

BOARD OF FORESTRY AND FIRE PROTECTION

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To: Resource Protection Committee

From: Edith Hannigan, Analyst

Date: October 26, 2016

Re: Tulare County Safety Element Assessment

Attached is the Tulare County Safety Element and Assessment for your review at the Resource Protection Committee Meeting on November 1, 2016. In addition, a link to the County's full General Plan and Local Hazard Mitigation Plan can be found below:

<http://generalplan.co.tulare.ca.us/index.asp>

<http://tularecounty.ca.gov/oes/index.cfm/linkservid/6C690A67-1893-493E-A5467D6CAC8BDDE5/showMeta/0/>

Thank you.

Tulare County

CAL FIRE Land Use Planning

General Plan Safety Element Assessment Tier 1

October 26, 2016

Board of Forestry and Fire Protection



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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.

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

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

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

- Variations in population and population density; or
- Changes in proportion of land designated VHFHSZ (lower or higher); or
- Firefighting capabilities (paid, volunteer, equipment, etc) and contract changes; or

- Past planning efforts and involvement of organizations such as local Fire Safe Councils and new initiatives or efforts that have emerged over time; or
- Changes to the context of VHFHSZ within the region – does the VHFHSZ in a jurisdiction combine with neighboring fuels to create a continual pattern of very high fire risk in a way that it hadn't previously?

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

Counties (alphabetical)

Alameda	Glenn	Monterey	San Diego	Solano
Alpine	Humboldt	Napa	San Joaquin	Sonoma
Amador	Kern	Nevada	San Luis Obispo	Stanislaus
Butte	Lake	Orange	San Mateo	Tehama
Calaveras	Lassen	Placer	Santa Barbara	Trinity
Alameda	Los Angeles	Plumas	Santa Clara	Tulare
Alpine	Madera	Riverside	Santa Cruz	Tuolumne
Contra Costa	Marin	Sacramento	Shasta	Ventura
Del Norte	Mariposa	San Benito	Sierra	Yolo
El Dorado	Mendocino	San Bernardino	Siskiyou	Yuba
Fresno				

Cities (alphabetical by county)

Alameda	Los Angeles con't	Napa	Riverside con't	San Mateo
Oakland	Glendale	Calistoga	Lake Elsinore	Hillsborough
Butte	Glendora	Nevada	Murrieta	San Carlos
Paradise	Hidden Hills	Calistoga	San Bernardino	Woodside
Contra Costa	Irwindale	Grass Valley	Big Bear Lake	Santa Barbara
El Cerrito	La Canada Flintridge	Nevada City	Colton	Santa Barbara
Lafayette	La Habra Heights	Truckee	Grand Terrace	Santa Clara
Orinda	La Verne	Orange	Highland	Los Gatos
Richmond	Los Angeles	Aliso Viejo	Loma Linda	Monte Sereno
El Dorado	Malibu	Anaheim	Rancho Cucamonga	Saratoga
Placerville	Monrovia	Brea	Redlands	Shasta
South Lake Tahoe	Palmdale	Laguna Beach	San Bernardino	Redding
Lake	Palos Verdes Estates	Laguna Niguel	Yucaipa	Shasta Lake
Clearlake	Pasadena	Lake Forest	San Diego	Siskiyou
Los Angeles	Rancho Palos Verdes	Newport Beach	Encinitas	Dunsmuir
Agoura Hills	Rolling Hills	Rancho Santa Margarita	Escondido	Fort Jones
Avalon	Rolling Hills Estates	San Clemente	Poway	Mount Shasta
Azusa	San Dimas	Yorba Linda	San Diego	Weed
Beverly Hills	Santa Clarita	Placer	San Marcos	Tuolumne
Bradbury	Sierra Madre	Colfax	Santee	Sonoma
Burbank	Westlake Village	Plumas	San Luis Obispo	Ventura
Calabasas	Whittier	Portola	Atascadero	Moorpark
Claremont	Marin	Riverside	Pismo Beach	Ojai
Diamond Bar	Mill Valley	Banning	San Mateo	Simi Valley
Duarte	Monterey	Beaumont	Belmont	Thousand Oaks
	Carmel	Calimesa	Half Moon Bay	

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 1 General Plan Safety Element Recommendations

Jurisdiction: Tulare County	Notes:	CAL FIRE Unit: Tulare	Date Received:
County: Tulare County	LUPP Reviewer: Kevin Lindo	Unit Contact: David Shy	Date Reviewed: 09/06/2016

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 Wildfire Protection Planning

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

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

Priority: High Medium Low N/A

Recommendation: Ensure fire plans incorporated by reference into the General Plan contain evaluations of fire hazards, assessment of assets at risk, prioritization of hazard mitigation actions, and implementation and monitoring components.

Priority: High Medium Low N/A

2.0 Land Use Planning:

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

Recommendation: Establish goals and policies for specific ordinances addressing evacuation and emergency vehicle access; water supplies and fire flow; fuel modification for defensible space; and home addressing and signing.

Priority: High Medium Low N/A

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

Priority: High Medium Low N/A

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

Priority: High Medium Low N/A

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

Priority: High Medium Low N/A

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

Priority: High Medium Low N/A

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

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

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

Priority: High Medium Low N/A

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

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

Priority: High Medium Low N/A

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

Priority: High Medium Low N/A

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

Recommendation: Develop a policy that approval of parcel maps is conditional based on

meeting zoning requirements and fire safe development codes.

Priority: High Medium Low N/A

3.0 **Housing/Structures and Neighborhoods:**

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

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

Priority: High Medium Low N/A

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

Recommendation: Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in VHFHSZ or SRA by fire hazard zone designation.

Priority: High Medium Low N/A

Recommendation: Identify plans and actions to improve substandard housing structures and neighborhoods. Plans and actions should include structural rehabilitation, occupancy reduction, demolition, reconstruction, neighborhood –wide fuels hazard reduction projects, community education, and other community based solutions.

Priority: High Medium Low N/A

Recommendation: Identify plans and actions for existing residential structures and neighborhoods, and particularly substandard residential structures and neighborhoods, to be improved to meet current fire safe ordinances pertaining to access, water flow, signing, and vegetation clearing.

Priority: High Medium Low N/A

3.3 Consideration of diverse occupancies and their effects on wildfire protection.

Yes Partial No

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

Priority: High Medium Low N/A

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

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

Priority: High Medium Low N/A

4.0 **Conservation and Open Space:**

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

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

Priority: High Medium Low N/A

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

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

Priority: High Medium Low N/A

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

Priority: High Medium Low N/A

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

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

Priority: High Medium Low N/A

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

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

Priority: High Medium Low N/A

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

Priority: High Medium Low N/A

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

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

Priority: High Medium Low N/A

5.0 Circulation and Access:

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

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

Priority: High Medium Low N/A

5.2 Standards for evacuation of residential areas in high hazard areas. Yes Partial No

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

Priority: High Medium Low N/A

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

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

Priority: High Medium Low N/A

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

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

Priority: High Medium Low N/A

6.0 Defensible Space

6.1 Develop geographic specific fire risk reduction mitigation measures using fuel modification. Yes Partial No

Recommendation: Include policies and recommendations that incorporate fire safe buffers and

greenbelts as part of the development planning. Ensure that land uses designated near very fire hazard severity zones are compatible with wildland fire protection strategies/capabilities.

Priority: High Medium Low N/A

6.2 Fuel modification around homes. Yes Partial No

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

See http://www.bof.fire.ca.gov/pdfs/Copyof4291finalguidelines9_29_06.pdf

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

6.3 Fire suppression defense zones. Yes Partial No

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

Priority: High Medium Low N/A

7.0 Emergency Services:

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

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

Priority: High Medium Low N/A

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

Priority: High Medium Low N/A

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

Recommendation: Ensure new development includes appropriate facilities, equipment,

personnel and capacity to assist and support wildfire suppression emergency service needs. Future emergency service needs should be:

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

Priority: High Medium Low N/A

7.3 Adequacy of training. Yes Partial No

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

Priority: High Medium Low N/A

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

Recommendation: Adopt the Standardized Emergency Management System 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

8.0 **Post Fire Safety, Recovery and Maintenance:**

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

8.1 Evaluation of redevelopment. Yes Partial No

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

Priority: High Medium Low N/A

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

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

Priority: High Medium Low N/A

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

Recommendation: Incorporate goals and policies that provide for reassessment of fire hazards following wildfire events. Adjust fire prevention and suppression needs for both short and long term fire protection.

Priority: High Medium Low N/A

Recommendation: Develop burn area recovery plans that incorporate strategic fire safe measures developed during the fire suppression, such as access roads, fire lines, safety zones, and fuelbreaks, and helispots.

Priority: High Medium Low N/A

8.4 Post fire life and safety assessments. Yes Partial No

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

Priority: High Medium Low N/A

Recommendation: Identify flood and landslide vulnerability areas related to post wildfire conditions.

Priority: High Medium Low N/A

Recommendation: Establish goals and policies that address the intersection of flood /landslide/post fire burn areas into long term public safety protection plans. These should include treatment assessment of fire related flood risk to life, methods to control storm runoff in burn areas, revegetation of burn areas, and drainage crossing maintenance.

Priority: High Medium Low N/A

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

Priority: High Medium Low N/A

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

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

Priority: High Medium Low N/A

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

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

Priority: High Medium Low N/A

8.7 Native species reintroduction. Yes Partial No

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

Priority: High Medium Low N/A

9.0 Terrorist and homeland security impacts on wildfire protection:

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

9.1 Emergency response barriers. Yes Partial No

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

Priority: High Medium Low N/A

9.2 Prioritizing asset protection from fire when faced with a lack of suppression forces.

Yes Partial No

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

Priority: High Medium Low N/A

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

9.3 Communication channels during incidents. Yes Partial No

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

Priority: High Medium Low N/A

Additional Terrorist and Homeland Security Recommendations:

9.0 – Tulare County's Local Hazard Mitigation Plan gives awareness to this topic however I recommend showing mitigating factors or reference where this information can be found.

Additional Recommendations:

Tulare County is planning to apply the recommendations that have been made into their Local Hazard Mitigation Plan.



10. Health and Safety

The Health and Safety Element is divided into the following sections:

- General (Section 10.1)
- Geologic and Seismic Hazards (Section 10.2)
- Airport Hazards (Section 10.3)
- Hazardous Materials (Section 10.4)
- Flood Hazards (Section 10.5)
- Urban and Wildland Fire Hazards (Section 10.6)
- Emergency Response (Section 10.7)
- Noise (Section 10.8)
- Healthy Communities (Section 10.9)
- Work Plan/Implementation Measures (Section 10.10)

Key Terms

The following terms are used throughout this Element to describe health and safety issues:

“A” Weighted Sound Level. Means a sound level in decibels as measured with a sound level meter using the “A” weighted network (scale) at slow meter response. The unit of measurement is referred to herein as dB. The “A” weighted network responds to the frequency content of noise in a manner similar to the human ear.

CNEL. Means Community Noise Equivalent Level. The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after addition of ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m. Nighttime and evening penalties are intended to compensate for the increased potential for annoyance during these more sensitive times of the day or night.

Critical Facilities. Facilities housing or serving many people, that are necessary in the event of an earthquake or flood, such as hospitals, fire, police, and emergency service facilities, utility “lifeline” facilities, such as water, electricity, and gas supply, sewage disposal, and communications and transportation facilities.

Decibel (dB). A unit of measurement describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure (which is 20 micronewtons per square meter).

Equivalent Energy Level, “ L_{eq} ”. Means the sound level corresponding to a steady state sound level containing the same total energy as a time varying signal over a given sample period. L_{eq} is typically computed over 1, 8, and 24-hour sample periods.

Fault. A fault is a fracture in the Earth’s crust that is accompanied by displacement between the two sides of the fault. An active fault is defined as a fracture that has shifted in the last 10,000 to 12,000 years (Holocene Period). A potentially active fault is one that has been active in the past 1.6 million years (Quaternary Period). A sufficiently active fault is one that shows evidence of Holocene displacement on one or more of its segments or branches.

Floodplain. Land adjacent to a stream, slough, or river that is subject to flooding or inundation from a storm event. Federal Emergency Management Administration (FEMA) defines the floodplain to be the area inundated by a 100-year flood.

Floodway. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

Hazardous Materials. A hazardous material is defined by the California Code of Regulations (CCR) as a substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or deposited of (*CCR, Title 22, Division 4.5, Chapter 10, Article 2, § 66260.10*).

L_{dn} . Means Day/Night Average Level. The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m. to account for increased human sensitivity during these hours.

L_{max} . Means the maximum A-weighted noise level recorded during a noise event.

Noise Sensitive Land Use. Noise sensitive receptors that include residential areas, hospitals, convalescent homes and facilities, schools, and other similar land uses.

Existing Conditions

Tulare County has many health and safety concerns, both human-made and naturally occurring, from noise, airport hazards, and hazardous materials, to flooding, and fires. The following figures address Flooding, Groundwater Recharge, and Fire Threat and are identified as follows: Figure 10-1 Flood Hazards and Faults, Figure 10-2 Fire Threat, 10-3 Designated Floodways, Figure 10-6 and Figures (10-6 A-G Areas Vulnerable to Flooding after Wildfires, and Figure 10-7 Map of Areas for Groundwater Recharge.

Tulare County is divided into two major physiographic and geologic provinces: the Sierra Nevada Mountains and the Central Valley. There are no known active faults in Tulare County. Tulare County rarely feels the effects of even the largest earthquakes from the nearest major fault line, the San Andreas Fault. Seismic and Geologic Hazards are identified in Figure 10-1 Flood Hazards and Faults, Figure 10-4 Ground Shaking and Landslide Potential for Tulare County, and Figure 10-5 Seismic/Geologic Hazards and Microzone.

Tulare County also has human-made hazards such as airports, hazardous materials, and noise. Tulare County utilizes the Comprehensive Airport Land Use Plan (CALUP) to minimize danger to the public

while still providing aviation services for public use airports in the County. Hazardous wastes are handled according to State and Federal law and the County's Hazardous Waste Management Plan.

Tulare County's noise producers include highways and roads, railroads, manufacturing plants, airports, and agricultural operations.

Land use, the built environment, and transportation options can also effect communities and contribute to the health, safety, and quality of life. One of the many means of preventing premature death is through crime prevention and promoting healthy lifestyles by means of community design.

Tulare County has a long history of flooding along its major rivers: the Kings, Kaweah, and Tule Rivers. In 1997, flooding occurred in Three Rivers, Springville, Lindsay, and Earlimart. In 2006, flooding occurred in Cutler-Orosi. Recent improvements to raise the elevation of the spillway at Terminus Dam and planned improvements to the Lake Success Dam will help to minimize future flood risk.

Tulare County has both urban and wildland fire hazards, creating the potential for injury, loss of life, and property damage. It is important to note that although some structures are located in fire hazard areas, active fire prevention measures are not only included in this Health and Safety Element, but are also addressed in the following plans and programs:

1) The 2011 Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) for the Tulare Operational Area (County and all cities and special districts) was developed in accordance with the Disaster Mitigation Act of 2000 (DMA 2000) and followed FEMA's 2008 Local Hazard Mitigation Plan guidance. The LHMP incorporates a process where hazards are identified and profiled, the people and facilities at risk are analyzed, and mitigation actions are developed to reduce or eliminate hazard risk. The implementation of these mitigation actions, which include both short- and long-term strategies, involve planning, policy changes, programs, projects, and other activities. <http://tularecounty.ca.gov/oes/index.cfm/mitigation/>.

2) The Tulare County Emergency Operations Plan (EOP) establishes an emergency management organization and assigns functions and tasks consistent with California's Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS). The plan provides for the integration and coordination of planning efforts of the County with those of the cities, special districts, and Tule River Tribe comprising the Operational Area, as well as neighboring jurisdictions and the State. The content of this plan is based on guidance provided by the State of California's Governor's Office of Emergency Services, the Federal Emergency Management Agency, and the US Department of Homeland Security. The intent of the EOP is to facilitate coordinated emergency response and post emergency short-term recovery by providing a framework for response to all significant emergencies, regardless of the nature of the event. <http://tularecounty.ca.gov/oes/index.cfm/response/>.

3) The CAL FIRE Tulare Unit Strategic Fire Plan is a product of the implementation of the California State Fire Plan. The Plan is a local road map to create and maintain defensible landscapes in order to protect vital assets. The Fire Plan seeks to reduce firefighting cost and property loss, increase public and firefighter safety, minimize wildfire risk to communities and contribute to ecosystem health. The Plan identifies pre-suppression projects including opportunities for reducing structural ignitability, and the identification of potential fuel reduction projects and techniques for minimizing those risks. The central goals that are critical to reducing and preventing the impacts of fire revolve around both suppression efforts and fire prevention efforts. http://cdfdata.fire.ca.gov/fire_er/fpp_planning_plans_details?plan_id=241
Major components are:

- Improved availability and use of information on hazard and risk assessment.

- Land use planning: including general plans, new development, and existing developments.
- Shared vision among communities and the multiple fire protection jurisdictions, including county-based plans and community-based plans such as Community Wildfire Protection Plans (CWPP).
- Establishing fire resistance in assets at risk, such as homes and neighborhoods.
- Shared vision among multiple fire protection jurisdictions and agencies.
- Levels of fire suppression and related services.
- Post fire recovery.

4) Community Wildfire Protection Plans (CWPP) for the northern and southern half of Tulare County implemented by the Tulare County Resource Conservation District-Sequoia Fire Safe Council. The Objective of the CWPP is to heighten cooperation, collaboration and commitment to watershed protection and fire prevention through the CWPP planning effort.
http://www.tularecountyracd.com/Home_Page.html

Tulare County is served by several public safety and emergency response agencies. The County works closely with these agencies to ensure emergency preparedness. The following are local, state and federal agencies including special districts and the Tulare County Office of Emergency Services (TCOES) that provide fire and emergency response protection in Tulare County.

Local County and City

Tulare County Fire Department (TCFD), Visalia City Fire Department, Tulare City Fire Department, Porterville City Fire Department, City of Lindsay Public Safety, Farmersville Fire Department, Dinuba Fire Department, Woodlake Fire District, Strathmore Fire Protection District (Fire protection contracted through TCFD), City of Exeter Fire (Fire protection contracted through TCFD), TCOES.

Within the Tulare Operational Area (OA), the local government Emergency Management Organization (EMO) level encompasses Tulare County's Emergency Operation Center (EOC) and Department Operations Center (DOCs), City DOCs and EOCs, and tribal and special district EOCs, which deploy and direct their respective resources in accordance with their individual needs and priorities. For services typically provided by the County and local agencies, units are deployed based on Countywide needs and priorities as follows:

FIELD RESPONSE UNITS, including Law Enforcement, Fire and Rescue, Hazardous Materials (Hazmat), Emergency Medical Services (EMS), Public Health, Environmental Health, Public Works (Roads, Engineering), and Utilities personnel from the county, cities, special districts and utility companies, assess, secure and mitigate the effects of the incident.

MULTI-AGENCY COORDINATION GROUP (MAC GROUP), consisting of the members of the Operational Area Emergency Council (as defined by Tulare County Ordinance), provides incident and resource prioritization, and coordinates response to the incident by all local units and jurisdictions.

SUPPORT AGENCIES, including schools, non-government organizations (NGOs), such as the American Red Cross (ARC), Salvation Army (SA), and similar agencies, provide critical support services to the County/OA EMO.

At the field level, the Tulare County departments respond to emergency incidents within County unincorporated areas. Some of these departments, including Public Health and Environmental Health

Services (EHS), provide services on a countywide basis and, therefore, respond to emergency incidents in incorporated cities as well as in unincorporated areas. County field response units report status and findings to the appropriate EOC representatives, either through a Department Operations Center (DOC) or via a discipline-specific or assigned Communications/Dispatch Center, or directly if no intermediary level exists.

The Tulare County Sheriff's Office (TCSO) and Tulare County Fire Department (TCFD) provide contract services to a number of incorporated cities and respond within those jurisdictions, as well as within unincorporated areas. In such cases, these County departments continue to report to their respective Communications/Dispatch Center, but also report to the City EOC via the Incident Commander (IC).

Cities with their own police and/or fire departments provide first-in response at the field level within their respective jurisdictions and may request mutual aid response by TCSO and/or TCFD, when necessary. When the service territory of a special district is contained within the boundaries of one incorporated city, the district typically assigns an Agency Representative to the City EOC, which reports to the County Operational Area EOC on behalf of both local governments. More often, special district service territories overlap more than one jurisdiction (two or more cities or cities and unincorporated areas) and a special district EOC is established, which reports directly to the County/OA EOC.

Depending on the nature, scope and location of the incident, multiple disciplines and jurisdictions may respond to an incident at the field level and all utilize the Incident Command System (ICS). The response agencies at this level serve as an Emergency Response Team (ERT) organized under an integrated Incident Command System (ICS) structure comprised of the five ICS/SEMS functions – Command, Operations, Planning/Intelligence, Logistics and Finance/Administration. The appropriate jurisdiction and discipline assumes the Incident Commander (IC) role, or a Unified Command (UC) structure may be established, including representatives from those jurisdictions and/or disciplines having some primary responsibility for the incident.

State

CAL FIRE Tulare Unit, Cal-OES-Region V, Caltrans-District 6.

CAL FIRE provides personnel and equipment, including conservation camp crews in fire suppression, rescue and cleanup, communications, radiological monitoring and personnel care, as emergencies may require and dependent upon their normally assigned fire protection responsibility.

The CAL FIRE Tulare Unit is located in Central California and makes up part of the San Joaquin Valley. It consists of 793,716 acres of state responsibility land under direct CAL FIRE protection, and 1,429,881 acres of lands under Federal Government Protection. The combined total of 2,224,697 acres .The Unit is bordered on the east by Sequoia and Kings Canyon National Parks, and the Sequoia National Forest. The counties of Kern, Kings and Fresno border to the South, West, and North respectively. The elevation of Tulare Unit land receiving direct protection by CAL FIRE ranges from 200 feet along the county's western boundary to a highest point of 9,300 feet on Moses Mountain to the East. The entire county elevations range from 200 feet on the West side to the highest point in the contiguous United States, Mt. Whitney at 14,495 on the eastern boundary. The majority of the population in the state responsibility area is located along two east-west highways. Highway 198 which leads to the Sequoia / Kings Canyon National Parks and Highway 190 which accesses a significant portion of the Sequoia National Forest / Giant Sequoia National Monument.

The State level coordinates statewide operations, including providing mutual aid and support to local governments and using multi-agency or inter-agency coordination to facilitate decisions regarding

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overall statewide emergency response activities. When necessary, the state redirects essential supplies and other resources to priority areas.

The State Operations Center (SOC) is activated when a Regional Emergency Operations Center (REOC) is activated, upon the Governor's proclamation of a State of Emergency, or upon the Governor's proclamation of an earthquake or volcanic prediction. The Cal OES Secretary, other Cal OES staff, and representatives from state agencies are responsible for staffing the SOC, which is organized consistent with the five SEMS functions, similar to all other levels of the EMO.

The SOC establishes communications and coordination links with the activated REOCs, state level DOCs, and, when required by the nature and scope of the emergency, with other states and federal agencies. Access to state assistance by the Tulare OA EOC occurs via the Northern REOC.

The Caltrans District 6 Emergency Operations Center (DEOC) in Fresno is responsible for all aspects of the District's response, including developing the Action Plan objectives and action period. The DEOC Liaison is responsible for serving as the point of contact for all outside agency representatives that come to the DEOC to ensure that the work is coordinated with the DEOC Action Plan; and to coordinate any outside agency requests for Caltrans assistance. Caltrans DEOC personnel can be contacted when the State Highway System is involved in dealing with any disaster. The Public Information office (PIO) is responsible for developing and releasing incident information to the news media, incident personnel, and other appropriate agencies and organizations.

Federal

USFS-Sequoia National Forest, Bureau of Land Management, National Park Service (NPS), Bureau of Indian Affairs-Tule River Tribe.

Depending on the nature of the incident, the type of assistance provided by federal agencies, and the level of response at which such assistance is provided, federal resources will be integrated into the local ICS-based organization, consistent with SEMS and NIMS. Military assets will remain under the direction and control of the military.

A federal Joint Field Office (JFO) may be established locally to provide a central location for federal, state and local representatives with responsibility for incident oversight, direction and/or assistance to coordinate the efforts of their respective agencies/jurisdictions. In addition, a Joint Information Center (JIC) may be established to provide one location from which public information officials from all participating agencies, jurisdictions, and EMO levels can coordinate all incident-related public information efforts.

The Governor may request a Presidential Disaster Declaration when the scope of the incident is of such a magnitude that federal resources are needed to supplement local and state resources. The State Operations Center (SOC) coordinates and communicates with the Federal Emergency Management Agency (FEMA) and/or Department of Homeland Security (DHS) to request emergency response assistance from federal agencies and/or military assets.

The Forest Service, a federal agency in the U.S. Department of Agriculture, administers the Sequoia National Forest which consists of three ranger districts. The Giant Sequoia National Monument has two separate sections; the northern portion located on the Hume Lake Ranger District near Dunlap, California, and the southern portion on the Western Divide Ranger District just east of Springville, California. The Kern River Ranger District lies at the southern end of the forest near Lake Isabella. The Forest Service Fire Management Program utilizes Ground and Aviation crews and is on the cutting

edge with aviation technology, computer simulated fire management programs and sophisticated resource tracking systems.

The Bureau of Land Management Fire and Aviation (FA) program works with seven other federal agencies to manage wildland fire in the United States. BLM's fire and aviation program has three organizational levels: 1) the national office provides leadership and oversight, and develops policy, procedures and budgets for the fire and aviation program; 2) state offices are responsible for coordinating policies and interagency activities within their state; and 3) field offices are responsible for on-the-ground fire management and aviation activities, often partnering with other agencies to maximize rapid initial attack.

The BLM undertakes a broad range of activities to safely protect the public, the natural landscape, wildlife habitat and recreational areas for our country's citizens. The program includes fire suppression, preparedness, predictive services, fuels management, fire planning, community assistance and protection, prevention and education, and safety.

The U.S. government and the State of California recognize that the Sequoia and Kings Canyon National Parks (SEKI) areas within Tulare County are the responsibility of the U.S. government for the protection and preservation of life, property and the environment on these lands. As part of this responsibility, SEKI will respond to and coordinate any emergency operations within those lands.

SEKI maintains various levels of emergency preparedness, coordination, communication and collaboration with federal, state and local governments. When there is a threat of an emergency or actual emergency, SEKI has the authority to take appropriate actions to cope with the situation.

The state and its political subdivisions make every effort to support SEKI in their response and recovery efforts. As conditions require and local government resources will, in accordance with prior arrangements and as authorized by law, be committed to SEKI lands to protect life, property and the environment.

SEKI has its own law enforcement, EMS, all risk dispatching, fire services, maintenance department and administration to operate the parks. SEKI has an emergency management team that will run under the guidance of the Park's superintendent. In the event of a major emergency, the Washington Office may appoint a Park Service national emergency management team to manage the incident for the parks.

SEKI emergency management teams will respond to emergencies on park lands and provide status reports to the Tulare County/OA EOC as warranted. For emergencies limited to the park, requests for mutual aid will be made via internal channels and to local and state agencies via existing mutual aid systems and agreements as indicated. SEKI may request mutual aid outside existing mutual aid systems via the County/OA EOC.

Tribal governments maintain various levels of emergency preparedness, coordination, communication and collaboration with federal, state and local governments. When there is threat of an emergency or actual emergency tribal authorities must take the appropriate actions to cope with the situation and activate their tribal emergency preparedness procedures and plans.

The U.S. government recognizes tribes as domestic, independent nations with the right to self-governance, tribal sovereignty and self-determination. Tribal governments are responsible for the protection and preservation of life, property and the environment on tribal lands. Responsibilities may include deploying field-level emergency response personnel, activating emergency operations centers, and issuing orders to protect the public.

The state and its political subdivisions make every effort to support the tribal communities in their response and recovery efforts. The Tule River Tribe is recognized as a full participant in the Tulare Operational Area Emergency Management Organization. The Tribe, having the rights enumerated above, may choose to participate in the OA EMO at any time, or may opt to coordinate directly with the State and Federal levels.

As conditions require, and upon request from the tribe, the available and appropriate federal, state and local government resources will, in accordance with prior arrangements and as authorized by law, be committed to tribal lands to protect lives, property and the environment.

STATE BOARD OF FORESTRY AND FIRE PROTECTION (BOARD) RECOMMENDATIONS

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 Board is scheduled to review the Draft Health and Safety Element at their meeting scheduled for November 1, 2016 and provide comments and recommendations back to the County on or about November 2, 2016. The Fresno CAL FIRE office facilitated several preliminary reviews of our Draft Health and Safety Element document.

The proposed Draft Health and Safety Element has incorporated the preliminary recommendations resulting from discussions and recommendations with the Fresno CAL FIRE office with the exception of the following topics which will be evaluated for inclusion into the Multi-Jurisdictional Local Hazard Mitigation Plan:

A. Identification and actions for substandard fire safe housing and neighborhoods relative to fire hazard area.

1. 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.
2. 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.
3. Identify plans and actions for existing residential structures and neighborhoods, and particularly substandard residential structures and neighborhoods, to be improved to meet current fire safe ordinances pertaining to access, water flow, signing, and vegetation clearing.

B. Conservation and Open Space

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

C. Post Fire Safety, Recovery and Maintenance

1. Develop burn area recovery plans that incorporate strategic fire safe measures developed during the fire suppression, such as access roads, fire lines, safety zones, and fuelbreaks, and helispots.

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

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

D. Terrorist and homeland security impacts on wildfire protection

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

2. 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.

3. Tulare County's Local Hazard Mitigation Plan gives awareness to Terrorist and Homeland Security however it is recommended that the LHMP should show mitigating factors or reference where this information can be found.

As the Stafford Act Hazard Mitigation Program provides broad direction that specifically allows for the protection of private property both as mitigation activities in an LHMP and as eligible grant projects, it is recommended that the items A-D as mentioned above are appropriate for inclusion in the LHMP based on FEMA's guidance. The key guidance is contained in publications FEMA FY 15 Hazard Mitigation Assistance Guidance and its FEMA FY15 Hazard Mitigation Assistance Guidance Addendum.

Assembly Bill 162 (2007 Ca.Stats. 369) and Senate Bill 5 (2007 Ca.Stats. 364)

Assembly Bill 162 (AB 162), adopted in 2007, amended Government Code Section 65302(d)(3) and (g)(2) to require cities and counties to identify information regarding flood hazards upon revision of the jurisdiction's housing element on or after January 1, 2009. The requirements of Government Code Section 65302 (d)(3) and (g)(2)(A) are addressed in this General Plan Update as follows:

Figure 10-1 (Flood Hazards and Faults) displays information based on historic and current data regarding flood waters. Figure 10-1 shows:

- 1) The flood hazard zones (i.e. 100 and 500 Year Flood Zones) from the National Flood Insurance Rate maps published by Federal Emergency Management Agency (FEMA) which includes updated information from 2014;
- 2) The dam failure inundation maps prepared pursuant to Section 8589.5 that are available from California Emergency Management Agency;
- 3) The California Department of Water Resources (DWR) Awareness Floodplain Mapping Program maps.
- 4) General Information pertaining to FEMA zones including flood related materials presented in the adopted community plans that are contained in Part III of the General Plan can also be found at the following website:

<http://tularecounty.ca.gov/rma/index.cfm/public-works/flood-hazard-information/>

Figure 10-2 (Fire Threat) The California Department of Forestry and Fire Protection (CAL FIRE) has developed a rating of wildland fire threat based on the combination of potential fire behavior (Fuel Rank) and expected fire frequency (Fire Rotation). Figure 10-2 shows:

- 1) Data from the CAL FIRE on areas vulnerable to wildfire including historical fires, and;
- 2) Urban development boundaries, hamlet development boundaries, and mountain service centers where existing and planned development will occur including structures, roads, utilities, and essential public facilities.
- 3) General Information related to wildland fire threat and fire hazards are available from the CAL FIRE: Fire and Resource Assessment Program (FRAP) <http://frap.fire.ca.gov/index>. Please note that fire hazard severity zone mapping is currently being updated and is anticipated to be available in 2017. The FRAP website is updated periodically and any questions related to the data available on the website can be directed to the following email address: frapwebmaster@fire.ca.gov.

Figures 10-1 and 10-210-6 shows areas where FEMA flood zones, 30 percent slope and fire threats hazards overlap to identify areas vulnerable to flooding after wildfires. Figures 10-6 A-G include identical information as presented in Figure 10-6, but provide a greater level of detail in the following locations: Figure 10-6A Redwood Mountain/Badger Area, Figure 10-6B Three Rivers Area, Figure 10-6C Upper Balch Park Area, Figure 10-6D Springville Area, Figure 10-6E Great Western Divide North Half Area, Figure 10-6F Great Western Divide South Half/Posey Area, and Figure 10-6G Kennedy Meadows Area. Fire Hazard is a way to measure the physical fire behavior in order to predict the damage a fire is likely to cause. Fire hazard measurement includes the speed at which a wildfire moves, the amount of heat the fire produces, and most importantly, the burning fire brands that the fire sends ahead of the flaming front. The fire hazard model considers the wildland fuels. Fuel is that part of the natural vegetation that burns during the wildfire. The model also considers topography, especially the steepness of the slopes. Fires burn faster as they burn up-slope. Weather (temperature, humidity, and wind) has a significant influence on fire behavior. The Fire Hazard model recognizes that some areas of California have more frequent and severe wildfires than other areas. Finally, the model considers the production of burning fire brands (embers) how far they move, and how receptive the landing site is to new fires. -The Figures ~~also~~ shows where flood hazard zones are ~~within these urban boundaries~~ located, including the location of historical fires which are also presented on the map. In addition, the general location and distribution of existing and planned uses of land in fire hazard severity zones in state responsibility areas, including structures, roads, utilities, and essential public facilities are identified on the map. The map includes the Three Rivers and Springville UDB's, mountain service center boundaries, foothill development corridors and the Mountain Plan Sub-Area Plan boundaries.

Furthermore, Figure 10-1, along with Figure 8-1 (Tulare County Plan For Open Space) in Chapter 8, the Environmental Resource Management Element, ~~Part I,~~ Figure 10-7 identifies major recharge areas, rivers, creeks, streams, flood corridors, riparian habitats, and land that may accommodate floodwater for purposes of groundwater recharge; and stormwater management and retention feasibility areas. rivers, creeks, streams, flood corridors, and all open space land, including riparian habitat, that may accommodate floodwater for the purposes of groundwater recharge and stormwater management. The map identifies existing and proposed stormwater retention and detention basins. The significant rivers and streams located in Tulare County are the Kings, Kaweah, Tule, Kern (mountain areas only), White River, and Deer Creek (for additional information see Figure 11-1: Tulare County Valley Watersheds and Figure 11-2: Tulare County Foothill and Mountain Watersheds located in the Water Resources Element).

Senate Bill 5 (SB 5), also adopted in 2007, authorized the State Department of Water Resources (DWR) to develop the Best Available Maps (BAM) displaying 100- and 200-year floodplains for areas located within the Sacramento-San Joaquin (SAC-SJ) Valley watershed. SB 5 requires that these maps contain the best available information on flood hazards and be provided to cities and counties in the SAC-SJ Valley watershed. This effort was completed by DWR in 2008. Tulare County is not in the SAC-SJ Valley watershed, and 200-year floodplains for Tulare County were not included as a part of that study. The DWR has two Levee Flood Protection Zone (LFPZ) maps within the Sacramento River Basin and the San Joaquin River Basin. According to the San Joaquin River Basin map there is no LFPZ for the Tulare County area. Furthermore, the County has not designated any levee protection zones. Areas subject to inundation in the event of the failure of the levees or floodwalls in proximity to the City of Visalia are included in the FEMA information set forth in Figures 10-1 and 8-1, "FEMA 100 Year Flood Zone" and "FEMA 500 Year Flood Zone."¹

The designated floodway maps from the former Reclamation Board, a predecessor to the Central Valley Flood Protection Board with a larger study area, were used to establish the Tulare County Flood Prevention Ordinance (Ordinance Code of Tulare County, Part VII, Chapter 27) Flood Plain zones. The Ordinance defines "floodway" as:

"FLOODWAY" means the channel of a river or other watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot. The floodway is delineated on the Flood Boundary Floodway Map, on maps adopted by the State Reclamation Board when acting within its jurisdiction, and/or on the County Zoning Map (signified by the F-1, Primary Flood Plain Zone). The designated floodway maps are provided in General Plan Figure 10-3.

In addition, the Tulare County Flood Control Master Plan (FCMP) was adopted by the Tulare County Board of Supervisors in 1972 upon the recommendations of the Tulare County Flood Control District. This Element of the General Plan addresses issues particularly related to flood control along natural watercourses in Tulare County. This adopted Element is incorporated into this General Plan Update document as Chapter 15. ~~but is not being amended at this time.~~ The FCMP (Tulare County General Plan Chapter 15) was reviewed for consistency with the proposed changes to the Safety Element policies. The FCMP document (1972) is generally consistent with the Health and Safety Element, but the FCMP pre-dates the FEMA maps utilized by the County, therefore, mitigation requirements as required by FEMA are not addressed in the FCMP. A work program is currently being developed to update the FCMP which is discussed below in greater detail.

The Tulare County Flood Control Master Plan also contains historical ~~date data~~ on flooding, including locally prepared maps of areas subject to flooding, and sites that have been repeatedly damaged by flooding. Historical information about flood hazards from the United States Army Corps of Engineers (USACE) is also included in the Flood Control Master Plan as noted in its selected bibliography on page 58. According to the Army Corp of Engineers Cal EMA now controls authorship of any studies used to process flood information from the USACE by 1986. Furthermore, information from the Cal EMA website included in Figure 10-1, states that its information is based upon information from the

¹ The levees in the Visalia area were not certified at the time of publication of the updated Visalia area Flood Insurance Rate Maps (FIRMs) in 2008. Uncertified levees are therefore not relied upon in mapping flood information, as discussed under 44 CFR § 65.10 or the previous freeboard policy in place since February 10, 1981 (51 Fed. Reg. 30305 (August 25, 1986)). FEMA guidance also notes that "Decertified and uncertified levees will not be depicted on flood maps as providing the required level of protection. The areas behind these levees will be mapped as a high-risk areas and flood insurance will be required for buildings behind the levee with a federally backed mortgage." (FEMA, The NFIP and Levees Frequently Asked Questions, October 2006, page 3.)

USACE.² In July 2012 the County contacted the USACE by phone and by email, but has received no additional relevant information.

In accordance with 65302 (g) (2) (B and C) the County has included Policies (Section 10.5 Flood Hazards and 10.6 Urban and Wildland Fire Hazards) and Implementation Measures in sections 10.10 based upon the above information. The General Plan Policies and implementation measures used in conjunction with the County's zoning and flood ordinances provide a reasonable protection of county uses from unreasonable risk of flooding.

Existing and planned development in flood hazard zones can be viewed in Figures 10-1, 10-3, 10-6, and by comparing Figures 10-1 and Figure 4-1. Local, state, and federal agencies with responsibility for flood protection include; California Department of Water Resources, US Department of Interior, Geological Survey, Corp of Engineers, Department of the Army, Tulare County Flood Control District, Tulare County Planning Division, Three Rivers Soil Conservation District, Natural Resource Soil Conservation Service Department of Agriculture, Division of Soil Conservation State of California, Bureau of Reclamation, Southern San Joaquin Valley Flood Control and Water Conservation Association, California Regional Water Quality Control Board, Central Valley Region, California Department of Conservation, Kings River Conservation District, California Water Resources Control Board, and the Kaweah Delta Water Conservation District.

Flood Control Status Update and Proposed Projects

The following information is presented to discuss the effects that the “El Nino” winter rains had on flooding and related issues in Tulare County that were experienced between October 2015 and May 2016. Additionally, information is provided regarding the current status of existing and proposed Tulare County Flood Control District studies and projects within Tulare County.

2015/2016 Storm Season Discussion

Prior to the winter storm season of 2015/2016 Tulare County and the majority of California had been in a period of extended drought. Precipitation during the previous three years had been well below average. Expectations and hopes were elevated for increased precipitation resulting from the predicted El Nino affected winter storms. Records from previous El Nino weather patterns demonstrate that the Tulare County region has historically seen fluctuations of overall precipitation accumulation during El Nino events. While there have been relatively high amounts of precipitation noted during previous El Nino years, the trends show that El Nino events tend to have a limited impact on average precipitation amounts in this region. The long range weather forecasts prior the 2015/2016 winter season predicted that there was a fifty percent (50%) chance of above average rainfall in the Tulare County region.

Actual rain and snow accumulations for 2015/2016 were below historical averages for the Tulare County region. As of the end of April 2016, snowpack in the southern sierra region was at about 50% of normal for that date. As of June 1 snowpack in the region was at about 16% of normal for that date. During the months of October through May, Visalia received approximately 8.5 inches of precipitation compared to a historical average of around 10 inches.

Looking ahead, climate patterns show signs of a possible La Nina weather cycle predicted for the 2016/2017 storm season. La Nina patterns, caused by general cooling of certain pacific ocean currents can have an impact on seasonal precipitation fluctuations in the region, with a general trend toward drier than average years in southern California. It is however too early in the year to predict with high levels of certainty what the possible weather trends may be during the 2016/2017 wet season.

² See <http://myplan.calema.ca.gov/> under “Flood/CA Specific” noting that “100-Year Floodplains” information is based in part upon “USACE Comprehensive Study.”

Storm Season Flooding Effects and Response

Flooding issues experienced throughout Tulare County during the wet season of 2015/2016 can generally be described as manageable and non-emergency in nature. Between the months of October 2015 and May 2016 there were 24 days with storm events resulting measureable amounts of rainfall located within the Tulare County Region.

Nuisance flooding of low areas along roadways and shoulders were experienced during periods of heavy precipitation. However periods of relatively dry and warm days occurred between most storm cycles allowing the saturated ground to dry and channels to empty.

Tulare County Resource Management Agency (RMA) received a few reports from private parties that observed ponding or drainage issues on their property, or onto their property from neighbors. It is believed that this increase in reports of private party flooding was primarily caused by developments or improvements that had been constructed over the previously dry years and not identified until the recent rains. These minor issues are typically private concerns that the County or the Flood Control District do not have jurisdiction over. Frequently these issues are remedied by minor on site regrading of property to redirect water flows.

General response to roadway and community flooding issues is provided by the RMA road crews from the Public Works Department. Crews are on-call and available at all times. Response to road issues typically is provided within one hour of notification depending upon location. RMA crew's most frequent response action this storm season was to place "Roadway Flooded" signs in areas where standing water occurred on or near the roadway or the shoulder. Other specific actions include drainage inlet clearing in communities, downed tree removal, snow removal, and mud and rockslide removal. On a few occasions, RMA crews effectively coordinated with crews from neighboring cities (Lindsay and Porterville) to provide roadway drainage infrastructure clearing work to prevent flooding in County/City boundary areas.

Status of Flood Control Projects (flood control projects that will reduce potential for flood risks)

Juvenile Detention Facility – Cottonwood Creek

Scope: The proposed Cottonwood Creek Realignment project will consist of realigning about 6,300 feet of the creek to near its original alignment. The reconstructed channel will have a 40-foot wide bottom with 3:1 (H:V) bank slopes. The bottom of the channel will be about 5 to 6 feet below the surrounding natural grade. Berms will be constructed above grade to produce the final south bank height of 12 feet and north bank height of 6.5 feet. The project will also include 5 to 6 foot high berms along the west, south, and east sides of the County road maintenance sand pit and the east and south sides of road-mix preparation pad. This project is developed to provide flood protection for the County's Juvenile Detention Facility and Records Storage Facility located north of Avenue 368. In addition, this project will provide groundwater recharge benefits by establishing retention areas allowing floodwaters to percolate into the aquifer below the site.

Estimate and Budget: The Preliminary Cost estimate for this project is approximately \$2 million dollars. This project is included in the current FY17 budget for the Flood Control District. RMA staff has submitted a grant pre-application, received comment and will be submitting a grant application to the State of California for funding under the Proposition 1 Stormwater Program. If this project is not awarded grant funding, staff is prepared to proceed with construction utilizing Flood Control District funds.

Status: The design of this project is 90% completed and can be quickly finalized for advertisement and bidding. Property acquisition is not an issue, as the entire project is located on County owned property. The environmental (CEQA) clearance and permitting with CDFW has been completed.

Schedule (proposed): Staff is prepared to complete the PS&E package by fall 2016 pending comments from the DWR regarding grant funding. If grant funding is allocated, construction could be started in 2018. If grant funding is not obtained, the project could be constructed between June and October of 2017.

Study: A required aspect of the grant for construction funding is the completion of a Stormwater Management Plan for the drainage basin associated with each proposed project. Staff is currently working with a stormwater expert (Consultant) to prepare this required plan. The plan will identify stormwater flows, conveyance methods and beneficial uses of the stormwaters.

Alternative: An alternative to the full JDF-Cottonwood Creek re-alignment project was constructed for short term flood protection mitigation. This alternative includes a temporary berm located immediately south of the existing Cottonwood Creek channel. This berm, in conjunction with a new berm located around the County sand pit to the northeast of the JDF and the existing berm system located immediately north of the JDF and records facility provides adequate flood protection for reasonably anticipated floodwaters along the Cottonwood Creek. This alternative was constructed prior to the 2015/2016 rain season.

Seville Sontag Ditch

Scope: The proposed project will consist of constructing a new 24-inch culvert pipe with canal gate from Sontag Ditch on the north side of SR 201 to an existing junction box constructed with the Stone Corral Watershed Project in 1978. The project will also include the construction of a new 24-inch culvert pipe with a canal gate from Sontag Ditch on the south side of SR 201 to daylight into the Stone Corral Ditch on the east side of Sontag Ditch. The purpose of this project is intended to direct high flows from Sontag Ditch to the Stone Corral Ditch during heavy rain events. The diverted water will flow into Stone Corral Irrigation District's detention basin located approximately two miles to the south, just north of Cottonwood Creek, therefore, alleviating flooding in the Seville area.

Estimate and Budget: The Cost estimate for this project is approximately \$78,000 dollars. This project is included in the proposed FY17 budget for the Flood Control District.

Status: The design of this project is complete. Two pipeline easements are required prior to construction. Staff has secured these easements. An encroachment agreement is required by Alta Irrigation District. Staff expects this agreement to be approved before construction. The environmental (CEQA) clearance and permitting with CDFW has been completed.

Schedule (proposed): Staff is prepared to advertise the project for construction bids in summer of 2016 and be ready to begin construction by September 2016. The project is expected to be completed before mid-October 2016.

Yettem Button Ditch

Scope: The Yettem Button ditch project has been recently re-analyzed with a focus on potential use of flood waters for beneficial uses. As such, the project is in the process of being re-scoped from a conveyance capacity increasing project to a water retention project. The current concept includes obtaining flood easement rights north of the community of Yettem adjacent to the Button Ditch. This will provide comparable flood protection with the added benefit of groundwater recharge.

Estimate and Budget: The Preliminary Cost estimate for this project is being developed and will depend upon the location and costs associated with the flood easements. Construction of this project is not included in the current FY16 budget for the Flood Control District. RMA staff has been exploring grant opportunities as a potential source of funding for the project.

Status: The environmental (CEQA) clearance and permitting for this project with CDFW has been completed. An agreement with Alta Irrigation District would be required to construct a facility within their ditch property. Property (easement) acquisition would be required. This project will be further developed as part of the proposed Tulare-Fresno Unit Flood Control Master Plan Update described below.

Schedule (proposed): Staff is prepared to complete the project concept during FY17. It is anticipated that the easements could be in place by June 2017 and Construction could be started immediately thereafter to be completed by October 2017.

Flood Control Master Plan Update Tulare-Fresno Unit

Scope: The Tulare County Flood Control District currently utilizes a Flood Control Master Plan prepared in 1971. This plan has become somewhat dated due to recent drought conditions that have impacted valley ground elevations caused by subsidence. Additionally, flood waters that were previously seen as a nuisance, now must be considered a resource and be treated correspondingly. Recent and forthcoming regulations on groundwater will necessitate the judicious use of floodwaters as a potential source of groundwater recharge. County staff recognizes that available sources for funding flood control projects now must have sustainable water management strategies incorporated. It is anticipated that these requirements currently associated only with grant funding may become State mandates in the future. Flood Control Units have been established to better encompass areas whose flood control problems in general are closely related either by source, conveyance or ultimate disposal of flood flows or by physical plans for control. The northernmost unit in Tulare County is the Tulare-Fresno Unit. This unit covers the area generally north of the Kaweah River irrigation service area and includes the Cottonwood Creek drainage basin.

Estimate and Budget: Cost estimate for this update is approximately \$350,000. This will include accurate topographic surveys of the Unit, hydrographic and hydraulic analysis of the drainage basins and conveyance channels within the Unit, and proposed flood control projects consistent with current and anticipated regulations and theories of flood control management.

Status: With authorization, staff is prepared to issue an RFP and proceed with preparation of the Flood Control Master Plan Update for the Fresno-Tulare Unit. It is expected that this update will take approximately nine (9) months. Upon satisfactory completion of the update for this unit, staff proposes to move forward with updates for the other units.

Schedule (proposed): Staff is prepared to undertake and complete the update during FY17.

Annual Maintenance

RMA staff performs annual maintenance throughout the County in preparation for the storm season. This reoccurring inspection and repair procedure ensures that the County's flood control facilities are fully operational and prepared for potential rain events. The following is a description of the activities that RMA staff consisting of personnel from Public Works Management Groups I and III perform prior to the rain season.

Potential Flood Hazard Areas (Hot Spots)

Through a systematic analysis of Countywide facilities, RMA staff has identified certain locations that have historically been problem areas where flooding has, or is likely, to occur. These locations were identified as part of a County Flood Risk Assessment. At the end of the storm season, RMA staff is performing an end of season analysis to update the "Hot Spot" data.

Flood Basin Inspections and Maintenance

The Tulare County Flood Control District maintains nearly 70 flood control basins located throughout the County. These are typically located in the community areas and provide retention facilities for storm water runoff from the roadway and residential subdivisions. These basins require maintenance that includes weed abatement, fence repair, and drainage inlet flushing. RMA staff coordinates with the County Probation Department and Management Group I operations staff to maintain these basins throughout the year. County Encroachment Permit Inspectors are trained to visit, inspect and report basin deficiencies throughout the course of their daily inspections around the county. This work will be undertaken during the dry season this year.

Constructed Conveyance Inspections and Maintenance (Pipes, Culverts Drain Inlets, Pumps etc.)

The County maintains a network of 28 permanently located flood control pumps. Prior to the storm season, County operations staff from Management Group I will inspect and cycle these flood control pumps to ensure functionality. The basins and channels within the immediate proximity of the pumps are cleared of shrubs and debris to minimize potential blockage during operation. If required, staff contracts with local pump repair contractors to service the equipment.

As part of the 3,000 plus miles of the County roadway system, numerous bridges and culverts have been constructed over and across rivers, streams, channels, ditches, and floodplains County staff inspects these culverts and bridges in preparation for storm events. The annual inspection is typically performed by the Roads District Supervisor or delegated staff. Inspectors look for damage to the bridge or culvert, shrubs, overgrowth or debris that could potentially cause blockages, blocked culverts, and any other facilities that could be impacted by the rain event, or is not fully functional.

Channel Clearing Efforts

Numerous County roads cross rivers, streams, channels and ditches. The Public Works Management Group I operations staff currently inspects and clears channels that may cause flood damage to these bridges and culverts. This clearing activity within a streambed requires a permit with the CDFW. Current permits and operational policy directs staff to limit channel clearing activities to 300-feet upstream and downstream of the culvert or bridge.

Additional Groundshaking, and Landslide, and Liquefaction Information Resources

Tulare County is characterized as Severity Zone "Nil" and "Low" groundshaking with zero (no) declared landslides according to the updated report "State of California Multi-Hazard Mitigation Plan Chapter 6 - Other Hazards: Risks and Strategies" (published in October 2010) by the California Geological Survey, Department of California. This report does provide very general statewide maps of both "Landslide Hazard Potential" and "Declared Landslide (1950 to 2009) Events" and so is an additional resource for information that can be used in site specific project analysis in addition to Figure 10-4 Ground Shaking and Landslide Potential for Tulare County in this chapter. The referenced mapping specific to ground shaking and earthquake shaking potential within Tulare County taken from the Department of Conservation website indicate that Tulare County is located some distance from known, active faults and will experience lower levels of shaking less frequently. In most earthquakes, only weaker, masonry buildings would be damaged. However, very infrequent earthquakes could still cause strong shaking within Tulare County.

Ground settlement and soil compaction may occur as a result of seismic ground shaking. When unconsolidated valley sediments are saturated with water, water is forced to the ground surface, where it emerges in the form of mud spouts or sand boils. If soil liquefies in this manner (liquefaction), it loses its supporting capacity, which can result in the minor displacement to total collapse of structures. These types of unconsolidated sediments represent the poorest kind of soil condition for resisting seismic shock waves. No specific countywide assessments to identify liquefaction hazards have been performed in Tulare County. Areas where groundwater is less than 30 feet below the surface occur primarily in the San Joaquin Valley portion of the County. However, soil types in the area are not conducive to liquefaction because they are either too coarse or too high in clay content. Areas subject to 0.3g acceleration or greater are located in a small section of the Sierra Nevada Mountains along the Tulare-Inyo County boundary. However, the depth to groundwater in such areas is greater than in the valley, which would minimize liquefaction potential as well. Detailed geotechnical engineering investigations would be necessary to more accurately evaluate liquefaction potential in specific areas and to identify and map the areal extent of locations subject to liquefaction. A liquefaction analysis is conducted as part of all bridge and bridge replacement projects.

Tree Mortality Removal Plan

Tulare County and the State of California have experienced below normal levels of precipitation since 2011. The County proclaimed a Local Emergency due to the drought on February 4, 2014 and additionally proclaimed a Local Emergency due to widespread and increasing tree mortality in Tulare County on October 6, 2015.

The severe conditions have increased fire, and consequently, public safety and air quality risks. Cal Fire reports more than 300,000 acres burned statewide from January 2015 through September 26, 2015, an 89% increase over the same period in 2014. Tulare County has been impacted by these conditions.

Additionally, National Parks and Forests have instituted wildfire-related closures fueled by tree mortality in a number of areas. These include major portions of Sequoia & Kings Canyon National Parks and Sequoia National Forest damaged by the Rough Fire in August 2015, and the on-going closure of the Trail of 100 Giants located within Sequoia National Forest due to tree mortality-related hazards. These closures have negatively impacted local businesses that rely on spring and summer tourism.

The immediate and long-term ramifications of the tree mortality are likely to have a significant impact on the economy of Tulare County and pose a danger to the health and welfare of our residents. These conditions warrant the monthly renewal of the Proclamation of Local Emergency, enabling Tulare County to take all necessary measures to combat the impacts of tree mortality on our citizens.

Tulare County is one of six counties that initially proclaimed a local emergency due to critical tree mortality issues. Tulare County currently sits on the State-wide task force. Tulare County is eligible for California Disaster Assistance Act (CDAA) funding. To qualify for funding, Cal OES requires each eligible County, City or Special District to submit a Tree Removal Plan and receive plan approval before any reimbursements for tree removal expenses take place. In addition, the State Task Force and Cal OES has requested that all tree-mortality impacted Counties create (1) - a Local Task Force; and (2)- a Tree Removal Plan, in order to strengthen the State's case for a Presidential Declaration of Major Disaster and FEMA funding.

On April 4, 2016, a local Tree Mortality Task Force was formed, comprised of County of Tulare Staff, Cal Fire, Sierra and Sequoia National Forests, Caltrans, PG&E, Southern California Edison and other stakeholders to examine the immediate threat from tree mortality and outline objectives

Tulare County General Plan

in response to the local emergency. Opportunities to coordinate resources among potential partners were identified and encouraged. The Task Force provides a platform to ensure on-going communication and coordination between government agencies and other local stakeholders.

The Local Tree Mortality Task Force Operations group (consisting of Cal Fire, County Fire, and RMA) has identified three initial priority locations within Tulare County and the State Responsibility Area (SRA) outside of Federal lands (National Parks and National Forests). These locations are, in order:

Balch Park Road, Bear Creek Road and environs surrounding Mountain Home Demonstration State Forest and County-owned Balch Park.

Old Stage and Sugarloaf Roads leading to Posey, Idlewild, Balance Rock, Peso Park and Panorama Heights. Hot Springs Road and environs around California Hot Springs, Pine Flat and Sugarloaf.

The Resource Management Agency has analyzed all available aerial surveys of Tree Mortality impacted areas within Tulare County- approximately 60 miles of right of way along county maintained roads - and determined there are likely more than 29,300 dead trees located within 100 feet on either side of the road centerline.

Several Registered Professional Forester (RPF), including a Unit Forester with Cal Fire, have recommended applying a growth factor of at least 25% to reflect the likelihood of additional trees dying and/or becoming diseased in the months ahead and thus needing to be removed. Application of a 25% growth factor to a 29,300 base would place the total number of trees to be removed related to County owned infrastructure at $29,300 \times 1.25 = 36,625$ trees.

The cost to fall, remove, and clean-up debris for 36,625 trees is significant. After discussing potential costs with a local arborist and local forester, a planning figure of \$1,000 per tree will be used to establish an initial, order of magnitude cost. Thus, removal of 36,625 trees at \$1,000 each would place the potential cost for trees to be removed related to County-owned infrastructure at \$36,625,000.

On May 24, 2016 the Tulare County Board of Supervisors approved a Draft Tree Mortality Plan. The draft Tulare County Tree Mortality Removal plan was submitted to Cal OES to ensure the plan contains all the pertinent details and information required for approval. The Draft Plan includes a Right of Entry Permit that mirrors that in use by other Counties. This permit is intended to assist in the process of removing hazard trees that threaten public infrastructure from private land.

Under CDAA, the State will fund 75% of all eligible costs with the remaining 25% share to be borne by the responsible local government. Therefore, given the scope of work outlined above, the share of cost for trees to be removed related to County owned infrastructure alone would be as follows:

State	\$27,243,750 (75%)
County	\$9,081,250 (25%)
	<u>\$36,625,000</u>

It should be noted that these costs are expected to be borne over several years, given the time it will take to remove and dispose of the large quantity of the related material. As the drought appears to be ongoing, more trees are expected to die and/or become diseased. For context, PG&E is just concluding a ten year effort to remove trees that died during a widespread bark beetle infestation that occurred in the late 1990s.

With Cal OES approval of the County's Tree Mortality Removal Plan, staff will begin developing tree removal projects that are actionable based on available resources, rules, regulatory approvals and available funding.

Historical Data on Wildfires

The Table below contains a summary of historical information regarding recorded wildfires in Tulare County that occurred between 1910 and 2014. A total of 610 wildfires that burned approximately 1,328,000 acres were recorded during this 104 year time period. The following causes represent approximately 95% of the 610 recorded wildfires (approximately 1.3 million acres), and are included as follows, miscellaneous 36% (532,800 acres), lightning 27% (309,000 acres), unknown or unidentified 14% (97,000 acres), Arson 8% (63,300 acres), equipment use 5% (43,500 acres), smoking 3% (53,400 acres), and Campfires 2% (184,600 acres). The remaining causes which include escaped prescribed burns, debris, vehicles, structures, powerlines, railroads and playing with fire account for the remaining 5% (44,400 acres) of the recorded wildfires. The locations of these wildfires are displayed in Figures 10-2 and 10-6. The complete list of Recorded Historical Wildfires is included in the General Plan as Appendix E.

Summary of Historical Recorded Wildfires in Tulare County 1910 to 2014

<u>Cause</u>	<u>Number of Recorded Fires</u>	<u>Total Acres</u>	<u>Percentage of all Recorded Fires</u>
<u>Miscellaneous</u>	<u>220</u>	<u>532,800</u>	<u>36%</u>
<u>Lightning</u>	<u>165</u>	<u>309,000</u>	<u>27%</u>
<u>Unknown or unidentified</u>	<u>84</u>	<u>97,000</u>	<u>14%</u>
<u>Arson</u>	<u>49</u>	<u>63,300</u>	<u>8%</u>
<u>Equipment Use</u>	<u>28</u>	<u>43,500</u>	<u>5%</u>
<u>Smoking</u>	<u>19</u>	<u>53,400</u>	<u>3%</u>
<u>Campfires</u>	<u>17</u>	<u>184,600</u>	<u>2%</u>
<u>Escaped prescribed burns, debris, vehicles, structures, powerlines, railroads and playing with fire</u>	<u>28</u>	<u>44,400</u>	<u>5%</u>
<u>Total</u>	<u>610</u>	<u>1,328,000</u>	<u>100%</u>

10.1 General

HS-1

To protect County residents and visitors from injury and damage resulting from natural catastrophes, man-made events, and hazardous conditions.

HS-1.1 **Maintain Emergency Public Services**

The County shall ensure that during natural catastrophes and emergency situations, the County can continue to provide essential emergency services.

HS-1.2 **Development Constraints**

The County shall permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.

HS-1.3 **Hazardous Lands**

The County shall designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.

HS-1.4 **Building and Codes**

Except as otherwise allowed by State law, the County shall ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).

HS-1.5 **Hazard Awareness and Public Education**

The County shall continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.

HS-1.6 **Public Safety Programs**

The County shall promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.

HS-1.7 **Safe Housing and Structures**

The County shall continue to seek grant funding for the rehabilitation of deteriorated and dilapidated structures and provide available information regarding housing programs and other public services including the identification of existing nonconforming building construction specific to building codes that apply in the Very High Fire Hazard Safety Zones.

HS-1.8 **Response Times Planning in GIS**

The County shall utilize its Geographic Information Systems (GIS) technology to track fire and law enforcement responses times and provide technical assistance to fire and law enforcement agencies.

HS-1.9 **Emergency Access**

The County shall require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation.

HS-1.10 **Emergency Services Near Assisted Living Housing**

In approving new facilities, such as nursing homes, housing for the elderly and other housing for the mentally and physically infirm, to the extent possible, the County shall

ensure that such facilities are located within reasonable distance of fire and law enforcement stations.



See also Chapter 14-Public Facilities and Services, Policy PFS-7.5: Fire Staffing and Response Time Standards and Policy PFS -7.9: Sheriff Response Time.

HS-1.11 Site Investigations

The County shall conduct site investigations in areas planned for new development to determine susceptibility to landslides, subsidence/settlement, contamination, and/or flooding.

HS-1.12 Addressing

The County shall seek to expand the Street Names and House Numbering Ordinance to all areas of the County, including private roads, for emergency 911 purposes.

Please also see the following regarding visibility for street signs and addressing:

a) Tulare County Ordinance Code Section 7-19-1530 REQUIRED POSTING: Every person owning, controlling, occupying or using any house, store, storeroom or building situate on premises fronting on any public or private thoroughfare in the County of Tulare shall, within thirty (30) days after issuance of a house number, install permanently on such premises the number issued, subject to the following provisions:

(a) An accessory building need not be numbered but, if located on a separate unit of frontage as defined in section 7-19-1515 of this Article, it may be assigned a number if requested by the owner or proprietor of the principal establishment to which such building is accessory.

(b) The numbers shall be made of a durable material.

(c) All such numbers shall be of such type and so placed as to be easily visible and legible from the thoroughfare upon which said premises front.

(d) The numbers shall be not less than four (4) inches in height.



b) Tulare County Ordinance Code Section 7-19-1535 REQUIRED POSTING WITHIN STATE RESPONSIBILITY AREAS:

All numbers and addresses, whether on a public or private thoroughfare, issued within a State Responsibility Area shall also be permanently posted at each driveway entrance, subject to the following standards:

(a) The address shall be posted at the beginning of construction and shall be maintained thereafter.

(b) The address shall be visible and legible from the road on which the address is located. Where multiple addresses are required at a single driveway, the addresses shall be mounted on a single post at the driveway entrance. Where the roadway provides access solely to a single commercial or industrial business, the address shall be posted at the nearest road intersection providing access to that site.

(c) All numbers shall be a minimum of four (4) inches in height with an one half inch (3/4") width and shall be of a reflective color that contrasts sharply with the background. (Amended by Ord. 3254, effective 3-31-01.)

c) January 1, 2016 California Code of Regulations Title 14 Natural Resources Division 1.5 Department of Forestry Chapter 7 - Fire Protection Subchapter 2 SRA Fire Safe

Regulations Article 3. Signing And Building Numbering § 1274.00. Intent § 1274.01. Size of Letters, Numbers and Symbols for Street and Roads Signs § 1274.02. Visibility and Legibility of Street and Road Signs § 1274.03. Height of Street and Road Signs § 1274.04. Names and Numbers on Street and Road Signs § 1274.05. Intersecting Roads, Streets and Private Lanes § 1274.06. Signs Identifying Traffic Access Limitations § 1274.07. Installation of Road, Street and Private Lane Signs § 1274.08. Addresses for Buildings § 1274.09. Size of Letters, Numbers and Symbols for Addresses § 1274.10. Installation, Location and Visibility of Addresses.

d) Tulare County Ordinance Code Section 7-19-1545 Signs Identifying Thoroughfares.

10.2 Geologic and Seismic Hazards

HS-2

To reduce the risk to life and property and governmental costs from seismic and geologic hazards.

HS-2.1 Continued Evaluation of Earthquake Risks

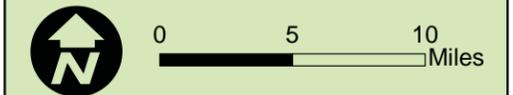
The County shall continue to evaluate areas to determine levels of earthquake risk.



See Figure 10-4 Ground Shaking and Landslide Potential for Tulare County and Figure 10-5: Seismic/Geologic Hazard and Microzones Map.



Please note that all of the following maps can be viewed in greater detail on the County of Tulare General Plan website by using the Marquee Zoom function when viewing the document on-line. <http://generalplan.co.tulare.ca.us/index.asp>



Legend

- Lakes
- Rivers and Streams
- State or County Highway
- Tulare County Boundary

Hazards

- Dams
- Dam Failure Inundation Zone
- FEMA 100 YR Flood Zone
- FEMA 500 YR Flood Zone
- DWR Awareness Foodplain Boundary

Quaternary Faults

- Moderately Constrained (>150 YR)
- Well Constrained (>150 YR)

Boundaries

- Tule River Indian Reservation
- Urban Development Boundaries
- Urban Area Boundaries
- Hamlet Development Boundary

Mountain Plan

- Mountain Service Centers

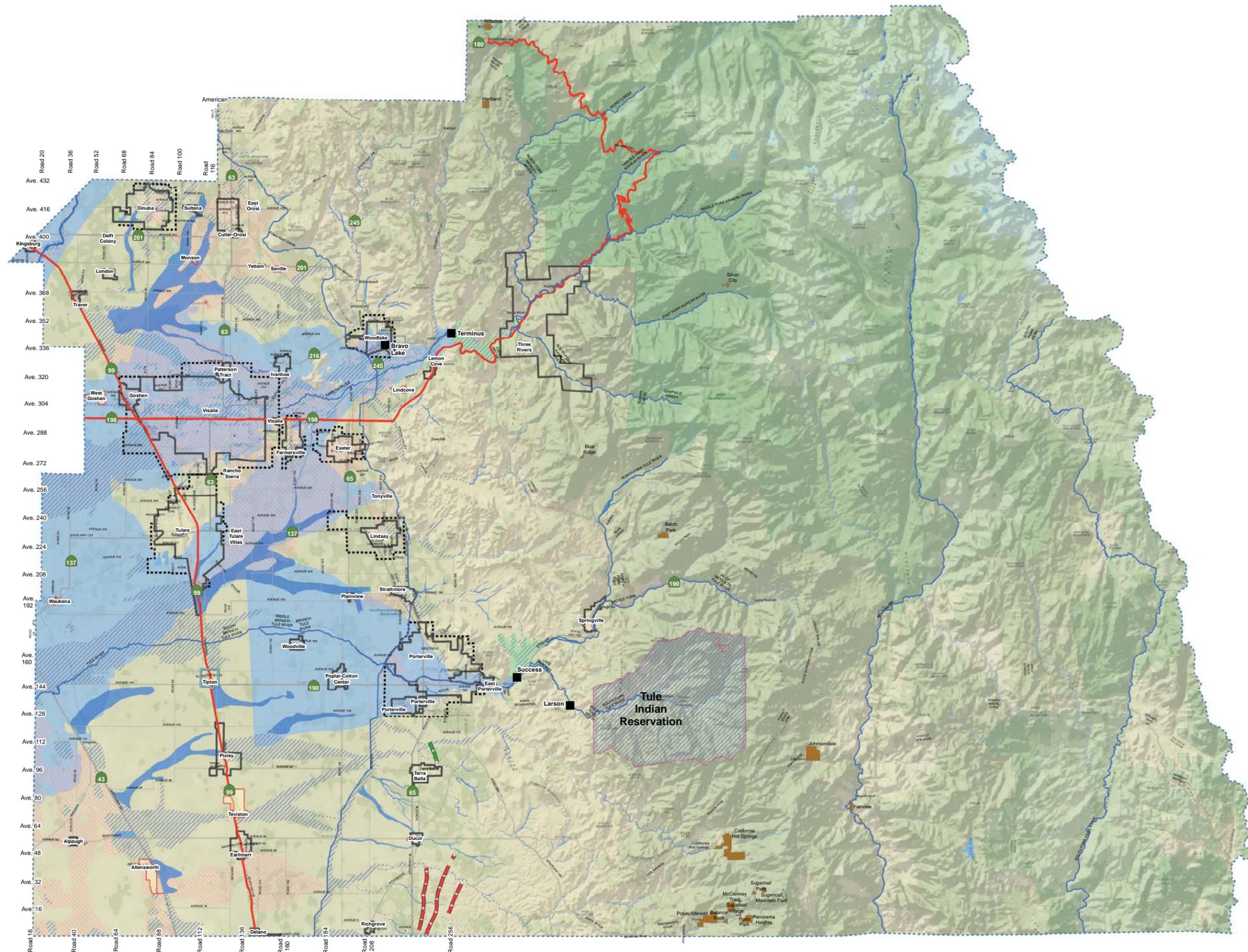


Figure 10-1

Flood Hazards and Faults

Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Back of fold out



0 5 10 Miles

Legend

- Hospitals
- Sheriff Stations
- Fire Stations
- Power Transmission Lines

Quaternary Faults

- Moderately Constrained (>150 YR)
- Well Constrained (>150 YR)

Boundaries

- Sub Area Plan Boundaries
- Tule Indian Reservation
- Urban Development Boundaries
- Urban Area Boundaries
- National Parks & Forests
- Mountain Service Centers
- Development Corridors
- 30% + Slopes
- Tulare County Boundary

Historic Fires

- 1878-1945
- 1946-1965
- 1966-1985
- 1986-2005
- 2006-2013

Developed Parcels Land Use

- Residential
- Commercial

Fire Threat

- Non-Fuel
- Moderate
- High
- Very High

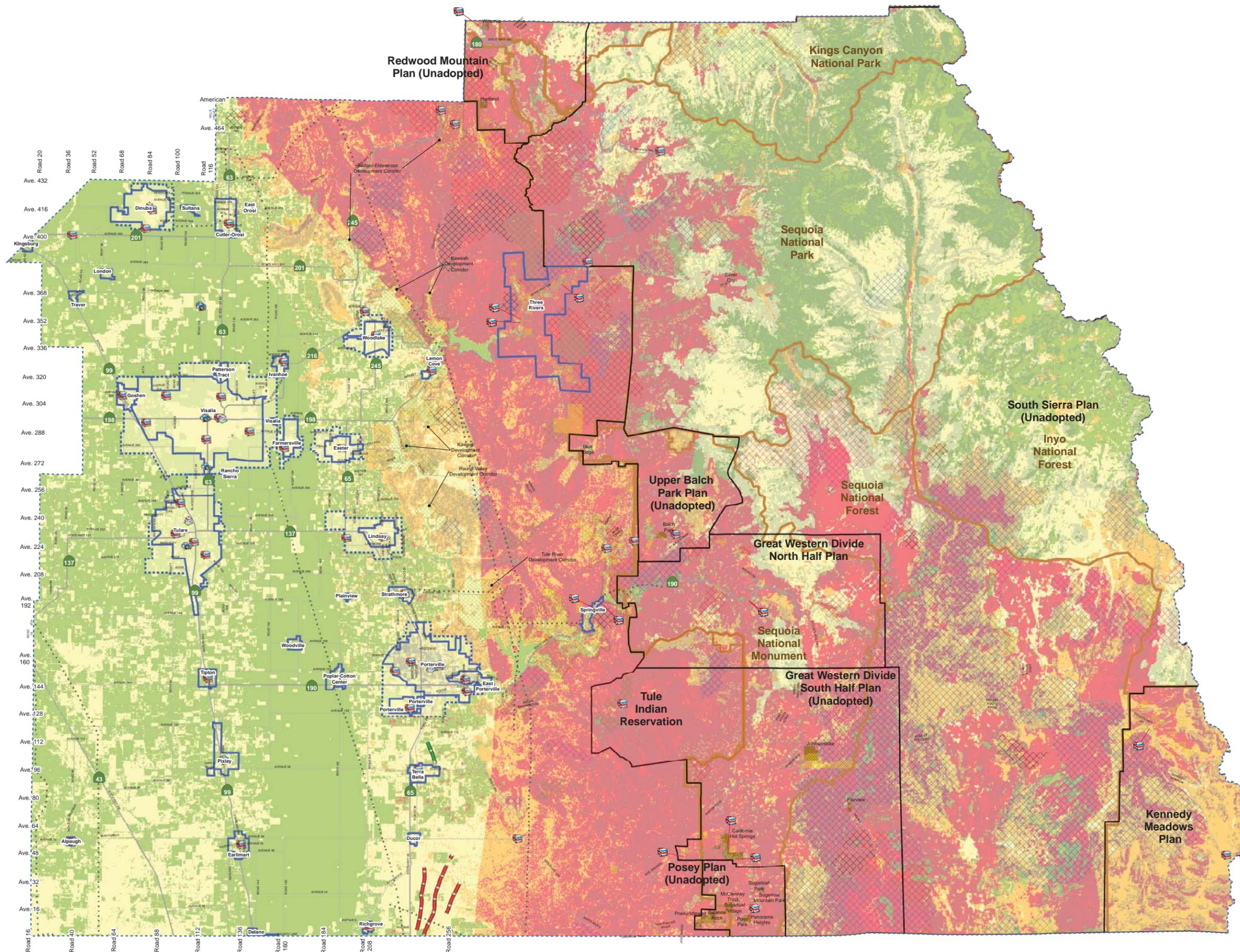


Figure 10-2

Fire Threat

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Legend

-  County Boundary
-  Designated Floodways

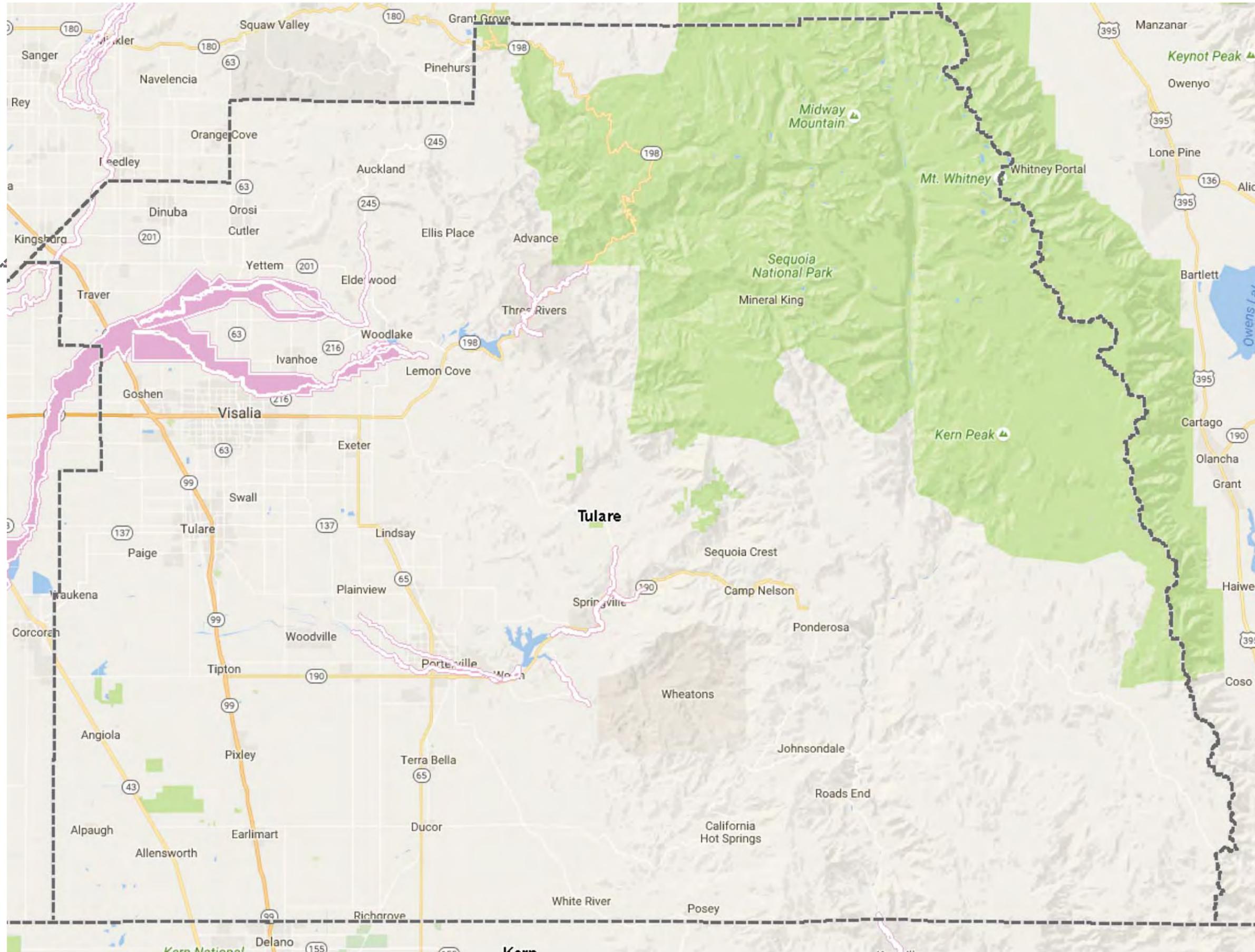
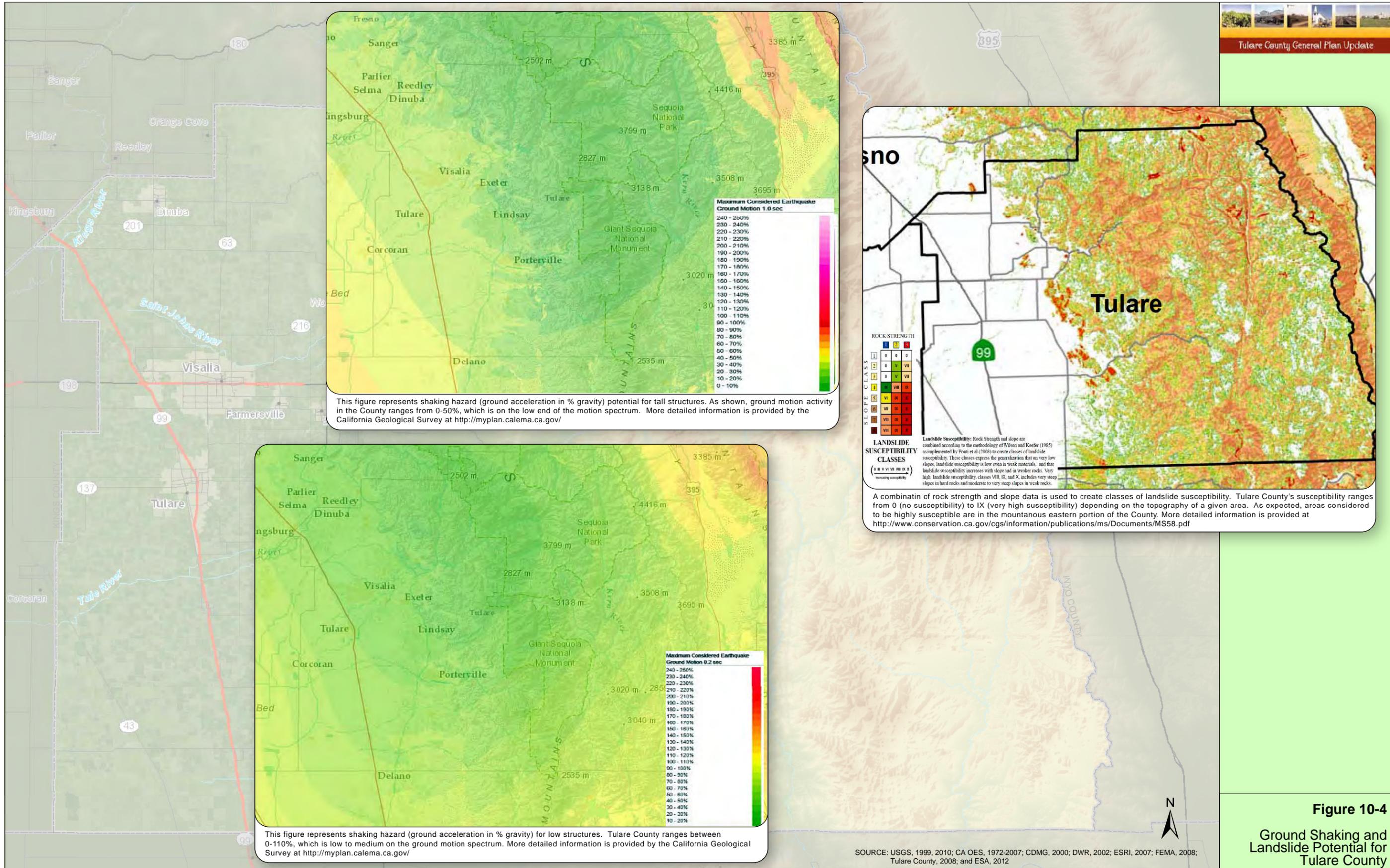


Figure 10-3

Designated Floodways

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This figure represents shaking hazard (ground acceleration in % gravity) for tall structures. As shown, ground motion activity in the County ranges from 0-50%, which is on the low end of the motion spectrum. More detailed information is provided by the California Geological Survey at <http://myplan.calema.ca.gov/>

This figure represents shaking hazard (ground acceleration in % gravity) for low structures. Tulare County ranges between 0-110%, which is low to medium on the ground motion spectrum. More detailed information is provided by the California Geological Survey at <http://myplan.calema.ca.gov/>

SOURCE: USGS, 1999, 2010; CA OES, 1972-2007; CDMG, 2000; DWR, 2002; ESRI, 2007; FEMA, 2008; Tulare County, 2008; and ESA, 2012

Figure 10-4
Ground Shaking and
Landslide Potential for
Tulare County

Back of fold out

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- Legend**
- Hospitals
 - Sheriff Stations
 - Fire Stations
 - Power Transmission Lines

- Quaternary Faults**
- Moderately Constrained (>150 YR)
 - Well Constrained (>150 YR)

- Boundaries**
- Sub Area Plan Boundaries
 - Tule Indian Reservation
 - National Parks & Forests
 - Urban Development Boundary
 - Mountain Service Centers
 - Development Corridors
 - 30% + Slopes
 - Tulare County Boundary

- 2014 FEMA Flood Zones**
- FEMA 100 YR Flood Zone
 - FEMA 500 YR Flood Zone

- Developed Parcels Land Use**
- Residential
 - Commercial

- Historic Fires**
- 1878-2013

- State Responsibility Areas (2007) Fire Hazard Severity Zones**
- SRA, Very High
 - SRA, High
 - SRA, Moderate

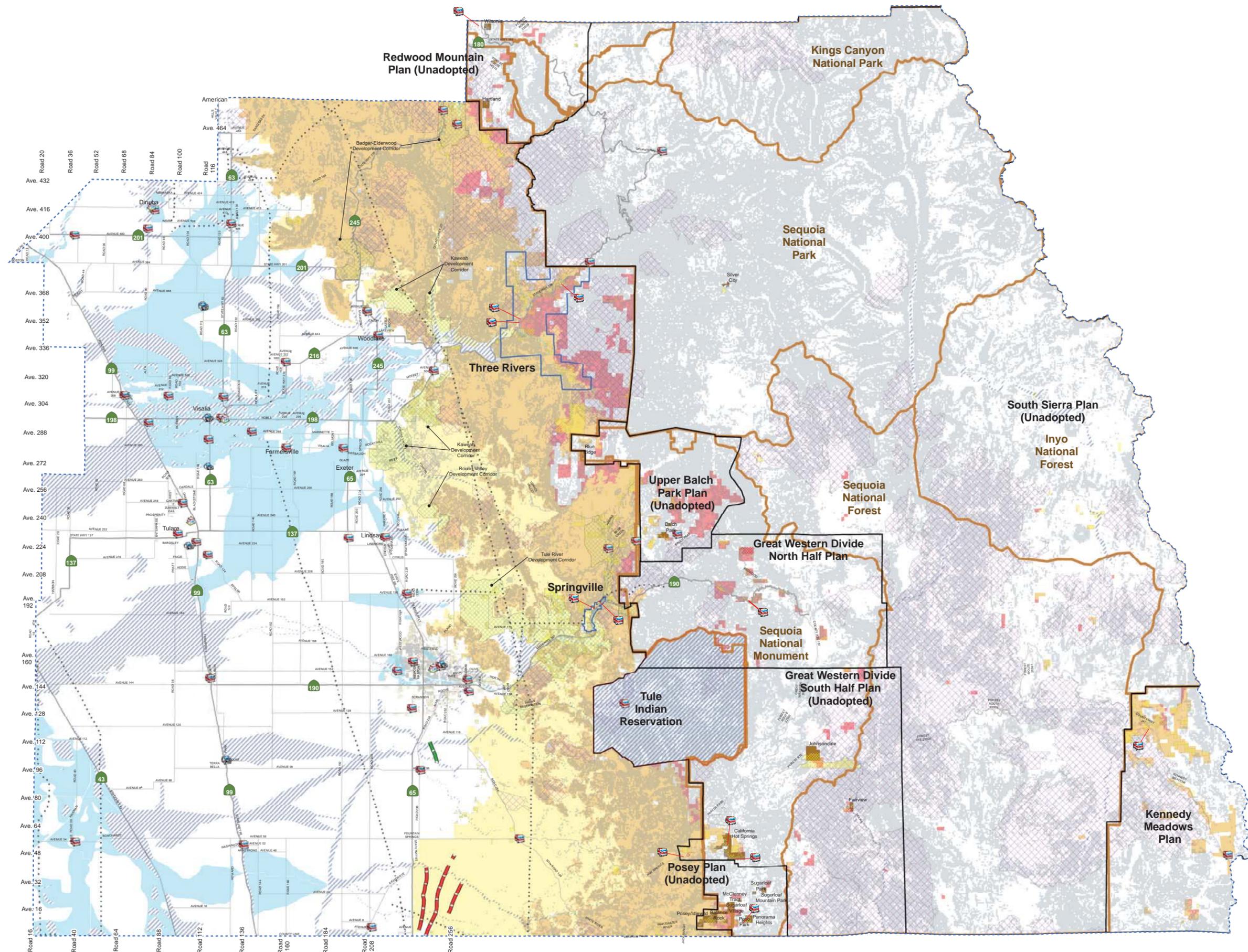
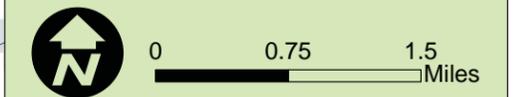


Figure 10-6
Areas Vulnerable to Flooding After Wildfires

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Legend

- Fire Stations
- Power Transmission Lines

Boundaries

- Sub Area Plan Boundaries
- Urban Development Boundary
- National Parks & Forests
- Mountain Service Centers
- Development Corridors
- 30% + Slopes
- Tulare County Boundary

Developed Parcels Land Use

Land Use

- Residential
- Commercial

Planned Land Use Parcels

Zoning Districts

- Residential
- Commercial

Historic Fires

- 1878-2013

State Responsibility Areas (2007)

Fire Hazard Severity Zones

- SRA, Very High
- SRA, High
- SRA, Moderate

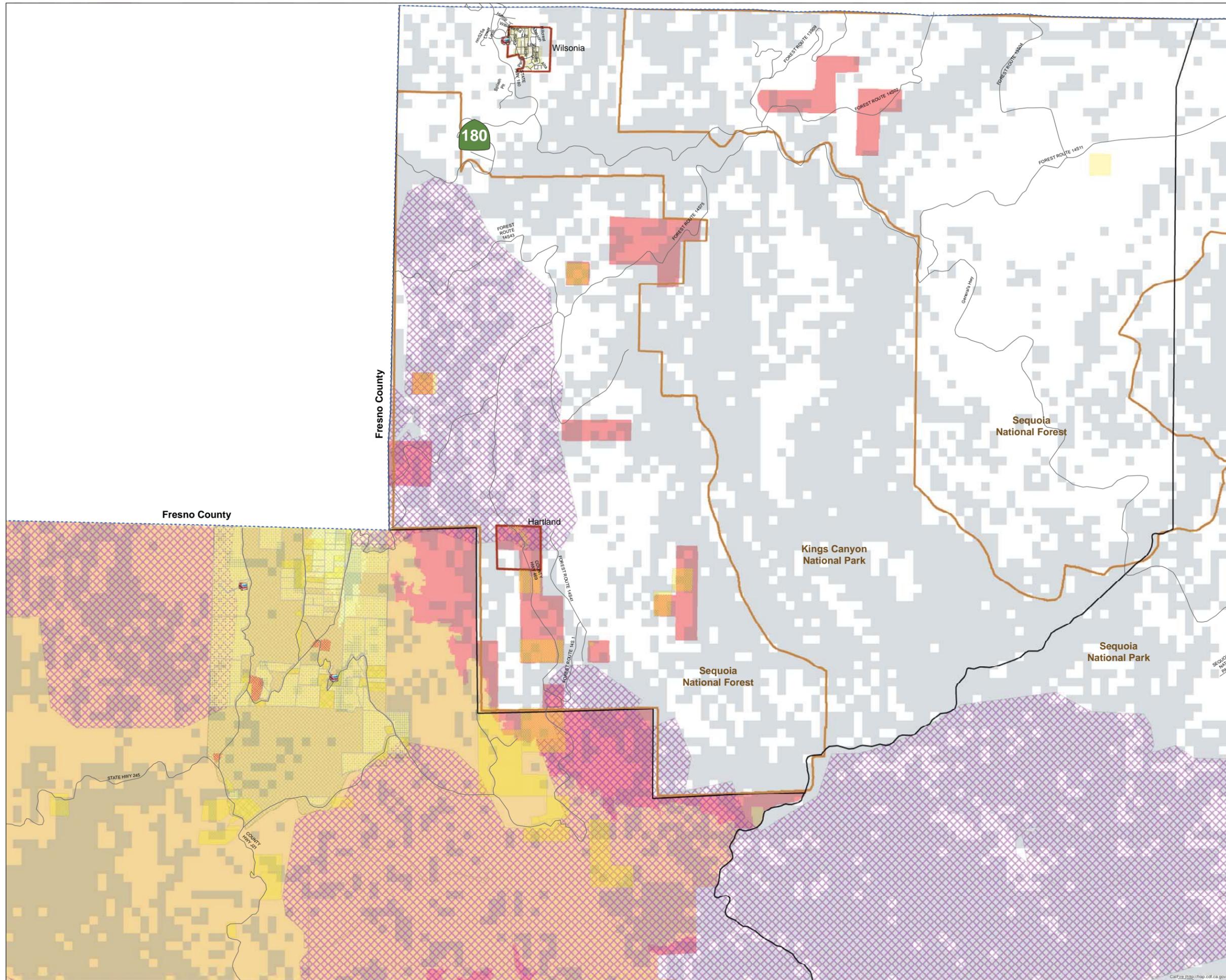


Figure 10-6A
 Areas Vulnerable to
 Flooding after Wildfires
 Redwood Mountain/Badger Area

Back of foldout



0 0.75 1.5 Miles

Legend

- Fire Stations
- Power Transmission Lines

Boundaries

- Sub Area Plan Boundaries
- Urban Development Boundary
- National Parks & Forests
- Development Corridors
- 30% + Slopes
- Tulare County Boundary

2014 FEMA Flood Zones

- FEMA 100 YR Flood Zone
- FEMA 500 YR Flood Zone

Developed Parcels Land Use

Land Use

- Residential
- Commercial

Planned Land Use Parcels

Zoning Districts

- Residential
- Commercial

Historic Fires

- 1878-2013

State Responsibility Areas (2007)

Fire Hazard Severity Zones

- SRA, Very High
- SRA, High
- SRA, Moderate

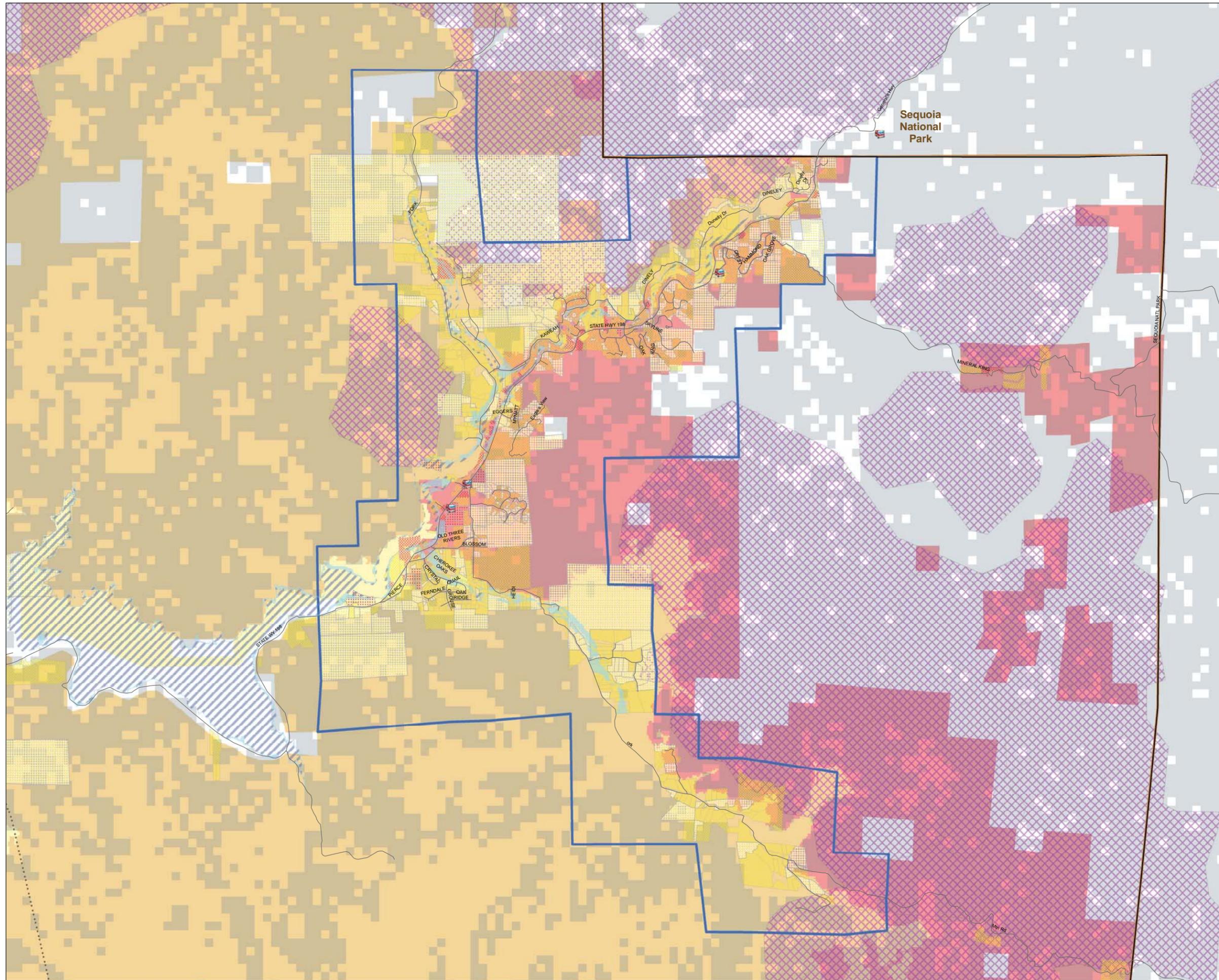


Figure 10-6B
Areas Vulnerable to
Flooding after Wildfires
Three Rivers Area

Back of foldout



0 0.75 1.5 Miles

Legend

- National Parks & Forests
- Fire Stations

Boundaries

- Sub Area Plan Boundaries
- Urban Development Boundary
- Mountain Service Centers
- Development Corridors
- 30% + Slopes
- Tulare County Boundary

2014 FEMA Flood Zones

- FEMA 100 YR Flood Zone

Developed Parcels Land Use

Land Use

- Residential
- Commercial

Planned Land Use Parcels

Zoning Districts

- Residential
- Commercial

Historic Fires

- 1878-2013

State Responsibility Areas (2007)

Fire Hazard Severity Zones

- SRA, Very High
- SRA, High
- SRA, Moderate

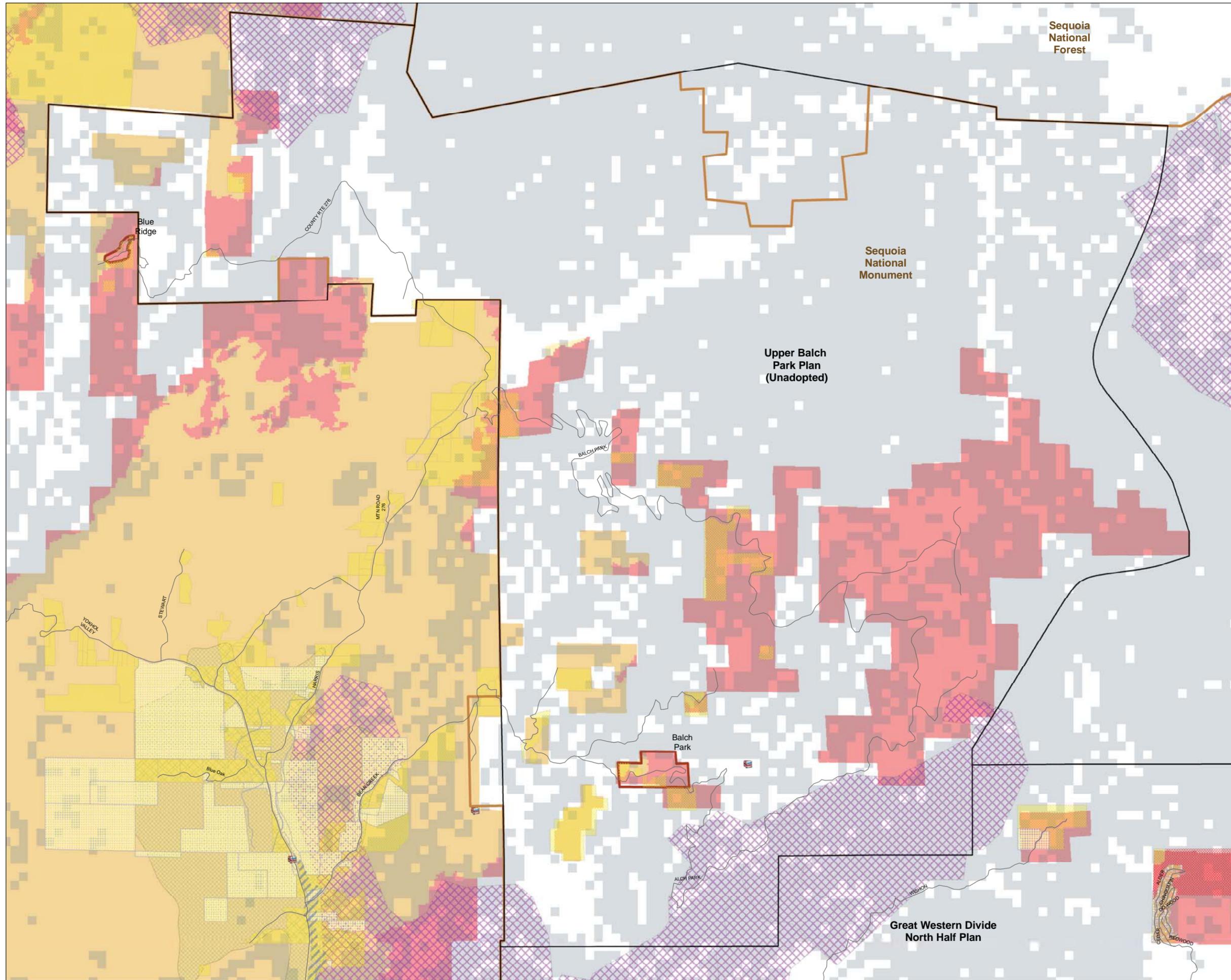
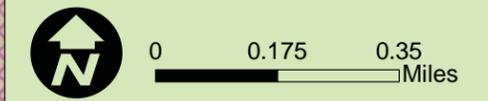


Figure 10-6C
Areas Vulnerable to Flooding after Wildfires
Upper Balch Park Area

Back of foldout



Legend

- Fire Stations
- Power Transmission Lines
- Urban Development Boundary
- Development Corridors
- 30% + Slopes
- Tulare County Boundary

2014 FEMA Flood Zones

- FEMA 100 YR Flood Zone
- FEMA 500 YR Flood Zone

Developed Parcels Land Use

Land Use

- Residential
- Commercial

Planned Land Use Parcels

Zoning Districts

- Residential
- Commercial

Historic Fires

- 1878-2013

State Responsibility Areas (2007)

Fire Hazard Severity Zones

- SRA, Very High
- SRA, High
- SRA, Moderate

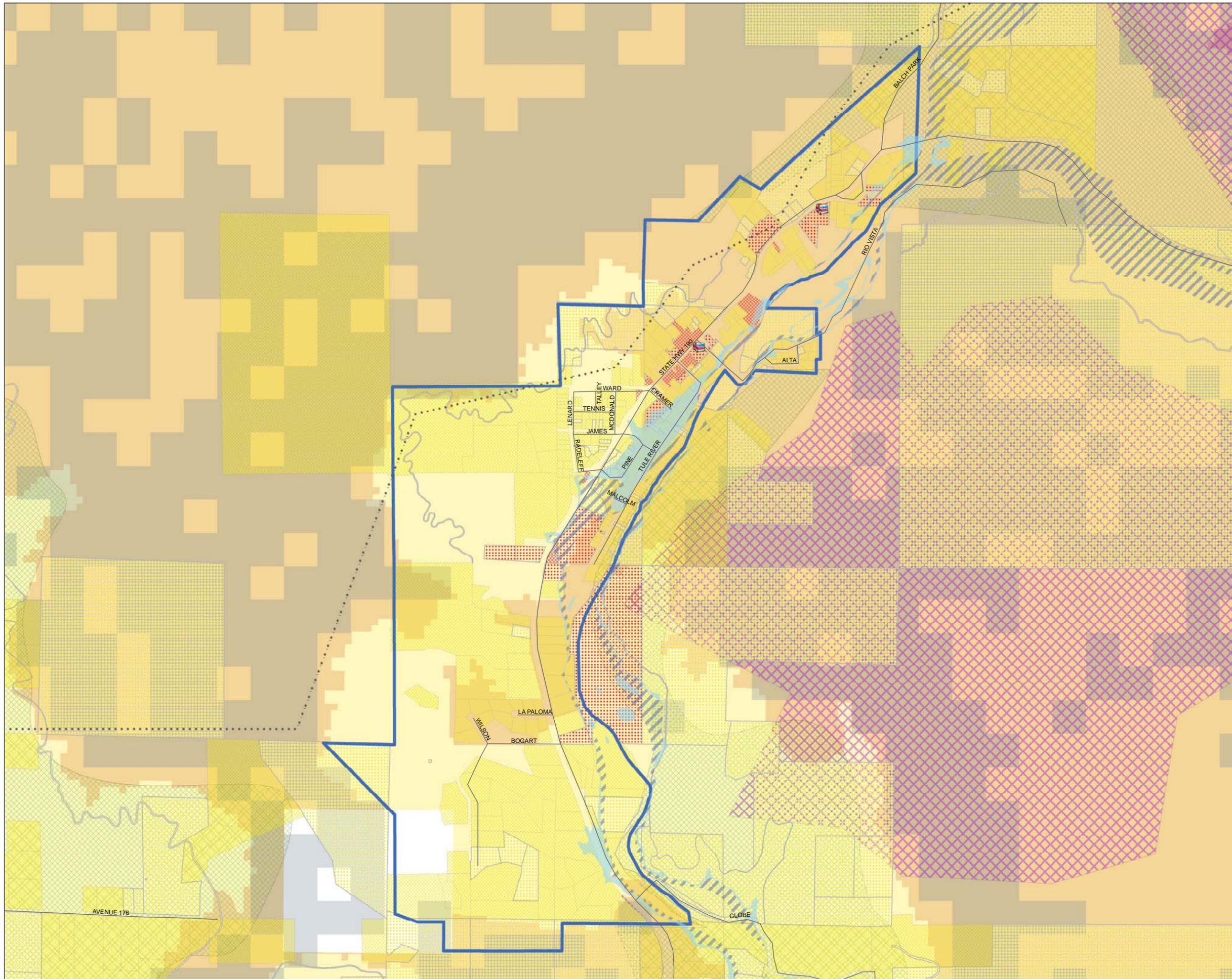


Figure 10-6D
Areas Vulnerable to
Flooding after Wildfires
Springville Area

Back of foldout



0 1 2 Miles

Legend

- Fire Stations
- Power Transmission Lines

Boundaries

- Sub Area Plan Boundaries
- Tule Indian Reservation
- Urban Development Boundary
- National Parks & Forests
- Mountain Service Centers
- Development Corridors
- 30% + Slopes
- Tulare County Boundary

2014 FEMA Flood Zones

- FEMA 100 YR Flood Zone

Developed Parcels Land Use

Land Use

- Residential
- Commercial

Planned Land Use Parcels

Zoning Districts

- Residential
- Commercial

Historic Fires

- 1878-2013

State Responsibility Areas (2007)

Fire Hazard Severity Zones

- SRA, Very High
- SRA, High
- SRA, Moderate

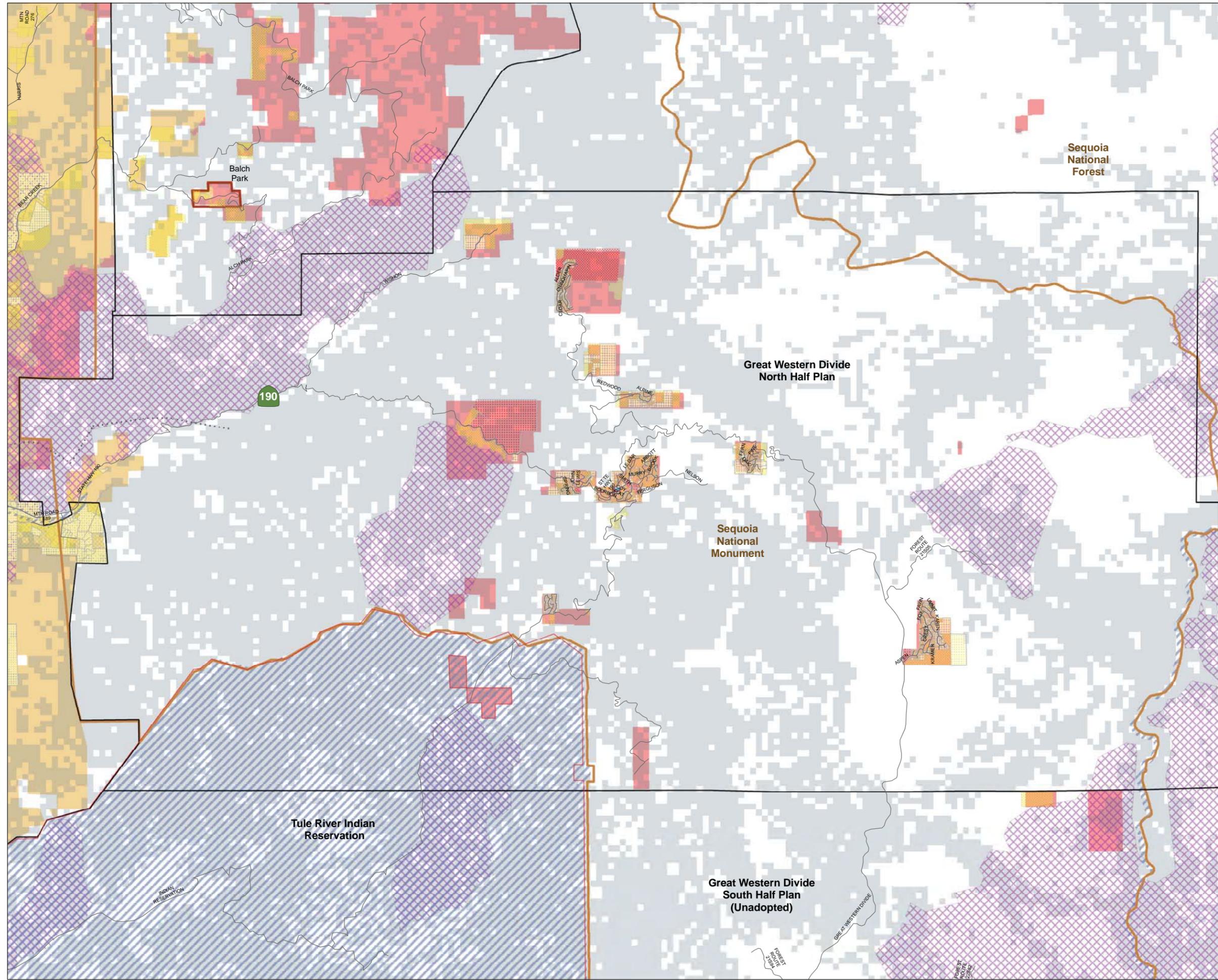


Figure 10-6E
Areas Vulnerable to Flooding after Wildfires
Great Western Divide North Half-Area

Back of foldout



0 1.25 2.5 Miles

Legend

Fire Stations

Boundaries

- Sub Area Plan Boundaries
- Tule Indian Reservation
- Urban Development Boundary
- Cedar Fire 2016
- National Parks & Forests
- Mountain Service Centers
- 30% + Slopes
- Tulare County Boundary

2014 FEMA Flood Zones

- FEMA 100 YR Flood Zone

Developed Parcels Land Use

Land Use

- Residential
- Commercial

Planned Land Use Parcels

Zoning Districts

- Residential
- Commercial

Historic Fires

- 1878-2013

State Responsibility Areas (2007)

Fire Hazard Severity Zones

- SRA, Very High
- SRA, High
- SRA, Moderate

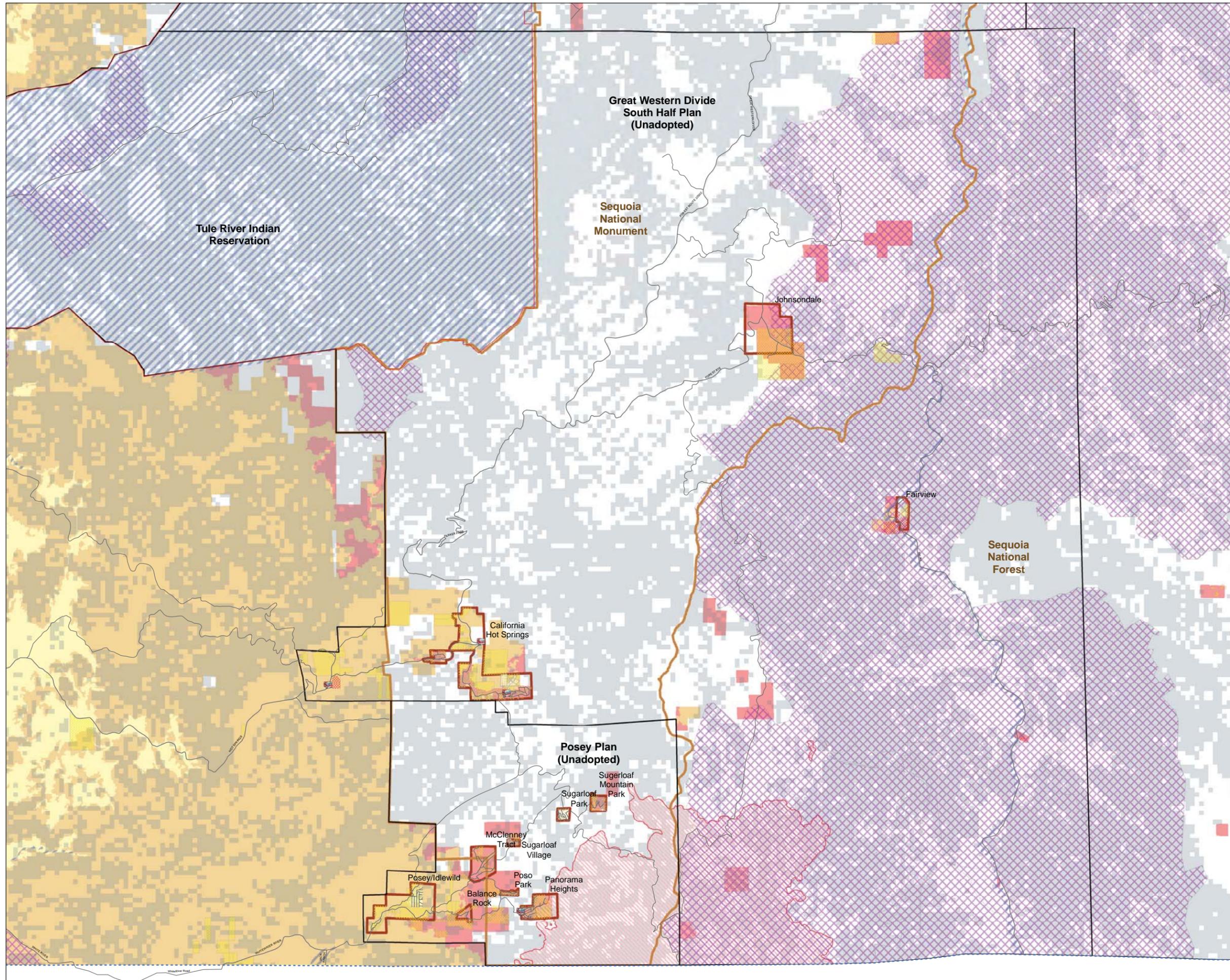


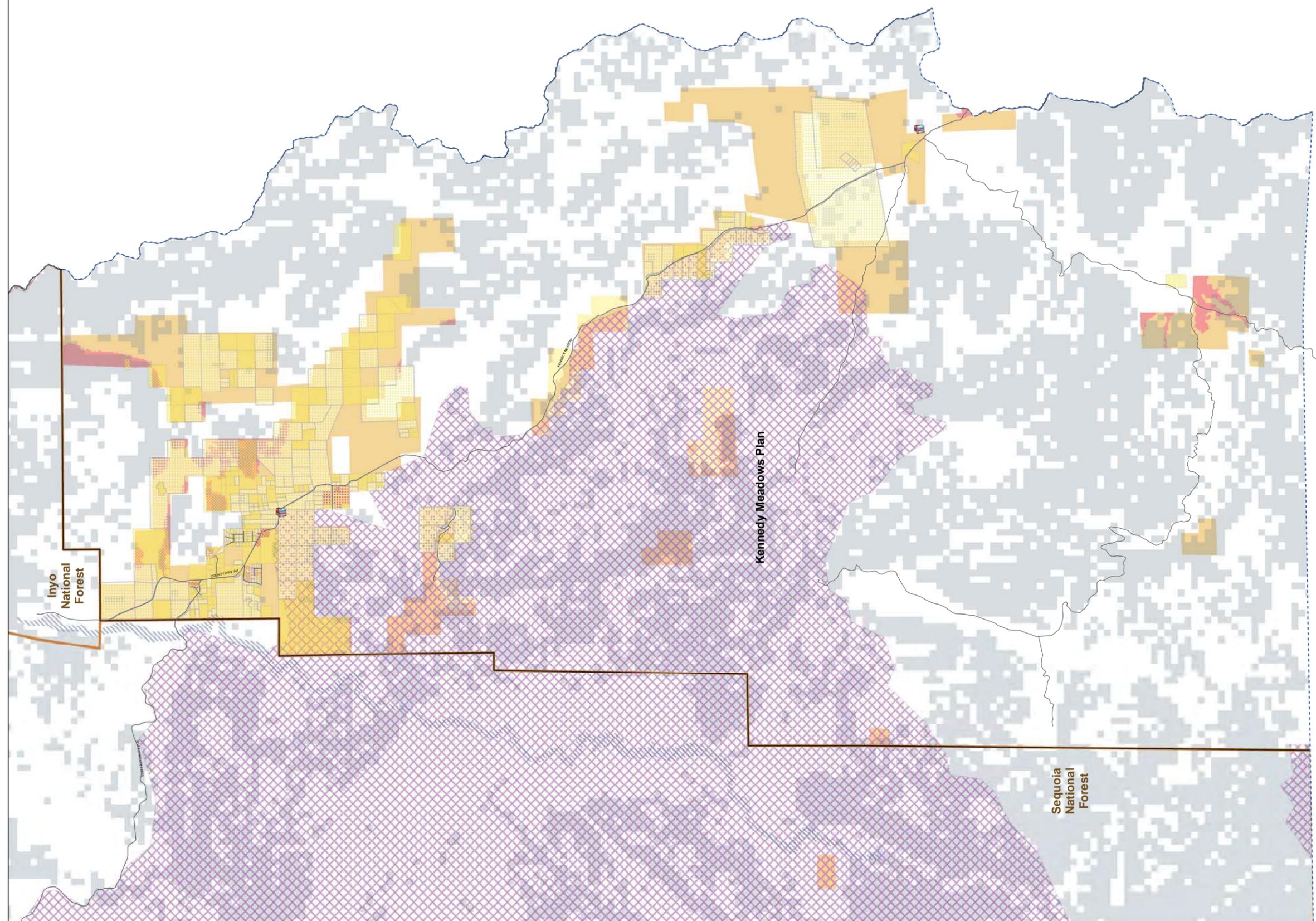
Figure 10-6F

Areas Vulnerable to Flooding after Wildfires
Great Western Divide South Half-Posey Area

Back of foldout



0 1 2 Miles

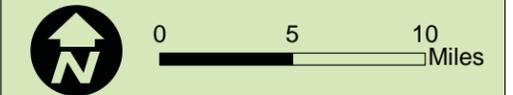


Legend

- Fire Stations
- Boundaries**
- Sub Area Plan Boundaries
- National Parks & Forests
- 30% + Slopes
- Tulare County Boundary
- 2014 FEMA Flood Zones**
- FEMA 100 YR Flood Zone
- Developed Parcels Land Use**
- Land Use**
- Residential
- Commercial
- Planned Land Use Parcels**
- Zoning Districts**
- Residential
- Commercial
- Historic Fires**
- 1878-2013
- State Responsibility Areas (2007)**
- Fire Hazard Severity Zones**
- SRA, Very High
- SRA, High
- SRA, Moderate

Figure 10-6G
Areas Vulnerable to
Flooding after Wildfires
Kennedy Meadows Area

Back of foldout



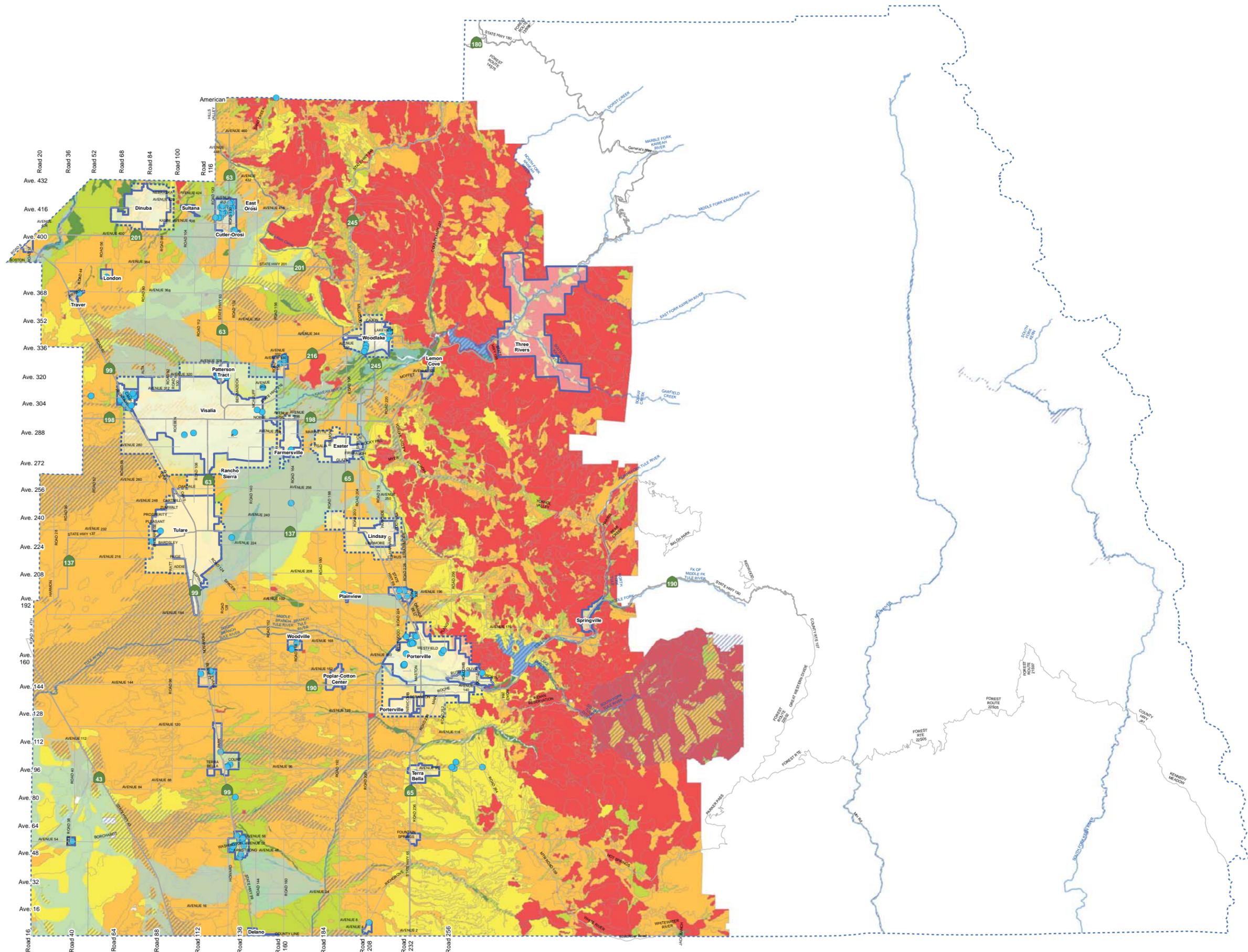
Legend

- Groundwater Recharge Basin Locations
- Tulare County Boundary
- Urban Development Boundaries
- Urban Area Boundaries
- Rivers and Streams
- Lakes
- 2014 FEMA Flood Zones**
- FEMA 100 YR Flood Zone
- FEMA 500 YR Flood Zone
- Soil Permeability**
- Rock
- Slow
- Moderate
- Rapid
- Very Rapid

Note: Mountain Areas are not currently mapped for Soil Type by Natural Resources Conservation Service

Figure 10-7

Areas for Groundwater Recharge



[Back of foldout](#)

- HS-2.2 Landslide Areas**
The County shall not allow development on existing unconsolidated landslide debris.
- HS-2.3 Hillside Development**
The County shall discourage construction and grading on slopes in excess of 30 percent.
- HS-2.4 Structure Siting**
The County shall permit development on soils sensitive to seismic activity permitted only after adequate site analysis, including appropriate siting, design of structure, and foundation integrity.
- HS-2.5 Financial Assistance for Seismic Upgrades**
The County shall request Federal and State financial assistance to implement corrective seismic safety measures required for existing County buildings and structures.
- HS-2.6 Seismic Standards for Dams**
The County shall continue to address seismic standards of dam safety as promulgated by the State Division of Safety of Dams, as applicable to all new and existing structures.
- HS-2.7 Subsidence**
The County shall confirm that development is not located in any known areas of active subsidence. If urban development may be located in such an area, a special safety study will be prepared and needed safety measures implemented. The County shall also request that developments provide evidence that its long-term use of ground water resources, where applicable, will not result in notable subsidence attributed to the new extraction of groundwater resources for use by the development.
- HS-2.8 Alquist-Priolo Act Compliance**
The County shall not permit any structure for human occupancy to be placed within designated Earthquake Fault Zones (pursuant to and as determined by the Alquist-Priolo Earthquake Fault Zoning Act; Public Resource code, Chapter 7.5) unless the specific provision of the Act and Title 14 of the California Code of Regulations have been satisfied.

10.3 Airport Hazards

HS-3 To minimize the possibility of the loss of life, injury, or damage to property as a result of airport hazards.

- HS-3.1 Airport Land Use Compatibility Plan**
The County shall require that development around airports is consistent with the safety policies and land use compatibility guidelines contained in the adopted Tulare County Comprehensive Airport Land Use Plan (CALUP).

① *Complete rules and regulations for ensuring airport land use compatibility are found in the Tulare County Comprehensive Airport Land Use Plan (PUC Section 21675(a)).*

- HS-3.2 Compliance with Federal Aviation Administration (FAA) Regulations**
The County shall ensure that development within the airport approach and departure zones is in compliance with Part 77 of the FAA Regulations (*FAA regulations that address objects affecting navigable airspace*).

10.4 Hazardous Materials

HS-4

To protect residents, visitors, and property from hazardous materials through their safe use, storage, transport, and disposal.

HS-4.1 Hazardous Materials

The County shall strive to ensure hazardous materials are used, stored, transported, and disposed of in a safe manner, in compliance with local, State, and Federal safety standards, including the Hazardous Waste Management Plan, Emergency Operations Plan, and Area Plan.

HS-4.2 Establishment of Procedures to Transport Hazardous Wastes

The County shall continue to cooperate with the California Highway Patrol (CHP) to establish procedures for the movement of hazardous wastes and explosives within the County.

HS-4.3 Incompatible Land Uses

The County shall prevent incompatible land uses near properties that produce or store hazardous waste.

HS-4.4 Contamination Prevention

The County shall review new development proposals to protect soils, air quality, surface water, and groundwater from hazardous materials contamination.

HS-4.5 Increase Public Awareness

The County shall work to educate the public about household hazardous waste and the proper method of disposal.

HS-4.6 Pesticide Control

The County shall monitor studies of pesticide use and the effects of pesticide on residents and wildlife and require mitigation of the effects wherever feasible and appropriate.

HS-4.7 Coordination of Materials on Public Lands

The County shall work jointly with State and Federal land managers to coordinate the handling and disposal of hazardous materials on public lands ~~[New Policy]~~.

HS-4.8 Hazardous Materials Studies

The County shall ensure that the proponents of new development projects address hazardous materials concerns through the preparation of Phase I or Phase II hazardous materials studies for each identified site as part of the design phase for each project. Recommendations required to satisfy federal or State cleanup standards outlined in the studies will be implemented as part of the construction phase for each project.

HS-4.9 Pesticide Use

The County shall support an integrated pest management program which includes the biological control methods overseen by the Tulare County Agricultural ~~Commissioners~~Commissioner's Office.

10.5 Flood Hazards

HS-5

To minimize the possibility for loss of life, injury, or damage to property as a result of flood hazards.

HS-5.1 Development Compliance with Federal, State, and Local Regulations

The County shall ensure that all development within the designated floodway or floodplain zones conforms with FEMA regulations and the Tulare County Flood Damage Prevention Ordinance.

New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions.

HS-5.2 Development in Floodplain Zones

The County shall regulate development in the 100-year floodplain zones as designated on maps prepared by FEMA in accordance with the following:

1. Critical facilities (those facilities which should be open and accessible during emergencies) shall not be permitted.
2. Passive recreational activities (those requiring non-intensive development, such as hiking, horseback riding, picnicking) are permissible.
3. New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions.



See also the Tulare County Flood Control Master Plan (Chapter 15).

HS-5.3 Participation in Federal Flood Insurance Program

The County shall continue to participate in the National Flood Insurance Program (NFIP).

HS-5.4 Multi-Purpose Flood Control Measures

The County shall encourage multipurpose flood control projects that incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the County's streams, creeks, and lakes. Where appropriate, the County shall also encourage the use of flood and/or stormwater retention facilities for use as groundwater recharge facilities.

HS-5.5 Development in Dam and Seiche Inundation Zones

The County shall review projects for their exposure to inundation due to dam failure. If a project presents a direct threat to human life, appropriate mitigation measures shall be taken, including restriction of development in the subject area.

HS-5.6 Impacts to Downstream Properties

The County shall ensure that new County flood control projects will not adversely impact downstream properties or contribute to flooding hazards.

HS-5.7 Mapping of Flood Hazard Areas

The County shall require tentative and final subdivision maps and approved site plans to delineate areas subject to flooding during a 100-year flood event.

HS-5.8 Road Location

The County shall plan and site new roads to minimize disturbances to banks and existing channels and avoid excessive cuts and accumulations of waste soil and vegetative debris near natural drainage ways.

HS-5.9 Floodplain Development Restrictions

The County shall ensure that riparian areas and drainage areas within 100-year floodplains are free from development that may adversely impact floodway capacity or characteristics of natural/riparian areas or natural groundwater recharge areas.

HS-5.10 Flood Control Design

The County shall evaluate flood control projects involving further channeling, straightening, or lining of waterways until alternative multipurpose modes of treatment, such as wider berms and landscaped levees, in combination with recreation amenities, are studied.

HS-5.11 Natural Design

The County shall encourage flood control designs that respect natural curves and vegetation of natural waterways while retaining dynamic flow and functional integrity.

HS-5.12 Consultation Policies and Protocols

The following Consultation Policies and Protocols as adopted by the Tulare County Board of Supervisors on October 13, 2015 are incorporated by reference into the Tulare County General Plan Health and Safety Element as follows:

a) Establishing a Process for Use in the Review of Development Projects Requiring County of Tulare Discretionary Land Use Entitlements to Identify any Impacts on Potential Groundwater Recharge Areas.

b) Establishing a Policy for Use in the Review of Development Projects to be Located in particular flood prone Areas and Requiring County of Tulare Discretionary Land Use Entitlements.

c) Establishing a Recommendation to the Tulare County Flood Control Commission Regarding Adoption of a Public Notice Policy to Allow Increased Public Participation in its Process To Select Proposed Flood Control Projects For Referral to the Board of Supervisors.



See also Figures 10-1 Flood Hazards and Faults, and Figure 10-2 Fire Threat, Figure 10-3 Designated Floodways, Figure 10-6 and Figures 10-6 A-G Areas Vulnerable to Flooding after Wildfires.

10.6 Urban and Wildland Fire Hazards

HS-6

To minimize the exposure of County residents, visitors, and public and private property to the effects of urban and wildland fires.

HS-6.1 New Building Fire Hazards

The County shall ensure that all building permits in urban areas, as well as areas with potential for wildland fires, are reviewed by the County Fire Chief. The following minimum requirements should be met to review developments or uses within areas of varying fire hazards:

- a. Very High Hazard – Extreme caution should be used in allowing development, particularly critical facilities.
- b. High Hazard – Strict compliance with existing State statutes and local ordinances should provide adequate fire protection.
- c. Moderate Hazard – Development should be allowed, with recommendations for mitigation of hazard by Fire Warden.

HS-6.2 Development in Fire Hazard Zones

The County shall ensure that development in ~~extreme~~ very high or high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards. This shall include promoting the use of fire resistant materials designed to reduce fire vulnerability within high or ~~extreme~~ very high fire hazard areas through use of Article 86-A of the 2001 California Fire Code, SRA Fire Safe Regulations, and other nationally recognized standards, as may be updated periodically. Special consideration shall be given to the use of fire-resistant-materials and fire-resistant-construction in the underside of eaves, balconies, unenclosed roofs and floors, and other similar horizontal surfaces in areas with steep slopes. Ensure new development proposals contain specific fire protection plans, actions, and codes for fire engineering features for structures in Very High Fire Hazard Safety Zones including automatic sprinklers as required by applicable codes.

Government Code Section 66474.02: ... (a) Before approving a tentative map, or a parcel map for which a tentative map was not required, for an area located in a state responsibility area or a very high fire hazard severity zone, as both are defined in Section 51177, a legislative body of a county shall make the following three findings:

(1) A finding supported by substantial evidence in the record that the design and location of each lot in the subdivision, and the subdivision as a whole, are consistent with any applicable regulations adopted by the State Board of Forestry and Fire Protection pursuant to Sections 4290 and 4291 of the Public Resources Code.



(2) A finding supported by substantial evidence in the record that structural fire protection and suppression services will be available for the subdivision through any of the following entities:

(A) A county, city, special district, political subdivision of the state, or another entity organized solely to provide fire protection services that is monitored and funded by a county or other public entity.

(B) The Department of Forestry and Fire Protection by contract entered into pursuant to Section 4133, 4142, or 4144 of the Public Resources Code.

(3) A finding that to the extent practicable, ingress and egress for the subdivision meets the regulations regarding road standards for fire equipment access adopted pursuant to

Section 4290 of the Public Resources Code and any applicable local ordinance.

HS-6.3 Consultation with Fire Service Districts

The County shall consult the appropriate fire service district in areas identified as subject to high and **extremevery high** fire hazard, for particular regulations or design requirements prior to issuance of a building permit or approval of subdivisions.

HS-6.4 Encourage Cluster Development

The County shall encourage cluster developments in areas identified as subject to high or **extremevery high** fire hazard, to provide for more localized and effective fire protection measures such as consolidations of fuel build-up abatement, firebreak maintenance, fire fighting equipment access, and water service provision.

HS-6.5 Fire Risk Recommendations

The County shall encourage the County Fire Chief to make recommendations to property owners regarding hazards associated with the use of materials, types of structures, location of structures and subdivisions, road widths, location of fire hydrants, water supply, and other important considerations regarding fire hazard that may be technically feasible but not included in present ordinances or policies.

Please also see the following regarding minimum road widths and standards:

a) Transportation and Circulation Element Part I Section 13.7 Implementation Program – Roadway Standards and Foothill Growth Management Plan Part II Section 3.12 Development Standards-Land Improvements: Streets.

b) Improvement Standards of Tulare County (Tulare County Ordinance Code Section 7-01-2025).



c) Tulare County Ordinance Code Part VII Land Use Regulations and Planning Chapter 1 Subdivision and Regulation of Land, Article 3 Design and Improvement Regulations, and Chapter 19 Regulations Concerning Streets and Highways Article 1. Building Line Setbacks and Article 3 Article 1. Building Line Setbacks.

d) January 1, 2016 California Code of Regulations Title 14 Natural Resources Division 1.5 Department of Forestry Chapter 7 - Fire Protection Subchapter 2 SRA Fire Safe Regulations Article 2. Emergency access and egress § 1273.01. Road width.

HS-6.6 Wildland Fire Management Plans

The County shall require the development of wildland fire management plans for projects adjoining significant areas of open space that may have high fuel loads.

HS-6.7 Water Supply System

The County shall require that water supply systems be adequate to serve the size and configuration of land developments, including satisfying fire flow requirements. Standards as set forth in the subdivision ordinance shall be maintained and improved as necessary.

HS-6.8 Private Water Supply

The County shall require separately developed dwellings with individual private water supply to provide an acceptable guaranteed minimum supply of water for fire safety, in addition to the amount required for domestic needs.

HS-6.9 Fuel Modification Programs

The County shall actively support fuel modification and reduction programs on public and private lands throughout the County-, including vacant residential lots and greenbelts and, with the relevant partners, on adjacent private wildlands or federal lands with fire hazards that threaten the entity's jurisdiction as feasible and appropriate.

HS-6.10 Fuel Breaks

In the Foothill and Mountain Plan Areas, the County shall require fuel breaks of at least 100 feet around structures that are in a wildland fire area to limit the risk of fires and property loss. Secondary fuel breaks up to 200 feet in width shall be required when the County Fire Chief finds that additional precautions are necessary.

HS-6.11 Fire Buffers

The County shall strive to maintain fire buffers along heavily traveled roads within high and extremevery high hazard zones by thinning, disking, or controlled burning. Parks, golf courses, utility corridors, roads, and open space areas shall be encouraged to locate so they serve a secondary function as a fuel break.

HS-6.12 Weed Abatement

The County shall continue to encourage weed abatement programs throughout the County in order to promote fire safety.

HS-6.13 Restoration of Disturbed Land

The County shall support the restoration of disturbed lands resulting from wildfires.

HS-6.14 Coordination with Cities

The County shall coordinate with cities to develop cohesive fire safety plans with overlapping coverage.

HS-6.15 Coordination of Fuel Hazards on Public Lands

The County shall work with local and Federal agencies to support efforts to reduce fuel related hazards on public lands.

HS-6.16 Consideration of Diverse Occupancies and their effects on Wildfire Protection

The County shall strive to ensure risks to uniquely occupied structures, such as seasonally occupied homes, multiple dwelling structures, or other structures with unique occupancy characteristics, are considered for appropriate and unique wildfire protection needs.

HS-6.17 Integration of Open Space into Fire Safety Effectiveness

The County shall strive to address the facilitation of safe fire suppression tactics, standards for adequate access for firefighting, fire mitigation planning with agencies/private landowners managing open space adjacent to the County jurisdictional area, water sources for fire suppression, and other fire prevention and suppression needs.

HS-6.18 Mitigation for unique pest, disease and other forest health issues leading to hazardous situations

The County shall strive to address unique pest, disease, exotic species and other forest health issues in open space areas for purposes of reducing fire hazard and supporting ecological integrity.

HS-6.19 Wildfire Risk Reduction related to Climate Change

The County shall strive to reduce the wildfire risk as it relates to climate change, such as the drought and it's relation to tree mortality by implementing the Tree Mortality Removal Plan.

HS-6.20 Fire Suppression Defense Zones

The County shall support the creation of wildfire defense zones for emergency services, including fuel breaks or other staging areas where WUI firefighting tactics could be most effectively deployed as appropriate consistent with the strategies identified in the Multi-Jurisdictional Local Hazard Mitigation Plan.

HS-6.21 Redevelopment of Structures in High and Very Hazardous Areas

In High and Very hazardous areas, the County shall strive to ensure that the redevelopment of structures utilize state of the art fire resistant building and development standards to improve past 'substandard' fire safe conditions as feasible and appropriate according to applicable codes.

HS-6.22 Long Term Maintenance of Fire Hazard Reduction Mitigation Projects

Consistent with the Multi-Jurisdictional Local Hazard Mitigation Plan, the County shall support maintenance of the post-fire-recovery projects, activities, or infrastructure as feasible and appropriate.

HS-6.23 Reassessment of Fire Hazards Following Wildfire Events

The County shall strive as reasonable and appropriate to adjust fire prevention and suppression needs for both short and long term fire protection in the reassessment of fire hazards following wildfire events.

HS-6.24 Consideration of Wildlife Habitat/Endangered Species in Developing Long Term Fire Area Recovery and Protection Plans

The County shall consider wildlife habitat/endangered species in developing long term fire area recovery and protection plans, including environmental protection agreements such as natural community conservation plans.

HS-6.25 Emergency Response Barriers

The County shall support the identification of vital access routes that if removed would prevent fire fighter access (bridges, dams, etc.) as included in the Multi-Jurisdictional Local Hazard Mitigation Plan to address emergency access planning for these areas.

10.7 Emergency Response

HS-7

To provide effective emergency response to natural or human-made hazards and disasters.

HS-7.1 **Coordinate Emergency Response Services with Government Agencies**

The County shall coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters utilizing SEMS and NIMS.

HS-7.2 **Mutual Aid Agreement**

The County shall participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.

HS-7.3 **Maintain Emergency Evacuation Plans**

The County shall continue to create, revise, and maintain emergency plan for the broad range of natural and human-made disasters and response activities that could foreseeably impact Tulare County. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/transportation, mass care and shelter, and animal evacuation and sheltering. Emergency Planning projects shall be in line with the County's Strategic Plan and Emergency Operations Plan, and incorporate current guidance and initiatives from State and Federal Emergency Management Agencies.

HS-7.4 **Upgrading for Streets and Highways**

The County shall evaluate and upgrade vital streets and highways to an acceptable level for emergency services.

HS-7.5 **Emergency Centers**

The County shall require emergency backup systems to enable uninterrupted continuous operations as required by the California Essential Facilities Act.

HS-7.6 **Search and Rescue**

The County should continue to provide search and rescue operation capabilities for the Tulare County Sheriff's Department in mountainous areas, including those areas on the eastern side of the Sierra Nevada that are not served by all-weather roads.

HS-7.7 **Joint Exercises**

The County shall encourage fire, law enforcement, emergency medical services, resource management, public health, and other governmental and non-governmental response partners to periodically conduct joint training exercises with the goal of developing the best possible coordinated action in the event of a natural or human-made disaster across all local jurisdictions.

HS-7.8 Tulare County Multi-Jurisdiction Hazard Mitigation Plan

The County incorporates the adopted Tulare County Multi-Jurisdiction Hazard Mitigation Plan into the Tulare County General Plan Health and Safety Element. The plan provides guidance and insight into the hazards that exist in Tulare County and suggests possible mitigation projects. The plan should be consulted when addressing known hazards to ensure the general health and safety of Tulare County residents.

HS-7.9 Climate Adaptation and Resiliency

The County incorporates the Climate Adaptation and Resiliency strategies identified in California Government Code 65302 (g)(4) as adopted in the Tulare County Multi-Jurisdiction Hazard Mitigation Plan and Tulare County Climate Action Plan into the Tulare County General Plan Health and Safety Element.

10.8 Noise

HS-8 To protect County residents and visitors from the harmful effects of excessive noise while promoting the County economic base.

HS-8.1 Economic Base Protection

The County shall protect its economic base by preventing the encroachment of incompatible land uses on known noise-producing industries, railroads, airports, and other sources.

HS-8.2 Noise Impacted Areas

The County shall designate areas as noise-impacted if exposed to existing or projected noise levels that exceed 60 dB Ldn (or Community Noise Equivalent Level (CNEL)) at the exterior of buildings.

HS-8.3 Noise Sensitive Land Uses

The County shall not approve new noise sensitive uses unless effective mitigation measures are incorporated into the design of such projects to reduce noise levels to 60 dB Ldn (or CNEL) or less within outdoor activity areas and 45 dB Ldn (or CNEL) or less within interior living spaces.

HS-8.4 Airport Noise Contours

The County shall ensure new noise sensitive land uses are located outside the 60 CNEL contour of all public use airports.

HS-8.5 State Noise Standards

The County shall enforce the State Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the Uniform Building Code (UBC). Title 24 requires that interior noise levels not exceed 45 dB Ldn (or CNEL) with the windows and doors closed within new developments of multi-family dwellings, condominiums, hotels, or motels. Where it is not possible to reduce exterior noise levels within an acceptable range the County shall require the application of noise reduction technology to reduce interior noise levels to an acceptable level.

HS-8.6 Noise Level Criteria

The County shall ensure noise level criteria applied to land uses other than residential or other noise-sensitive uses are consistent with the recommendations of the California Office of Noise Control (CONC).

① *Table 10.1: Land Use Compatibility for Community Noise Environments (see next page), is provided as a reference concerning the sensitivity of different land uses to their noise environment. It is intended to illustrate the range of noise levels which will allow the full range*

of activities normally associated with a given land use.

HS-8.7 Inside Noise

The County shall ensure that in instances where the windows and doors must remain closed to achieve the required inside acoustical isolation, mechanical ventilation or air conditioning is provided.

HS-8.8 Adjacent Uses

The County shall not permit development of new industrial, commercial, or other noise-generating land uses if resulting noise levels will exceed 60 dB Ldn (or CNEL) at the boundary of areas designated and zoned for residential or other noise-sensitive uses, unless it is determined to be necessary to promote the public health, safety and welfare of the County.

HS-8.9 County Equipment

The County shall strive to purchase equipment that complies with noise level performance standards set forth in the Health and Safety Element.

HS-8.10 Automobile Noise Enforcement

The County shall encourage the CHP, Sheriff's office, and local police departments to actively enforce existing sections of the California Vehicle Code relating to adequate vehicle mufflers, modified exhaust systems, and other amplified noise.

HS-8.11 Peak Noise Generators

The County shall limit noise generating activities, such as construction, to hours of normal business operation (7 a.m. to 7 p.m.). No peak noise generating activities shall be allowed to occur outside of normal business hours without County approval.

HS-8.12 Foothill and Mountain Noise

For areas designated by Tulare County as being within Foothill and Mountain Planning Areas and outside Foothill Development Corridors, the hourly Leq resulting from the development or new noise-sensitive land uses or new noise-generating sources shall not exceed 50 dB during the day (7:00 a.m.-10:00 p.m.) or 40 dB during the night (10:00 p.m.-7:00 a.m.) when measured at the boundary of areas containing or planned and zoned for residential or other noise-sensitive land uses. For these same areas and under the same circumstances, the maximum A-weighted noise level (Lmax) shall not exceed 70 dB during the day or 60 dB during the night.

HS-8.13 Noise Analysis

The County shall require a detailed noise impact analysis in areas where current or future exterior noise levels from transportation or stationary sources have the potential to exceed the adopted noise policies of the Health and Safety Element, where there is development of new noise sensitive land uses or the development of potential noise generating land uses near existing sensitive land uses. The noise analysis shall be the responsibility of the project applicant and be prepared by a qualified acoustical engineer (i.e., a Registered Professional Engineer in the State of California, etc.). The analysis shall include recommendations and evidence to establish mitigation that will reduce noise exposure to acceptable levels (such as those referenced in Table 10-1 of the Health and Safety Element).

HS-8.14 Sound Attenuation Features

The County shall require sound attenuation features such as walls, berming, heavy landscaping, between commercial, industrial, and residential uses to reduce noise and vibration impacts.

HS-8.15 Noise Buffering

The County shall require noise buffering or insulation in new development along major streets, highways, and railroad tracks.

Table 10.1 Land Use Compatibility for Community Noise Environments

Land Use Category	Community Noise Exposure- L_{dn} or CNEL (dB)							
	50	55	60	65	70	75	80	
Residential - Low Density Single Family, Duplex, Mobile Homes								
Residential – Multi-Family								
Transient Lodging – Motels, Hotels								
Schools, Libraries, Churches, Hospitals, Nursing Homes								
Auditoriums, Concerts Halls, Amphitheaters								
Sports Arenas, Outdoor Spectator Sports								
Playgrounds, Neighborhood Parks								
Golf Courses, Riding Stables, Water Recreation, Cemeteries								
Office Buildings, Business Commercial and Professional								
Industrial, Manufacturing, Utilities, Agriculture								
	Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.						
	Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.						
	Normally Unacceptable	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.						
	Clearly Unacceptable	New construction or development generally should not be undertaken.						

[Source: Figure Noise-1. State Land Use Compatibility Standards for Community Noise Environment: California Governor's Office of Planning and Research, October 2003]

HS-8.16 State Noise Insulation

The County shall enforce the State Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the Uniform Building Code.

HS-8.17 Coordinate with Caltrans

The County shall work with Caltrans to mitigate noise impacts on sensitive receptors near State roadways, by requiring noise buffering or insulation in new construction.

HS-8.18 Construction Noise

The County shall seek to limit the potential noise impacts of construction activities by limiting construction activities to the hours of 7 am to 7pm, Monday through Saturday when construction activities are located near sensitive receptors. No construction shall occur on Sundays or national holidays without a permit from the County to minimize noise impacts associated with development near sensitive receptors.

HS-8.19 Construction Noise Control

The County shall ensure that construction contractors implement best practices guidelines (i.e. berms, screens, etc.) as appropriate and feasible to reduce construction-related noise-impacts on surrounding land uses.

10.9 Healthy Communities

HS-9

To support healthy lifestyles among residents of Tulare County through the built environment and land use decisions that play an important role in shaping the pattern of community development, in either promoting or discouraging good health for its citizens.

HS-9.1 Healthy Communities

To the maximum extent feasible, the County shall strive through its land use decisions to promote community health and safety for all neighborhoods in the County by encouraging patterns of development that are safe and influence crime prevention, promote a high-quality physical environment and encourage physical activity by means such as sidewalks and walking and biking paths that discourage automobile dependency in existing communities.

HS-9.2 Walkable Communities

The County shall require where feasible, the development of parks, open space, sidewalks and walking and biking paths that promote physical activity and discourage automobile dependency in all future communities.

10.10 Work Plan/Implementation Measures

The following table documents the Implementation Measures included with the General Plan to implement the goals and policies included in this Element.

Implementation	Implements what Policy	Who is Responsible	2012-2015	2015-2020	2020-2030	On-Going
1. The County shall maintain a program for training County staff in disaster preparedness and response.	HS-1.1	OES				■
2. The County shall review and update the Public Health All Hazards Preparedness and Response Plan at least every 5 years.	HS-1.1	HHSA; PHEP				■
3. The County shall maintain an Emergency Services Program. The program shall perform comprehensive Emergency Management for the Tulare Operational Area, in the major categories of: a. Preparedness (Including grants, planning, training and exercises), b. Response (including coordination with all local, State Federal, non-governmental, and volunteer agencies through the Emergency Operations Center), c. Recovery (including cost recovery, and other disaster assistance programs), d. Mitigation (including Local Hazard Mitigation Programs) The Emergency Services Program shall perform additional functions as prescribed by State (SEMS/CalEMA) and Federal (NIMA/FEMA) guidelines, including monitoring the adoption of NIMA by local jurisdictions.	HS-1.1 HS-1.5	OES				■
4. The County shall create a program that trains volunteers to assist police, fire, and County sheriff personnel how to perform effectively after a natural or human-made disaster.	HS-1.1 HS-1.5 HS-1.6	RMA; CAL FIRE; County Fire Department				■

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Implementation	Implements what Policy	Who is Responsible	2012-2015	2015-2020	2020-2030	On-Going
5. The County shall actively maintain the Emergency Council, as defined by County Ordinance (Part 1, Chapter 15). The Emergency Council shall perform various functions, including but not restricted to: a. Reviewing the preparation and progress of the cities and County in carrying out disaster and emergency services plan and functions. b. Coordination public agencies for efficiency in protection of public safety.	HS-1.1 HS-7.7	CAO HHSa				■
6. The County shall monitor and continue to seek funding to rehabilitate unsafe and dilapidated structures.	HS-1.7	RMA; CAL FIRE; County Fire Department; HHSa				■
7. The County shall develop standards for numbering buildings on private driveways to assist emergency service personnel in locating structures. <u>(Standards are identified in Policy HS-1.12).</u>	HS-1.4 HS-1.12	RMA		■		<u>Implemented Program November 2016</u>
8. The County shall develop a public education program to foster public awareness about fire hazards to reduce injury and loss of life and damage to property and degradation of the natural environment, particularly in conjunction with the public school system and "critical facility" personnel. <u>(The Tulare County Fire Department has established an on-going public education program implemented through the Fire Prevention Bureau. This function is carried out by the Public Fire Education programs delivered to the public that will reach and educate the general public, high-risk groups, children, elderly and the non-English speaking persons. This is done through programs such as juvenile fire-setters, a smoke alarm distribution and installation program, community first aid and CPR, NFPA Firewatch, Sparky the Dog and other programs that partner with public schools at the</u>	HS-1.5 HS-1.6	RMA; CAL FIRE; County Fire; County Sheriff	■			<u>Implemented Program November 2016</u>

Implementation	Implements what Policy	Who is Responsible	2012-2015	2015-2020	2020-2030	On-Going
<p><u>different grade levels. This would also include programs that are disseminated at community events such as the county fair and community festivals.</u></p>						
<p>9. The County shall pre-identify and periodically review evacuation routes in anticipation of an emergency. During an emergency requiring and evacuation, the County shall cooperatively select and publicize evacuation routes with the assistance of all involved agencies, based on the best – available information regarding the situation, in order to ensure a safe, orderly, and well-managed evacuation.</p>	<p>HS-1.5 HS-1.6 HS-1.9 <u>HS-6.25</u></p>	<p>RMA; OES; CAL FIRE; County Fire Department</p>				■
<p>10. The County shall work with other local agencies, including cities within the County, to develop coordinated GIS planning that identifies and maps the location of all public facilities and emergency response agencies. Contingency plans for emergency response and recovery should be incorporated into this mapping system.</p>	<p>HS-1.8</p>	<p>RMA</p>		■		
<p>11. The County shall maintain a fire hazard severity map based on inputs from the Cal Fire and local fire districts within the County. The County shall use this map to determine if additional fire safety conditions should be applied as conditions of approval. If inside a fire hazard area, the County will consult with County Fire Department personnel, Cal Fire, and the U.S. Forest Service to determine appropriate protections.</p>	<p>HS-1.8 HS-6.6</p>	<p>RMA; CAL FIRE; County Fire Department</p>				■
<p>The County's fire hazard map will combine the following information:</p> <ol style="list-style-type: none"> Number of fires by activity and area, Number of users in the area, Number of fires by ignition index in State responsibility areas, and Any other information request by the Emergency Council of 						

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Implementation	Implements what Policy	Who is Responsible	2012-2015	2015-2020	2020-2030	On-Going
the Tulare Operational Area as necessary.						
12. The County shall maintain its Hazardous Waste Management Plan and develop regulations for the placement of hazardous waste sites and develop standards for types of uses which would be compatible. Existing hazardous waste development requirements shall be enforced.	HS-4.1 HS-4.2 HS-4.3	RMA; HHSA, Env. Health			■	
13. The County shall develop standards for the type, location, and intensity of development adjacent to sites and facilities for the production, use, storage, and disposal of toxic and hazardous materials.	HS-4.3	RMA; CAL FIRE; County Fire Department			■	
14. The County shall maintain and annually update a Countywide database of FEMA flood plain maps to evaluate projects and provide to County residents, businesses, and developers.	HS-5.1 HS-5.2	RMA				■
15. The County shall adopt the following standards for use and development in areas of varying fire hazards and using the Fire Hazard Severity Scale as indicated below to review developments or uses within wildlands. The following minimum requirements should be met in relation to the three classes of Fire Hazard Severity as discussed within the context of the Health and Safety Element: a. Extreme <u>Very high</u> Hazard – Extreme caution should be used in allowing development, particularly critical facilities. b. Moderate <u>High</u> Hazard – Strict compliance with existing State statutes and local ordinances should provide adequate fire protection. c. Minimum <u>Moderate</u> Hazard – Development should be allowed, with recommendations for mitigation of hazard by Fire Warden. <u>(The standards identified in this implementation measure are incorporated into Policy HS-6.1.</u>	HS-6.1 HS-6.2	RMA; CAL FIRE; County Fire Department	■			<u>Implemented Program November 2016</u>

Implementation	Implements what Policy	Who is Responsible	2012-2015	2015-2020	2020-2030	On-Going
16. The County shall work with the Fire Chief to develop a natural hazard disclosure statement for wildland fires to be recorded along with all development approvals in all moderate-high and extreme <u>very high</u> hazard areas.	HS-6.1 HS-6.2 HS-6.3	RMA; CAL FIRE; County Fire Department		■		
17. OES shall continue to conduct periodic emergency response exercises to ensure that all County departments respond efficiently and that emergency communications and other systems are to be properly maintained by RMA.	HS-7.1	OES; RMA				■
18. The County shall prepare and periodically update a set of measures and actions to comply with national and State Homeland Security standards for facility security.	HS-7.1	RMA; County Sheriff; CAL FIRE; County Fire Department				■
19. The County shall periodically update the Emergency Operations Plan to meet current Federal and State emergency requirements.	HS-7.3	OES				■
20. The County shall develop and implement procedures for acoustical analysis of development proposals.	HS-8.5	RMA				■
21. The County shall adopt the Tulare County Noise Ordinance to incorporate standards set forth in the Health and Safety Element.	HS-8.3	RMA		■		
22. The County should develop and adopt a peak noise standards ordinance to regulate the operation and use of peak noise generating uses throughout the County and ensure residents and visitors are not subject to excessive peak noise nuisances. <u>(The feasibility of developing a peak noise standards ordinance is currently being evaluated in conjunction with the Three Rivers Community Plan Update).</u>	HS-8.11	RMA	■			
23. The County shall work with the Tulare County Redevelopment Agency, special districts, private developers, and local communities to add health elements to community plans that promote physical activity.	HS-9.1	RMA; HHSA				■

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Implementation	Implements what Policy	Who is Responsible	2012-2015	2015-2020	2020-2030	On-Going
24. Tulare County shall develop a healthy community checklist for new residential, commercial, office, and public developments that lists standards for land use, transportation, street design, parks, and open space.	HS-9.2	RMA; HHSa; Public Health Department				■
25. The County is to consider the preparation of a Healthy Communities Element in the General Plan.	HS-9.1	RMA; HHSa; Public Health Dept.		■		
<u>26.</u> The County shall maintain and periodically update the Hazardous Waste Management Plan, Emergency Operations Plan, and Area Plan as required by State and local regulations.	HS-4.1	HHSa				■
<u>27. Adopt, and have certified by the BOF, local fire safe ordinances which meet or exceed standards in 14 CCR § 1270 for State Responsibility Area.</u>	<u>HS-6.2</u>	<u>RMA;</u> <u>CAL FIRE;</u> <u>County Fire Department</u>				■
<u>28. The State Board of Forestry and Fire Protection recommendations regarding the following topics:</u> <u>a. Consideration of Diverse Occupancies and their effects on Wildfire Protection.</u> <u>b. Integration of Open Space into Fire Safety Effectiveness.</u> <u>c. Mitigation for unique pest, disease and other forest health issues leading to hazardous situations.</u> <u>d. Wildfire Risk Reduction related to Climate Change.</u> <u>e. Fire Suppression Defense Zones.</u> <u>f. Redevelopment of Structures in High and Very Hazardous Areas.</u> <u>g. Long Term Maintenance of Fire Hazard Reduction Mitigation Projects.</u> <u>h. Reassessment of Fire Hazards Following Wildfire Events.</u> <u>i. Consideration of Wildlife Habitat/Endangered Species in Developing Long Term Fire Area Recovery and Protection Plans.</u> <u>shall be considered as feasible and appropriate in the</u>	<u>HS-6.16</u> <u>HS-6.17</u> <u>HS-6.18</u> <u>HS-6.19</u> <u>HS-6.20</u> <u>HS-6.21</u> <u>HS-6.22</u> <u>HS-6.23</u> <u>HS-6.24</u>	<u>RMA;</u> <u>CAL FIRE;</u> <u>County Fire Department;</u> <u>OES</u>				■

Implementation	Implements what Policy	Who is Responsible	2012-2015	2015-2020	2020-2030	On-Going
<p><u>preparation and updates of Community Plans, Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP), Tulare County Emergency Operations Plan, CAL FIRE Tulare Unit Strategic Fire Plan, and Community Wildfire Protection Plans.</u></p>						
<p><u>29. The State Board of Forestry and Fire Protection recommendations regarding the following topics shall be considered as feasible and appropriate in the preparation of the Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP):</u> <u>a. Identification and actions for substandard fire safe housing and neighborhoods relative to fire hazard area. 1. 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. 2. 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. 3. Identify plans and actions for existing residential structures and neighborhoods, and particularly substandard residential structures and neighborhoods, to be improved to meet current fire safe ordinances pertaining to access, water flow, signing, and vegetation clearing.</u> <u>b. Conservation and Open Space.</u> <u>1. Develop plans and action items for vegetation management that provides fire damage mitigation and protection of open space values. Plans should address protection of natural resource financial values,</u></p>	<p><u>HS-7.8</u></p>	<p><u>RMA;</u> <u>CAL FIRE;</u> <u>County Fire Department;</u> <u>OES</u></p>		<p>■</p>		

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Implementation	Implements what Policy	Who is Responsible	2012-2015	2015-2020	2020-2030	On-Going
<p><u>establishment of fire resilient natural resources, protection of watershed qualities, and protection of endangered species habitats. Actions should consider prescribed burning, fuel breaks, and vegetation thinning and removal.</u></p>						
<p><u>c. Post Fire Safety, Recovery and Maintenance. 1. Develop burn area recovery plans that incorporate strategic fire safe measures developed during the fire suppression, such as access roads, fire lines, safety zones, and fuelbreaks, and helispots. 2. Develop burn area recovery plans, evaluation processes and implementation actions that encourage tree and biomass salvage, reforestation activities, create resilient and sustainable landscapes, and restore functioning ecosystems. 3. Incorporate native species habitat needs as part of long term fire protection and fire restoration plans.</u></p>						
<p><u>d. Terrorist and homeland security impacts on wildfire protection. 1. Identify and prioritize protection needs for assets at risk in the absence of response forces. 2. 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. 3. It is recommended that the LHMP should show mitigating factors or reference where Terrorist and Homeland Security information can be found.</u></p>						

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Part I Appendix E Health and Safety Element
Historical Data on Wildfires (Added as per GPA 16-004)

The Table below contains historical information regarding recorded wildfires in Tulare County that occurred between 1910 and 2014. A total of 610 wildfires that burned approximately 1,328,000 acres were recorded during this 104 year time period. The following causes represent approximately 94% of the 610 recorded wildfires (1,283,600 acres), and are included as follows, miscellaneous 36% (532,800 acres), lightning 27% (309,000 acres), unknown or unidentified 14% (97,000 acres), Arson 8% (63,300 acres), equipment use 4% (43,500 acres), smoking 3% (53,400 acres), and Campfires 2% (184,600 acres). The remaining causes which include escaped prescribed burns, debris, vehicles, structures, powerlines, railroads and playing with fire account for the remaining 6% (44,400 acres) of the recorded wildfires. The locations of these wildfires are displayed in Part I Chapter 10 Health and Safety Element Figures 10-6 and 10-6 A-G.

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
1910		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	2,060
1910		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	2,046
1910		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	981
1910		Sequoia National Forest	USDA Forest Service	Unknown / Unidentified	Suppression (Wildfire)	843
1910		Sequoia National Forest	USDA Forest Service	Unknown / Unidentified	Suppression (Wildfire)	598
1910		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	329
1911		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	277
1911		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	157
1912		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	5,379
1912		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	1,370

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
1914		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	861
1914		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	362
1914		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	197
1914		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	139
1914		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	116
1915		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	270
1916		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	4,707
1916		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	639
1916		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	561
1916		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	385
1916		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	133
1917		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,616
1917		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,153
1917		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	687
1917		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	673

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
1917		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	649
1917		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	487
1917		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	431
1917		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	329
1917		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	322
1918		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	748
1918		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	656
1918		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	553
1919		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	466
1919		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	215
1919		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	195
1919		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	169
1919		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	151
1920		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	512
1921		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	13,172

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
1921	ELK CREEK	Sequoia - Kings Canyon NP	National Park Service	Campfire	Suppression (Wildfire)	1,551
1921		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	677
1921		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	486
1921		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	221
1921		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	178
1921		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	125
1922		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	5,101
1922	HOSPITAL	Sequoia - Kings Canyon NP	National Park Service	Campfire	Suppression (Wildfire)	667
1922	PANTHER	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	536
1922	E.FORK	Sequoia - Kings Canyon NP	National Park Service	Campfire	Suppression (Wildfire)	450
1923		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	774
1923		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	334
1924		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	12,523
1924		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	8,603
1924		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	4,284

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
1924		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	295
1924		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	229
1924		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	174
1924		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	172
1924		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	131
1924		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	119
1924		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	111
1924	MUIR GROVE	Sequoia - Kings Canyon NP	National Park Service	Unknown / Unidentified	Suppression (Wildfire)	108
1925		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	627
1925	UNKNOWN	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	467
1925		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	334
1926	KAWEAH	Sequoia - Kings Canyon NP	National Park Service	Arson	Suppression (Wildfire)	34,358
1926		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	14,969
1926		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	5,957
1926		Sequoia	USDA Forest	Miscellaneous	Suppression	1,553

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		National Forest	Service		(Wildfire)	
1926		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	1,363
1926		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	918
1926	POTWISHA	Sequoia - Kings Canyon NP	National Park Service	Smoking	Suppression (Wildfire)	881
1926		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	656
1926		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	556
1926		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	396
1926		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	258
1926		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	217
1926		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	203
1926		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	158
1926		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	137
1926		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	133
1927		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	3,461
1927		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,751
1927		Sequoia	USDA Forest	Miscellaneous	Suppression	629

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		National Forest	Service		(Wildfire)	
1927		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	278
1928		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	22,144
1928	S FORK	Sequoia - Kings Canyon NP	National Park Service	Unknown / Unidentified	Suppression (Wildfire)	21,998
1928		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	11,993
1928		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	3,363
1928		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	3,192
1928		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	3,181
1928		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	2,940
1928		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	2,825
1928		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	1,952
1928		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,879
1928		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,320
1928		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	694
1928		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	201
1928		Sequoia	USDA Forest	Lightning	Suppression	134

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		National Forest	Service		(Wildfire)	
1929		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,480
1929		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,461
1929		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	354
1929		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	323
1929		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	227
1929		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	220
1929		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	107
1930	SOUTH FORK	Sequoia - Kings Canyon NP	National Park Service	Unknown / Unidentified	Suppression (Wildfire)	1,075
1930		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	905
1930	RED HILL	Sequoia - Kings Canyon NP	National Park Service	Debris	Suppression (Wildfire)	132
1930		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	119
1931		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	6,097
1931		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	2,002
1931		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	632
1931		Sequoia	USDA Forest	Miscellaneous	Suppression	579

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		National Forest	Service		(Wildfire)	
1931		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	504
1931		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	329
1931	COW CREEK	Sequoia - Kings Canyon NP	National Park Service	Arson	Suppression (Wildfire)	219
1931		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	176
1932		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,329
1932		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,064
1932	UNKNOWN	Sequoia National Forest	USDA Forest Service	Unknown / Unidentified	Suppression (Wildfire)	1,022
1932	UNKNOWN	Sequoia National Forest	USDA Forest Service	Unknown / Unidentified	Suppression (Wildfire)	179
1933		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,001
1933	BEAR MTN	Sequoia - Kings Canyon NP	National Park Service	Equipment Use	Suppression (Wildfire)	487
1933		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	405
1934		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	2,896
1934	SOUTH FORK	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	2,403
1934		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,731
1934	CASE MTN	Tulare	California	Unknown /	Suppression	1,633

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		County	Department of Forestry and Fire Protection	Unidentified	(Wildfire)	
1934		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	971
1934	SOUTH FOR	Sequoia - Kings Canyon NP	National Park Service	Unknown / Unidentified	Suppression (Wildfire)	529
1934		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	386
1934	TRAUGER	Sequoia - Kings Canyon NP	National Park Service	Smoking	Suppression (Wildfire)	206
1934		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	187
1934		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	141
1935		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,069
1935		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	366
1935		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	157
1936		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,701
1938	UNKNOWN	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	266
1938		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	109
1939	RED HILL	Sequoia - Kings Canyon NP	National Park Service	Smoking	Suppression (Wildfire)	2,227

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
1939	FLUME	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	681
1939		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	281
1939	YUCCA CREEK	Sequoia - Kings Canyon NP	National Park Service	Structure	Suppression (Wildfire)	145
1940		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	4,012
1940		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,861
1940		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	331
1940		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	323
1940	PARADISE	Sequoia - Kings Canyon NP	National Park Service	Campfire	Suppression (Wildfire)	113
1941		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	2,970
1941		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	934
1942		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	26,979
1942		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	25,219
1942		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	23,910
1942		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	19,833
1942		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	7,559

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
1942		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	812
1942		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	764
1942	GODDARD CREEK	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	172
1945	NORTH FORK	Sequoia - Kings Canyon NP	National Park Service	Smoking	Suppression (Wildfire)	2,258
1945		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,589
1946		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,566
1946	ATWELL MI	Sequoia - Kings Canyon NP	National Park Service	Smoking	Suppression (Wildfire)	222
1947		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	880
1947	CASTLE GROVE	Sequoia - Kings Canyon NP	National Park Service	Smoking	Suppression (Wildfire)	370
1947		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	150
1947		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	140
1947	MORO CREEK	Sequoia - Kings Canyon NP	National Park Service	Playing with fire	Suppression (Wildfire)	132
1948	SIMPSON M	Sequoia - Kings Canyon NP	National Park Service	Smoking	Suppression (Wildfire)	11,121
1948		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	324
1949		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,068

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
1949	KERN CANYON	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	793
1949		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	587
1949		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	392
1949	KERN CANYON	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	140
1949		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	107
1950		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	3,256
1950	THREE RIVERS	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	1,178
1950	KING GEORGE	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	788
1950	STWART MOUNTAIN	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	653
1950	DEER COVE	Sequoia - Kings Canyon NP	National Park Service	Smoking	Suppression (Wildfire)	567
1950	GILL #6	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	555
1950	DRY CREEK	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	298
1950	EAGLE PEAK	Sequoia -	National	Lightning	Suppression	276

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		Kings Canyon NP	Park Service		(Wildfire)	
1950		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	230
1950		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	202
1950		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	122
1951		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,227
1951	GILL #2	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	629
1951		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	368
1952	FRAZIER VALLEY	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	416
1952		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	105
1953		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,547
1953		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	918
1953	TOMBSTONE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	403
1953	DUPREE	Tulare County	California Department of Forestry and Fire Protection	Miscellaneous	Suppression (Wildfire)	236
1954	DAVIS #2	Tulare	California	Unknown /	Suppression	5,202

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		County	Department of Forestry and Fire Protection	Unidentified	(Wildfire)	
1954	DAVIS RAN	Sequoia - Kings Canyon NP	National Park Service	Unknown / Unidentified	Suppression (Wildfire)	4,299
1954	ELLIOTT	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	1,952
1954	SMITH RANCH	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	1,437
1954	RED MOUNTAIN	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	799
1954		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	772
1954	ELLIOTT R	Sequoia - Kings Canyon NP	National Park Service	Unknown / Unidentified	Suppression (Wildfire)	634
1954	KIRK	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	193
1954		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	175
1955	MCGEE	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	18,253
1955	UNKNOWN	Sequoia National Forest	USDA Forest Service	Unknown / Unidentified	Suppression (Wildfire)	368
1955	SENTINAL RIDGE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	258

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
1955		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	254
1956	GILL #3	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	313
1956		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	167
1957	CHARLEY CREEK	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,564
1957		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	803
1957	KING GEORGE	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	453
1957		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	379
1957	CONLEY CREEK	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	219
1957		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	216
1958	MEHRTEN	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	2,016
1958	BLACK MOUNTAIN	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	1,277
1958	WOODLAKE MTN.	Tulare County	California Department	Unknown / Unidentified	Suppression (Wildfire)	769

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
			of Forestry and Fire Protection			
1958	ROCKY HILL	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	392
1958	CLATTE	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	390
1958	CARTER-WE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	386
1958		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	261
1958		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	186
1959		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	9,433
1960	TUNNEL RA	Sequoia - Kings Canyon NP	National Park Service	Equipment Use	Suppression (Wildfire)	5,795
1960		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	916
1960		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	133
1961	WHITE DEER	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	4,967
1961		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,336
1961	GREENHOE	Sequoia - Kings Canyon NP	National Park Service	Arson	Suppression (Wildfire)	219
1961		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	180

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		Forest				
1962		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	823
1962	LEFEVER	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	701
1962		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	210
1962		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	137
1963	WIGGLETAIL	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	588
1963	BALANCE ROCK	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	327
1963	BALD MOUNTAIN	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	313
1964		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,184
1964		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	744
1965		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	179
1966		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	1,571
1966	JOHN NOYER CANYON	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	789
1966		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	541

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		Forest				
1966	GILL #2	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	359
1966		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	209
1966		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	150
1967	SHEPHERD PEAK	Tulare County	California Department of Forestry and Fire Protection	Lightning	Suppression (Wildfire)	1,985
1967		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	762
1967	FOUNTAIN SPRINGS	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	353
1967		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	336
1968	LEWIS CREEK	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	2,052
1968		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	759
1968	RANCHERIA	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	477
1969		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,165
1969		Sequoia	USDA Forest	Lightning	Suppression	577

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		National Forest	Service		(Wildfire)	
1969		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	451
1969	TEAPOT DOME HILL	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	275
1969	BALD MOUNTAIN	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	242
1969		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	213
1970	RED MOUNTAIN	Sequoia National Forest	USDA Forest Service	Smoking	Suppression (Wildfire)	25,492
1970	JAMES	Sequoia National Forest	USDA Forest Service	Equipment Use	Suppression (Wildfire)	1,512
1970	POWERHOUSE	Sequoia National Forest	USDA Forest Service	Smoking	Suppression (Wildfire)	692
1970	GIBBON	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	493
1970	BUBBS CRE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	424
1970	PROJECT	Sequoia National Forest	USDA Forest Service	Equipment Use	Suppression (Wildfire)	327
1970	HUME	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	179
1970	LOOKOUT P	Sequoia - Kings Canyon NP	National Park Service	Smoking	Suppression (Wildfire)	170
1970	OAT CANYON	Tulare	California	Unknown /	Suppression	139

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		County	Department of Forestry and Fire Protection	Unidentified	(Wildfire)	
1971	BLOOMFIELD	Sequoia National Forest	USDA Forest Service	Smoking	Suppression (Wildfire)	1,701
1971	UNKNOWN	Sequoia National Forest	USDA Forest Service	Unknown / Unidentified	Suppression (Wildfire)	379
1971	ROCKY	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	360
1971	BALL DOME	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	244
1972	LONG	Sequoia National Forest	USDA Forest Service	Campfire	Suppression (Wildfire)	1,201
1972		Sequoia National Forest	USDA Forest Service	Campfire	Suppression (Wildfire)	262
1972		Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	239
1972	TEHIPITE	Sequoia - Kings Canyon NP	National Park Service	Campfire	Suppression (Wildfire)	115
1972		Sequoia National Forest	USDA Forest Service	Smoking	Suppression (Wildfire)	104
1973	SO SENTIN	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	2,679
1973	MORAINE C	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	1,873
1973	CHAGOOPA	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	430
1974	COMANCHE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	3,012
1974	ROBLE LOMAS	Tulare County	California Department	Unknown / Unidentified	Suppression (Wildfire)	1,535

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
			of Forestry and Fire Protection			
1974		Sequoia National Forest	USDA Forest Service	Debris	Suppression (Wildfire)	828
1974	DUDLEY	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	697
1974	OWL PEAK	Sequoia National Forest	USDA Forest Service	Campfire	Suppression (Wildfire)	532
1974		Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	362
1974	H S T	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	170
1974		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	163
1974		Sequoia National Forest	USDA Forest Service	Playing with fire	Suppression (Wildfire)	154
1974		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	115
1975	FLAT	Sequoia National Forest	USDA Forest Service	Campfire	Suppression (Wildfire)	18,737
1975	YOKOHL	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	1,595
1975	WOODLAKE MOUNTAIN	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	1,574
1975	BOYDE'S GRADE	Tulare County	California Department of Forestry	Unknown / Unidentified	Suppression (Wildfire)	602

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
			and Fire Protection			
1975		Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	450
1975		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	412
1975		Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	339
1976	SPHINX	Sequoia - Kings Canyon NP	National Park Service	Campfire	Suppression (Wildfire)	2,873
1976		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	302
1977	FERGUSON	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	10,422
1977	BONITA	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	7,428
1977	BEAR TRAP	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	4,045
1977		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,527
1977	SUGARLOAF	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	652
1978		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	128
1978	POTWISHA	Sequoia - Kings Canyon NP	National Park Service	Arson	Suppression (Wildfire)	102
1979	WOODLAKE MTN.	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	1,871
1979	COW	Sequoia National	USDA Forest Service	Playing with fire	Suppression (Wildfire)	1,545

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		Forest				
1979	TAYLOR	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	1,498
1979		Sequoia National Forest	USDA Forest Service	Smoking	Suppression (Wildfire)	1,283
1979	ANTELOPE VALLEY	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	1,279
1979		Sequoia National Forest	USDA Forest Service	Smoking	Suppression (Wildfire)	751
1979	SENTINEL	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	593
1979	LIGHTNING #2	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	370
1979		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	330
1979	CORP'S OF ENGINEER#3	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	284
1979	KENNEDY	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	211
1980	LEWIS CRK	Sequoia - Kings Canyon NP	National Park Service	Equipment Use	Suppression (Wildfire)	8,327
1980	CLOVER	Sequoia National Forest	USDA Forest Service	Campfire	Suppression (Wildfire)	4,998
1980	LEWIS CREEK	Sequoia National Forest	USDA Forest Service	Equipment Use	Suppression (Wildfire)	1,923

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
1980	TENT	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	999
1980		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	676
1980		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	589
1980		Sequoia National Forest	USDA Forest Service	Vehicle	Suppression (Wildfire)	519
1980	DOME FIRE	Sequoia - Kings Canyon NP	National Park Service	Escaped Prescribed Burn	Suppression (Wildfire)	472
1980	ROARING	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	420
1980	CALDWELL	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	110
1981	FLAT	Sequoia National Forest	USDA Forest Service	Playing with fire	Suppression (Wildfire)	1,730
1981	DAVIS	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	1,376
1981	NELLIE DENT	Sequoia National Forest	USDA Forest Service	Campfire	Suppression (Wildfire)	1,318
1981	GILL	Tulare County	California Department of Forestry and Fire Protection	Arson	Suppression (Wildfire)	717
1981	OAT CREEK	Tulare County	California Department of Forestry and Fire Protection	Equipment Use	Suppression (Wildfire)	593
1981		Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	270
1981	POTWISHU	Sequoia - Kings	National Park Service	Vehicle	Suppression (Wildfire)	186

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		Canyon NP				
1982	COW	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	1,473
1982		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,094
1982	ROBLE LOMAS	Tulare County	California Department of Forestry and Fire Protection	Equipment Use	Suppression (Wildfire)	685
1982	OAK FLAT	Tulare County	California Department of Forestry and Fire Protection	Miscellaneous	Suppression (Wildfire)	614
1982	USFS #20 CHIMNEY	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	594
1982	AVENUE 2	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	424
1982		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	211
1982	RATTLESNA	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	101
1983	COOPER	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	1,544
1983	CUIDADO	Tulare County	California Department of Forestry and Fire Protection	Equipment Use	Suppression (Wildfire)	1,433
1983	DRY CREEK	Tulare County	California Department of Forestry and Fire	Arson	Suppression (Wildfire)	401

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
			Protection			
1983	MUD SPRINGS	Tulare County	California Department of Forestry and Fire Protection	Arson	Suppression (Wildfire)	285
1983		Sequoia National Forest	USDA Forest Service	Equipment Use	Suppression (Wildfire)	263
1983		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	105
1984	BODFISH	Sequoia National Forest	USDA Forest Service	Debris	Suppression (Wildfire)	26,709
1984	BAR-O ESCAPE	Tulare County	California Department of Forestry and Fire Protection	Miscellaneous	Suppression (Wildfire)	2,929
1984	BEAR CREEK	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	2,788
1984	BLUE RIDGE	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	1,545
1984		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	945
1984		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	937
1984		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	901
1984	SHEPARD	Sequoia - Kings Canyon NP	National Park Service	Powerline	Suppression (Wildfire)	724
1984	WELLS	Tulare County	California Department of Forestry	Unknown / Unidentified	Suppression (Wildfire)	513

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
			and Fire Protection			
1984		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	482
1984		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	317
1984		Sequoia National Forest	USDA Forest Service	Debris	Suppression (Wildfire)	269
1984	PARLOR	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	200
1984		Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	152
1984	POTWISHA	Sequoia - Kings Canyon NP	National Park Service	Arson	Suppression (Wildfire)	126
1984	SALT CRK	Sequoia - Kings Canyon NP	National Park Service	Smoking	Suppression (Wildfire)	105
1984		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	103
1985	RICH BAR	Sequoia National Forest	USDA Forest Service	Equipment Use	Suppression (Wildfire)	8,264
1985	SUGARLOAF	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	2,848
1985	DOUGHERTY	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	2,595
1985	ADELAIDE	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	1,142
1985	OAT	Sequoia National Forest	USDA Forest Service	Playing with fire	Suppression (Wildfire)	1,089
1985	WISHON	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	158
1985	PECHACHO	Sequoia	USDA Forest	Miscellaneous	Suppression	141

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		National Forest	Service		(Wildfire)	
1985	ACQUISTIT	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	140
1985	MILL	Sequoia National Forest	USDA Forest Service	Playing with fire	Suppression (Wildfire)	126
1985	SIERRA	Sequoia National Forest	USDA Forest Service	Equipment Use	Suppression (Wildfire)	101
1986	BRADLEY	Tulare County	California Department of Forestry and Fire Protection	Equipment Use	Suppression (Wildfire)	736
1986		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	729
1986	BALDY	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	403
1986	CAMP CREE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	390
1986		Sequoia National Forest	USDA Forest Service	Equipment Use	Suppression (Wildfire)	108
1987	FAY	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	12,153
1987	CASE	Tulare County	California Department of Forestry and Fire Protection	Lightning	Suppression (Wildfire)	4,510
1987	HALSTEAD3	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	981
1987	PIERCE	Tulare County	California Department of Forestry and Fire Protection	Lightning	Suppression (Wildfire)	685
1987		Sequoia	USDA Forest	Lightning	Suppression	592

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		National Forest	Service		(Wildfire)	
1987		Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	562
1987	DOG CREEK	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	412
1987		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	197
1987	COFFEE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	196
1987	SODA CREEK	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	176
1987	KAWEAH	Sequoia - Kings Canyon NP	National Park Service	Arson	Suppression (Wildfire)	150
1987		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	109
1988	BUCKEYE	Sequoia - Kings Canyon NP	National Park Service	Smoking	Suppression (Wildfire)	3,090
1988	COOPER	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	1,850
1988	HAVILAH	Sequoia National Forest	USDA Forest Service	Smoking	Suppression (Wildfire)	1,489
1988	LINDSAY	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	1,335
1988	SIMPSON	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	981
1988		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	977

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
1988		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	728
1988		Sequoia National Forest	USDA Forest Service	Smoking	Suppression (Wildfire)	666
1988		Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	381
1988		Sequoia National Forest	USDA Forest Service	Equipment Use	Suppression (Wildfire)	294
1988		Sequoia National Forest	USDA Forest Service	Equipment Use	Suppression (Wildfire)	278
1988	TOMBSTONE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	207
1988	FUNSTON	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	102
1989	CALKINS	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	555
1989	CHAMISE	Sequoia - Kings Canyon NP	National Park Service	Unknown / Unidentified	Suppression (Wildfire)	276
1989		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	231
1990	STORMY	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	22,883
1990	AVALANCHE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	2,787
1990	GRAPEVINE	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	2,379
1990	ANTELOPE	Tulare County	California Department of Forestry and Fire	Unknown / Unidentified	Suppression (Wildfire)	867

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
			Protection			
1990	UPPER	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	353
1990	MILL	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	135
1990	SANDBAG	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	110
1991	BLUE MOUNTAIN	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	2,299
1991	DEER CREE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	765
1991	SPHINX	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	143
1991	LONG	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	106
1992	CALLBOX	Sequoia National Forest	USDA Forest Service	Campfire	Suppression (Wildfire)	1,232
1992	CHAGOOPA	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	592
1992	RATTLESNA	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	266
1992	SUWANEE W	Sequoia - Kings Canyon NP	National Park Service	Escaped Prescribed Burn	Suppression (Wildfire)	197
1993	BUCK PEAK	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	2,017
1993	CHIMNEY	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	837
1993	GIBBON	Sequoia National Forest	USDA Forest Service	Equipment Use	Suppression (Wildfire)	670

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
1993	POWER	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	482
1993	RICBAR	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	445
1993	WILLOW	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	253
1993	ELEPHANT	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	219
1993	WHITE DEER	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	218
1993	RUSSIA	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	216
1993	OAT	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	183
1993	LE CONTE	Sequoia - Kings Canyon NP	National Park Service	Unknown / Unidentified	Suppression (Wildfire)	182
1993	MILL	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	141
1993	PILOT	Sequoia National Forest	USDA Forest Service	Playing with fire	Suppression (Wildfire)	109
1994	LUCAS #4	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	6,221
1994	PEAK	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	2,873
1994	WHITE BLANKET	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	2,564
1994	BEAR CREEK	Tulare County	California Department of Forestry and Fire	Unknown / Unidentified	Suppression (Wildfire)	426

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
			Protection			
1994	JAMES	Sequoia National Forest	USDA Forest Service	Campfire	Suppression (Wildfire)	403
1994	LUCAS	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	396
1994	KERN	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	213
1994	RODEO	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	137
1994	LUCAS #2	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	112
1994	EMPIRE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	104
1995	ROCKY	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,704
1995	CASTLE WF	Sequoia - Kings Canyon NP	National Park Service	Escaped Prescribed Burn	Suppression (Wildfire)	1,647
1995		Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	881
1995	YOKOHL	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	828
1995	COW	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	307
1995	LIVE OAK	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	175
1995	NOBE	Sequoia National Forest	USDA Forest Service	Debris	Suppression (Wildfire)	109
1996	KAWEAH	Sequoia - Kings Canyon NP	National Park Service	Vehicle	Suppression (Wildfire)	4,655

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
1996	BIG ARROY	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	3,497
1996	CANYON	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	3,336
1996	CASTLE CO	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	2,693
1996	CHALOLO #1	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	2,679
1996	BOREL	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	2,524
1996	DORST	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	1,460
1996	SIERRA	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,137
1996	WILLOW	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	617
1996	DELONEGHA	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	591
1996	PARK	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	548
1996	COW #1	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	383
1996	LINDSAY	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	326
1996	HOSPITAL	Sequoia - Kings Canyon NP	National Park Service	Campfire	Suppression (Wildfire)	295
1997	JACKS	Sequoia National	USDA Forest Service	Lightning	Suppression (Wildfire)	5,747

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		Forest				
1997	CHOKE	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	3,933
1997	COFFEE	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	2,425
1997	TOWER	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	1,185
1997	DEMOCRAT	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	812
1997	LEWIS	Tulare County	California Department of Forestry and Fire Protection	Equipment Use	Suppression (Wildfire)	401
1997	SCHOOL	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	387
1997	STINE	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	344
1997	LEWIS	Tulare County	California Department of Forestry and Fire Protection	Equipment Use	Suppression (Wildfire)	335
1997	SUGARLOAF	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	280
1997	AMPHITHEA	Sequoia - Kings Canyon NP	National Park Service	Escaped Prescribed Burn	Suppression (Wildfire)	243
1997	THORTON	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	215
1997	HIGHWAY	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	214
1997	NELSON	Sequoia National	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	169

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		Forest				
1997	CARANTON	Tulare County	California Department of Forestry and Fire Protection	Equipment Use	Suppression (Wildfire)	165
1998	YANKEE	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,241
1998	ROBINSON	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	413
1998	STINE	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	323
1998	OLIVER	Sequoia National Forest	USDA Forest Service	Playing with fire	Suppression (Wildfire)	271
1998	OAK	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	114
1999	RICHBAR COMPLEX	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	2,643
1999	WILLIAMS	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	574
1999	CONIFER	Sequoia - Kings Canyon NP	National Park Service	Escaped Prescribed Burn	Suppression (Wildfire)	264
1999	SUCCESS	Tulare County	California Department of Forestry and Fire Protection	Arson	Suppression (Wildfire)	200
1999	CYRUS	Sequoia National Forest	USDA Forest Service	Equipment Use	Suppression (Wildfire)	103
2000	MANTER	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	79,223
2000	ELEPHANT	Tulare County	California Department of Forestry and Fire	Escaped Prescribed Burn	Suppression (Wildfire)	886

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
			Protection			
2000	SUCCESS	Tulare County	California Department of Forestry and Fire Protection	Arson	Suppression (Wildfire)	331
2000	MILLWOOD	Sequoia National Forest	USDA Forest Service	Equipment Use	Suppression (Wildfire)	238
2000	LINDSAY	Tulare County	California Department of Forestry and Fire Protection	Arson	Suppression (Wildfire)	176
2001	HIGHWAY	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	4,151
2001	BURNT	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	2,213
2001	VANDER-BOWEN	Tulare County	California Department of Forestry and Fire Protection	Vehicle	Suppression (Wildfire)	604
2001	CANYON	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	566
2001	DEMOCRAT	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	559
2001	TAR	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	509
2002	MCNALLY	Sequoia National Forest	USDA Forest Service	Campfire	Suppression (Wildfire)	149,475
2002	BOREL	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	3,418
2002	PALISADE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	1,498
2002	STAGE	Tulare County	California Department	Arson	Suppression (Wildfire)	1,160

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
			of Forestry and Fire Protection			
2002	ROCKY	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	446
2002	LOUIS	Tulare County	California Department of Forestry and Fire Protection	Miscellaneous	Suppression (Wildfire)	334
2002	ELDERWOOD	Tulare County	California Department of Forestry and Fire Protection	Railroad	Suppression (Wildfire)	153
2003	WEST KERN	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	7,971
2003	WILLIAMS	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	3,472
2003	HOOKER	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	2,376
2003	ALBANITA	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	2,223
2003	COONEY	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	1,928
2003	PARADISE 2	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	1,297
2003	BASIN	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	941
2003	FRAZIER	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	698
2003	CHINA	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	509

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
2003	GIANT	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	275
2003	ELEPHANT	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	243
2003	DINELEY	Tulare County	California Department of Forestry and Fire Protection	Powerline	Suppression (Wildfire)	206
2003	HMRS NOS2	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	205
2003	CASTLE	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	156
2003	VALLEY	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	130
2003	BOYD	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	120
2004	DEEP	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	3,144
2004	FRAZIER	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	1,564
2004	CRAG	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	870
2004	CASTLE	Tulare County	California Department of Forestry	Unknown / Unidentified	Suppression (Wildfire)	570

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
			and Fire Protection			
2004	HOTSPRINGS	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	332
2004	STAGEL	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	313
2004	CHINA	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	290
2005	COMB	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	9,756
2005	MILLWOOD	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	2,902
2005	CRAG	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	1,185
2005	NINE	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,150
2005	RED	Tulare County	California Department of Forestry and Fire Protection	Unknown / Unidentified	Suppression (Wildfire)	765
2005	KERN	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	361
2006	TAMARACK WFU	Sequoia National Forest	USDA Forest Service	Lightning	Resource Benefit (WFU)	4,656
2006	BRODER/BECK WFU	Sequoia National Forest	USDA Forest Service	Lightning	Resource Benefit (WFU)	3,492
2006	MAGGIE	Sequoia National Forest	USDA Forest Service	Lightning	Resource Benefit (WFU)	2,098
2006	ROARING	Sequoia -	National	Lightning	Resource	1,643

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		Kings Canyon NP	Park Service		Benefit (WFU)	
2006	COYOTE	Tulare County	California Department of Forestry and Fire Protection	Lightning	Suppression (Wildfire)	1,360
2006	BURNT	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	628
2006	W	Tulare County	California Department of Forestry and Fire Protection	Arson	Suppression (Wildfire)	362
2006	STOKES	Tulare County	California Department of Forestry and Fire Protection	Arson	Suppression (Wildfire)	348
2006	SMITH	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	225
2006	RIDGE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	139
2007	GOLDLEDGE	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	4,196
2007	SHANNON	Tulare County	California Department of Forestry and Fire Protection	Equipment Use	Suppression (Wildfire)	2,141
2007	JAMES	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,349
2007	GROUSE	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	1,004
2007	HORSE	Tulare County	California Department of Forestry and Fire Protection	Arson	Suppression (Wildfire)	435

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
2007	VISTA	Sequoia National Forest	USDA Forest Service	Campfire	Suppression (Wildfire)	420
2007	WILLOW	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	185
2007	RIVER	Sequoia National Forest	USDA Forest Service	Equipment Use	Suppression (Wildfire)	150
2008	PIUTE	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	37,346
2008	CLOVER	Sequoia National Forest	USDA Forest Service	Lightning	Resource Benefit (WFU)	15,789
2008	TEHIPITE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	11,648
2008	HIDDEN	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	3,686
2008	ELK	Tulare County	California Department of Forestry and Fire Protection	Arson	Suppression (Wildfire)	589
2008	RODEO	Tulare County	California Department of Forestry and Fire Protection	Arson	Suppression (Wildfire)	463
2008	RICHBAR	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	391
2008	WIGGELL	Tulare County	California Department of Forestry and Fire Protection	Arson	Suppression (Wildfire)	300
2008	FOUNTAIN	Tulare County	California Department of Forestry and Fire Protection	Miscellaneous	Suppression (Wildfire)	292
2008	MOSES	Sequoia	USDA Forest	Lightning	Resource	232

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
		National Forest	Service		Benefit (WFU)	
2009	LION	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	2,577
2009	GRANITE	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	1,397
2009	SHOTGUN	Sequoia National Forest	USDA Forest Service	Lightning	Resource Benefit (WFU)	1,333
2009	HORSE	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	664
2009	LIGHTNING 1	Tulare County	California Department of Forestry and Fire Protection	Lightning	Suppression (Wildfire)	295
2009	POWER	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	289
2009	CORRAL	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	136
2009	FAIRVIEW	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	115
2010	BULL	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	16,448
2010	CANYON	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	9,336
2010	SHEEP COMPLEX	Sequoia - Kings Canyon NP	National Park Service	Lightning	Resource Benefit (WFU)	9,022
2010	BALES	Tulare County	California Department of Forestry and Fire Protection	Equipment Use	Suppression (Wildfire)	913
2010	STOKES 2	Tulare County	California Department of Forestry	Equipment Use	Suppression (Wildfire)	895

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
			and Fire Protection			
2011	LION	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	20,682
2011	MOTOR	Sequoia National Forest	USDA Forest Service	Equipment Use	Suppression (Wildfire)	5,230
2011	STAGE	Tulare County	California Department of Forestry and Fire Protection	Equipment Use	Suppression (Wildfire)	1,130
2011	COVE	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,121
2011	WILLOWS	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	1,121
2011	GRANITE	Tulare County	California Department of Forestry and Fire Protection	Lightning	Suppression (Wildfire)	873
2011	TENNESSEE	Tulare County	California Department of Forestry and Fire Protection	Lightning	Suppression (Wildfire)	485
2011	MUD SPRINGS	Tulare County	California Department of Forestry and Fire Protection	Lightning	Suppression (Wildfire)	343
2011	ROADRUNNER	Tulare County	California Department of Forestry and Fire Protection	Arson	Suppression (Wildfire)	335
2011	COW	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	136
2011	BLOOM	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	114

Year	Fire Name	Unit	Agency	Cause	Objective	Total Acres
2012	GEORGE	Sequoia National Forest	USDA Forest Service	Arson	Suppression (Wildfire)	1,708
2012	GULCH	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	385
2012	HEALD	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	331
2012	WOODS CREEK	Sequoia - Kings Canyon NP	National Park Service	Unknown / Unidentified	Suppression (Wildfire)	324
2012	SLIDES	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	254
2013	FISH	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	2,049
2013	WINDY PEAK	Sequoia - Kings Canyon NP	National Park Service	Lightning	Suppression (Wildfire)	681
2013	RIVER	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	440
2013	TENANT	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	412
2013	SHIRLEY	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	379
2013	ANGORA	Sequoia National Forest	USDA Forest Service	Lightning	Suppression (Wildfire)	179
2014	SHIRLEY	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	2,546
2014	NICOLLS	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,679
2014	SODA	Sequoia National Forest	USDA Forest Service	Miscellaneous	Suppression (Wildfire)	1,423