Standards of Coverage prepared by Mariposa County Fire Department create a system to increase fire prevention and protection opportunities for property owners. The Standards of Coverage ensure the County is able to maintain its Insurance Services Office (ISO) ratings. As the ISO ratings number decreases (improvement to fire protection services), the cost of property insurance costs also decrease. Further implementation of the concentric development pattern policies of the General Plan implement the Standards.

Basically, residential development needs to occur in areas where fire protection can be supplied. The County has standards of response time and coverage for fire protection. There are 14/15 county fire stations countywide and one fire station under construction; these include Co# 21 Midpines, Co# 22 MPUD Mariposa, Co# 23 Catheys Valley, Co# 24 Don Pedro, Co# 25 Mt. Bullion Airport, Co# 26 Coulterville, Co # 27 Mormon Bar, Co# 28 Bridgeport (planning for construction, 2008), Co# 29 Lushmeadows, Co# 31 Greeley Hill, Co# 32 Ponderosa Basin, Co# 33 Fish Camp, Co# 34 El Portal, Co# 36 Hunters Valley, and Co# 37 Bootjack. The Mariposa Public Utilities District (MPUD), which serves the community of Mariposa, provides fire protection within its service area boundaries.

To maintain quality fire protection and not lose ISO ratings, development potential is tempered by the available ISO rating. Communities with hydrant systems are classed as ISO Rural 5 or 6. MPUD’s service area is currently assigned an ISO rating of 3.7 Outlying rural areas are classified as ISO Rural 8, 9, or 10. ISO 8 is within the coverage response time of a fire station. ISO 9 areas have fire protection, but longer response times. Areas rated as ISO 10 are considered unprotected. Appendix C-B of the General Plan includes the 2005 Mariposa County ISO Rating map. In 2005, the County had an ISO rating of “5.”

From the CDFA CAL FIRE’s perspective, the ISO ratings assist with determining mitigation for structures, but the Fire Hazard Preplanning conducted by CDFA CAL FIRE provides the planning for wildfire. CDFA CAL FIRE needs to be able to manage fuel breaks through the wildland-urban interface. When new subdivisions are created, CDFA CAL FIRE’s review of the project can result in mitigation measures requiring fuel breaks, fire roads, limited dead end road lengths, and increased setback areas from

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7 This sentence is proposed to be added as per comments provided by Mark Rowney, General Manager of MPUD in a letter to Planning dated April 19, 2017.
property lines adjacent to USFS lands, and other methods of protecting property from wild fire. Establishing these fire management features requires long-term maintenance and efforts by property owners and CAL FIRE CDF. Such requirements are incorporated into the development process. Development projects are subject to all applicable state fire safe standards, including Public Resources codes 4290 and 4291. CAL FIRE professional staff review and inspect all development projects, parcel maps, use permits and building permits for state fire safe standards compliance.

In addition, all construction in Mariposa County (for all occupancies, other than those in a Special Occupancy Park or a public school facility) is required to comply with all state Uniform Building Code and Fire Code requirements.

The Local Hazard Mitigation Plan, which is incorporated into this Safety Element by reference, contains potential mitigation actions to address potential hazards described within that document, including wildfire. This element contains the goal of implementing the mitigation actions contained in the LHMP.

16.1.02 FLOOD HAZARD

Flooding and resulting flood hazards to life and property have been relatively rare in Mariposa. Flooding can cover roads and makes transportation hazardous. Flood hazard areas have been defined by the Department of Housing and Urban Development in the populated areas of Mariposa, El Portal, Coulterville, Wawona, and Hornitos.

In Mariposa County two types of flooding occur: riverine flooding, also known as overbank flooding due to excessive rainfall, and localized flooding. Riverine floodplains range from narrow, confined channels in the steep valleys of mountainous and hill regions to wide, flat areas in plains and coastal regions. Flooding in steep, mountainous areas is usually confined, strikes with less warning time, and has a short duration. Localized flooding may occur outside of recognized drainage channels or delineated floodplains due to a combination of locally heavy precipitation, increased surface runoff, and inadequate facilities for drainage and storm water conveyance.

There have been two major floods within the County’s limits since 1950. In January 1997, the largest flood in over 80 years occurred on the Merced River. The river ran over its banks and inundated most of Yosemite Valley: all roads within the valley were under several feet of water. All bridges on the Merced River were covered with water. The cost for damages due to this flood was in excess of $194 million. In April 2006 floods were not as damaging, but were more widespread throughout the County. The floods caused significant damage to several small communities and led to a landslide that closed State Route 140. This incident had a cost of damage estimate of $4.1 million.

According to the National Climatic Data Center’s Storm Event Database, from 1995 to the present, there have been 28 different flooding events that affected Mariposa County. Damages for the County and additional affected counties was $3 million.

Floodplains in Mariposa County encompass important resource values. These include natural moderation of floods; water quality maintenance; groundwater recharge; habitat and food for fish, wildlife and plants; open space and natural beauty; outdoor education and recreation; and economic value for agriculture.

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8 This sentence recommended to be added as a result of meeting between Planning staff and CAL FIRE on June 28, 2017 to discuss Board of Forestry comments on the proposed amendment.
9 This sentence recommended to be added for clarification by Planning Commission.
10 Ibid.
aquaculture, and forestry. Flooding is increased when obstructions such as sediment, vegetation, and constructed structures and facilities occur in the floodway.

The major areas of concern for flood hazards in Mariposa County are:

- damage to homes and other structures that already exist in floodplains,
- increasing development pressures within floodplains or along watershed drainage channels,
- erosion along established stream channels and sedimentation of instream channels caused by cut and fill activities,
- potential development below dams which might be subject to inundation caused by dam failure, and
- lack of adequate access for emergency equipment during periods of flooding.

Floods are described in terms of their extent (including the horizontal area affected and the vertical depth of floodwaters) and the related probability of occurrence. Factors ranging from rainfall intensity to availability of sediment for transport contribute to the frequency and severity of riverine flooding.

The magnitude of flood used as the standard for floodplain management in the U.S. is a flood having a probability of occurrence of 1 percent in any given year, also known as the 100-year flood or base flood. The most readily available source of information regarding the 100-year flood is the system of Flood Insurance Rate Maps (FIRM) prepared by FEMA. The FIRMs show 100-year floodplain boundaries for identified flood hazards. These areas are also referred to as Special Flood Hazard Areas and are the basis for flood insurance and floodplain management requirements. FEMA has prepared a FIRM for Mariposa County and prepared a digital FIRM (DFIRM), effective September 25, 2009. Figure C-2 in Appendix C of the LHMP shows the locations of the 100-year floodplains in Mariposa County; per the FEMA Flood Insurance Rate Maps (FIRMs) there are no 500-year floodplains in Mariposa County.

Almost 80 percent of the total annual precipitation for Mariposa County occurs between November and March. The mean annual precipitation for the County is just under 34 inches. In the last 19 years Mariposa County has experienced seven flood events that have caused more than $10K in damage (a 7 in 19 years chance of occurring); therefore, the probability of future flooding in Mariposa County is roughly a 37 percent chance per year.

Local area plans in Mariposa County contain standards for protection of creeks and floodplains within plan boundaries. The Mariposa Town Plan contains setbacks from major and minor drainages and prohibits buildings, fill placements and additional development within the 100-year floodway of Mariposa and Stockton Creeks. The Coulterville Town Plan restricts development within the 100-year flood level of Maxwell Creek. The Fish Camp Town Planning Area Specific Plan contains standards for the protection of Big Creek and restricts development within the creek’s flood channel. The Wawona Town Planning Area Specific Plan contains an overlay district for the South Fork of the Merced River which prohibits new dwelling units and subdivisions within its boundaries. The Coulterville Community Plan mandates the development of setback standards for the flood prone areas of blue line drainages.

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11 Mark Rowney, General Manager of MPUD recommended that mention should be made of drainage setback standards contained within the Mariposa Town Planning Area Specific Plan in a letter submitted to Planning dated April 19, 2017. The Planning Commission recommends adding this text which addresses standards for all the area plans adopted as of the date of this amendment. Existing standards contained in area plans will aid in the development of countywide standards to address Goals 16-4, 16-5 and 16-6 of this element.
The Local Hazard Mitigation Plan, which is incorporated into this Safety Element by reference, contains potential mitigation actions to address potential hazards described within that document, including flood. This element contains the goal of implementing the mitigation actions contained in the LHMP.

16.1.03 GEOLOGIC HAZARDS

The most common geologic hazards in Mariposa County are landslides and rock falls. Much of the landslide activity in Mariposa County is associated with the process of liquefaction, which occurs when very wet sediment behaves like a liquid. Landslide is a general term for the dislodgement and fall of a mass of soil or rocks along a sloped surface or for the dislodged mass itself. The term is used for varying phenomena, including mudflows, mudslides, debris flows, rock falls, rockslides, debris avalanches, debris slides, and slump-earth flows. Landslides may result from a wide range of combinations of natural rock, soil, or artificial fill. The susceptibility of hillside and mountainous areas to landslides depends on variations in geology, topography, vegetation, and weather. Landslides may also occur because of indiscriminate development of sloping ground or the creation of cut-and-fill slopes in areas of unstable or inadequately stable geologic conditions. Landslides can also occur together with other natural hazards, such as seismic activity and wildfires.

In April 2006 one of the most costly landslides in the County occurred on State Route 140; 7.6 miles west of El Portal in the Merced River canyon. Known as the Ferguson Rock Slide, this event completely buried the highway necessitating rerouting of the roadway to the opposite side of the canyon.

Each year small landslides/rockslides affect Mariposa County, though few impact communities or the infrastructure. Historically, landslide/significant soil movement has occurred in the Merced River drainage or along steep cut banks on roads in the central southwest areas of the County.

In 2011 the California Geological Survey developed a landslide map for the State of California which illustrates the susceptibility to deep-seated landslides. The map shows the relative likelihood of deep landsliding based on regional estimates of rock strength and steepness of slopes. Based upon this study, much of Mariposa, specifically the western portion of the County, falls into the low landslide susceptibility range. However, the mountainous areas in the eastern portion of the County, along the Merced River canyon and the Yosemite Valley reach the high landslide susceptibility range.

The extent of size of a landslide will vary depending on the proportion of and type of material it carries, the geology of the area, and the initial cause of the slide. Landslides triggered by rainfall are smaller (usually 100-5,000 cubic yards) than those resulting from earthquakes. The hazard potential is greatest in areas with steep slopes and certain geologic and soils conditions, such as expansive soils. The risk of injury or property damage increases when houses and roads are constructed in these areas. These hazards can directly injure people and damage property can also block evacuation and emergency response routes (see the discussion of Emergency Management and Evacuation Plans below), or damage structures, such as septic systems, causing them to release pathogens or other hazardous substances to the environment. The hazard potential is greatest in areas with steep slopes and certain geologic and soil conditions, such as expansive soils (clay soils that expand when wet). The risk of injury or property damage increases when houses and roads are constructed in these areas. Human activities may further increase the risk by removing or disturbing soil-stabilizing vegetation to construct building pads and roads.

The County addresses old mine shafts, vents, and adits when new subdivisions are created. Part of the California Environmental Quality Act (CEQA) process is to identify such hazards and incorporate appropriate mitigation measures. Landslides in the foothill and mountain areas of Mariposa County, such
as in the steep slopes of the Sierra Nevada, are typically deep-seated landslides which are hundreds to thousands of feet in length or width and only move fractions of an inch per year. However, during heavy rainfall events, a landslide can move several yards a minute or faster.

In 1974 a Five County Seismic Safety Element was developed for the general plans for Fresno, Kings, Madera, Mariposa and Tulare counties. This effort involved a generalized landslide risk appraisal and found that there was minimal risk of landslides caused by earthquakes in areas of low relief. The study found moderate to high risk in the remaining mountainous areas of the County. Most of the soils found in the County have minimal amounts of clay and low shrink-swell potential and do not result in landslide hazards. However, the soils found in the hills along Highway 49 North (HaG-Henneke extremely rock clay loam) have a high risk of sliding and are a special concern. The middle and eastern portions of Yosemite National Park are closer to the Owens Valley Fault and were also found to be at a greater risk of landslide hazards.

Landslides in Mariposa County are generally a secondary hazard resulting from winter storms and heavy rain. Every landslide event reported in Mariposa County has followed a winter storm/rain event, therefore, it is assumed that probability of a future landslide event will be highly tied to winter/rain events. Based upon history of events (7 occurrences in the last 10 years) the probability of a future winter storm/rain induced landslide is a 70 percent chance per year.

Landslides are also a secondary hazard resulting from an earthquake. However, Mariposa has a low susceptibility to earthquake damage and historically there have been no reported earthquake induced landslides in Mariposa County. Therefore, the probability of an earthquake induced landslide is less than 10 percent per year.

The Local Hazard Mitigation Plan, which is incorporated into this Safety Element by reference, contains potential mitigation actions to address potential hazards described within that document, including landslide. This element contains the goal of implementing the mitigation actions contained in the LHMP. The County addresses old mine shafts, vents, and adits when new subdivisions are created. Part of the California Environmental Quality Act (CEQA) process is to identify such hazards and incorporate appropriate mitigation measures.

16.1.04 SEISMIC HAZARDS

Historic earthquake activity in Mariposa County has been low. Secondary seismic hazards are listed in Table 16-1 of this Element; no significant damage related to seismic activity has been recorded. Nevertheless, the Foothills Fault System, which terminates in mid-County, is seismically active. This system includes the Bear Mountain fault and the Melones fault. The system is bound on the east by the northward trending Melones fault zone and on the west by the northwestward trending Bear Mountain fault zone. The Foothills Fault system is 360km long and the maximum magnitude earthquake from the system is assumed to be 6.5 on the Richter magnitude scale. The northern portion of the system produced a magnitude 5.7 earthquake near Oroville in 1975. A few days after the Oroville earthquake, a magnitude 4.1 earthquake was centered south of Catheys Valley. This smaller earthquake reportedly caused no damage.

The Five-County Seismic Safety Study considered Mariposa County only in light of its distance from the San Andreas Fault to the west and the Owens Valley Fault System to the east. Based on information known at the time of that study, the major part of Mariposa County was shown in Seismic Zone S-1. Zone S-1 is described as having general features of hard rock, alluvium on valley floors, and weathered...
bedrock in mountain meadows. The zonal characteristics of Seismic Zone S-1 indicate that there is a low damage potential from generalized ground shaking.

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<thead>
<tr>
<th>Table 16-1: Secondary Seismic Hazards</th>
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<tr>
<td>Hazard</td>
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<td>Landslide</td>
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<td>Subsidence/settlement</td>
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<td>Liquefaction</td>
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Source: Mariposa County, 2005.

Only the mid to eastern portions of Yosemite National Park were shown in Seismic Zones S-2 and S-3, both of which are subject to more severe primary and secondary hazards due to the area’s proximity to the Owens Valley Fault Zone.

The LHMP shows the level of ground motion that has an annual probability of being exceeded in 50 years. As such, this map shows that Mariposa County is susceptible to strong shaking, but does not reach the severe to violent shaking that most counties within the state are susceptible to.

Over past years a group called the Working Group on California Earthquake Probabilities (WGCEP), a multi-disciplinary collaboration of scientists and engineers developed earthquake forecasts for California. In 2007, the WGCEP was commissioned to develop the Uniform California Earthquake Rupture Forecast (UCERF) – the first comprehensive framework for comparing earthquake likelihoods throughout all of California. UCERF provided important new information for improving seismic safety engineering, revising building codes, setting insurance rates, and helping communities prepare for inevitable future earthquakes.

Taking into account the earthquake histories and relative rates of motion on many faults, the UCERF study concluded that there is a probability of more than 99 percent that in the next 30 years California will experience one or more magnitude 6.7 or greater quakes, as illustrated by Figure 4-1 in the LHMP.

This study, however, also illustrates that for Mariposa County the probability is significantly less. For Mariposa County the probability of having a nearby earthquake rupture (within 3 to 4 miles) of 6.7 or greater in the next 30 years is less than .1 percent and in most areas of the County closer to .01 percent.

The Local Hazard Mitigation Plan, which is incorporated into this Safety Element by reference, contains potential mitigation actions to address potential hazards described within that document, including earthquake. This element contains the goal of implementing the mitigation actions contained in the LHMP.

16.1.05 AIRPORT SAFETY

The Mariposa-Yosemite Airport, located on Highway 49 North approximately four miles northwest of Mariposa, is the only public airport in Mariposa County. It serves Mariposa County and the eastern half of Madera County. It is classified as a General Aviation Basic Utility Airport and has one runway with an adjacent full-length taxiway. The most common types of aircraft using the airport are single engine fixed-wing general aviation with some use by twin-engine aircraft and helicopters.
The principal concerns associated with the Mariposa-Yosemite Airport are the safety of the general public in over flight areas during take-off and landing and noise compatibility. To reduce the safety risk, the Federal Aviation Administration requires runway protection zones and height limits on structures near airports. In addition, airport planning boundaries define areas near airports within which safety or noise restrictions are imposed. Development around the airport must comply with the Mariposa-Yosemite Airport Comprehensive Land Use Plan and Airport Overlay Zone regulations (Chapter 17.64, Mariposa County Code).

Land use compatibility standards have been established by the Mariposa-Yosemite Airport Comprehensive Land Use Plan to provide consistency with the requirements of the County General Plan and the Mount Bullion Town Planning Area, within which the airport is located. Land uses have been classified into three safety zones surrounding the Airport. These safety zones are intended to protect people from hazards and prevent property damage. They restrict building height and ensure compatible uses in areas surrounding the airport.

To be consistent with the County standard, a 55-Community Noise Equivalent Level (CNEL) noise contour has been established extending approximately 3,200 feet east and 5,700 feet west of State Highway 49. This contour is intended to protect residents from potential harm of excessive noise. There are 250 acres zoned Mountain Home (MH) located between the 55 and 60 CNEL (between Old Toll Road and Mt. Bullion Town Planning Area).

Airport safety issues are critical in order to attain the facility’s maximum economic development potential. Mariposa-Yosemite airport is a major component of the County’s economic diversity opportunities if its uses are allowed to continue and expand.

**16.1.06 NATURALLY-OCcurring ASBESTOS**

Asbestos is a term used for several types of naturally-occurring fibrous minerals found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. Serpentine rock often contains chrysotile asbestos. Serpentine rock, and its parent material, ultramafic rock, is abundant in the Sierra foothills, the Klamath Mountains, and Coast Ranges. Serpentine rock is typically grayish-green to bluish-black in color and may have a shiny appearance.

Asbestos is commonly found in ultramafic rock, including serpentine, and near fault zones. The amount of asbestos that is typically present in these rocks range from less than 1% up to about 25%, and sometimes more. Asbestos is released from ultramafic and serpentine rock when it is broken or crushed. This can happen when cars drive over unpaved roads or driveways which are surfaced with these rocks, when land is graded for building purposes, or at quarrying operations. It is also released naturally through weathering and erosion. Once released from the rock, asbestos can become airborne and may stay in the air for long periods of time.

All types of asbestos are hazardous and may cause lung disease and cancer. Health risks to people are dependent upon their exposure to asbestos. The longer a person is exposed to asbestos and the greater the intensity of the exposure, the greater the chances for a health problem. Asbestos-related disease, such as lung cancer, may not occur for decades after breathing asbestos fibers. Cigarette smoking increases the risk of lung cancer from asbestos exposure.

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There are many laws pertaining to asbestos. The California Air Resources Board adopted two statewide control measures which prohibits the use of serpentine or ultramafic rock for unpaved surfacing and controls dust emissions from construction, grading, and surface mining in areas with these rocks.

16.1.07 HAZARDOUS MATERIALS AND HAZARDOUS WASTE

Hazardous materials and hazardous waste are a potential hazard to County residents primarily through upsets or accidental releases to the environment. The risk of exposure increases when hazardous materials or waste facilities are located near where people live; when facilities are located in areas that contain other hazards (e.g., floodplains, landslide areas, and wildland fire areas); or when hazardous materials or waste are transported. For these reasons, the State and Federal governments closely regulate the storage, handling, and transport of hazardous materials and waste.

Hazardous materials are generally classified by their primary health effects on humans. Some common types include the following:

- Asphyxiants, substances that interfere with normal breathing and can cause suffocation.
- Flammables, combustibles and explosives.
- Corrosives and irritants causing burns or irritation to body tissues such as eyes, nose, throat, lungs, or skin.

The County Health Department is responsible for enforcing State and Federal hazardous waste regulations and for implementing the County’s Comprehensive Hazardous Waste Management Plan. The Certified Unified Program Agency (CUPA) for the County, the CUPA is responsible for implementing six hazardous materials related programs: Hazardous Materials Business Plans, Hazardous Waste Generators, Underground storage tanks, Above Ground Storage Tanks, California Accidental Release Prevention, and for maintaining the County’s Area Plan for Emergency Response to Hazardous Materials Incidents. The Management Plan is a guide for the reduction, treatment, recycling, and disposal of hazardous waste generated in Mariposa County. Mariposa County has a County Landfill and four transfer stations, although none of these sites accept hazardous waste. Emergency response to hazardous materials related incidents within the County. Because there are no commercial or public hazardous waste treatment, storage, disposal, or recycling facilities within Mariposa County, all hazardous waste is exported out of the County. Much of the hazardous waste produced in Mariposa County is waste oil. The County collects waste oil at the Mariposa County Airport, the Mariposa County Landfill, and the Don Pedro transfer station for recycling. Since there are no hazardous waste treatment facilities in the County, all other waste was exported to the Merced County Landfill.

There are several sites within the County where there have been reported releases of hazardous materials or wastes to the environment. The most common among these are leaking underground storage tanks (USTs) at former or active service stations. The County Health Department has an underground storage tanks program, which is responsible for ensuring that all USTs meet current state regulations and are inspected and permitted on an annual basis.

The County has taken steps to reduce the generation of hazardous waste by businesses and homeowners in the County. Household waste reduction has been addressed through public information and education about conservation and re-use. There are also bi-annual household hazardous waste collection days that have yielded positive results and will continue to be implemented.

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13 This paragraph is recommended to be altered for clarity on recommendation of the Health Department after Board initiation of amendment.
Mobile Incident
Mobile incidents include those that occur on a roadway or a rail facility. For the years 1993-2012, 12 mobile incidents were reported by the County Health Department. In Mariposa County, a mobile hazardous material event is most likely to occur along highways 140 and 49. Trucks and cars that use these transportation corridors commonly carry a variety of hazardous materials, including gasoline, other petroleum products, and other chemicals known to cause human health problems, including fertilizers, pesticides, and industrial chemicals. Sections of State Route 132, State Route 120, and State Route 41 also run through Mariposa County. A hazardous material event could potentially occur on one of these routes, but highways 140 and 49 are of greatest concern to the County.

Comprehensive information on the probability and magnitude of a hazardous material event along transportation corridors is not available. Wide variations among the characteristics of hazardous material sources and among the materials themselves make such an evaluation difficult. As such, the potential extent of a hazardous material mobile incident is unknown.

Based on previous occurrences, mobile hazardous material events are relatively common and occur almost every year (12 occurrences in 11 years). While incidents do not occur every year, the average number of events per year led to a probability of 100 percent likely per year.

Fixed Incident
The release of hazardous substances from stationary sources can be caused by human error, equipment failure, intentional dumping, acts of terrorism, or natural phenomena. Earthquakes pose a particular risk, because they can damage or destroy facilities containing hazardous substances. The threat posed by a hazardous-material event can be amplified by restricted access, reduced fire suppression and spill containment capability, and even complete cutoff of response personnel and equipment.

Mariposa County is home to many businesses that use and store hazardous materials and generate hazardous wastes. Most of them are small to mid-sized operations such as automotive shops and maintenance yards. Gas stations, public facilities, fire stations, and water and wastewater treatment operations also comprise a large portion of regulated facilities with the potential for hazardous material releases. Much of the hazardous waste produced in Mariposa County is waste oil. The County collects waste oil at the Mariposa County Airport, the Mariposa County Landfill, and the Don Pedro transfer station for recycling.

There are no hazardous waste treatment facilities in the County, therefore all other hazardous materials must be disposed of through a licensed hazardous waste hauler or through a County Household Hazardous Waste Collection event. The County has two Permanent Household Hazardous Waste Collection Facilities, one at the County landfill and one at the Don Pedro transfer station. These facilities are severely limited by funding and therefore there is still a large unmet need for household hazardous waste disposal in Mariposa County.

According to the Mariposa County Health Department, 68 fixed site incidents occurred between 1993-2012.

Comprehensive information on magnitude of a hazardous material event at fixed locations is not available due to unpredictable factors such as equipment maintenance, operator training, natural phenomena, and weather. As such, the extent of a potential hazardous material fixed incident is unknown.
Since 2002 Mariposa County has experienced 47 hazardous material spills at a fixed location. Based on previous occurrences, fixed hazardous material events are very common and are expected to continue to occur yearly (47 occurrences in 11 years). The potential for a hazardous material spill is greater than 100 percent likely per year.

The Local Hazard Mitigation Plan, which is incorporated into this Safety Element by reference, contains potential mitigation actions to address potential hazards described within that document, including hazardous material. This element contains the goal of implementing the mitigation actions contained in the LHMP.

16.1.08 EMERGENCY MANAGEMENT AND EVACUATION PLANS

Mariposa County manages and coordinates its emergency response activities in conjunction with the California State Standardized Emergency Management System (SEMS). The State Office of Emergency Services administers the SEMS, which provides a framework for coordinating multi-agency emergency response. Among other things, SEMS incorporates mutual aid agreements, establishes lines of communication during emergencies, and standardizes incident command structures. By participating in SEMS, Mariposa County is eligible for reimbursement of response costs under disaster assistance programs.

The Draft Evacuation Plan of Mariposa County—which is part of the County’s Draft Emergency Plan (August 2003), which, and also includes initial response operations, extended response operations, and recovery operations, and provides guidance for field responders for initial response to emergencies. The Evacuation Plan is updated annually by the local Office of Emergency Services and Sheriff’s Department. In depth evacuation staging areas and sheltering locations were updated in 2012 in a cooperative effort with the American Red Cross. The Plan includes a general response checklist for the initial response operations at the field level in order to standardize emergency response procedures. The field response level is where emergency response personnel and resources, under the command of an appropriate authority, carry out tactical decisions and activities in direct response to an incident or threat. SEMS requires the use of an Incident Command System (ICS) and the Incident Commander to coordinate with the Emergency Operations Center.

In addition, the Evacuation Plan provides an evacuation procedure including the establishment of evacuation staging areas. Evacuation is a short-term method to gather evacuees in the case of a fire, flood, or other disaster. The need for an evacuation shall be determined by an authority having jurisdiction. Predetermined sites will be used as staging areas for evacuees and citizens seeking information.

The Evacuation Plan provides for emergency response agencies, such as the Sheriff’s Office, County Fire/OES, Human Services, Red Cross, and others as appropriate, to set up a public information center at the sites and continue the operation until the particular incident is under control. If an actual shelter operation becomes necessary, the Evacuation Plan provides for the Department of Human Services to request and coordinate the opening of congregate care facilities with the Merced/Mariposa Chapter of the American Red Cross. The County Department of Human Services Staff would also contact the Salvation Army and other organizations involved in disaster services.

The Mariposa County Fairgrounds has been determined to be the main shelter site for large-scale disasters. If that location is utilized by emergency operations, it may not be available for shelter use. In that instance, other safe locations will need to be found. The Draft Evacuation Plan provides Emergency Alert System (EAS) Guidelines, which include the procedures from Emergency Communications Areas
(EC Areas) that cover the Mariposa Operational Area. They are intended to standardize the format for communicating basic information needed by the public in an emergency.

Mapping
On July 7, 2015, the Board of Supervisors authorized the distribution (and regular updating) of the Mariposa County Road Atlas for First Responders. This Atlas was prepared to provide first responders with current, accurate and comprehensive information for use in responding to emergencies as quickly as possible and in planning for emergency evacuations. The value of this Atlas is unprecedented as there was previously no other single data source available in the county which contains all of the information potentially needed by a first responder during an emergency. It is intended that the Atlas information be available to local first responders as well as to strike teams from out of the county, assisting during fire season.

This atlas is available in hard copy, and georeferenced PDFs of the Atlas are also available for use on tablets and smartphones.

Preparation of the Atlas was a cooperative effort and included input and data from many sources, including Madera County, Merced County, Stanislaus County, Tuolumne County, the Mariposa County Agricultural Commissioner, the Mariposa County Health Department, the Mariposa County Planning Department, the Mariposa County Public Works Department, the Mariposa County Sheriff's Department, the Mariposa County Surveyor, the Mariposa County SCOPE Program, the Mariposa County Technical Services, the Bureau of Land Management (BLM), CALFIRE, the National Park Service (NPS), the United States Forest Service (USFS), Sierra National Forest, the United States Forest Service (USFS) Stanislaus National Forest and the United States Army Corps of Engineers.

The Atlas contains locational information regarding all county parcels, all roads in county (regardless of maintenance) and road names, parcel addresses (if assigned), drainages, named rapids on the Merced River, landmarks, fire hydrants, structures, locked gates, bridges with weight limits, narrow roads, boundaries of USNPS, USFS and BLM lands and other topographic features. The Atlas also contains an index, mileage table and emergency water source information.

16.1.09 WINTER STORMS

The time period between mid-autumn to mid-spring comprises the rainy season for California's Central Valley (roughly October to April). During these months winter storms, characterized by freezing temperatures, snowfall and high winds, may occur. Winter storms can lead to high winds. Winter storm events from 2000 to the present (2015), as identified by the National Climatic Data Base, were characterized by heavy snowfall. However, strong winds have caused damage. There are six events that resulted in property damage (one even included crop damage as well); five were wind events and the sixth was a winter storm event that included wind.

The LHMP Update shows that the entire County is susceptible to the hazards of winter storms. The areas, however, that are most susceptible to all aspects of winter storm, including freezing temperatures, snowfall and high winds, are the higher elevations in the eastern half of the County.

All of Mariposa County experiences temperatures of 32 degrees F or below. The coldest portions of the County, on average, experience more than 121 days per year of freeze, while the warmest portions of the County experience less than 30 days of freeze per year. Areas in the County most susceptible to snowfall
can average over 72 inches per year, while the areas least susceptible average less than 3 inches per year.

The areas in the County most susceptible to wind experience between 41 and 51 days of high wind per year; the less windy areas experience between 31 and 41 days of high wind per year.

Power disruption is a sub-hazard of a winter storm. Minor power outages from time to time are inevitable; more significant incidents are typically caused by winter storms. Disruptions that have affected Mariposa County have been caused by winter storm events. An event in January 2010 left 10,000 residents without power blacking out over 50% of the County and a March 2011 snow storm forced a closure of Yosemite National Park. Nine-thousand residents in Mariposa and Madera counties were left without power, some for hours and some for days.

The probability of a major winter storm is roughly 71 percent per year. Since every winter storm does not lead to a major power disruption the probability of future events is unknown, but it is less than a 71 percent chance per year.

The Local Hazard Mitigation Plan, which is incorporated into this Safety Element by reference, contains potential mitigation actions to address potential hazards described within that document, including winter storms. This element contains the goal of implementing the mitigation actions contained in the LHMP.

16.1.10 LOCAL HAZARD MITIGATION PLAN MITIGATION STRATEGY

The LHMP includes a mitigation strategy which identifies four steps to be taken in accordance with the federal Disaster Mitigation Act. They are identifying local mitigation goals; identification and analysis of mitigation actions; implementation of mitigation actions; and identification and analysis of mitigation actions for National Flood Insurance Program (NFIP) compliance. Mariposa County does not currently participate in the NFIP.

Local Mitigation Goals:
The LHMP shows the mitigation goals designed to reduce or avoid long-term vulnerability to each hazard included in the vulnerability analysis of the LHMP, including flood, hazardous material event, landslide (including earthquake), wildlife, and winter storm (including power disruption). (Note: These issues identified in the LHMP are in addition to, or augment discussion of, the issues identified and discussed in other sections of the Safety Element.) The LHMP identifies five broad-based public policy statements upon which the mitigation goals are based:

• Represent basic desires of the community;
• Encompass all aspects of community, public and private;
• Are nonspecific, in that they refer to the quality (not the quantity) of the outcome;
• Are future-oriented, in that they are achievable in the future; and
• Are time independent, in that they are not scheduled events

Mitigation Goals:
Goal No.1: Reduce the possibility of damages and losses due to seismic hazards, landslide and ground shaking.
Goal No. 2  Reduce the possibility of damages and losses due to weather-related hazards, including flood and winter storms.

Goal No. 3  Reduce the possibility of damages and losses due to other hazards, including wildfire, power disruption and hazardous material event.

Goal No. 4  Reduce the possibility of damages and losses due to public health emergencies.

**Mitigation Actions:**
Mitigation actions are activities, measures, or projects that help achieve the goals of the mitigation plan. Mitigation actions are usually grouped into five broad categories: prevention, property protection, public education and awareness, natural resource protection, and structural projects. The LHMP includes potential mitigation actions that used the following criteria:

- 2011 Hazard Mitigation Assistance project criteria eligibility
- Disaster Mitigation Act 2000 requirements for the identification and analysis of mitigations actions
- Results of the 2014 LHMP vulnerability analysis

For each potential mitigation action, the following information is listed in the adopted LHMP: mitigation action description; mitigation action category; hazard(s) addressed; and type of development affected by mitigation action.

**Implementation of Mitigation Actions:**
Five criterion were considered to determine which mitigation actions should become part of the County’s Mitigation Plan. They are as follows:

A. A local jurisdiction department or responsible agency currently exists or can be identified
B. The action can be implemented during the 5-year lifespan of the LHMP
C. The action may reduce expected future damages and losses (a positive cost-benefit analysis appears likely)
D. The action mitigates a high-risk hazard
E. The action mitigates multiple hazards

The Mitigation Action Plan consists of a description of each mitigation action; prioritization criteria for selecting each action; the potential facility or facilities to be mitigated by the action (if known); the department or agency responsible for implementing the action; and the implementation time frame for the action. Each of the mitigation actions met prioritizing criteria shown in B, C, and E above. Timeframes for implementation range from 12 months to 72 months from the adoption date of the LHMP.

**Identification and Analysis of Mitigation Actions: NFIP Compliance:**
Mariposa County does not participate in the National Flood Insurance Program (NFIP). The County is mapped by FEMA for flood involvement though it has never participated in NFIP. The governing body, departments, and identified communities have not shown repetitive loss nor have they shown significant damage due to rising water. Severe flooding has been documented along the Merced River, though due to its status as a Wild and Scenic River very little development can take place.
**Monitoring, Evaluating, and Updating the LHMP:**

**Monitoring the Plan**
The Mariposa Office of Emergency Services (OES), or an identified point of contact will continue to coordinate all local efforts to monitor, evaluate and update the LHMP. This Safety Element will be reviewed in conjunction with the LHMP and updated and amended accordingly and if necessary, at five-year intervals.

The local Planning Committee for the LHMP will have the opportunity to evaluate the Plan through an Annual Review Questionnaire every 12 months under the auspices of the Mariposa OES, or a point of contact. Responses to questionnaires will help determine if the LHMP needs updating to address new or more threatening hazards, new technical reports or findings, and new or better-defined mitigation projects.

**Evaluating the Plan**
Evaluations of progress can be achieved by monitoring changes in vulnerabilities identified in the Plan. Changes in vulnerability can be identified by noting:

- Decreased vulnerability as a result of implementing recommended actions;
- Increased vulnerability as a result of failed or ineffective mitigation actions; and/or
- Increased vulnerability as a result of new development (and/or annexation).

Additionally, mitigation actions will be monitored and evaluated through the use of the Mitigation Project Progress Report. During each annual review, each department or agency currently administering a mitigation project will submit a progress report to Mariposa County OES to review and evaluate. For projects that are being funded by a FEMA mitigation grant, FEMA quarterly reports may be used as the preferred reporting tool. The progress report will discuss the current status of the mitigation project, including any changes made to the project, identify implementation problems, and describe appropriate strategies to overcome them. After considering the findings of the submitted progress reports, Mariposa County OES may request that the implementing department or agency meet to discuss project conditions.

**Updating the Plan**
In addition to the Annual Review Questionnaire, Mitigation Project Progress Report or FEMA quarterly report, and any annual meetings, the Planning Committee will meet to update the LHMP every five years.

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**16.2 GENERAL PLAN IMPLEMENTATION**

**Goal 16-1:** Enforce development standards lessening fire hazard danger.

**Policy 16-1a:**
Non-residential development activity shall be within acceptable fire department response time limits and coverage areas; or a development project shall provide its own on-site fire protection facilities and firefighters as approved by the County Fire Department.

**Implementation Measure 16-1a(1):** Establish appropriate standards for development projects wishing to provide alternative, on-site fire protection services.

- **Timing:** Intermediate-term.
- **Responsibility:** Fire Department.
Policy 16-1b: Establish attainable standards for new subdivisions and development for fire safety.

Implementation Measure 16-1b(1): Enact amendments to the Mariposa County Code to implement fire safe standards. The ordinance(s) shall include the following requirements:

- Minimum construction standards or template (width, grade, and surfacing) for public roads, private roads, and private driveways sufficient for emergency vehicles access.
- Requirements for a connecting and maintaining a circulation system within a road system using roads connecting through other parcels or developed secondary routes dedicated for emergency access.
- Minimum standards for emergency water supply standards for firefighting purposes.
- Standards for siting of flammables.
- Signage and address standards providing easy identification of roads, driveways and buildings.
- Site design specifications for buildings in locations of extremely high fire danger.

Timing: Short-term.
Responsibility: Fire Department.
Fiscal Impact: Staff resource cost and possible outside costs for ordinance preparation and hearing process.
Consequences: Fire protection.

Implementation Measure 16-1b(2): Implement the countywide Wildfire Hazard Safety Plan Community Wildfire Protection Plan, which includes standards for fire prevention, fuel management, and fire suppression, including but not limited to the following:

- Requirements for development in areas with high and very high fuel hazards, including adequate emergency access and water supply; "defensible space" standards; and the use of fire-resistant exterior construction materials, such as fire safe roofing and fire-resistant plants.
- Wildland fire management activities such as controlled burning, fuel removal, vegetation management, and firebreaks.
- Specific fire protection and prevention requirements for hillside, open space, and rural area development.
- Public wildfire safety education through the Mariposa County Fire Safe Council (MFSC).
- Standards specific to geographic areas in the County based on fire hazard potential.

Responsibility: Fire Department.
Fiscal Impact: Staff resource cost and possible outside costs.
Consequences: Fire protection

Policy 16-1c: All subdivisions and development projects shall conform to adopted fire code and other fire prevention regulations.
Implementation Measure 16-1c(1): Amend, if necessary, the County Subdivision code to ensure formal review of subdivisions by the Fire Agencies.
Timing: Short-term.
Responsibility: Mariposa County Planning Department, Fire Department.
Fiscal Impact: Initial Staff time and ongoing review time; to be incorporated into the update of Title 17, Zoning.
Consequences: Fire protection.

Goal 16-2: Utilize the most efficient multi-level fire prevention and protection system.

Policy 16-2a: Develop and maintain cooperative arrangements with CDF CALFIRE to maximize the efficient deployment of fire prevention and protection resources.

Implementation Measure 16-2a(1): Cooperate with the CDF CALFIRE in providing advice to landowners on vegetation management programs keeping forest fuel values at acceptable levels.
Timing: Ongoing.
Responsibility: Fire Department.
Fiscal Impact: Ongoing.
Consequences: Fire protection.

Policy 16-2b: Support programs to involve and educate County residents in fire prevention.

Implementation Measure 16-2b(1): Continue to work with the Mariposa County Fire Safe Council or other appropriate agency or group as a major avenue for educating residents and coordinating citizen efforts in fire prevention.
Timing: Ongoing.
Responsibility: Fire Department.
Fiscal Impact: Staff time and incidental costs.
Consequences: Fire protection.

Goal 16-3: Sustain adequate fire protection service levels.

Policy 16-3a: Adopt a strategic plan for fire safety.

Implementation Measure 16-3a(1): Adopt a strategic plan for fire safety incorporating the Standards of Cover for the Mariposa County Fire Department identifying current and future fire service areas and standards.
Timing: Short-term.
Responsibility: Fire Department.
Fiscal Impact: Staff time and preparation costs.
Consequences: Fire protection.

Implementation Measure 16-3a(2): The strategic plan shall identify the long term capital improvements, rolling stock, equipment and supplies, and other major purchase items needed to maintain and improve fire safety.
Timing: Short-term.
Responsibility: Fire Department.
Fiscal Impact: Staff time and preparation costs.
Consequences: Fire protection.

Implementation Measure 16-3a(3): The strategic plan shall identify thresholds and capital facility needs for each of the existing and future service areas.
Timing: Short-term.
Responsibility: Fire Department.
Fiscal Impact: Staff time and preparation costs.
Consequences: Fire protection.

Implementation Measure 16-3a(4): Revise and update the “Standards of Cover” and its service area maps.
Timing: Short-term.
Responsibility: Fire Department.
Fiscal Impact: Staff time and preparation costs.
Consequences: Fire protection.

Policy 16-3b: Increase emergency response personnel training opportunities.

Implementation Measure 16-3b(1): Enable facilities for “heavy” fire suppression helicopter operations at the Mariposa Yosemite Airport.
Timing: Short-term.
Responsibility: Fire Department and Public Works.
Fiscal Impact: Capital improvement—potential construction costs; ongoing operating costs.
Consequences: Fire protection.

Goal 16-4: Reduce the risk of flood loss to preserve property and save lives.

Policy 16-4a: Control development in flood hazard areas.

Policy 16-4b: All new construction in a flood hazard area shall be flood proofed.

Implementation Measure 16-4a and b(1): Adopt a comprehensive County Flood Protection Ordinance that includes at a minimum the following requirements:

- All structures in flood hazard areas are constructed with materials and equipment resistant to flood damage.
- All mobile homes shall be anchored by providing over-the-top and frame ties to ground anchors.
- All new and replacement water systems shall be designed to prevent infiltration of floodwaters into the system.
- On-site sewage disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

Timing: Short-term.
Responsibility: Mariposa County Planning Department, Public Works Department.
Consequences: Increased preparation and protection from flood event.

Policy 16-4c: Control development in dam inundation areas.

Implementation Measure 16-4c(1): The update to Title 17, Mariposa County Code, Zoning shall include a dam inundation overlay district.
Responsibility: Mariposa County Planning Department.
Fiscal Impact: Part of the development of updates to Title 17, Mariposa County Code, Zoning.
Consequences: Increased preparation and protection from flood event.
Goal 16-5: Minimize the impact of floods on the people and businesses of Mariposa County.

Policy 16-5a: Ensure adequate capacity is maintained in flood plains and drainage channels to handle flood flows.

Implementation Measure 16-5a(1): Enact an ordinance to require a hydrologic evaluation for subdivisions and development projects located within flood plains and drainage channels to ensure potential flood hazard is minimized.
   Timing: Short-term.
   Responsibility: Public Works Department.
   Fiscal Impact: Ordinance development costs.
   Consequences: Increased preparation and protection from flood event.

Implementation Measure 16-5a(2): Subdivision parcel and final maps and building permit site plans shall provide for on-site detention for normal storm water flows in excess of the capacity of natural drainage courses receiving runoff from the development.
   Timing: Ongoing review standard.
   Responsibility: Building Department.
   Fiscal Impact: Has the potential to add cost to project review and site development.
   Consequences: Minimized flooding impacts from increased development.

Policy 16-5b: Minimize the loss of access across floodways and in flood hazard areas.

Implementation Measure 16-5b(1): Amend Title 16 of the Mariposa County Code, Subdivisions, to require subdivision parcels and development projects to provide at least one means of vehicular access not crossing a flood hazard area, or be constructed above the maximum flood elevation.
   Timing: Short-term.
   Responsibility: Mariposa County Planning Department.
   Fiscal Impact: Incorporated into the costs of updating Title 17.
   Consequences: Increased preparation and protection from flood event.

Policy 16-5c: Water retention facilities shall be constructed to prevent flooding and to ensure that pre-development off- and on-site surface flows are maintained with no net increase.

Implementation Measure 16-5c(1): Enact an ordinance requiring ponds and facilities for retaining water to be designed to prevent downstream flooding.
   Timing: Short-term.
   Responsibility: Building Department and Director of Public Works.
   Fiscal Impact: Ordinance development.
   Consequences: Increased preparation and protection from flood event.

Goal 16-6: Preserve the values of floodplains as natural features.

Policy 16-6a: Retain flood plains within project design in such a way as to ensure that no net change occurs upstream or downstream.

Implementation Measure 16-6a(1): Amend Title 17 of the Mariposa County Code, Zoning, to require flood and drainage channels to be designed into landscaping plans.
   Timing: Short-term.
   Responsibility: Mariposa County Planning Department.
   Fiscal Impact: Incorporated into the update of Mariposa County Code Title 17.
   Consequences: Minimized flooding impacts from increased development.

Implementation Measure 16-6a(2): Land use maps shall maintain low intensity zoning in floodplain areas.
Timing: Short-term.
Responsibility: Mariposa County Planning Department.
Fiscal Impact: Ongoing.
Consequences: Minimized flooding impacts from increased development.

Goal 16-7: Protect life and property endangered by landslides and rockfalls.

Policy 16-7a: Reduce risk of injury or property damage by landslides and rockfalls.

Policy 16-7b: Avoid development in geologic hazard areas.

Implementation Measure 16-7a and b(1): Site inspections and maps (topographic, soils and geologic) will be used to identify geologic hazard areas (e.g., landslide-prone areas) in the County. The maps will be retained and available in the County Planning Department.

Timing: Ongoing review standard.
Responsibility: Mariposa County Planning Department.
Fiscal Impact: Staff time and administrative costs.
Consequences: Public safety.

Implementation Measure 16-7a and b(2): The County Building Official will review plans for new construction in geologic hazard areas and will determine whether engineering studies, including structural and soils analyses, are required prior to issuing permits for construction in these areas.

Timing: Ongoing review standard.
Responsibility: Mariposa County Planning Department, Building Department.
Fiscal Impact: Staff time and administrative costs.
Consequences: Public safety.

Goal 16-8: Protect life and property endangered by seismic activity.

Policy 16-8a: Develop and enforce standards to reduce risk of injury or property damage by seismic activity.

Implementation Measure 16-8a(1): New development projects in or near a seismic risk area (fault zone) or geologic hazard area shall be discouraged or designed to such standards as to minimize or eliminate such risk.

Timing: Ongoing review standard.
Responsibility: Mariposa County Planning Department, Building Department.
Fiscal Impact: Staff time and administrative costs.
Consequences: Public safety.

Policy 16-8b: Avoid seismic dangers for public facility construction.

Implementation Measure 16-8b(1): Public facilities shall be sited to avoid known seismic dangers and shall be constructed to meet seismic safety requirements of the Uniform Building CodeTitle 24, California Code of Regulations.

Timing: Ongoing review standard.
Responsibility: Building Department.
Fiscal Impact: Staff time and administrative costs.
Consequences: Public safety.

Goal 16-9: Engineer and locate development in areas not endangered by secondary seismic effect to protect life and property.
**Policy 16-9a:** Develop and enforce standards to reduce risk of injury or property damage by secondary effects of seismic activity.

**Implementation Measure 16-9a(1):** Review development and subdivision proposals to avoid building sites in areas subject to secondary seismic effects.
- **Timing:** Ongoing review standard.
- **Responsibility:** Mariposa County Planning Department.
- **Fiscal Impact:** Staff time and administrative costs.
- **Consequences:** Public safety.

**Goal 16-10:** Provide a safe airport environment to ensure its success and expansion.

**Policy 16-10a:** Implement the Mariposa-Yosemite Airport Comprehensive Land Use Plan.

**Implementation Measure 16-10a(1):** No land development incompatible with the airport land use plan shall be permitted in the airport’s area of influence.
- **Timing:** Ongoing review standard.
- **Responsibility:** Mariposa County Planning Department; Planning Commission.
- **Fiscal Impact:** Staff time and administrative costs.
- **Consequences:** Airport protection.

**Goal 16-11:** Manage hazardous materials and hazardous waste to prevent unnecessary exposure and risk.

**Policy 16-11a:** Maintain the effectiveness of the Comprehensive Hazardous Waste Management Plan.

**Implementation Measure 16-11a(1):** Enforce the requirements of the County’s Comprehensive Hazardous Waste Management Plan.
- **Timing:** Ongoing review standard.
- **Responsibility:** Mariposa County Health Department.
- **Fiscal Impact:** Staff time and administrative costs.
- **Consequences:** Public safety.

**Goal 16-12:** Minimize risks to people and property during emergencies through pre-planning.

**Policy 16-12a:** Coordinate local and State emergency response efforts.

**Implementation Measure 16-12a(1):** Review and update the Mariposa County Emergency Management Plan every five years.
- **Timing:** Ongoing.
- **Responsibility:** Emergency Services.
- **Fiscal Impact:** Staff time, administrative costs, training costs.
- **Consequences:** Enhanced emergency preparation.

**Implementation Measure 16-12a(2):** Undertake full operation emergency situation drills and training periodically.
- **Timing:** Ongoing.
- **Responsibility:** Emergency services.
- **Fiscal Impact:** Creates a mandated program with higher than normal training costs.
- **Consequences:** Enhanced emergency preparation.
Exhibit 2
(Recommended responses dated July 12, 2017 to State Board of Forestry and Fire Protection recommendations on Safety Element amendment)

Mariposa County

Land Use Planning – CSR – MMU General

Plan Safety Element Assessment
Tier 1

February 24, 2016

Board of Forestry and Fire Protection

Contents

Purpose and Background

Methodology for Review and Recommendations

Review Process and Timeline

Tier 1 List of Recommendations

May 2015
**Purpose and Background:** The State Board of Forestry and Fire Protection (Board) is required to review and make recommendations for the safety element of general plan updates in accordance with Government Code (GC) 65302.5. The review and recommendations apply to those general plans with State Responsibility Area (SRA) (Public Resources Code (PRC) 4125) or Very High Fire Hazard Severity Zone Local Responsibility Area (VHFHSZ LRA) (GC 51177(i), PRC 4125).

The statutory requirements for the Board review and recommendations pursuant to GC 65302.5 (a)(1) and (2), and (b) are as follows:

- "The draft elements to the fire safety element of a county's or a city's general plan...shall be submitted to the Board at least 90 days prior the adoption or amendment to the safety element of its general plan [for each county or city with SRA or VHFHSZ]."
- "The Board shall review the draft or an existing safety element and report its written recommendations to the planning agency within 60 days of its receipt of the draft or existing safety element.”
- "Prior to adoption of the draft element, the Board of Supervisors shall consider the recommendations made by the Board If the Board of Supervisors determines not to accept all or some of the recommendations the Board of Supervisors shall communicate in writing to the Board its reasons for not accepting the recommendations.”

**Methodology for Review and Recommendations:** The Board established a standardized method to review the safety element of general plans. The methodology includes 1) examining the safety element for inclusion of factors that are important for mitigation of wildfire hazard and risks, and 2) making recommendations related to these factors. The evaluation factors and recommendations below were developed using CAL FIRE technical documents and input from local fire departments.

Enclosed is the most expansive set of recommendations suggested by the Board, known as a Tier 1 Assessment. These recommendations are directed at communities that include:

- Overall high population densities; or
- High proportion of SRA or 20% or more of a city's acreage is VHFHSZ LRA; or
- Population centers in or adjacent to VHFHSZ SRA, if there is no designated VHFHSZ LRA in the county; or
- Within the context of neighboring jurisdictions, the location of VHFHSZ in the jurisdiction creates an overall picture of contiguous fuels that threaten population or economic centers.

As local fuels, boundaries, populations, and other variables change throughout time, Board staff have the discretion to re-assign a jurisdiction into a lower or higher assessment tier. Staff will consider:

- Variations in population and population density; or
- Changes in proportion of land designated VHFHSZ (lower or higher); or
- Firefighting capabilities (paid, volunteer, equipment, etc) and contract changes; or
- Past planning efforts and involvement of organizations such as local Fire Safe Councils and new initiatives or efforts that have emerged over time; or
- Changes to the context of VHFHSZ within the region – does the VHFHSZ in a jurisdiction combine with neighboring fuels to create a continual pattern of very high fire risk in a way that it hadn’t previously?

A full list of communities to be evaluated under Tier 1 are listed below.

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Review Process and Timeline

The county/local jurisdiction and CAL FIRE Land Use Planning staff will receive and review technical guidance documents, the Board assessment, and relevant information from CAL FIRE and the Governor's Office of Planning and Research.

The county or local jurisdiction will work closely with CAL FIRE Land Use Planning staff during the development of the general plan and the safety element in particular.

At least 90 days prior to the adoption or amendment of the General Plan: The county or local jurisdiction will submit the safety element to the Board of Forestry & Fire Protection for review. Jurisdictions are encouraged to send safety elements to the Board prior to the 90 day statutory requirement for greater collaboration.

No more than 60 days later: The Board will consider staff recommendations and approve as-is or with changes at the next Board meeting. This deadline may be modified upon mutual agreement between Board staff and local jurisdictions.

The county's draft responses are shown in red, italicized, underlined type. Not all checklist items on the BOF form received responses. Only those sections where the 'Partial' or 'No' boxes under subheadings were checked contain responses. 'Yes' responses on the BOF form indicate the county's safety element has adequately addressed that particular issue.
Tier 1 General Plan Safety Element
Recommendations

Please click on the appropriate box to "check" whether the plan satisfies each point. Standard recommendations are included in the checklist but please highlight or add additional comments as necessary.

| Jurisdiction: Mariposa Co. | Notes: LUPP Reviewer: Kevin Lindo | CAL FIRE Unit: MMU | Date Received: 1/27/16 |

1.0 Wildfire Protection Planning

1.1 General Plan references and incorporates County or Unit Fire Plan. ☐Yes ☐Partial ☐No

Recommendation: Identify, reference or create (if necessary) a fire plan for the geographic scope of the General Plan. General Plan should incorporate the general concepts and standards from any county fire plan, fire protection agency (federal or state) fire plan, and local hazard mitigation plan. Identify or reference the local Unit Fire Plan and, if applicable, the Community Wildfire Prevention Plan.
Priority: ☐High ☐Medium ☐Low X/N/A

Recommendation: Ensure fire plans incorporated by reference into the General Plan contain evaluations of fire hazards, assessment of assets at risk, prioritization of hazard mitigation actions, and implementation and monitoring components.
Priority: ☐High ☐Medium ☐Low X/N/A

2.0 Land Use Planning:

2.1 Goals and policies include mitigation of fire hazard for future development. ☐Yes ☐Partial ☐No

Recommendation: Establish goals and policies for specific ordinances addressing evacuation and emergency vehicle access; water supplies and fire flow; fuel modification for defensible space; and home addressing and signing.
Priority: ☐High ☐Medium ☐Low X/N/A

Recommendation: Specify the local ordinances, code sections, or regulations addressing the above standards, particularly any ordinances that address right-of-way, easement, and other reasonable offsite and onsite improvements for a division of land which qualifies for a Parcel Map rather than a Tentative/Final Map under the Subdivision Map Act.
Priority: ☐High ☐Medium ☐Low ☐N/A

Text has been added to the draft Safety Element to confirm that all subdivisions in Mariposa County, including both minor and major subdivisions, are currently required to comply with all applicable codes and policies for adequate access for the total number of parcels to be served, including existing and proposed parcels. The applicable provisions

Board of Forestry Safety Element Assessment Tier 1
for adequate access are established by the Mariposa County General Plan; the Mariposa County Code, Title 16 (the Mariposa County Subdivision Ordinance; the Mariposa County Road Improvement and Circulation Policy; the Mariposa County Improvement Standards; and the California State Fire Safe Regulations (Title 14 California Code of Regulations Section 1270 et seq.).

**Recommendation:** Develop fire safe development codes used as standards for fire protection for new development in State Responsibility Area (SRA) within the entity's jurisdiction that meet or exceed statewide standards in Title14 California Code of Regulations Section 1270 et seq.

**Priority:** □ High □ Medium □ Low □ N/A

**Recommendation:** Adopt, and have certified by the BOF, local fire safe ordinances which meet or exceed standards in 14 CCR § 1270 for State Responsibility Area.

**Priority:** □ High □ Medium □ Low □ N/A

*When the California State Fire Safe Regulations became effective in 1992, the Mariposa County Board of Supervisors took affirmative action to not adopt a local fire safe ordinance (thus, allowing the state standards to apply and allowing state employees to implement the state requirements). This was done in recognition of limited local staff resources available in the county and the fact that the regulations were an unfunded state mandate.*

*As of 2017, the Mariposa County Board of Supervisors has still not adopted local fire safe ordinances; the state standards apply. All development projects in State Responsibility Areas (SRAs) in Mariposa County, including but not limited to all building permits, subdivisions, conditional use permits, lot line adjustments, variances, and general plan/zoning amendments are routed to local CAL FIRE staff for review and application of standards established by 14 CCR §1270 for SRAs. Building permits are not given a Certificate of Occupancy until CAL FIRE staff has inspected and certified compliance with State Fire Safe Standards. Development projects and subdivisions are not finalized or completed until CAL FIRE staff has inspected and certified compliance with State Fire Safe Standards.*

*The procedures as described above have been effective in Mariposa County for the past 25 years. All development in Mariposa County is reviewed by CAL FIRE professional staff, for compliance with State Fire Safe Regulations. Text has been added to the draft Safety Element to confirm this review procedure for State Fire Safe Regulations.*

**Recommendation:** Consider mitigation of previously developed areas that do not meet Title14 California Code of Regulations Section 1270 et seq. or equivalent local ordinance. **Priority:** □

□ High □ Medium □ Low □ N/A

2.2 Disclose wildland urban interface hazards, including Fire Hazard Severity Zone designations and other vulnerable areas as determined by CAL FIRE or fire prevention organizations. Describe or map any Firewise Communities or other firesafe communities as determined by the National Fire Protection Association, Fire Safe Council, or other organizations. □ Yes □ Partial □ No

Board of Forestry Safety Element Assessment Tier 1
**Recommendation:** Specify whether the entity has a Very High Fire Hazard Severity Zones (VHFHSZ) designation pursuant GC 51175 and include a map of the zones that clearly indicates any area designated VHFHSZ.

**Priority:** □ High □ Medium □ Low ☒ N/A

**Recommendation:** Adopt CAL FIRE recommended Fire Hazard Severity Zones including model ordinances developed by the Office of the State Fire Marshal for establishing VHFHSZ areas.

**Priority:** □ High □ Medium □ Low ☒ N/A

*Implementation measures 16-1b(1) and 16-1b(2) in the Safety Element address fire safe standards, including for very high hazard areas. The proposed amendments include implementing the Community Wildfire Protection Plan, but standards have not been specifically codified by ordinance. The LHMP contains fire hazard area mapping and provides for mitigation of fire hazards. It should be noted that a General Plan is a policy document and does not contain ordinance language. Ordinances implement the General Plan. The Board of Supervisors may consider adopting ordinances addressing such issues at a future date.*

**Recommendation:** Discuss and/or include local fire hazard maps.

**Priority:** □ High □ Medium □ Low ☒ N/A

2.3 The design and location of new development provides for adequate infrastructure for the safe ingress of emergency response vehicles and simultaneously allows civilian egress during an emergency: ☒ Yes □ Partial □ No

**Recommendation:** Develop a policy that approval of parcel maps and tentative maps is conditional based on meeting regulations adopted pursuant to §4290 and 4291 of the Public Resources Code, particularly those regarding road standards for ingress, egress, and fire equipment access.

**Priority:** □ High □ Medium □ Low ☒ N/A

**Recommendation:** Develop pre-plans for fire prone areas that address civilian evacuations to temporary safety locations.

**Priority:** □ High □ Medium □ Low ☒ N/A

2.4 When approving parcel maps and use permits, consideration is given to providing adequate water supply infrastructure that meets zoning and fire protection needs. ☒ Yes □ Partial □ No

**Recommendation:** Develop a policy that approval of parcel maps is conditional based on meeting zoning requirements and fire safe development codes.

**Priority:** □ High □ Medium □ Low ☒ N/A
Additional Land Use Planning Recommendations:
2.1- Recommend specifying local ordinances and code sections that support implementation of PRC 4290 & 4291.

See response above. Mariposa County has not adopted local ordinances implementing PRC 4290 and 4291. PRC 4290 and 4291 are applied to all development projects, parcel maps, use permits, building permits and other development projects in Mariposa County by CAL FIRE, through review of project plans.

3.0 Housing/Structures and Neighborhoods:

3.1 Incorporation of current fire safe building codes. ☒Yes ☐Partial ☐No

Recommendation: Adopt building codes for new development in State Responsibility Areas or incorporated areas with VHFHSZ that are based on those established by the Office of the State Fire Marshal in Title 19 and Title 24 CCR, referred to as the “Wildland Urban Interface Building Codes.”
Priority: ☐High ☐Medium ☐Low ☒N/A

3.2 Identification and actions for substandard fire safe housing and neighborhoods relative to fire hazard area. ☐Yes ☐Partial ☐No

Recommendation: Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in VHFHSZ or SRA by fire hazard zone designation.
Priority: ☐High ☐Medium ☐Low ☒N/A

Recommendation: Identify plans and actions to improve substandard housing structures and neighborhoods. Plans and actions should include structural rehabilitation, occupancy reduction, demolition, reconstruction, neighborhood -wide fuels hazard reduction projects, community education, and other community based solutions.
Priority: ☐High ☐Medium ☐Low ☒N/A

Recommendation: Identify plans and actions for existing residential structures and neighborhoods, and particularly substandard residential structures and neighborhoods, to be improved to meet current fire safe ordinances pertaining to access, water flow, signing, and vegetation clearing.
Priority: ☐High ☐Medium ☐Low ☒N/A

3.3 Consideration of diverse occupancies and their effects on wildfire protection.
☐Yes ☒Partial ☐No

Recommendation: Ensure risks to uniquely occupied structures, such as seasonally occupied homes, multiple dwelling structures, or other structures with unique occupancy characteristics,
are considered for appropriate and unique wildfire protection needs.

Priority: □ High □ Medium □ Low □ N/A

This recommendation is currently achieved through permitting requirements implemented by the Mariposa County Building Department. The Building Department implements state building codes, which contain fire protection measures, for all structures. This includes uniquely occupied structures, such as those identified above. The Building Department does not have authority over construction of mobile homes or recreational vehicles; this authority lies with California Housing and Community Development (HCD). Additionally, all projects for which a building permit is submitted are routed for review by local CAL FIRE professional staff to ensure compliance with state fire safe standards. Text has been added to the Safety Element in Section 16.1.01 stating that all construction in Mariposa County is required to comply with all state Uniform Building Code and Fire Code requirements. The Board of Supervisors may consider implementing a specific policy to further address this issue at a future date.

3.4 Fire engineering features for structures in VHFHSZ. □ Yes □ Partial □ No

Recommendation: Ensure new development proposals contain specific fire protection plans, actions, and codes for fire engineering features for structures in VHFHSZ. Examples include codes requiring automatic sprinklers in VHFHSZ.

Priority: □ High □ Medium □ Low □ N/A

Additional Housing/Structures and Neighborhoods Recommendations:
3.1- Intent has been met; however recommend providing a link or reference to applicable Building Codes.
3.4- Intent has been met; however recommend specifying local ordinances and code sections that support fire engineering features for structures in VHFHSZ.

Specific reference to Building Codes and Fire codes is included in the updated element. Because a General Plan is a policy document, it is not appropriate for it to contain actual ordinance language. Ordinances implement the General Plan. All construction in Mariposa County is subject to all applicable Uniform Building Code and state Fire Code requirements. The Uniform Building Code and state Fire Codes are updated on regular cycles, which is another reason to not include actual ordinance language in the General Plan. The applicable building and fire codes do require fire resistive construction and sprinklers.

4.0 Conservation and Open Space:

4.1 Identification of critical natural resource values relative to fire hazard areas. □ Yes □ Partial □ No

Recommendation: Identify critical natural resources and other "open space" values within the geographic scope of the General Plan.

Priority: □ High □ Medium □ Low □ N/A

Board of Forestry Safety Element Assessment Tier 1
The General Plan Conservation and Open Space Element contains goals, policies and implementation measures for the preservation of scenic and natural resources, but does not directly link these goals to impacts of fire on such resources located in fire hazard areas. Amending the General Plan Conservation and Open Space Element is beyond the scope of this Safety Element amendment effort as initiated by the Board.

Implementation Measure 11-1b(1) in the Safety Element states that the County should participate in conservation management planning with Federal and State and other public and private agencies. This could be construed to include impacts of fire on natural and open space resources.

The Safety Element’s Updated Section 16.1.01 Fire Hazard does identify that uncontrolled wildfires damage natural resources, including scenic resources.

Finally, the Safety Element’s Updated Section 16.1.03 Geologic Hazards does identify that landslides and erosion can occur together with other natural hazards such as seismic activity and wildfires. This section identifies the Local Hazard Mitigation Plan as containing potential mitigation actions to address hazards, including landslide.

4.2 Inclusion of resource management activities to enhance protection of open space and natural resource values.  
- Yes  
- Partial  
- No

**Recommendation:** Develop plans and action items for vegetation management that provides fire damage mitigation and protection of open space values. Plans should address protection of natural resource financial values, establishment of fire resilient natural resources, protection of watershed qualities, and protection of endangered species habitats. Actions should consider prescribed burning, fuel breaks, and vegetation thinning and removal.

**Priority:**  
- High  
- Medium  
- Low  
- N/A

4.3 Integration of open space into fire safety effectiveness.  
- Yes  
- Partial  
- No

**Recommendation:** Establish goals and policies for reducing the wildland fire hazards within the entity’s boundaries, especially on vacant residential lots and greenbelts and, with the relevant partners, on adjacent private wildlands or federal lands with fire hazards that threaten the entity’s jurisdiction.

**Priority:**  
- High  
- Medium  
- Low  
- N/A

4.4 Urban forestry plans relative to fire protection.  
- Yes  
- Partial  
- No

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**Recommendation:** Ensure residential areas have appropriate fire resistant landscapes and discontinuous vegetation adjacent to open space or wildland areas.

**Priority:** □ High □ Medium □ Low ☒ N/A

_This issue of urban forestry plans is not applicable to Mariposa County._

**Recommendation:** Evaluate and resolve existing laws and local ordinances which conflict with fire protection requirements. Examples include conflicts with vegetation hazard reduction ordinances and listed species habitat protection requirements.

**Priority:** □ High □ Medium □ Low ☒ N/A

4.5 Mitigation for unique pest, disease and other forest health issues leading to hazardous situations. □ Yes ☒ Partial □ No

**Recommendation:** Establish goals and policies that address unique pest, disease, exotic species and other forest health issues in open space areas for purposes of reducing fire hazard and supporting ecological integrity.

**Priority:** ☒ High □ Medium □ Low □ N/A

_Implementation measures 11-4a(3) and 11-4a(5) in the Conservation and Open Space Element address the eradication of invasive plant species, however such measures are not specifically linked to reducing fire hazards. The General Plan does not contain specific policies relating to forest health issues in open space areas and the linkage of that issue with reducing fire hazards. This effort could be undertaken during a comprehensive review of the Safety Element and/or General Plan._

**Additional Conservation and Open Space Recommendations:**

4.4- Non applicable

4.5- Recommend providing goals, policies and implementation measures that address the growing tree mortality issues. _Addressing this issue is in process. Mariposa County has executed a contract with a professional planning consultant to prepare a General Plan Implementation Strategy. The scope of work includes addressing new issues since 2006. Tree mortality is specifically named. The kick-off meeting for this contract is Monday, July 17th._

5.0 **Circulation and Access:**

5.1 Adequate access to high hazard wildland/open space areas. ☒ Yes □ Partial □ No

**Recommendation:** Establish goals and policies for adequate access in Very High Fire Hazard Severity Zones that meet or exceed standards in Title 14 CCR 1270 for lands with no structures, and maintain conditions of access in a suitable fashion for suppression access or public evacuation.

Board of Forestry Safety Element Assessment Tier 1
5.2 Standards for evacuation of residential areas in high hazard areas. Yes □Partial □No

**Recommendation:** Goals and policies should be established to delineate residential evacuation routes and evacuation plans in high or very high fire hazard residential areas.  
**Priority:** □High □Medium □Low □N/A

5.3 Incorporate a policy that provides for a fuel maintenance program along roadways in the agency having jurisdiction. Yes □Partial □No

**Recommendation:** Develop an adaptive vegetation management plan that considers fuels, topography, weather (prevailing winds and wind event specific to the area), fire ignitions and fire history.  
**Priority:** □High □Medium □Low □N/A

5.4 Adequacy of existing and future transportation system to incorporate fire infrastructure elements. Yes □Partial □No

**Recommendation:** Establish goals and policies for proposed and existing transportation systems to facilitate fire infrastructure elements such as turnouts, hellspots and safety zones.  
**Priority:** □High □Medium □Low □N/A

*Requirements for turnouts are addressed during development review. Projects are reviewed for consistency with State fire safe code. For certain projects, such as organized camps, guest ranches, etc., safety zones are also addressed during project review. Section 16.1.01 Fire Hazard in the Safety Element contains language relating to the ability of CAL FIRE to review new subdivision development and other development applications to ensure fire safe measures such as fuel breaks, fire roads, and dead-end road length issues; these issues are addressed as recommended by CAL FIRE and conditions / mitigation measures are applied. Text has been added to the Safety Element in Section 16.1.01 stating that development projects are subject to all applicable state fire safe standards, including Public Resources codes 4290 and 4291.*

**Additional Circulation and Access Recommendations:**

5.4- Recommend including existing transportation systems.

*Existing transportation systems are considered when development projects are reviewed. In addition, CEQA, the California Environmental Quality Act, applies to development projects and if a significant issue related to a project’s potential impact on transportation systems is identified during the environmental review process, measures can be implemented to reduce the impact to a less than significant level.*
6.0 **Defensible Space**

6.1 Develop geographic specific fire risk reduction mitigation measures using fuel modification.

[ ] Yes [ ] Partial [ ] No

**Recommendation:** Include policies and recommendations that incorporate fire safe buffers and greenbelts as part of the development planning. Ensure that land uses designated near very fire hazard severity zones are compatible with wildland fire protection strategies/capabilities.

**Priority:** [ ] High [ ] Medium [ ] Low [ ] N/A

6.2 Fuel modification around homes. [ ] Yes [ ] Partial [ ] No

**Recommendation:** Establish ordinances in SRA or VHFSZ for vegetation fire hazard reduction around structures that meet or exceed the Board of Forestry and Fire Protection’s Defensible Space Guidelines for SRA and the Very High Fire Hazard severity zones, including vacant lots.

See [http://www.bof.fire.ca.gov/pdfs/Copyof4291finalguidelines9_29_06.pdf](http://www.bof.fire.ca.gov/pdfs/Copyof4291finalguidelines9_29_06.pdf)

**Priority:** [ ] High [ ] Medium [ ] Low [ ] N/A

*Implementation Measure 16-1b(2) in the Safety Element requires implementation of the Community Wildfire Protection Plan, which is to include wildland fire management activities such as controlled burning, fuel removal, vegetation management, and firebreaks. In addition, mitigation actions in the LHMP address fuel reduction and modification and defensible space issues. A general plan, of which a safety element is a part, is a policy document and is not the proper (or legal) venue for the establishment of ordinances. Ordinances implement a general plan.*

*Vegetation clearance requirements as established by the state fire safe standards are routinely enforced in Mariposa County by professional CAL FIRE staff.*

**Recommendation:** Reduce fuel around communities and subdivisions, considering fuels, topography, weather (prevailing winds and wind event specific to the area), fire ignitions and fire history.

**Priority:** [ ] High [ ] Medium [ ] Low [ ] N/A

6.3 Fire suppression defense zones. [ ] Yes [ ] Partial [ ] No

**Recommendation:** Establish goals and policies that create wildfire defense zones for emergency services, including fuel breaks or other staging areas where WUI firefighting tactics could be most effectively deployed.

**Priority:** [ ] High [ ] Medium [ ] Low [ ] N/A
Additional Defensible Space Recommendations:

6.2- Recommend to include vacant lots into existing policies for fire hazard reduction.

>This would be difficult to implement due to limited staff and funding, and based on the large size of many undeveloped parcels in rural areas of Mariposa County (including parcels used for livestock grazing). The Board of Supervisors may consider implementing a specific policy (but worded to address parcel size) to address this issue at a future date.

State Fire Safe regulations for fuel reduction are currently enforced in Mariposa County by professional CAL FIRE staff.

7.0 Emergency Services:

7.1 Map/describe existing emergency service facilities and areas lacking services, specifically noting any areas in SRA or VHFHSZs. ☒Yes ☐Partial ☐No

Recommendation: Include descriptions of emergency services including available equipment, personnel, and maps of facility locations.
Priority: ☐High ☐Medium ☐Low ☒N/A

Recommendation: Initiate studies and analyses to identify appropriate staffing levels and equipment needs commensurate with the current and projected emergency response environment.
Priority: ☐High ☐Medium ☐Low ☒N/A

7.2 Assessment and projection of future emergency service needs. ☒Yes ☐Partial ☐No

Recommendation: Ensure new development includes appropriate facilities, equipment, personnel and capacity to assist and support wildfire suppression emergency service needs. Future emergency service needs should be:
- Established consistent with state or national standards.
- Developed based on criteria for detemining suppression resource allocation that includes elements such as identified values and assets at risk, ignition density, vegetation type and condition, as well as local weather and topography.
- Local Agency Formation municipal services reviews for evaluating level of service, response times, equipment condition levels and other relevant emergency service information.
Priority: ☐High ☐Medium ☐Low ☒N/A

7.3 Adequacy of training. ☒Yes ☐Partial ☐No

Recommendation: Establish goals and policies for emergency service training that meets or exceeds state or national standards.
Priority: ☐High ☐Medium ☐Low ☒N/A

Board of Forestry Safety Element Assessment Tier 1
7.4 Inter-fire service coordination preparedness/mutual aid and multi-jurisdictional fire service agreements. ☒ Yes ☐ Partial ☒ No

Priority: ☐ High ☐ Medium ☒ Low ☒ N/A

Additional Emergency Services Recommendations:

8.0 Post Fire Safety, Recovery and Maintenance:
The post fire recommendations address an opportunity for the community and landowners to re-evaluate land uses and practices that affect future wildfire hazards and risk. They also provide for immediate post-fire life and safety considerations to mitigate potential losses to life, human assets and critical natural resources.

8.1 Evaluation of redevelopment. ☒ Yes ☐ Partial ☒ No

Recommendation: In High and Very hazardous areas, ensure redevelopment utilizes state of the art fire resistant building and development standards to improve past 'substandard' fire safe conditions.
Priority: ☒ High ☐ Medium ☐ Low ☒ N/A

Although there are no requirements for new construction specific to High and Very hazardous areas, such construction (and all construction) is required to adhere to regularly updated uniform Building and state Fire code standards. All construction must comply with Uniform Building Code and state Fire Code requirements. These existing codes, which apply statewide, require use of fire resistive building materials and sprinkler systems.

Implementation Measure 16-1b(1) in the Safety Element requires site design specifications for buildings in locations of extremely high fire danger within new subdivisions and development.

Implementation Measure 16-1b(2) requires implementation of the Community Wildfire Protection Plan, which is to include requirements for fire-resistant exterior construction materials, such as fire safe roofing and fire-resistant plants.

8.2 Long term maintenance of fire hazard reduction mitigation projects. ☐ Yes ☐ Partial ☒ No

Recommendation: Provide polices and goals for maintenance of the post-fire-recovery projects, activities, or infrastructure.
Priority: ☒ High ☐ Medium ☐ Low ☒ N/A

All new construction and development projects are reviewed for conformance with Board of Forestry Safety Element Assessment Tier 1
current standards. Limited staffing and financial resources, as well as limited authority, would make monitoring of post-fire recovery projects, activities, or infrastructure difficult to accomplish after a certificate of occupancy is issued, a map is recorded, or a project is completed.

One of the purposes of adopting the LHMP and incorporating it into the Safety Element is to ensure the County is eligible for disaster relief funding. Such funding may provide for post-fire recovery monitoring of such activities.

8.3 Reevaluate hazardous conditions and provide for future fire safe conditions. □ Yes □ Partial □ No

**Recommendation:** Incorporate goals and policies that provide for reassessment of fire hazards following wildfire events. Adjust fire prevention and suppression needs for both short and long term fire protection.

**Priority:** □ High □ Medium □ Low □ N/A

This could be accomplished during a more comprehensive review and update to the Safety Element and/or the General Plan; however, this type of program would most appropriately be in a fire department management and operations guide type document. This would require a commitment by the Board of Supervisors to allocate staff time and provide funding. Implementing such goals and policies will necessarily require a partnership between the County and CAL FIRE (CAL FIRE and Mariposa County recently entered into a contract for CAL FIRE to take over management of the county fire functions as of July 1, 2017). Funding for such a program may be available through grants. The Board of Supervisors may consider implementing specific goals and policies to address this issue at a future date.

**Recommendation:** Develop burn area recovery plans that incorporate strategic fire safe measures developed during the fire suppression, such as access roads, fire lines, safety zones, and fuelbreaks, and helipads.

**Priority:** □ High □ Medium □ Low □ N/A

This would involve private property, so enforcement to ensure that access roads, fire lines and fuelbreaks, etc. are maintained may be difficult to effect. Mitigation Action No. 24 contained in Table 7-4 – Mitigation Action Plan in the LHMP states “in cooperation with other organizations, complete a fire break around the foothills communities and mountain areas.” Other mitigating actions contained in the LHMP address fuel modification and reduction programs.

Implementation Measure 16-2a(1) in the Safety Element promotes County cooperation with CAL FIRE in providing advice to landowners on vegetation management programs keeping forest fuel values at acceptable levels. Implementation of this measure could assist in implementing this recommendation. The development of a recovery plan such as is suggested would most appropriately be done by a fire department management and operations guide type document. Implementing such a plan will necessarily require a partnership between the County and CAL FIRE (CAL FIRE and Mariposa County...
recently entered into a contract for CAL FIRE to take over management of the county fire functions as of July 1, 2017. The Board of Supervisors may consider implementing burn area recovery plans at a future date. Development of such plans would be a significant undertaking and a considerable commitment of staff and funding. Cooperation on the part of landowners would be critical.

8.4 Post fire life and safety assessments. ☐ Yes ☐ Partial ☒ No

**Recommendation:** Develop frameworks for rapid post-fire assessment and project implementation to minimize flooding, protect water quality, limit sediment flows and reduce other risks on all land ownerships impacted by wildland fire.

**Priority:** ☒ High ☐ Medium ☐ Low ☐ N/A

The Safety Element contains goals, policies and implementation measures that address flood-related issues. However, these measures do not specifically address post-fire issues. Section 16.1.3 Geologic Hazards does acknowledge that landslides can occur as a result of wildfire events. Development and implementation frameworks as described in this recommendation would necessarily be detailed and complex and would require intensive cooperation between all firefighting agencies and landowners. Such an undertaking is beyond the scope of this amendment to the Safety Element, which is primarily to incorporate the LHMP into the Element. Establishing General Plan goals, policies and implementation measures would involve the Conservation and Open Space Element since it would entail policies for the protection of water resources and watersheds. Establishing such frameworks and addressing post fire issues as identified in recommendations for section 8.4 below could be undertaken upon direction from the Board of Supervisors during a more comprehensive review and update to the General Plan and/or through grant funding should such funding be available. The development of a program for rapid post-fire assessment and project implementation would most appropriately be done by a fire department management and operations guide type document. Staff notes that CAL FIRE and Mariposa County recently entered into a contract for CAL FIRE to take over management of the county fire functions as of July 1, 2017.

**Recommendation:** Identity flood and landslide vulnerability areas related to post wildfire conditions.

**Priority:** ☒ High ☐ Medium ☐ Low ☐ N/A

See response above. This is an action type recommendation that could be included in a fire department management and operations guide type document. CAL FIRE and Mariposa County recently entered into a contract for CAL FIRE to take over management of the county fire functions as of July 1, 2017.

**Recommendation:** Establish goals and policies that address the intersection of flood /landslide/post fire burn areas into long term public safety protection plans. These should include treatment assessment of fire related flood risk to life, methods to control storm runoff in burn areas, revegetation of burn areas, and drainage crossing maintenance.

**Priority:** ☒ High ☐ Medium ☐ Low ☐ N/A

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See response above.

**Recommendation:** Encourage rapid post-fire assessment, as appropriate, and project implementation to minimize flooding, protect water quality, limit sediment flows and reduce other risks on all land ownerships impacted by wildland fire.

**Priority:** ☒High ☐Medium ☐Low ☐N/A

See response above

8.5 Restore sustainable landscapes and restore functioning ecosystems. ☐Yes ☐Partial ☒No

**Recommendation:** Develop burn area recovery plans, evaluation processes and implementation actions that encourage tree and biomass salvage, reforestation activities, create resilient and sustainable landscapes, and restore functioning ecosystems.

**Priority:** ☐High ☒Medium ☐Low ☐N/A

The development and implementation of these actions would necessarily involve the Conservation and Open Space Element since they would address ecosystems and sustainable landscapes. Establishing such goals and policies would be beyond the scope adopted by the Board of Supervisors relating to this Safety Element amendment. The intent of this amendment is to incorporate the LHMP into the Safety Element and to address requirements of SB 1241. Development and implementation of such plans may be funded by grants should such funding be available. (For additional response to this issue, see response to the recommendation regarding burn area recovery plans in 8.3 above.)

*Mariposa County has executed a contract with a professional planning consultant to prepare a General Plan Implementation Strategy. The scope of work includes addressing new issues since 2006. Tree mortality is specifically named, and biomass salvage, reforestation, etc. are appropriately included in this issue. The kick-off meeting for this contract is Monday, July 17th.*

8.6 Incorporate wildlife habitat/endangered species considerations. ☐Yes ☐Partial ☒No

**Recommendation:** Establish goals and policies for consideration of wildlife habitat/endangered species into long term fire area recovery and protection plans, including environmental protection agreements such as natural community conservation plans.

**Priority:** ☐High ☒Medium ☐Low ☐N/A

See responses above.

8.7 Native species reintroduction. ☐Yes ☐Partial ☒No

**Recommendation:** Incorporate native species habitat needs as part of long term fire protection and fire restoration plans.

**Priority:** ☐High ☒Medium ☐Low ☐N/A

Board of Forestry Safety Element Assessment Tier 1
See responses above.

Additional Post Fire Safety, Recovery and Maintenance Recommendations:

9.0 **Terrorist and homeland security impacts on wildfire protection:**
These recommendations are included to address fire protection needs related to terrorist acts or other homeland security preparedness and response actions. Both preparedness and incident response can adversely impact fire protection. Adverse effects include substantially decreasing emergency resources’ availability, responsiveness and effectiveness by diverting resources, interrupting communications, or restricting emergency access.

9.1 Emergency response barriers. ☒Yes ☐Partial ☐No

**Recommendation:** Identify goals and policies that address vital access routes that if removed would prevent fire fighter access (bridges, dams, etc.). Develop an alternative emergency access plan for these areas.
**Priority:** ☐High ☐Medium ☐Low ☒N/A

9.2 Prioritizing asset protection from fire when faced with a lack of suppression forces.
☐Yes ☒Partial ☐No

**Recommendation:** Identify and prioritize protection needs for assets at risk in the absence of response forces.
**Priority:** ☐High ☒Medium ☐Low ☐N/A

*Goals, policies and implementation measures could be incorporated into the Safety Element under a more comprehensive update to the Element and/or the General Plan and upon direction from the Board of Supervisors. They could be incorporated into existing implementation measures within the Element, specifically under Goal 16-2, which states “Utilize the most efficient multi-level fire prevention and protection system.” Policy 16-2 under the goal states “Develop and maintain cooperative arrangements with CalFire to maximize the efficient deployment of fire prevention and protection resources.” This development and implementation effort would need to be coordinated with CAL FIRE and asset prioritization information disseminated to all firefighting agencies. Mitigation Action Plan No. 20 in Table 7-4 in the LHMP calls for the implementation of a fuel reduction program including within open spaces and around critical facilities located in hazardous fuel buildup areas. A list of critical facilities and assets may be developed as part of the implementation of this mitigation action.*

*Staff notes that CAL FIRE and Mariposa County recently entered into a contract for CAL FIRE to take over management of the county fire functions as of July 1, 2017.*

**Recommendation:** Establish fire defense strategies (such as fire ignition resistant areas) that Board of Forestry Safety Element Assessment Tier 1
provide adequate fire protection without dependency on fire resources (both air and ground) and could serve as safety zones for the public or emergency support personnel.

**Priority:** ☐ High ☐ Medium ☐ Low ☒ N/A

### 9.3 Communication channels during incidents. ☒ Yes ☐ Partial ☐ No

**Recommendation:** Establish goals and policies consistent with the Governor's Blue Ribbon Fire Commission of 2005 for communications and interoperability. Example goals and policies should address fire personnel capability to communicate effectively across multiple frequency bands and update and expansion of current handheld and mobile radios used on major mutual aid incidents.

**Priority:** ☐ High ☐ Medium ☐ Low ☒ N/A
Tracy Gauthier

From: Tracy Gauthier
Sent: Wednesday, October 04, 2017 9:07 AM
To: Brian Foucht (bfoucht@mariposacounty.org)
Cc: Sarah Williams (swilliams@mariposacounty.org)
Subject: Draft NOE for signature and filing
Attachments: 13656.doc

Please return to our office when finalized.

Thank you
Tracy
Skip Strathearn

From: Don Florence
Sent: Tuesday, January 12, 2016 12:17 PM
To: Skip Strathearn
Cc: 'Isaacs, Jeff@CALFIRE' (Jeff.Isaacs@fire.ca.gov)
Subject: General Plan - draft review.
Attachments: TreeMort_SRAFRADPA20150917.pdf; 160122 Proposed Amendments for PC packet (2).pdf

Skip,
Just some notes on the DRAFT - GP update:
  • All Reference to Cal FIRE should be with “Fire” capitalized
  • Cal FIRE’s plan now is for 2015 not 2014.
  • The November 7th 2007 map has been updated. I believe the new one is 2012. Check with Cal FIRE GIS to verify.
  • Page 3 – 2nd to the last paragraph, “its 935,688 total acres of that 443,891 is SRA”
  • Page 7 – Several references to Landslides. Most are actually “Liquefaction”. The process by which sediment that is very wet starts to behave like a liquid. Liquefaction occurs because of the increased pore pressure and reduced effective stress between solid particles generated by the presence of liquid. It is often caused by severe shaking, especially that associated with earthquakes.
  • Page 12 – last paragraph. Evacuation plan in 2003 is updated annually by Local OES and Sheriff’s department. In depth evacuation staging areas and sheltering location were updated in 2012 with corroboration from American Red Cross.
  • Page 14 – second to the last paragraph. The only “compliance” is just noted as this county has determined not to participate in the NFIPs. Not sure how to write that in.
  • Page 20 – Goal 16-5. This is a hot issue. Might want to take a second look at 16-5a2

Hope this helps Skip.

I cc’d Jeff in case you need a more updated look from Cal FIRE. He’s our Regional contact for this.

Thanks,

Don Florence

Emergency Planner
Mariposa County Office of Emergency Services
5082 Bullion Street
Mariposa, Ca. 95338
209-742-1306
Cell- 415-987-2377
Pager- 209-742-2415
dflorence@mariposacounty.org
Comments from Russ Marks, County Surveyor, received by the Planning Department via email on August 7, 2015

GPA 2015-002

Initial Comments

Pg. 6, 3rd paragraph, last sentence, “...ISO Rating of “5”. I do not believe that is true. The County has had mixed ratings, with some areas an ISO 7, but overall the County has had the rating of ISO Rural 8.

Pg. 19:

Policy 16-1a: at the end of the statement should be “as approved by the Local Agency Fire Department”. As County Fire does not have authority within MPUD, unless asked.

Policy 16-1b: bullet points,

Does Mariposa County want to set road development standards? Or should Cal Fire standards be the standard? Is this a duplication of PRC 4290/4291? Why not just adopt CalFire Standards?

4th bullet, “Standards for sitting of flammables” does that read right?

Page 19 & 20

Implementation Measure 16-1b(2):
Does Mariposa County really want to oversee these items? When already overseen by CalFire and USFS.

Page 21

Policy 16-3b(1):

What does “Enable facilities for heavy fire suppression helicopter ....” Mean?

Will this be a mandate? Are we setting up for something that cannot be obtained due to the budget?

Page 21, 22, 23

Goal 16-4

Impl. Measure 16-4a and b(1)

Who will define flood areas?

Most of this is already regulated by the State. Why does Mariposa County want to step into this mess?

This would be time and staff intensive, with no budget. Public works cannot meet this measure without drastic changes in staff and budget.

16-4c:

Who is going to define the zones? This would be an engineering function, likely to be a consultant.

Goal 16-5

Imp. Measure 16-5a(1)
How will PW oversee this? Lack of staff and budget will make this unobtainable at this time.

16-5a(2)

Regulated by the State, why duplicate?

16-5b(1)

This will limit development due to potential costs. Does Mariposa County want to go there?

16-5c(1)

I believe it is already regulated by the State. Therefore why?

Don’t think we should over/duplicate regulate or set up something we don’t have the resources to support. Given the current General Fund shortfalls, I would see not being able to meet these goals for quite some time.
April 19, 2017

Skip Strathearn, Senior Planner
Mariposa County Planning Department
P.O. Box 2039
Mariposa, California 95338

RE: Amendment to Safety Element
Mariposa County General Plan

Dear Skip,

Please see comments referenced by section.

16.1.01 Fire Hazard – The paragraph that includes Insurance Services Office (ISO) ratings of communities within Mariposa, should also include the Mariposa Public Utility District (MPUD). “MPUD’s service area is currently assigned an ISO rating of “3”. Also, the first reference to “Insurance Services Office” should include “(ISO)” as a definition of Insurance Services Office.

16.1.02 Flood Hazard planning should consider a reference to the Mariposa Town Planning Area Specific Plan which includes set back requirements for new development near minor and major streams.

Thank you for allowing me to comment on this document.

Sincerely,

Mark L. Rowney
General Manager

MLR:sw