

BOARD OF FORESTRY AND FIRE PROTECTION

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Brent Calloway
Mono County Community Development
PO Box 347
Mammoth Lakes, CA 93546

September 14, 2015

Re: Mono County Safety Element Review

Dear Mr. Calloway,

The State Board of Forestry and Fire Protection (Board) is required to review and provide recommendations to the safety element of county and local government general plans when such plans are being amended. This review is in accordance with Government Code (GC) 65302.5, which requires the Board to review the fire safety elements when the general plan contains State Responsibility Areas or Very High Fire Hazard Severity Zones.

Enclosed is the final review and recommendations for the Mono County General Plan Safety Element. The Board has prepared this document in cooperation with members of the CAL FIRE Land Use Planning Program. Government Code 65302.5 also requires the Mono County Community Development Department to consider and accept the recommendations made by the Board and communicate in writing to the Board its reasons for not accepting any recommendations.

The submitted Safety Element includes references to Chapter 22 – Fire Safe Regulations contained within the General Plan Land Use Element. The Board would like to notify the County of changes to the Title 14 SRA Fire Safe Regulations that take effect on January 1, 2016. The Board recommends Mono County submit their Chapter 22- Fire Safe Regulations to the state for certification for use in lieu of the state minimum standards after their local adoption in early 2016. More information about the new regulations and how to submit them to the Board may be found online at: http://bofdata.fire.ca.gov/board_joint_policies/local_government/.

Thank you for the opportunity to participate in your planning process and we look forward to working with you on these recommendations and future updates to the Mono County Community Wildfire Protection Plan and Emergency Operations Plan. We hope this input leads to greater protection and reduced cost and losses from wildfires to Mono County and adjacent wildlands.

Sincerely,

A handwritten signature in blue ink, appearing to read "J. Keith Gilles", is written over a light blue circular stamp.

J. Keith Gilles
Chair, Board of Forestry and Fire Protection

CC: Chief Pete Muñoa, CAL FIRE Land Use Planning

Mono County

General Plan Safety Element Assessment Tier 2

September 14, 2015

Board of Forestry and Fire Protection



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Jurisdiction: Mono County	Notes:	CAL FIRE Unit: San Bernardino/Inyo/Mono	Date Received: 8/1/2015
County: Mono	LUPP Reviewer: Martinez	Unit Contact: Steve Shaw	Date Reviewed: 8/25/2015

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 to... 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.

The Tier 2 recommendations below apply to communities with

- Medium amounts of VHFHSZ Zone acreage or 10 to 20% of acreage is VHFHSZ LRA; or
- Medium population densities; or
- VHFHSZ that does not encroach on population centers or does not add significantly to contiguous high fire hazard fuels at a regional level.

The counties assigned Safety Element Assessment Tier 2 are **Colusa, Imperial, Inyo, Kings, Merced, Modoc, and Mono**. There are 48 cities, listed below, evaluated under Tier 2.

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?

Cities (alphabetical by county)				
Alameda	Monterey	Riverside con't	San Diego	Shasta
Berkeley	Monterey	Palm Springs	Carlsbad	Anderson
Piedmont	Orange	Perris	Chula Vista	Siskiyou
Pleasanton	Fullerton	Riverside	Del Mar	Etna
Calaveras	Irvine	San Jacinto	El Cajon	Yreka
Angels Camp	Laguna Woods	Temecula	Solana Beach	Sonoma
Los Angeles	Mission Viejo	Wildomar	Vista	Santa Rosa
Arcadia	Orange	San Bernardino	San Luis Obispo	Tehama
West Covina	Riverside	Chino Hills	San Luis Obispo	Red Bluff
Marin	Corona	Fontana	Santa Clara	Ventura
Larkspur	Hemet	Hesperia	Morgan Hill	Camarillo
Mendocino	Jurupa Valley	Rialto	San Jose	Fillmore
Ukiah	Menifee	Upland		Ventura
	Moreno Valley	Yucca Valley		

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.

Tier 2 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.

1.0 Inter-agency Wildfire Protection Planning

- 1.1 General Plan references and incorporates County or Unit Fire Plan: Yes Partial No
This is included in the CWPP.

Recommendation: Identify, reference or create (if necessary) a fire plan for the geographic scope of the General Plan. The 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

- 1.2 Map or 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 **Mono County Community Development Director Scott Burns stated they were planning on adding this to the safety element soon but have not done so as of yet.**

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 **Mr. Burns stated they are planning to add this recommendation by reference this prior to their safety element adoption.**

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

Priority: High Medium Low N/A **This is included in the Mono County CWPP.**

- 1.3 Inter-fire service coordination preparedness/mutual aid and multi-jurisdictional fire service agreements. Yes Partial No

Recommendation: Adopt the Standardized Emergency Management Systems for responding to large scale disasters requiring a multi-agency response. Ensure and review mutual

aid/automatic aid and other cooperative agreements with adjoining emergency service providers.

Priority: High Medium Low N/A **This information is included in the Mono County Emergency Operations Plan (EOP) and included by reference to this plan in the safety element.**

2.0 Land Use:

2.1 Disclose wildland urban interface hazards including Fire Hazard Severity Zones 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 **Mono County makes reference to the Mono County CWPP, but they do not individually have this information in their safety element. They have not adopted the FRAP VHFHSZ maps as required. They do plan to look into this and will include the FRAP maps to the safety element. The maps in the CWPP are potentially not the FRAP maps and appear not to encompass the same areas as the FRAP.**

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

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

Recommendation: Adopt fire safe development codes to be used as standards for fire protection for new development in Very High Fire Hazard Severity Zones (VHFHSZ) within the entity's jurisdiction that meet or exceed statewide standards in 14 California Code of Regulations Section 1270 et seq and have them certified by the Board of Forestry.

Priority: High Medium Low N/A **Chapter 22 – Fire Safe Regulation part of Land Use Element but not certified by Board of Forestry. Will submit to Board after adoption in early 2016.**

Recommendation: Establish goals and policies for specific ordinances, or specify the current existing ordinances, code sections, or regulations, that address 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 **See above comment**

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 **When asked about this section in the meeting Mr. Burns stated they have not addressed this in the plan are considering and update to the CWPP and safety element reference change next year post safety element adoption to address this issue.**

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 **The CWPP talks about major road access and potential evacuation routes in the CWPP and their Master Environmental Assessment but does not adequately map tertiary routes and temporary safe locations. They will look at adding a comprehensive plan to the plan but unsure when or how they would address.**

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

Priority: High Medium Low N/A **See above comments**

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 **Addresses partially in the CWPP; a stand-alone policy and process exists to cover this recommendation. This is common practice and they stated they would add by reference to the safety element.**

2.4 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 **Not addressed – they stated they would work to add on the next EOP and CWPP update next year.**

2.5 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

Recommendation: Establish fire defense strategies (such as fire ignition resistant areas) that 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

3.0 **Housing:**

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

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

3.2 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 unique structures/owners, are considered for appropriate wildfire protection needs.

Priority: High Medium Low N/A

3.3 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

Priority: High Medium Low N/A

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

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

Priority: High Medium Low N/A

3.4 Identification and actions for substandard fire safe housing and neighborhoods relative to fire hazard area. Yes Partial No **This is partially covered in the CWPP in the last third of the policy but does not adequately cover the intent of the below recommendations. Mono County added this to their list of agenda items to look into their next meeting and to scope how best to address this.**

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

3.5 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

4.0 **Conservation and Open Space:**

4.1 Identification of critical natural resource values relative to fire hazard areas. Yes Partial No
I addressed these recommendations in my meeting with the team and they stated this would be added as an agenda item in the future to scope how best to address these recommendations.

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

Priority: High Medium Low N/A

4.2 Inclusion of resource management activities to enhance protection of open space and natural resource values. Yes Partial No **In the conservation/open space element**

Recommendation: Develop plans and action items for vegetation management that provides fire damage mitigation and protection of open space values.

Priority: High Medium Low N/A

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

Priority: High Medium Low N/A **Included in the CWPP**

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 fire mitigation planning with agencies/private landowners managing open space adjacent to the General Plan area, water

sources for fire suppression, and other fire prevention and suppression needs.

Priority: High Medium Low N/A

5.0 **Circulation:**

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.

Priority: High Medium Low N/A **They do not address the public evacuation routes in a formal plan and do not address the maintenance of such. They are adding this to a future agenda to scope how best to add this information to their plan.**

5.2 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 **Addressed in the CWPP**

5.3 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 **This is partially addressed in the CWPP but there is currently no comment or plan in place to address alternate emergency access, etc. They will add this recommendation to a future agenda item and address the issue in a future CWPP update.**

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 **Mono County does not currently address the helispot and safety zones recommendation will add this to the Emergency Operations Plan and CWPP update next year**

6.0 **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.

6.1 Develop post-fire priorities and goals for the recovery of the built and natural environments.
 Yes Partial No

Recommendation: Reevaluate hazardous conditions and provide for future fire safe conditions. Evaluate redevelopment in high or very high fire hazard severity zones.

Priority: High Medium Low N/A

Recommendation: Restore sustainable landscapes and restore functioning ecosystems. Incorporate wildlife habitat/endangered species considerations.

Priority: High Medium Low N/A

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

Priority: High Medium Low N/A

6.2 Post fire life and safety assessments. Yes Partial No **They will add this to a future agenda item to scope how best to address this section.**

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

MONO COUNTY GENERAL PLAN UPDATE

SAFETY ELEMENT

DRAFT

DRAFT

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I. INTRODUCTION

State Planning law (Government Code § 65302 (g)) requires the Safety Element of a General Plan provide "for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, slope instability leading to mud slides and landslides, liquefaction, and other seismic and geologic hazards known to the legislative body, flooding, and wildland and urban fires." In addition, the General Plan Guidelines state that the aim of the Safety Element is to "reduce the potential risk of death, injuries, property damage, and economic and social dislocation resulting from fires, floods, earthquakes, landslides and other hazards."

This Element outlines goals, policies and implementation measures designed to reduce the risk from locally significant natural hazards to an acceptable level. Successful implementation of this Element should reduce the loss of life, injuries, major damage to property, and the economic and social dislocation which may result from public safety hazards. Maps of known natural hazard areas are included in the **Master Environmental Assessment (MEA)** and the General Plan map at <https://monomammoth.maps.arcgis.com/home/>.

RELATIONSHIP TO OTHER ELEMENTS AND PLANS

Issues and policies presented in this Element are closely linked to the Land Use, Conservation and Open Space, and Circulation elements of the Mono County General Plan

This Element outlines goals, policies and action items designed to reduce the risk from locally significant hazards to an acceptable level. A number of other planning documents also address hazards in the county. A complete list of those documents is included in the Safety section of the Mono County Master Environmental Assessment.

MONO COUNTY MASTER ENVIRONMENTAL ASSESSMENT (MEA)

The MEA contains background information on hazards in the county including maps of known hazard areas are included in the MEA.

MONO COUNTY LOCAL HAZARD MITIGATION PLAN (LHMP)

The Mono County Local Hazard Mitigation Plan (LHMP) is a multi-jurisdictional hazard plan that addresses the unincorporated areas of Mono County as well as the Town of Mammoth Lakes, the county's only incorporated area. It also considers areas outside the county that either may impact areas within the county; e.g., Rock Creek Lake in Inyo County, or that are accessed from the county; e.g., Reds Meadow in Madera County. The LHMP is a planning document intended to identify hazards and provide mitigation so impacts to people and property from identified hazards can be minimized.

FIRE PLANS

The Mono County California Community Wildfire Protection Plan outlines fire hazards in Mono County, analyzes existing local preparedness and firefighting capabilities, and contains suggested solutions to address identified hazards. In addition, local fire protection districts in some cases have fire protection planning documents.

EMERGENCY OPERATIONS PLAN (EOP)

The Mono County Emergency Operations Plan (EOP) addresses specific emergency procedures for a variety of events, including natural hazard events, terrorism, airplane crashes, bioterrorism, etc. The Town of Mammoth Lakes also has an Emergency Operations Plan.

MONO COUNTY LAND DEVELOPMENT REGULATIONS

The Mono County Land Development Regulations in the Land Use Element contain regulations that specifically address flood and fire hazards; i.e., Chapter 21, Floodplain Regulations, and Chapter 22, Fire Safe Regulations.

AIRPORT LAND USE COMPATIBILITY PLANS

The Airport Land Use Compatibility Plans for the County airports address safety issues at Bryant Field in Bridgeport and at Lee Vining Airport. Mammoth Yosemite Airport, which is owned and operated by the Town of Mammoth Lakes, also has an Airport Land Use Compatibility Plan. Those plans focus primarily on safety issues related to land use in the area surrounding the airports.

FEDERAL AGENCY DOCUMENTS

The majority of the land in Mono County is public land. The various state and federal agencies responsible for the management of those lands have land management plans and specific hazard management plans such as fire safety plans that address hazard prevention on public lands. In addition, federal agencies responsible for certain hazards, such as the US Geological Survey, have documents that focus on specific hazards in the county such as volcanic hazards.

II. ISSUES/OPPORTUNITIES/CONSTRAINTS

Significant potential hazards to public health and safety exist in Mono County. These hazards include: avalanches; floods; fires; geologic hazards such as landslides and mudflows; seismic hazards; and volcanic eruptions. The following section briefly discusses the constraints to development posed by each of these hazards.

SEISMIC HAZARDS

Earthquakes

Mono County covers an area that is relatively young by geologic standards. It is located at a stress point where the earth's crustal plates are exerting opposite pressures against each other. This combination creates both "tectonic" earthquakes (e.g., land mass movement) and volcanic activity that can trigger earth shaking (e.g., magma chamber movement and lava dyke formations).

Fault Movement

Earthquakes are usually caused by sudden movement along geologic faults. The California Department of Conservation, Division of Mines and Geology (DMG), has evaluated potentially and recently active faults throughout Mono County including most of the community areas. Based upon these DMG studies, fault hazard zones (Alquist-Priolo Special Studies Zones) have been designated for the county (see the **MEA or General Plan Map**).

Ground Shaking

The primary seismic hazard in the county is strong to severe ground shaking generated by movement along active faults. The entire county, except for a small portion of the Sierra crest, is in an area where intense ground shaking is possible. This area has been designated as a Seismic Zone D, the zone of greatest hazard defined in the California Building Code. Probabilistic Seismic Hazard Assessment (PSHA) maps prepared by the California Geological Survey (CGS) and the USGS show that the areas with the greatest earthquake shaking hazard in Mono County include the Long Valley Caldera, the western portion of the Mono Basin extending north along the Eastern Sierra escarpment, the western edge of the White Mountains, the southeast corner of the county around Oasis, and the northern tip of the county around Topaz.

The Long Valley-Mammoth Lakes region has experienced numerous earthquakes caused by the movement of magma below the earth's surface. The oval-shaped Long Valley Caldera spans an area approximately 10 by 20 miles, and is among the largest volcanoes in the continental United States. Scientists suspect that the earthquakes are caused by shifts of buried stone slabs that are made unstable as magma moves within the volcano.

Ground Failure

Ground failure induced by ground shaking includes liquefaction, lateral spreading, lurching, and differential settlement, all of which usually occur in soft, fine-grained, water-saturated sediments, typically found in valleys. Areas at high risk are mapped in the **MEA**. During the 1980 Mammoth Lakes earthquake sequence, ground failure was prevalent at Little Antelope Valley, along margins of the Owens River in upper Long Valley, along the northwest margins of Lake Crowley, and along Hot Creek Meadow.

All of Mono County is situated within Seismic Zone D, and consequently new construction in the county must comply with stringent engineering and construction requirements. Existing buildings that may be subject to seismic hazards must comply with the requirements of the unreinforced masonry building law (Government Code § 8875).

OTHER GEOLOGIC HAZARDS

Rockfall, Mudflow and Landslide Hazards

Rockfalls and landslides are particularly common along the very steep slopes of the eastern scarp of the Sierra Nevada, where talus slopes provide evidence of abundant past rockfalls. During the winter and spring months, rockfalls can be lubricated with snow and ice and can become extremely fast moving and destructive. Landslides in areas of hilly and mountainous terrain can be triggered by ground shaking, heavy rains or human activities such as road cuts, grading, construction removal of vegetation, and changes in drainage.

The state Department of Conservation, Division of Mines and Geology has yet to prepare maps of earthquake-induced landslide hazards for Mono County as required by the Seismic Hazards Mapping Act. Maps of rockfall hazard areas are based upon slope conditions and local and historical knowledge. Community areas in the county affected by rockfall hazards include Lundy Canyon and the June Lake Loop (primarily the Down Canyon area). The remaining rockfall risk areas are outside community areas.

Mud and debris flows involve very rapid downslope movement of saturated soil, sub-soil, and weathered bedrock. Large mud and debris flows, such as the one that occurred in 1989 in the Tri-Valley area, can be destructive, particularly at the mouths of canyons. Previous evidence of extensive mud and debris flows are evident in the large alluvial fans in the Tri-Valley area.

Subsidence

Subsidence in Mono County has been caused primarily by the tectonic movement of the earth and the movement of magma beneath the Long Valley Caldera. During the May 1980 sequence of earthquakes near Mammoth Lakes, the ground surface dropped about four inches at several locations near the Hilton Creek fault, and up to 12 inches of vertical offset occurred along the Mammoth Yosemite Airport fault zone. Magma movement in the Long Valley Caldera has caused bulging of the resurgent dome in the Casa Diablo area by about two and a half feet since 1980.

No subsidence has been observed in the county due to fluid withdrawals, or hydrocompaction of water impoundment. All major groundwater basins (see the **MEA**), however, have been identified by the Division of Mines and Geology as areas where subsidence could occur as a result of excessive groundwater pumping.

Volcanic Hazards

Evidence of volcanic activity in Mono County extends from Black Point north of Mono Lake to the deposits of Bishop Tuff in southern Mono County. The source of volcanic risk in Mono County is the Inyo-Mono crater chain and the Long Valley Caldera. Vents in the Inyo-Mono crater chain have erupted about every 500 years over the last 2,000 to 3,000 years, with the most recent eruption occurring approximately 500 years ago.

Eruptions in the Long Valley Caldera have occurred approximately every 2,000 years over the last 7,000 years. The volcanic hazards mapped in the **MEA** estimate the extent of explosive blasts, hot flowing material, and ash flow.

FLOODING

Flood Hazards

The Federal Emergency Management Agency (FEMA) has prepared Flood Insurance Rate Maps illustrating 100-year flood hazard areas for several streams. Floods in these areas have a 1% probability of occurring in any given year. Such flooding could result in the loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief. Flood losses may be increased by the cumulative effect of obstructions in flood hazard areas that increase flood heights and velocities, and when inadequately anchored, can damage downstream uses.

Flooding is a potential risk to private properties situated in the vicinity of several waterways within the county. The community areas most likely to be impacted by a 100-year flood include properties along the East and West Walker River, Reversed Creek, and Spring Canyon Creek including portions of the Antelope Valley, Bridgeport Valley, the June Lake Loop, and the Tri-Valley area.

Some FEMA maps lack information regarding the base flood elevation, and are therefore of limited use for local development review and site-specific planning purposes. Some maps lack information concerning local alluvial fan and mudflow hazards. There is a significant need to update the flood hazard maps where these deficiencies exist. The California Department of Water Resources publishes flood-awareness area maps that, while non-regulatory, can provide additional flooding potential information, particularly for areas that remain unmapped by FEMA.

Dam Failure

The Mono County Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) indicates that 18 dams are located in Mono County. The Lower and Upper Twin Lakes, Lundy Lake, Long Valley/Crowley Lake, Rush Creek meadows, and Saddlebag dams are identified as presenting some threat to downstream developed areas if dam failure were to occur.

The **MEA** illustrates the areas subject to flood hazards and dam failure inundation, as well as the area that would be inundated if the dam at Crowley Lake were raised an additional 20 feet to provide an increased storage area.

Seiches

Seiches are earthquake-generated waves within enclosed or restricted bodies of water such as lakes and reservoirs. Similar to the sloshing of water in a bowl or a bucket when it is shaken or jarred, seiches can overtop dams and pose a hazard to people and property within their reach. There is no available evidence that seiches have occurred in Mono County lakes and reservoirs.

FIRE

Wildland Fires

The combination of highly flammable fuel, long dry summers and steep slopes creates a significant natural hazard of wildland fire potential in most of Mono County. Wildland fires can result in death, injury, economic loss, and significant public investment in firefighting efforts. Woodlands and other natural vegetation can be destroyed resulting in a loss of timber, wildlife habitat, scenic quality and recreational resources. Soil erosion, sedimentation of fisheries and reservoirs, and downstream flooding can also result.

Fire hazard severity has been mapped by Cal Fire for most of the privately owned land in Mono County. All areas except the Bridgeport Valley and Antelope Valley have been rated as having a very high fire hazard. The Bridgeport Valley has a moderate fire hazard rating, and the Antelope Valley has not been rated. With the exception of the Antelope Valley, all privately owned lands in Mono County are within the State Responsibility Area (SRA).

The Mono County Community Wildfire Protection Plan (CWPP) and the Cal Fire San Bernardino/Inyo/Mono Unit Fire Plan are incorporated by reference into this Safety Element. The CWPP provides community-level data concerning fire hazards in the county, including community fuel reduction treatment areas and fuel breaks and other wildfire mitigation recommendations, particularly in Wildland-Urban Interface areas. Much of the privately owned land in the county is located outside of fire protection districts, and therefore lacks formal emergency fire protection service. It is difficult for existing fire districts to receive additional property tax revenues for annexation of these unserved areas, or for new fire districts to be formed. Consequently, future development in these areas without adequate fire protection will be limited.

The State of California recently updated wildland protection regulations for future development in the SRA; Mono County has adopted and periodically updates a local ordinance that has the same practical effect as the Cal Fire regulations (Mono County Land Use Element Ch. 22, Fire Safe Regulations).

These fire safe regulations address requirements for adequate clearance of flammable vegetation around individual structures and clusters of structures and construction methods to prevent the spread of fire from the wildland to structures, and from structures to wildlands. Minimum water capacities for fire protection purposes are established in the regulations to ensure the availability of water for fire suppression purposes. Adequate road widths and load capacities are required to ensure ready movement of fire engines, and other heavy firefighting equipment to developed areas of the county; the Mono County Department of Public Works also has established similar road improvement standards for new development.

Structural Fires

The 11 fire protection districts in the county provide fire-prevention services through such activities as education and development review. The districts also provide varying levels of fire suppression and emergency medical response services to community areas. The Community Services Section of the **MEA** provides a summary description of fire district service levels and capabilities, including the general capabilities and availability of local community water service in the county.

AVALANCHE**Avalanche Hazards**

Although avalanches in Mono County occur primarily on national forests in the Sierra Nevada backcountry, some avalanche hazards present a significant risk to community areas. Both property damage and loss of life have resulted from avalanches in Mono County. Community areas influenced by avalanche hazards include Swauger Creek, Twin Lakes, Virginia Lake, Lundy Lake, June Lake, Long Valley/McGee Creek, and Wheeler Crest. In addition, roadway sections threatened by potential avalanches include portions of Lower Rock Creek Road; US 395 at Long Valley, Wilson Butte, and just north of Lee Vining; S.R. 158 entering the June Lake Loop; and several County roads entering eastern-slope community areas.

Avalanche Studies and Maps

In accordance with State law, avalanche hazard maps have been developed to illustrate areas of known avalanche occurrences. These maps were prepared by five Board-appointed avalanche advisory committees consisting of local residents and landowners. All pertinent information concerning the work of the five appointed committees and the avalanche policy formulation process – including committee recommendations and position papers – is on file in the county Planning Division. Other County avalanche hazard studies prepared by avalanche consultants and that project potential avalanche run-out areas, and an archive of photographs documenting evidence of avalanche damage and occurrences are also on file in the Planning Division.

Avalanche Monitoring and Evacuation

A backcountry avalanche monitoring program is operated by the Eastern Sierra Avalanche Center. This monitoring program issues avalanche hazard warnings during periods of high avalanche danger in the backcountry. The county Sheriff's Department keeps in contact with avalanche experts and should a hazardous situation develop, advises those within the hazard-prone area of the critical nature of the hazard.

EVACUATION ROUTES

The Mono County Local Hazard Mitigation Plan indicates that major routes (State and County), immediate access routes to community areas, and internal community street systems could be subject to closure by avalanches, landslides, snow and fog whiteouts, and flooding. In addition, imminent hazards such as high avalanche hazard conditions could prohibit travel even along open access routes. The developed areas of Wheeler Crest, Lundy Lake, Virginia Lakes, and Twin Lakes all have only one access.

The Mono County Local Hazard Mitigation Plan, sets forth site-specific evacuation plans as well as general evacuation procedures for various emergency situations. Several community area plans also call for development of additional emergency access routes into the community areas.

III. POLICIES

GOAL 1. Avoid the exposure of people and improvements to unreasonable risks of damage or injury from earthquakes and other geologic hazards.

Objective 1.A.

Direct development to occur in a manner that reduces the risks of damage and injury from seismic and other geologic hazards to acceptable levels.

Policy 1.A.1. In order to mitigate risk from seismic hazards such as surface fault-rupture, and other geologic hazards, regulate development near active faults, seismic hazard zones and other geologic hazards consistent with the provisions of the Alquist-Priolo Special Studies Zone Act and the Seismic Hazard Mapping Act.

Action 1.A.1.a. Applicable development proposals in Alquist-Priolo fault hazard zones, seismic hazard zones, or other known geologic hazard areas, shall provide a geologic or geotechnical report prior to project approval. The report shall:

- a. be funded by the applicant;
- b. be prepared by a registered geologist or certified engineering geologist;
- c. if a fault hazard, locate existing faults, evaluate their historic activity and determine the level of risk they present to the proposed development;
- d. if another geologic hazard, including a seismic hazard other than a fault hazard, locate site-specific geologic/seismic hazards affecting the project, identify areas containing geologic/seismic hazards that could adversely affect the site in the event of an earthquake or other geologic episode, and determine the level of risk they present to the proposed development;
- e. recommend measures to reduce risk to acceptable levels; and
- f. be prepared in sufficient detail to meet the criteria and policies of the State Mining and Geology Board, and to allow for review by the County's consulting geologist (see also Action 1.3).

Mitigation measures shall be included in the project plans and specifications and shall be made a condition of approval for the project.

Action 1.A.1.b. Require the scope of investigation for geologic and geotechnical reports to be commensurate with the complexity and exposure to risk of the proposed project. As an example, reports for hospitals, multi-story buildings, and other critical, sensitive, or high-intensity structures should be prepared in greater detail than those for lower-density wood-frame structures.

Action 1.A.1.c. Retain a qualified consulting geologist to review geologic/geotechnical studies prepared in accordance with Action 1.A.1.a. The consulting geologist shall evaluate the adequacy of the report, interpret or set standards where they are unclear, and advise the County of the report's acceptability. Project proponents shall be required to fund the costs associated with the County's consulting geologist's review of project geologic hazard

studies. The County's consulting geologist shall be retained in conformance with the Mono County Environmental Handbook.

Action 1.A.1.d. During the initial project review process, encourage applicants to design or redesign their projects as necessary to avoid unreasonable risks from surface fault rupture and other geologic/seismic hazards. Work with the State Geologist to exempt from special geologic study requirements those projects that will clearly not be impacted by fault rupture or other geologic/seismic hazards.

Action 1.A.1.e. Deny applications for planning permits where geologic studies provide substantial evidence that the proposed project will be exposed to unreasonable risks from surface faulting, fault creep or other seismic hazards. Projects that include measures to reduce risks to acceptable levels may be approved. Consistent with Seismic Hazard Mapping Regulations, "acceptable level" means a reasonable assurance of public safety, although structural integrity and continued functionality are not ensured.

Action 1.A.1.f. Work with the State Geologist to address development proposals in areas where recent geologic/seismic episodes have occurred, but where special study zones or seismic zones have yet to be delineated.

Action 1.A.1.g. Require that all applicants for County permits in delineated special study zones or geologic/seismic hazard zones be notified of the area's potential for surface displacement or other seismic/geologic hazards, and that they be referred to this Element, support documents, seismic hazard-zone maps (when available) and the Alquist-Priolo maps on file in the county Planning Division for further information.

Policy 1.A.2. Identify and mitigate seismic/geologic hazards to existing structures, and ensure that new construction is designed to withstand seismic/geologic events.

Action 1.A.2.a. Consider conducting a comprehensive survey of the structural condition of all buildings, and identify potentially hazardous buildings in accordance with the Unreinforced Masonry Building Law (Government Code Section 8875). Input the results into the GIS system and update as needed.

Action 1.A.2.b. Utilizing the structural survey detailed in Action 1.A.2.a., consider developing a mitigation program for potentially unsafe structures in accordance with the Unreinforced Masonry Building Law.

Action 1.A.2.c. Continue to require new construction to comply with the engineering and design requirements of Seismic Design Category D.

Action 1.A.2.d. The County may require geotechnical studies as necessary to comply with the California Building Code.

Policy 1.A.3. Identify areas of seismic and geologic hazards.

Action 1.A.3.a. Utilize historical data and geotechnical studies to designate areas of geologic hazards.

Action 1.A.3.b. Work with the Federal Emergency Management Agency, the State Department of Water Resources, and other appropriate agencies to designate alluvial fans and mudflow areas on Flood Insurance Rate Maps where appropriate.

Action 1.A.3.c. Coordinate with the US Geologic Survey and other research entities in volcanic hazard research and monitoring activities for the Long Valley Caldera and the Inyo-Mono Crater chain.

Action 1.A.3.d. Request the Division of Mines and Geology to establish Mono County as a priority area for mapping areas of ground shaking, liquefaction, and earthquake-induced landslides in accordance with Seismic Hazard Mapping Regulations.

Policy 1.A.4. Limit the intensity of development in seismic and other geologic hazard areas.

Action 1.A.4.a. Designate known hazardous areas for low-intensity uses in the Land Use Element; assign low-intensity land use designations for such areas.

Action 1.A.4.b. Utilizing the established land ownership adjustment process, facilitate land trades or purchases that result in placing properties subject to major geologic hazards into federal ownership or into the ownership of land conservation organizations.

Action 1.A.4.c. Through the permit process, including site plan review, direct development to avoid locating in hazardous areas.

Policy 1.A.5. Regulate land uses that may increase the potential for natural hazards, such as activities that disturb vegetative cover on steep slopes, or which could divert hazard flows toward down-gradient development.

Action 1.A.5.a. Prior to site development, require geotechnical evaluation of the potential for landslides and mudslides in applicable areas.

GOAL 2. Avoid exposure of people and improvements to unreasonable risks of damage or injury from flood hazards.

Objective 2.A.

Plan for and regulate development in flood hazard areas in a manner that protects people and property from unreasonable risks of damage due to flooding.

Policy 2.A.1. Regulate the placement of new structures and major renovation of existing structures in the 100-year flood plain.

Action 2.A.1.a. Work with the Federal Emergency Management Agency, the State Department of Water Resources, and other appropriate agencies to update flood hazard studies for developing areas of the county.

Action 2.A.1.b. Continue to participate in the National Flood Insurance Program (NFIP) by enforcing and updating as necessary the provisions of the

Mono County Flood Plain Regulations (Chapter 21 of the Land Development Regulations)

Action 2.A.1.c. In accordance with the stream setback requirements of the Mono County General Plan, require new development to set back adequately from surface waters for flood and habitat protection purposes. Any deviations from the stream setback requirements within the 100-year floodplain should be reviewed by the county Floodplain Administrator prior to permit issuance.

Action 2.A.1.d. Future development projects with the potential to cause substantial flooding, erosion, or siltation shall provide an analysis of the potential impacts prior to project approval. The analysis shall:

- a. be funded by the applicant;
- b. be prepared by a registered geologist or civil engineer;
- c. identify the nature of the hazard, and assess the impacts of the development on downstream development and resources; and
- d. recommend alternatives and/or mitigation measures to mitigate potential impacts to downstream resources to a level of non-significance, unless a statement of overriding considerations is made through the EIR process.

Mitigation measures shall be included in the project plans and specifications and shall be made a condition of approval for the project.

Action 2.A.1.e. Limit the intensity of development within the 100-year floodplain in the Land Use Element.

Action 2.A.1.f. Continue to implement Mono County Code Chapter 13.08, Land Clearing, Earthwork and Drainage Facilities, and update as necessary.

Action 2.A.1.g. Continue to address flood management issues during the planning and implementation of stream restoration efforts.

Action 2.A.1.h. Document past flood events and incorporate local data into the County GIS.

Action 2.A.1.i. Update the County GIS as new FEMA Flood Insurance Rate Maps and DWR flood-awareness area maps are made available.

Action 2.A.1.j. Seek priority funding from FEMA and the SWRCB to update the flood hazard maps of community areas where needed, including providing information regarding base-flood elevations, alluvial fans and mudflow hazards.

GOAL 3. Avoid exposure of people and improvements to unreasonable risks of damage or injury from fire hazards.

Objective 3.A.

Plan for and regulate development in a manner that protects people and property by minimizing risks from wildland and structural fire hazards.

Policy 3.A.1. Continue to plan for wildfire protection in Mono County.

Action 3.A.1.a. The Mono County Community Wildfire Protection Plan (CWPP) and the Cal Fire San Bernardino/Inyo/Mono Unit Fire Plan are incorporated by reference into this Safety Element.

Action 3.A.1.b. Ensure that the CWPP and Unit Fire Plan are updated as needed to contain up-to-date evaluations of fire hazards, assessments of assets at risk, prioritization of hazard mitigation actions, and implementation and monitoring elements.

Action 3.A.1.c. Utilize fire hazard maps to identify and disclose wildland urban interface hazards. Fire hazard maps in the CWPP are incorporated by reference in the Element.

Policy 3.A.2. Require adequate structural fire protection for new development projects.

Action 3.A.2.a. Development projects including subdivisions shall demonstrate the availability of adequate structural fire protection consistent with SB 1241 and the California Building Code, including safe access for emergency vehicles, safe egress for residents, and adequate water supply prior to or as a condition of permit issuance. Applicants shall provide either a will-serve letter from the applicable fire protection district or a fire protection plan. The fire protection plan shall be part of the development application and shall identify the nature of the local fire hazard, assess the risk of wildland and structural fires presented by the project, and specify measures for detecting and responding to fires on the project site throughout all phases of the proposed development. Project approvals shall include a finding that adequate structural fire protection is or will be available.

Action 3.A.2.b. Require development projects within the sphere of influence of a fire protection district to annex into the district.

Action 3.A.2.c. Require the formation of a fire protection entity for specific plan areas that include significant residential uses, unless the area is within the Sphere of Influence of an existing local fire protection agency

Policy 3.A.3. Require new construction in State Responsibility Areas (SRAs) to comply with minimum wildland fire safe standards, including those established for emergency access, signing and building numbering, private water supply reserves for fire use, and vegetation modification, as contained in the county Fire Safe Ordinance (Ch. 22 of the Mono County Land Development Regulations) and consistent with State laws 4290 and 4291.

Action 3.A.3.a. Work with Cal Fire to implement the county's Fire Safe Regulations.

Action 3.A.3.b. Adopt the Wildland Urban Interface Building Codes, established by the Office of the State Fire Marshall.

Action 3.A.3.c. Request the Mono County Fire Services Association, which consists of the 11 fire protection districts in the county, to review and comment on fire protection plans and major development proposals situated outside existing fire district spheres of influence.

Policy 3.A.4. Mitigate fire hazards through the environmental and project review process.

Action 3.A.4.a. Consider the severity of natural fire hazards, the potential for damage from wildland and structural fire, the adequacy of fire protection, appropriate project modifications and mitigation measures consistent with this Element in the review of projects.

Action 3.A.4.b. Refer project proposals to local fire protection districts and Cal Fire for review and comment.

Action 3.A.4.c. Require on-site detection and suppression, such as automatic sprinkler systems consistent with the California Building Code.

Action 3.A.4.d. Limit the intensity of development in areas lacking adequate structural fire protection.

Policy 3.A.5. Assist fire protection districts in securing adequate funding for capital facilities and ongoing operations to serve new development.

Action 3.A.5.a. Assist fire protection districts in the establishment and implementation of appropriate funding sources – such as fees, exactions, charges, and assessments – to enable existing fire districts to annex appropriate areas, and to enable new fire protection districts to be formed.

Action 3.A.5.b. Continue to allocate the "First Responders Fund" through the augmentation hearing process to assist fire districts, as well as other appropriate special districts.

Policy 3.A.6. Consider mitigating fire hazards in previously developed areas that do not meet current fire safe development standards.

Action 3.A.6.a. Consider identifying and mapping existing housing that does not conform to current fire standards in terms of building materials, access, and vegetative hazards as identified in the CWPP.

Action 3.A.6.b. Consider developing plans to address the substandard housing identified above, including structural rehabilitation, occupancy reduction, fuels hazard reduction projects, community education, and improvements pertaining to access, fire flows, signage, and defensible space.

Policy 3.A.7. Reduce fuel around developed areas throughout the county to minimize wildland fire hazard risks to people and property.

Action 3.A.7.a. Review the County’s land use designation maps to ensure that land uses near high or very-high-hazard fire severity zones are compatible with wildland fire protection and suppression activities.

Action 3.A.7.b. Consider amending the CWPP to establish wildfire defense zones around community areas (e.g., fuel breaks, shelter zones, back fire areas, and staging areas to support fire-suppression activities.)

Policy 3.A.8. Mitigate the effects of fire hazards within Mono County.

Action 3.A.8.a. Implement the fire hazard mitigation recommendations contained in the CWPP, which pertain to addressing, public education, local preparedness and firefighting capabilities, home mitigation, and fuels modification projects.

Policy 3.A.9. Ensure the existing and future transportation system within Mono County adequately supports fire protection and suppression activities.

Action 3.A.9.a. Work with local fire districts, Cal Fire and federal and state land management agencies to prioritize pertinent transportation-related recommendations in the CWPP.

Action 3.A.9.b. Ensure that the Mono County Regional Transportation Plan (RTP) and the Mono County Circulation Element contain adequate policies pertaining to fire infrastructure; e.g., turnouts, helispots, safety zones, and vegetation management programs for state and county streets and highways.

GOAL 4. Avoid exposure of people and improvements to unreasonable risks of damage or injury from avalanche hazards

Objective 4.A.

Limit development that attracts concentrations of people in historical avalanche paths (Conditional Development Areas) during the avalanche season.

Policy 4.A.1. Prohibit new subdivisions, new winter commercial uses, and multi-family developments in conditional development areas unless proper mitigation is provided. A Conditional Development Area¹ denotes private property that has previously experienced avalanche activity.

Action 4.A.1.a. Prior to approving new development, other than single-family residential, in conditional development areas or within the Twin Lakes Avalanche Influence Area, the Planning Commission or Board of Supervisors shall either find:

¹Conditional Development Areas have been identified by local avalanche advisory committees appointed by the Board of Supervisors. In some communities where insufficient historical data exist, the high-hazard zones identified in prior avalanche studies (i.e., Wilson, Beck, or Mears/Whitmore) have supplemented available historical information in defining the Conditional Development Area.

- a. On the basis of a site-specific study by a qualified snow scientist, that the site is not within a potential avalanche hazard; or
- b. That the project has been designed by a registered civil engineer to withstand potential avalanche impact, or other appropriate structural mitigation measures have been incorporated into the project.
- c. Unless otherwise mitigated, all building sites created through new subdivisions shall be identified and located outside avalanche areas.

Action 4.A.1.b. Impose subdivision and use restrictions in conditional development areas through future rezoning and Use Permit conditions.

Policy 4.A.2. Promote seasonal rather than year-round land uses in conditional development areas.

Action 4.A.2.a. Require new commercial development projects in conditional development areas to discontinue operations during the avalanche season, unless mitigated as specified in Action 4.A.1.a. The avalanche season is considered to run from November 1 to April 15 of the following calendar year. Upon application, the Board of Supervisors may change the foregoing dates for specific areas if it finds that public health and safety will not be affected.

Action 4.A.2.b. Encourage the use of seasonal trailers in conditional development areas where such use does not conflict with local land use designations or private restrictive covenants.

Policy 4.A.3. Utilizing the established land ownership adjustment process, facilitate land trades or purchases that result in placing properties, which on the basis of prior studies may be impacted by avalanches, into federal ownership or into the ownership of land conservation groups, for permanent open-space use.

Action 4.A.3.a. Survey landowners who own properties which, on the basis of prior studies, may be impacted by avalanches, for interest in land trades or purchases.

Action 4.A.3.b. Initiate land trade/purchase discussions between landowners and appropriate federal, state, or county agencies, or land conservation groups.

Action 4.A.3.c. Request applicable federal or state agencies to assign high-priority land acquisition status to private lands in areas that, on the basis of prior studies, may be impacted by avalanches.

Policy 4.A.4. Maintain and update historical avalanche data.

Action 4.A.4.a. Appropriate County agencies shall continue to compile avalanche data, including photographing and archiving avalanche damage when it occurs.

Action 4.A.4.b. The historical maps contained in the **MEA** should be revised and updated as necessary to reflect the run-out boundaries of actual

avalanches; maps shall be compiled by the Planning Division and approved by the Board of Supervisors.

Action 4.A.4.c. Where the boundary of an actual avalanche area is in question, require site-specific analysis of the historical avalanche impact to the parcel prior to issuance of any County permits, other than building permits for single-family residential development. Such analysis should be conducted by a qualified snow scientist, and the conclusions of the analysis should be incorporated into this Element.

Objective 4.B.

Inform residents and visitors of the potential avalanche hazards in or near local communities.

Policy 4.B.1. Inform affected persons of potential avalanche hazards in the area during the permit process and during transfer of property ownership.

Action 4.B.1.a. Designate community areas containing private lands influenced by historic avalanche path as "Avalanche Influence Areas" in this Element. The Avalanche Influence Area designation shall define community areas in which residents and visitors should be notified of where potential avalanche hazards exist in the vicinity.

Action 4.B.1.b. Designate historical avalanche paths as "conditional development zones" in this Element.

Action 4.B.1.c. Require that all applicants for County permits in avalanche influence areas be notified of the area's potential avalanche hazards, and require that they be referred to this Element and avalanche documents on file in the county Planning Division for further information.

Action 4.B.1.d. In accordance with State law, sellers of property will notify buyer/transferees of potential avalanche and seismic hazards affecting subject property.

Policy 4.B.2. Inform visitors of potential avalanche hazards by posting notification signs on roadways entering avalanche areas as designated by the Board of Supervisors.

Action 4.B.2.a. Continue to post signs on local roads warning of avalanche potential.

Action 4.B.2.b. Require that new roads constructed in areas which may be impacted by avalanches be properly signed to notify of potential avalanche hazards.

Objective 4.C.

Plan for and provide emergency services in the event of avalanches.

Policy 4.C.1. Initiate avalanche warning procedures during hazard periods in accordance with adopted procedures such as the Mono County Sheriff CodeRed Emergency Alert System.

Policy 4.C.2. Provide emergency access to avalanche-influence areas where feasible.

Action 4.C.2.a. Evaluate potential emergency access routes for avalanche influence areas in the county Circulation Element.

Action 4.C.2.b. Seek state or federal funding for emergency access road construction in avalanche-influence areas.

Policy 4.C.3. Provide snow-removal services to County roads only during periods of acceptable avalanche risks.

Action 4.C.3.a. The Director of Public Works will utilize broad discretion in determining when roads should be plowed.

Objective 4.D.

Work cooperatively with the US Forest Service (USFS) and Caltrans in mitigating local avalanche hazards.

Policy 4.D.1. Seek cooperation from the USFS in mitigating avalanche hazards that originate on land managed by the USFS and that threaten private property.

Action 4.D.1.a. Continue to promote and encourage local and/or regional USFS offices to:

- a. Support and expand the backcountry avalanche forecasting program to include threatened community areas;
- b. Structurally mitigate (i.e., environmentally sensitive supporting structures, deflecting berms, retarding mounds, catching dams, snow fences, etc.) avalanche hazards threatening community areas; and
- c. Initiate land exchanges with willing property owners in avalanche hazard areas.

Policy 4.D.2. Seek cooperation from Caltrans in mitigating avalanche hazards to local State highways.

Action 4.D.2.a. Promote and encourage Caltrans' assistance in funding local avalanche forecasting programs.

Action 4.D.2.b. Support Caltrans efforts to expand avalanche mitigation efforts in the June Lake community. Implement pertinent policies of the June Lake Area Plan.

Action 4.D.2.c. Encourage Caltrans to post avalanche warning signs along potential avalanche sections of US 395, such as in the Long Valley area, the Wilson Butte area, and the area north of Lee Vining during the avalanche season.

GOAL 5. Reduce the risks from natural hazards by planning for safe development, increasing public awareness of the natural hazards in Mono County, and providing an integrated multi-agency approach to emergency response.

Objective 5.A.

Identify areas of the county susceptible to hazards.

Policy 5.A.1. The County GIS system should include or integrate all available hazard mapping, including multi-hazard and repetitive-loss properties.

Action 5.A.1.a. Periodically assess the data and mapping products available on the County GIS system to integrate additional hazards information as it becomes available.

Policy 5.A.2. Maintain an inventory of existing assets (structures, infrastructure) in order to understand more fully the areas and types of development most susceptible to identified hazards and to identify more-specific mitigations for each hazard.

Action 5.A.2.a. Complete a detailed inventory of existing assets and enter that inventory into the County GIS. The inventory should include all data required by hazard mitigation planning such as type of structure, occupancy, construction type, size, value, etc.

Policy 5.A.3. Identify areas with the greatest potential for loss from identified hazards.

Action 5.A.3.a. In compliance with FEMA requirements for loss estimation, develop loss-estimation values and corresponding GIS products and update as needed.

Objective 5.B.

Limit development in areas identified as hazardous.

Policy 5.B.1. Restrict development in areas subject to hazards, including but not limited to, fire, flood, geologic, seismic, volcanic, and avalanche.

Action 5.B.1.a. Limit the intensity of development in hazard areas through the assignment of appropriate land use designations.

Action 5.B.1.b. Design public facilities such as power and water distribution pipes and sewer lines to avoid hazard areas and utilize valves and switches to mitigate hazards when no routing alternatives are feasible.

Action 5.B.1.c. Consistent with government code 66474.2, avoid intensive development outside existing fire protection districts, unless an appropriate fire protection entity is established as a condition of project approval.

Policy 5.B.2. Maintain, update and integrate hazard planning documents.

Action 5.B.2.a. Update and work to integrate the Safety Element, Multi-Jurisdictional Local Hazard Mitigation Plan, Emergency Operations Plans,

Airport Land Use Compatibility Plans, Community Wildfire Protection and other fire plans, and any other safety documents on a regular basis.

Action 5.B.2.b. Work with local fire protection districts, law enforcement, land management agencies, and Cal Fire to pursue funding and update and integrate planning documents.

Policy 5.B.3. Utilize Local Agency Formation Commission (LAFCO) municipal service reviews to evaluate existing emergency service providers and to identify needed improvements.

Action 5.B.3.a. Map existing emergency service facilities and areas lacking service, analyze which areas in identified hazard zones are missing adequate emergency services and integrate into applicable safety plans.

Objective 5.C.

Inform the public as to the nature and extent of natural hazards in Mono County.

Policy 5.C.1. Inform affected persons during the County permit process and during the transfer of property of potential seismic, geologic, volcanic, fire, flood, avalanche, and other natural hazards in the area.

Action 5.C.1.a. Prior to issuing planning or building permits in hazardous areas, refer the applicant to this Element, and support documents and studies on file in the county Planning Division for further information concerning potential hazards. In order to ensure that the applicant has been notified of potential hazards, the applicant may be required to sign a statement recognizing that potential hazards exist in the area.

Action 5.C.1.b. In accordance with State law, sellers of property will notify buyer/transferees of all potential hazards affecting subject property, including but not limited to, geologic, seismic, fire, flood, and avalanche.

Policy 5.C.2. Work cooperatively with other public agencies in the area to develop a public awareness program to inform residents and visitors of natural hazards in the county and emergency response procedures.

Action 5.C.1.a. In accordance with procedures adopted by the county Office of Emergency Services, provide notification to residents and visitors during emergencies and elevated hazard periods.

Objective 5.D.

Provide for safe ingress and egress of emergency vehicles/equipment and evacuation of populations

Policy 5.D.1. Assess and pursue primary and secondary access improvements for all community areas for emergency purposes.

Action 5.D.1.a. Review development proposals to ensure the provision of primary and secondary access.

Action 5.D.1.b. Refer applications for planning and building permits to Cal Fire and local fire protection districts for review and comment regarding, emergency-access considerations.

Action 5.D.1.c. The Department of Public Works shall continue to review the adequacy of primary and secondary access for development projects on a case-by-case basis.

Action 5.D.1.d. Delineate community evacuation routes and plans for areas with high or very-high fire hazard residential areas, flood areas, avalanches influence areas, etc.

Action 5.D.1.e. Work with federal land management agencies to ensure adequate access to high-hazard wildland areas, particularly adjacent to communities, for fire suppression activities and public evacuation.

Policy 5.D.2. All projects using hazardous materials or generating hazardous waste shall conform to the requirements of the county's Integrated Waste Management Plan for transportation, storage, and disposal.

Policy 5.D.3. Transportation, storage, and use of explosive materials shall comply with applicable county, state, and federal permit requirements.

Objective 5.E.

Work with local, state, and federal agencies and organizations to provide an integrated approach to emergency response, including search-and-rescue operations, in Mono County for all hazards.

Policy 5.E.1. Implement and update as needed the Mono County Emergency Operations Plan, Mono County Multi-Jurisdictional Local Hazard Mitigation Plan, and the Mono County Community Wildfire Preparedness Plan.

Action 5.E.1.a. Periodically review emergency response plans during the General Plan review process.

Policy 5.E.2. Work toward implementing a standardized emergency management system for responding to large-scale situations requiring multi-agency response.

Action 5.E.2.a. Review mutual aid agreements with adjoining emergency service providers to ensure a coordinated approach to emergency services.

DEVELOPMENT STANDARDS

CHAPTER 22 – FIRE SAFE REGULATION

Sections:

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22.010 Purpose.

Mono County is rural in nature, primarily consisting of mountainous and high-desert terrain. The communities and inhabited portions of the unincorporated area of Mono County are generally located within, or in close proximity to, mountainous areas, forest-covered land, brush-covered lands, grass-covered lands, and similar lands that are subject to wildfires. In order to minimize the threat of wildfire spreading to occupied structures, and to supplement the educational and enforcement activities of Cal Fire, local educational efforts, and enforcement of, defensible space requirements are reasonable and necessary and will benefit the public health and safety.

22.020 Intent.

These fire safe regulations are intended to provide the same practical effect as the State Responsibility Area Fire Safe Regulations, Public Resources Code Section 4290, Title 14 of the California Code of Regulations (CCR) and roofing requirements as specified in Government Code Sections 51178.5 and 51189 and Health and Safety Code Sections 13108.5 and 13132.7. The regulations establish basic wildland fire protection standards in the State Responsibility Areas of Mono County for emergency access; signing and building numbering; private water supply reserves for fire use; roof covering standards; and vegetation modification.

22.030 Scope.

These regulations do not apply to existing structures (except as specified in Sections 22.130 and 22.140), roads, streets and private lanes or facilities. These regulations shall apply as appropriate to all construction within State Responsibility Areas approved after October 1, 1991. Affected activities include but are not limited to:

- A. Permitting or approval of new parcels, excluding lot line adjustments as specified in Government Code (GC) Section 66412(d);

- B. Application for a building permit for new construction, not relating to an existing structure (except as specified in Section 22.140 Roof Covering Standards);
- C. Application for a Use Permit;
- D. The siting of manufactured homes (manufactured homes are as defined by the National Fire Protection Association, National Fire Code, Section 501A, Standard for Fire Safety Criteria for Manufactured Home installations, Sites and Communities, Chapter 1, Section 1-2, Definitions, page 4, 1987 edition and Health and Safety Code Sections 18007, 18008, and 19971); and
- E. Road construction, including construction of a road that does not currently exist, or extension of an existing road.

Exemption: Roads required as a condition of tentative parcel maps prior to the effective date of these regulations; roads for agricultural or mining use solely on one ownership; and roads used solely for the management and harvesting of wood products.

22.040 Provisions for Application of these Regulations.

This chapter shall be applied as follows:

- A. Mono County shall provide Cal Fire with notice of applications for building permits, tentative parcel maps, and use permits for construction or development within State Responsibility Areas;
- B. The Battalion Chief of Cal Fire, or his designee, shall review and make fire protection recommendations on applicable construction or development permits or maps provided by Mono County; and
- C. The applicable sections of this chapter shall become a condition of approval of any applicable construction or development permit or map. Applicants should also consult with the applicable local Fire Protection District for possible additional requirements.

22.050 Inspection Authority.

- A. Inspection shall be made pursuant to Section 1270.06 of the California Code of Regulations by the Battalion Chief of Cal Fire. Applicable fire districts or Mono County departments may provide inspection assistance through the building or development permit process.
- B. Reports of violations shall be provided to the Cal Fire Battalion Chief, who administers State Responsibility Area fire protection for Mono County.

22.060 Inspections.

The inspection authority may inspect for compliance with these regulations. When inspections are conducted, they should occur prior to: the issuance of the use permit; certificate of occupancy; the recordation of the parcel map or final map; the filing of a notice of completion; or the final inspection of any project or building permit.

22.070 Exceptions to Standards.

Upon request by the applicant, exceptions to standards within this chapter and mitigated practices may be allowed by the inspection authority, where the exception provides equal to or better than overall practical effect as these regulations toward providing defensible space.

22.080 Requests for Exceptions.

Requests for an exception shall be made in writing to the inspection authority by the applicant or the applicant's authorized representative. The request shall state the specific section(s) for which an exception is requested, material facts supporting the contention of the applicant, the details of the exception or mitigation measure proposed, and a map showing the proposed location and siting of the exception or mitigation measure.

22.090 Appeals.

Where an exception is not granted by the inspection authority, the applicant may appeal such denial to the Mono County Planning Commission in accordance with Chapter 47, Appeals. Prior to the appeal hearing, the inspection authority shall be consulted and shall provide to the Planning Commission documentation outlining the effects of the requested exception on wildland fire protection.

If an appeal is granted, the Planning Commission shall make findings that the decision meets the intent of providing defensible space consistent with these regulations. Such findings shall include a statement of reasons for the decision. A written copy of these findings shall be provided to Cal Fire Ranger Unit headquarters that administers State Responsibility Area fire protection in Mono County.

22.091 Definitions.

"Accessory building" means any building used as an accessory to residential, commercial, recreational, industrial, or educational purposes as defined in the California Building Code, 1989 Amendments, Chapter 11, Group M, Division 1, Occupancy that requires a building permit.

"Agriculture" means land used for agricultural purposes as defined in land use designations of the Mono County General Plan Land Use Element.

"Building" means any structure used or intended for supporting or sheltering any use or occupancy that is defined in the California Building Code. For the purposes of this chapter, building includes mobile homes and manufactured homes, churches, and day care facilities.

"Cal Fire" is the former California Department of Forestry and Fire Protection.

"Dead-end road" means a road that has only one point of vehicular ingress/egress, including cul-de-sacs and looped roads.

"Defensible space" means the area within the perimeter of a parcel, development, neighborhood or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching wildfire or defense against encroaching wildfires or escaping structure fires. The perimeter as used in this regulation is the area encompassing the parcel or parcels proposed for construction and/or development, excluding the physical structure itself. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, street names and building identification, and fuel modification measures.

"Development" means as defined in Section 66418.1 of the California Government Code.

"Battalion Chief" replaces the director of the former California Department of Forestry and Fire Protection or his/her designee.

"Driveway" means a vehicular access that serves no more than two buildings, with no more than three dwelling units on a single parcel, and any number of accessory buildings.

"Dwelling unit" means any building or portion thereof that contains living facilities, including provisions for sleeping, eating, cooking and/or sanitation for not more than one family.

"Exception" means an alternative to the specified standard requested by the applicant that may be necessary due to health, safety, environmental conditions, physical site limitations or other limiting conditions such as recorded historical sites, that provides mitigation of the problem.

"Firebreak" shall mean an area of land within 30 feet of an occupied dwelling or structure or to the property line, whichever is closer, in which all flammable vegetation or other combustible growth has been removed. The creation of a firebreak shall not require removal of single specimens of trees or other vegetation that is well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to any dwelling or structure.

"Fire valve" see hydrant.

"Fuel modification area" means an area where the volume of flammable vegetation has been reduced, providing reduces fire intensity and duration.

"Greenbelts" means a facility or land use, designed for other than fire protection, that will slow or resist the spread of a wildfire. Includes parking lots, irrigated or landscaped areas, golf courses, parks, playgrounds, maintained vineyards, orchards or annual crops that do not cure in the field.

"Hammerhead/T" means a roadway that provides a "T" shaped, three-point turnaround space for emergency equipment, being no narrower than the road that serves it.

"Hydrant" means a valved connection on a water supply/storage system, having at least one 2-1/2 inch outlet, with male American National Fire Hose Screw Threads (NH) used to supply fire apparatus and hoses with water.

"Local Jurisdiction" means a County/Town agency or department that issues or approves building permits, use permits, tentative maps or tentative parcel maps, or has authority to regulate development and construction activity.

"Occupancy" means the purpose for which a building, or part thereof, is used or intended to be used.

"One-way road" means a minimum of one traffic lane width designed for traffic flow in one direction only.

"Roads, streets, private lanes" means vehicular access to more than one parcel; access to any industrial or commercial occupancy; or vehicular access to a single parcel with more than two buildings or four or more dwelling units.

"Roadway" means any surface designed, improved, or ordinarily used for vehicle travel.

"Roadway structures" means bridges, culverts, and other appurtenance structures that supplement the roadway bed or shoulders.

"Reduced-Fuel Zone" shall mean an area between 30 and 100 feet of an occupied dwelling or occupied structure or to the property line, whichever is closer, in which all brush, flammable vegetation or combustible growth has been removed. The creation of a reduced-fuel zone shall not require the removal of single specimens of trees or other vegetation that is well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a dwelling or structure. Grass and other vegetation located more than 30 feet from the dwelling or structure and less than

18 inches in height above the ground may be maintained where necessary to stabilize the soil and prevent erosion.

"Same Practical Effect" as used in this chapter means an exception or alternative with the capability of applying accepted wildland fire suppression strategies and tactics, and provisions for firefighter safety, including:

1. Access for emergency wildland fire equipment;
2. Safe civilian evacuation;
3. Signing that avoids delays in emergency equipment response;
4. Available and accessible water to effectively attack wildfire or defend a structure from wildfire; and
5. Fuel modification sufficient for civilian and firefighter safety.

"Shoulder" means roadbed or surface adjacent to the traffic lane.

"State Board of Forestry (SBOF)" means a nine-member board, appointed by the Governor, which is responsible for developing the general forest policy of the state, determining the guidance policies of Cal Fire, and representing the State's interest in federal land in California.

"State Responsibility Area (SRA)" means as defined in Public Resources Code Section 4126-4127: and the California Code of Regulations, Title 14, Division 1.5, Chapter 7, Article 1, Sections 1220-1220.5.

"Structure" means that that is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

"Subdivision" means as defined in Section 66444 of the Government Code.

"Traffic lane" means the portion of a roadway that provides a single line of vehicle travel.

"Turnaround" means a roadway unobstructed by parking that allows for a safe opposite change of direction for emergency equipment. Design of such area may be a hammerhead/T or terminus bulb.

"Turnout" means a widening in a roadway to allow vehicles to pass.

"Vertical clearance" means the minimum specified height of a bridge or overhead projection above the roadway.

"Wildfire" is as defined in Public Resources Code Sections 4103 and 4104.

22.092. Distance Measurements.

All specified or referenced distances are measured along the ground, unless otherwise stated.

22.100. Maintenance of Defensible Space Measures.

To ensure continued maintenance of properties in conformance to these standards and measures and to assure continued availability, access, and utilization of the defensible space provided for in these standards during a wildfire, provisions for annual maintenance shall be included in the development plans, and/or shall be provided as a condition of the permit, parcel or map approval.

22.110 Emergency Access.

Road and street networks, whether public or private, unless exempted under Section 22.020(e), shall provide for safe access for emergency wildland fire equipment and civilian evacuation concurrently, and shall provide unobstructed traffic circulation during a wildfire emergency consistent with this section.

A. Road Width.

All roads shall be constructed to provide a minimum of two 10-foot traffic lanes, not including shoulder and striping. These traffic lanes shall provide for two-way traffic flow to support emergency vehicle and civilian egress, unless other standards are provided in this chapter, or additional requirements are mandated by local jurisdictions or County subdivision requirements.

B. Roadway Surface.

Roadways shall be designed and maintained to support the imposed load of fire apparatus weighing at least 75,000 pounds and provide an aggregate base. Project proponent shall provide engineering specifications to support design, if requested by the local authority having jurisdiction.

C. Roadway Grades.

The grade for all roads, streets, private lanes and driveways shall not exceed 16%.

D. Roadway Radius.

1. No roadway shall have a horizontal inside radius of curvature of less than 50 feet and additional surface width of 4 feet shall be added to curves of 50- to 100-foot radius; 2 feet to those from 100-200 feet.
2. The length of vertical curves in roadways, exclusive of gutters, ditches, and drainage structures designed to hold or divert water, shall be not less than 100 feet.

E. Roadway Turnarounds.

Turnarounds are required on driveways and dead-end roads. The minimum turning radius for a turnaround shall be 40 feet, not including parking. If a hammerhead/T is used instead, the top of the "T" shall be a minimum of 60 feet in length.

F. Roadway Turnouts.

Turnouts shall be a minimum of 12 feet wide and 30 feet long with a minimum 25-foot taper on each end.

G. Roadway Structures.

1. All driveway, road, street, and private lane roadway structures shall be constructed to carry at least the maximum load and provide the minimum vertical clearance as required by Vehicle Code Sections 35550, 35750, and 35250.
2. Appropriate signing, including but not limited to weight or vertical clearance limitations, one-way road or single lane conditions, shall reflect the capability of each bridge.
3. Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with the American Association of State and Highway Transportation Officials Standard Specifications for Highway Bridges, 17th Edition, published 2002 (known as AASHTO HB-17) hereby incorporated by reference. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the local authority having

jurisdiction. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces that are not designed for such use, barriers or signs, or both, as approved by the local authority having jurisdiction, shall be installed and maintained. A bridge with only one traffic lane may be authorized by the local jurisdiction; however, it shall provide for unobstructed visibility from one end to the other and turnouts at both ends.

H. One-Way Roads.

All one-way roads shall be constructed to provide a minimum, not including shoulders of one 12-foot traffic lane. The County/Town may approve one-way roads. All one-way roads shall connect to a two-lane roadway at both ends, and shall provide access to an area currently designated for no more than 10 dwelling units. In no case shall it exceed 2,640 feet in length. A turnout shall be placed and constructed at approximately the midpoint of each one-way road.

I. Dead-End Roads.

1. The maximum length of a dead-end road, including all dead-end roads accessed from that dead-end road, shall not exceed the following cumulative lengths, regardless of the number of parcels served:

- a. parcels designated for less than one acre 800 feet;
- b. parcels designated for one acre to 4.99 acres 1,320 feet;
- c. parcels designated for five acres to 19.99 acres 2,640 feet; and
- d. parcels designated for 20 acres or larger 5,280 feet.

All lengths shall be measured from the edge of the roadway surface at the intersection that begins the road to the end of the road surface at its farthest point. Where a dead-end road crosses areas of differing parcel sizes, requiring different length limits, the shortest allowable length shall apply.

- 2. Where parcels are designated five acres or larger, turnarounds shall be provided at a maximum of 1,320-foot intervals.
- 3. Each dead-end road shall have a turnaround constructed at its terminus.

J. Driveways.

All driveways shall be constructed to provide a minimum of one 10-foot traffic lane.

- 1. Driveways exceeding 150 feet in length, but less than 800 feet in length, shall provide a turnout near the midpoint of the driveway. Where the driveway exceeds 800 feet, turnouts shall be provided no more than 400 feet apart.
- 2. A turnaround shall be provided at all building sites on driveways over 300 feet in length, and shall be within 50 feet of the building.

K. Gate Entrances.

- 1. Gate entrances shall be at least 2 feet wider than the width of the traffic lane(s) serving that gate and a minimum of 14 feet unobstructed horizontal clearance and vertical clearance of 15 feet..

2. All gates providing access from a road to a driveway shall be located at least 30 feet from the roadway and shall open to allow a vehicle to stop without obstructing traffic on that road.
3. Security gates shall not be installed without approval and where security gates are installed, they shall have an approved means of emergency operation. Approval shall be by the local authority having jurisdiction. The security gates and the emergency operation shall be maintained operational at all times.
4. Where a one-way road with a single traffic lane provides access to a gated entrance, a 40-foot turning radius shall be used.

22.120 Signing and Building Numbering.

To facilitate locating a fire and to avoid delays in response, all new and existing or approved roads, streets, and buildings shall be designated by names or numbers, posted on signs clearly visible in a position that is plainly legible and visible from the street or road fronting the property and legible from the roadway. This section shall not restrict the size of letters or numbers appearing on street signs for other purposes.

- A. Streets and roads shall be identified with approved signs.
Temporary signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles. Signs shall be of an approved size, weather resistant and be maintained until replaced by permanent signs.
- B. Size of Letters, Numbers and Symbols for Street and Road Signs.
Size of letters, numbers, and symbols for street and road signs shall be a minimum of 4-inch letter height, 1/2-inch stroke, reflectorized, contrasting with the background color of the sign.
- C. Visibility and Legibility of Street and Road Signs.
Road, street and private lane signs required by this chapter shall be installed prior to final acceptance by the County/Town of road improvements.
- D. Addresses for Buildings.
All buildings shall be issued an address by the County/Town that conforms to the County/Town overall address system. Accessory buildings will not be required to have a separate address; however, each dwelling unit within a building shall be separately identified.
- E. Size of Letters, Numbers and Symbols for Addresses.
Size of letters, numbers and symbols for addresses shall be a minimum 4-inch letter height, 1/2-inch stroke, reflectorized, contrasting with the background color of the sign. Address numbers shall be Arabic numerals or alphabet letters. Address identification shall be plainly legible and visible from the street or road fronting the property. Addresses shall be Arabic numbers or alphabetical letters. Where access is by means of a private road and the address identification cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the address.
- F. Installation, Location and Visibility of Addresses.
 1. All buildings shall have a permanently posted address, which shall be placed at each driveway entrance and visible from both directions of travel along the road. In all cases, the address shall be posted at the beginning of construction and shall be maintained thereafter, and the address shall be visible and legible from the road on which the address is located fronting the property.

2. Address signs along one-way roads shall be visible from both the intended direction of travel and opposite direction.
3. Where multiple addresses are required at a single driveway, they shall be mounted on a single post.
4. Where a roadway provides access solely to a single commercial or industrial business, the address sign shall be placed at the nearest intersection providing access to that site.

G. Numbering standards herein are minimum and may be greater as approved by the Mono County Building Division for buildings or Public Works Department for streets and roadways.

22.130 Emergency Water Standards.

Emergency water for wildfire protection shall be available, accessible and maintained in quantities and locations specified in the statute and these regulations, in order to attack a wildfire or defend property from a wildfire

A. Application.

The provisions of this article shall apply in the tentative and parcel map process when new parcels are approved by the local jurisdiction having authority. or when any existing parcel is developed within the Long Valley or Wheeler Crest fire protection districts regardless when the parcel was created. When a water supply for structure defense is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when alternative methods of protection are provided and approved by the local authority having jurisdiction.

For the purposes of this section, “developed” shall not apply to accessory buildings for, or additions to, existing residential structures.

B. General Standards.

Water systems that comply with the below standard or standards meet or exceed the intent of these regulations. Water systems equaling or exceeding the National Fire Protection Association (NFPA) 1142, “Standard on Water Supplies for Suburban and Rural Fire Fighting” 2012 Edition hereby incorporated by reference, and California Fire Code, California Code of Regulations Title 24, part 9 shall be accepted as meeting the requirements of this article.

Such emergency water may be provided in a fire agency mobile water tender, or naturally occurring or man-made containment structure, as long as the specified quantity is immediately available.

Nothing in this article prohibits the combined storage of emergency wildfire and structural firefighting water supplies unless so prohibited by local ordinance or specified by the local fire agency.

Where freeze protection is required by local jurisdictions having authority, such protection measures shall be provided.

C. Hydrant/Fire Valve.

1. The hydrant or fire valve shall be 18 inches above grade, 8 feet from flammable vegetation, no closer than 4 feet nor farther than 12 feet from a roadway, and in a location where fire apparatus using it will not block the roadway.

The hydrant or other off-site fire department connection serving any building shall be:

a. Not less than 50 feet nor more than ½-mile by road from the building it is to serve. In the Long Valley and Wheeler Crest fire protection districts, the distance shall be not less than 50 feet or more than 1,000 feet by road from the building it is to serve.

b. Located at a turnout or turnaround along the driveway to that building or along the road that intersects that driveway.

2. The hydrant head or fire valve shall be 2-1/2 inch National Hose male thread with cap for pressure and gravity flow systems and 4-1/2-inch draft systems. Such hydrants shall be wet or dry barrel as required by the delivery system. They shall have suitable crash protection as required by the local jurisdiction.

D. Signing of Water Sources.

Each hydrant/fire valve or access to water shall be identified as follows:

1. If located along a driveway, a reflectorized blue marker, with a minimum dimension of 3 inches shall be located on the driveway address sign and mounted on a fire-retardant post, or

2. If located along a street or road,

a. A reflectorized blue marker, with a minimum dimension of 3 inches, shall be mounted on a fire-retardant post. The sign post shall be within 3 feet of said hydrant/fire valve, with the sign no less than three feet nor greater than 5 feet above ground, in a horizontal position and visible from the driveway, or

b. As specified in the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

E. Maintenance.

Ongoing maintenance of required water supply(s) shall be the responsibility of the property owner.

22.140 Roof Covering Standards

A. Class A roof covering(s) as defined in the California Building Code shall apply for every new building(s) and all reroofing of existing building(s) and shall be verified by field inspection.

1. The installer of the roof covering shall provide certification of the roof covering classification to the building owner and, when requested, to the Mono County Building Division. The installer shall also install the roof covering in accordance with the manufacturer's listing.

2. The roofing material shall have passed a minimum 10-year accelerated weather test approved by a testing laboratory recognized by the State Fire Marshal.

3. This section shall not apply to any building or facility designated as an historic building, as defined in Section 18955.

22.150 Defensible Space and Fire Hazards Reduction.

A. Requirements

1. Property shall be maintained in accordance with the defensible space requirements contained in Government Code section 51182 (unless exempted by Government Code section 51183 or 51184) and Public Resources Code section 4291, as applicable.

2. The existence or maintenance of any of the following conditions is prohibited:
 - a. Tree branches within 10 feet of a chimney outlet or stovepipe outlet;
 - b. Dead or dying tree branches adjacent to or overhanging a building;
 - c. Leaves, needles, or other dead vegetative growth on the roof of any structure;
 - d. Flammable vegetation or other combustible growth within 30 feet of an occupied dwelling or structure that prevents the creation of a firebreak;
 - e. Brush, flammable vegetation, or combustible vegetation located between 30 and 100 feet of an occupied dwelling or structure that prevents the creation of a Reduced Fuel Zone; or
 - f. Brush or other flammable material within 10 feet of a propane tank.

B. Clearance/Treatment.

Driveways shall have a minimum width of 7 feet unobstructed horizontal clearance from the centerline of the road, for a total of 14 feet, and unobstructed vertical clearance of 15 feet. In addition to the unobstructed horizontal clearance, a driveway fuel modification area of an additional 8 feet or to the property line, whichever comes first, along each side of the driveway shall be established. The driveway fuel modification area is required from the point at which the driveway intersects the road to the driveway's intersection with the defensible space of the structure. Treatment in the driveway fuel modification area shall be implemented in accordance with the requirements for Zone 2 pursuant to 14 CCR 1299.03. The driveway fuel modification area shall also apply to turnouts and turnarounds associated with driveways.

3. No person shall be required to maintain any clearing on any land if that person does not have the legal right to maintain the clearing, nor is any person required to enter upon or damage property that is owned by another person without the consent of that person.
4. The prohibitions contained in paragraph 3 shall not apply to land or water area located outside a State Responsibility Area that are acquired or managed for one or more of the following purposes or uses:
 - a. Habitat for endangered or threatened species, or any species that is a candidate for listing as an endangered or threatened species by the state or federal government;
 - b. Lands kept in a predominantly natural state as habitat for wildlife, plant, or animal communities;
 - c. Open-space lands that are environmentally sensitive parklands; and
 - d. Other lands having scenic values, as declared by the local agency or by state or federal law.

B. Local Enforcement.

1. Any County personnel performing health and safety functions, including but not limited to, paramedics, building inspectors, and code compliance officers, may be trained and assigned to conduct general property inspections to determine compliance with the provisions of 22.150, provide educational materials and instruction concerning defensible space requirements to owners and occupiers of structures, and to issue correction notices to owners and occupiers of structures

to gain compliance with the provisions of 22.150. Any duly designated person assigned by a local Fire Protection District may be trained and assigned to conduct general property inspections to determine compliance with the provisions of 22.150, provide educational materials and instruction concerning defensible space requirements to owners and occupiers of structures, and to issue correction notices to owners and occupiers of structures to gain compliance with the provisions of 22.150.

2. If an owner or occupier of a structure fails to comply with a correction notice issued to them, the person or entity that issued the correction notice may follow up the correction notice with a second correction notice that shall include a warning that the failure to make the necessary corrections may result in enforcement action pursuant to Chapter 1.12 of the Mono County Code or any other enforcement action or remedy allowed by law.
3. Mono County Code Compliance Officers may take any necessary enforcement action upon receipt of a second correction notice. The proposed enforcement action shall take into consideration the degree of the danger posed by the lack of compliance with the defensible-space requirements.
4. Forms may be created for use by County personnel and Fire Protection District personnel in implementing this section.
5. The provisions in this section are intended solely to supplement, and not supersede, replace, or modify the enforcement provisions set forth in Public Resource Code Section 4291.

C. Applicability.

1. Defensible space requirements shall apply to existing structures and shall be required for the following applications for which approval has not been granted as of the effective date of this chapter:
 - a. Applications for building permits as provided in Mono County Code Chapter 15.04;
 - b. Applications for tentative subdivision final and parcel maps; and
 - c. Applications for use permits when applicable.

D. Exceptions and Modifications.

1. An exception to, or modification of, the regulations set forth 22.150 may be authorized whenever a finding is made by [the Community Development director] that the exception or modification provides an overall practical effect of creating defensible space and/or where site-specific conditions, including previously required development mitigation conditions to preserve wildlife or botanical habitat preservation have been required. When considering such site-specific exemptions or modifications, the Community Development director may consult with experts in the fields of wildfire protection and wildlife and botanical habitat preservation in reaching an appropriate level of modification. When an exception is requested for a site that is located within an established community, the Community Development director may consult with the designated representative of the local Fire Protection District in determining the requested exception or modification.