



## Annex U Truckee Fire Protection District

### U.1 Introduction

This is a new participating jurisdiction to the Local Hazard Mitigation Plan process.

This Annex details the hazard mitigation planning elements specific to the Truckee Fire Protection District (Truckee FPD), a participating jurisdiction to the Placer County Local Hazard Mitigation Plan (LHMP) Update. This Annex is not intended to be a standalone document, but appends to and supplements the information contained in the base plan document. As such, all sections of the base plan, including the planning process and other procedural requirements apply to and were met by the District. This Annex provides additional information specific to the Truckee FPD, with a focus on providing additional details on the risk assessment and mitigation strategy for this special district.

### U.2 Planning Process

As described above, the District followed the planning process detailed in Section 3 of the base plan. In addition to providing representation on the Placer County Hazard Mitigation Planning Committee (HMPC), the District formulated their own internal planning team to support the broader planning process requirements. Internal planning participants, their positions, and how they participated in the planning process are shown in Table T-1. Additional details on plan participation and City representatives are included in Appendix A.

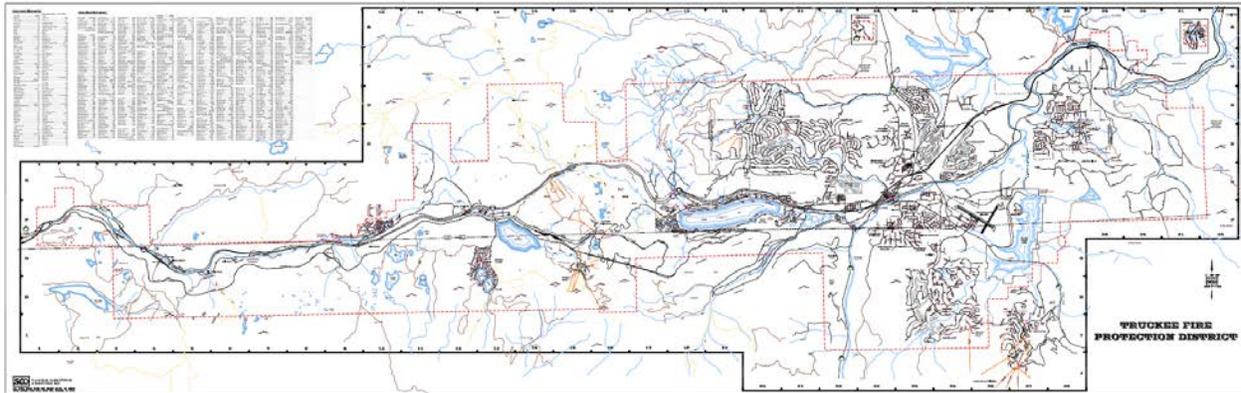
*Table T-1 District Planning Team*

Name	Position/Title	How Participated
Bill Seline	Fire Chief	Attended meetings. Provided logo and pictures. Provided hazard identification table. Provided information on vulnerability of the District to hazards of concern.
Larry Ochoa	Battalion Chief	Review of local hazards, priorities and possible mitigation.
Rod Brock	Battalion Chief	Review of local hazards, priorities and possible mitigation.
Bill Rust	Battalion Chief	Review of local hazards, priorities and possible mitigation.
Craig Harvey	WUI Specialist	CWPP, maps and projects concerning wildland fire mitigation and fuel reduction.
Bob Belden	Division Chief	CWPP, maps and projects concerning wildland fire mitigation and fuel reduction.
Jeff Dowling	Division Chief (CAL FIRE)	CWPP, maps and projects concerning wildland fire mitigation and fuel reduction.
Barry Calenberger	Consultant	CWPP, maps and projects concerning wildland fire mitigation and fuel reduction.

## U.3 District Profile

The District service area is illustrated in Figure T-1.

*Figure T-1 Truckee Fire Protection District Service Area*



Source: Truckee FPD

### U.3.1. District Information and Background

Truckee Fire Protection District is officially responsible for 125 square miles and is one of the oldest fire districts in the Truckee Tahoe area of Northern California. A public agency, supported by public funds, the District operates under Fire District Law established in 1987 and is an independent Special District.

The District's business is the protection of life and property through the provision of fire rescue and emergency medical services. This District offers a high level of service to our mountain community and outlying areas and is made up of 49 full time and 9 part time and/or volunteer members.

*Figure T-2 Truckee Fire Department Station 92*



Source: Truckee FPD

## U.4 Hazard Identification and Summary

The District's planning team identified the hazards that affect the District and summarized their frequency of occurrence, spatial extent, potential magnitude, and significance specific to the District (see Table T-3).

*Table T-2 Truckee Fire Protection District Hazard Identification Table*

Hazard	Geographic Extent	Probability of Future Occurrences	Magnitude/Severity	Significance
Agricultural Hazards	Extensive	Occasional	Limited	Low
Avalanche	Limited	Occasional	Limited	Low
Dam Failure	Limited	Unlikely	Negligible	Medium
Drought and Water Shortage	Extensive	Occasional	Limited	Low
Earthquake	Extensive	Unlikely	Critical	High
Flood: 100/500 year	Limited	Occasional	Limited	Medium
Flood: Localized Stormwater Flooding	Limited	Occasional	Negligible	Low
Landslides and Debris Flows	Limited	Occasional	Negligible	Low
Levee Failure	Limited	Unlikely	Negligible	Low
Seiche (Lake Tsunami)	Limited	Unlikely	Catastrophic	High
Severe Weather: Extreme Heat	Extensive	Unlikely	Limited	Low
Severe Weather: Freeze and Snow	Extensive	Highly likely	Limited	High
Severe Weather: Fog and Freezing Fog	Extensive	Occasional	Limited	Low
Severe Weather: Heavy Rains and Storms (Thunderstorms/Hail, Lightning/Wind/Tornadoes)	Extensive	Likely	Negligible	Low
Soil Bank Erosion	Limited	Likely	Negligible	Low
Subsidence	Limited	Unlikely	Negligible	Low
Wildfire	Extensive	Likely	Catastrophic	High
Hazardous Materials Transport	Limited	Occasional	Limited	Medium
<b>Geographic Extent</b> Limited: Less than 10% of planning area Significant: 10-50% of planning area Extensive: 50-100% of planning area		<b>Magnitude/Severity</b> Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability		
<b>Probability of Future Occurrences</b> Highly Likely: Near 100% chance of occurrence in next year, or happens every year. Likely: Between 10 and 100% chance of occurrence in next year, or has a recurrence interval of 10 years or less. Occasional: Between 1 and 10% chance of occurrence in the next year, or has a recurrence interval of 11 to 100 years.		Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid		
Unlikely: Less than 1% chance of occurrence in next 100 years, or has a recurrence interval of greater than every 100 years.		<b>Significance</b> Low: minimal potential impact Medium: moderate potential impact High: widespread potential impact		

## U.5 Vulnerability Assessment

The intent of this section is to assess the District’s vulnerability separate from that of the planning area as a whole, which has already been assessed in Section 4.3 Vulnerability Assessment in the main plan. This

vulnerability assessment analyzes the population, property, and other assets at risk to hazards ranked of medium or high significance that may vary from other parts of the planning area. For more information about how hazards affect the County as a whole, see Chapter 4 Risk Assessment in the main plan.

### U.5.1. Assets at Risk

This section considers the District’s assets at risk, specifically critical facilities and infrastructure, natural resources, and growth and development trends. Table T-4 lists particular critical facilities and other community assets identified by the District’s planning team as important to protect in the event of a disaster.

*Table T-3 Truckee Fire Protection District’s Critical Facilities, Infrastructure, and Other District Assets*

Name of Asset	Facility Type	Replacement Value	Hazard Info
Fire station 91	Administrative station	\$6 million	WUI
Fire Station 92	Ambulance and Engine	\$6 million	WUI
Fire Station 95	Ambulance and Engine	\$2.5 million	WUI
Fire Station 96	Ambulance and Engine	\$3 million	WUI
Fire Station 97	Ambulance and Engine	\$2 million	WUI

Source: Truckee FPD

### *Growth and Development Trends*

Current development includes over 500 large single family residence that have been or being built in the Martis Camp subdivision. Other longer range developments are planned in the Donner Summit area and the area east of the Glenshire. Other commercial and residential structures continue to be built in the fire district. All of the new and proposed developments are within the wildland urban interface.

### U.5.2. Estimating Potential Losses

This section provides the vulnerability assessment, including any quantifiable loss estimates, for those hazards identified above in Table T-3 as high or medium significance hazards. Impacts of past events and vulnerability of the District to specific hazards are further discussed below (see Section 4.1 Hazard Identification for more detailed information about these hazards and their impacts on the Placer County planning area). Methodologies for calculating loss estimates are the same as those described in Section 4.3 of the base plan. In general, the most vulnerable structures are those located within the floodplain, in the wildland urban interface, unreinforced masonry buildings, and buildings built prior to the introduction of modern building codes.

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

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

### *Dam Failure*

**Likelihood of Future Occurrence**—Unlikely

**Vulnerability**—Medium

Lake Tahoe and the Truckee River that could affect 10-15 homes along the river in the District, in Placer County, and continue to create significant critical infrastructure damage throughout the Truckee River corridor. Martis Lake Dam, Prosser Dam, Boca Dam and Stampede Dam could affect 20 homes in the community of Hirshdale and damage critical road and power infrastructure. The Donner Lake Dam could affect critical road and power infrastructure as well as flood a nearby residential trailer park with 94 residences.

### *Earthquake*

**Likelihood of Future Occurrence**—Unlikely

**Vulnerability**—High

No masonry constructed buildings in the Placer Co. portion of our District. Mostly residential homes built for snowload and to recent earthquake standards.

### *Flood: 100/500 year*

**Likelihood of Future Occurrence**—Occasional

**Vulnerability**—Medium

In 96/97, there was a 100 year flood which caused the Truckee River to rise and caused damage to homes along the river. About 10-15 homes in the Placer County portion. Also West end Donner Lake had flooding of homes from Donner lake and area streams rising during flood events.

### *Seiche (Lake Tsunami)*

**Likelihood of Future Occurrence**—Unlikely

**Vulnerability**—High

Water coming over the dam could cause flooding and damage to the river properties 10-15 homes along SR 89

### *Severe Weather: Freeze and Snow*

**Likelihood of Future Occurrence**–Highly likely

**Vulnerability**–Medium

82/83, 92/93, 2002/03, 2010/11. Heavy snow or rain on snow caused damage to homes and infrastructure during each of these winters. During 2010/11 over 50 homes had major propane gas leaks into the snow and caused evacuation of the area and long term mitigation efforts throughout the winter. One home exploded and others were damaged from the snow.

### *Wildfire*

**Likelihood of Future Occurrence**–Likely

**Vulnerability**–High

Only small few acre fires at most in our Placer areas. Last fire was the King 2014 and the American 2013 that were within 10 miles of our Placer area (Serene Lakes). All of the residential and commercial structures in the Truckee area are in the wildland urban interface and are at risk from a catastrophic fire event.

### *Hazardous Materials Transport*

**Likelihood of Future Occurrence**–Occasional

**Vulnerability**–Medium

Railroad potential with crude and other haz mat is becoming more of a concern with recent increase of rail traffic and these materials being transported.

## **U.6 Capability Assessment**

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

### **U.6.1. Regulatory Mitigation Capabilities**

Table T-5 lists regulatory mitigation capabilities, including planning and land management tools, typically used by local jurisdictions to implement hazard mitigation activities and indicates those that are in place in the District.

*Table T-4 Truckee FPD’s Regulatory Mitigation Capabilities*

Plans	Y/N Year	Does the plan/program address hazards? Does the plan identify projects to include in the mitigation strategy? Can the plan be used to implement mitigation actions?
Comprehensive/Master Plan	N	
Capital Improvements Plan	N	
Economic Development Plan	N	
Local Emergency Operations Plan	Y	Town of Truckee Plan, no mitigation
Continuity of Operations Plan	N	
Transportation Plan	N	
Stormwater Management Plan/Program	N	
Engineering Studies for Streams	N	
Community Wildfire Protection Plan	In progress	Complete in 2016
Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)	N	
<b>Building Code, Permitting, and Inspections</b>		
	Y/N	Are codes adequately enforced?
Building Code	Y	Version/Year: Town of Truckee, Placer Co, Nevada Co. It is adequately enforced
Building Code Effectiveness Grading Schedule (BCEGS) Score		Score:
Fire department ISO rating:	Y	Rating: 5
Site plan review requirements	Y	WUI
<b>Land Use Planning and Ordinances</b>		
	Y/N	Is the ordinance an effective measure for reducing hazard impacts? Is the ordinance adequately administered and enforced?
Zoning ordinance	N	
Subdivision ordinance	N	
Floodplain ordinance	N	
Natural hazard specific ordinance (stormwater, steep slope, wildfire)	Y	Wildfire and WUI management of property
Flood insurance rate maps	N	
Elevation Certificates	N	
Acquisition of land for open space and public recreation uses	N	
Erosion or sediment control program	N	
Other		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		



As indicated above, the District has several programs, plans, policies, and codes and ordinances that guide hazard mitigation. Some of these are described in more detail below.

*Truckee Fire Evacuation Plan*

Truckee Fire Protection District is a bi-county District that also encompasses the incorporated Town of Truckee. Truckee Fire follows the Placer, Nevada counties as well as the Town of Truckee evacuation plans. Each year the agencies meet to coordinate and exercise on the plan.

*Fire Hydrant Snow Plan*

The winter months bring a special concern to the citizens of Truckee, Donner Summit, and the Truckee Fire District. Winter storms often hide fire hydrants under a mountain of snow, making them impossible to find quickly. In the event of a fire, firefighters have to locate and clear hydrants of snow before they are able to connect hose and establish a water supply to aid in fighting fire. District crews stop at hydrants to clear them of snow. In most locations within the Fire District, hydrants are located 500 feet from one another. Because of the great number of hydrants located within the Fire District, it is virtually impossible to clear every hydrant of snow after each storm. The Fire District has adopted a strategic plan of which hydrants are to be cleared of snow after a snowstorm, depending on life-hazards and proximity to other hydrants which are maintained.

*CWPP*

Truckee Fire recently received a CAL FIRE grant to hire a consultant to develop a CWPP for the Truckee Fire Protection District. The process was started in the summer of 2015 and is expected to be completed by summer of 2016. Many local stakeholders are involved in the process including the USFS, CAL FIRE, various homeowner associations, State Parks, Town of Truckee, both counties, to name a few. The plan outlines and prioritizes the wildfire risk in the fire district and outlines various projects that will help mitigate the hazard.

**U.6.2. Administrative/Technical Mitigation Capabilities**

The District is governed locally by a five member Board of Directors, elected during the general elections held in November. The Board of Directors is responsible for setting policy and general administrative procedures for the District. The policies and procedures set by the board are then administered by the Fire Chief of the District. Table T-6 identifies the personnel responsible for activities related to mitigation and loss prevention in the District.

*Table T-5 Truckee FPD’s Administrative and Technical Mitigation Capabilities*

Administration	Y/N	Describe capability Is coordination effective?
Planning Commission	N	

Mitigation Planning Committee	N	
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	Y	In-house forest and WUI experts that inspect residential and commercial properties
Mutual aid agreements	N	
Other	N	
<b>Staff</b>	Y/N FT/PT	Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Chief Building Official	Y	Town of Truckee and County has these offices and coordinates well with TFPD
Floodplain Administrator	N	Town
Emergency Manager	Y	Town and Fire Department
Community Planner	Y	Town
Civil Engineer	Y	Town
GIS Coordinator	N	
Other		
<b>Technical</b>	Y/N	Describe capability Has capability been used to assess/mitigate risk in the past?
Warning systems/services (Reverse 911, outdoor warning signals)	Y	Town of Truckee and both Counties have abilities to communicate with the public. The Fire District can communicate via Nixle
Hazard data and information	Y	Town
Grant writing	Y	TFPD
Hazard analysis	Y	Town
Other		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		

### U.6.3. Fiscal Mitigation Capabilities

Table T-7 identifies financial tools or resources that the District could potentially use to help fund mitigation activities.

*Table T-6 Truckee FPD's Fiscal Mitigation Capabilities*

<b>Funding Resource</b>	<b>Access/ Eligibility (Y/N)</b>	<b>Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?</b>
Capital improvements project funding	N	
Authority to levy taxes for specific purposes	Y	With 2/3 vote.

Funding Resource	Access/ Eligibility (Y/N)	Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Fees for water, sewer, gas, or electric services	N	
Impact fees for new development	Y	Mitigation fees have supported fire station improvement and additional apratus
Storm water utility fee	N	
Incur debt through general obligation bonds and/or special tax bonds	N	
Incur debt through private activities	N	
Community Development Block Grant	N	
Other federal funding programs	Y	
State funding programs	Y	
Other		
How can these capabilities be expanded and improved to reduce risk?		

#### U.6.4. Mitigation Outreach and Partnerships

Table T-8 identifies education and outreach programs and methods already in place that could be/or are used to implement mitigation activities and communicate hazard-related information. More information can be found below the table.

*Table T-7 Truckee FPD's Mitigation Education, Outreach, and Partnerships*

Program/Organization	Yes/No	Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	N	
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Y	Various community educational programs including community events and annual school fire safe program
Natural disaster or safety related school programs	Y	School fire safety
StormReady certification	N	
Firewise Communities certification	N	
Public-private partnership initiatives addressing disaster-related issues	N	
Other		

Program/Organization	Yes/No	Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
How can these capabilities be expanded and improved to reduce risk?		

## U.7 Mitigation Strategy

### U.7.1. Mitigation Goals and Objectives

The District adopts the hazard mitigation goals and objectives developed by the HMPC and described in Chapter 5 Mitigation Strategy.

### U.7.2. Mitigation Actions

The planning team for the District identified and prioritized the following mitigation action based on the risk assessment. Background information and information on how each action will be implemented and administered, such as ideas for implementation, responsible office, partners, potential funding, estimated cost, and schedule are included.

#### *Action 1. Community Wildfire Protection Plan*

---

**Hazard Addressed:** Wildfire

**Issue/Background Statement:** The Truckee Fire Protection District is facilitating the development of a Community Wildfire Protection Plan to identify various fuel management projects in the District.

**Other Alternatives:** None at this time

**Existing Planning Mechanisms through which Action Will be Implemented:** The CWPP involves all local stakeholders including residents during a series of public meetings

**Responsible Office:** Truckee Fire Protection District

**Priority (H, M, L):** Medium

**Cost Estimate:** The CWPP planning was paid for by a grant from CAL FIRE for 27k. The various projects will have varying degrees of costs.

**Benefits (Losses Avoided):** Reducing the fuels in the WUI will help reduce the loss of residences and commercial structures as well as life and other property.

**Potential Funding:** Various fuels management programs

**Schedule:** The plan will be complete in 2016

***Action 2. Severe Winter Weather and Propane Issues Mainly in Serene Lakes***

---

**Hazard Addressed:** Multi-hazard

**Issue/Background Statement:** During the 2010/11 winter large amounts of snow piled up in the Serene Lakes area. The weight and shifting of the snow caused a number of residential propane lines to break causing propane to leak into the snow and a few residences including one explosion. Widespread evacuations were initiated. It was determined that many of the propane systems that were installed many years ago were not at current building codes. Since that time many of the problems have been rectified by the homeowners and the propane companies.

**Other Alternatives:** Natural gas into the area. Money available for homeowners to upgrade propane system as well as more frequent inspections of existing propane systems.

**Existing Planning Mechanisms through which Action Will be Implemented:** Unknown

**Responsible Office:** TF Prevention and HOA

**Priority (H, M, L):** Medium

**Cost Estimate:** Unknown

**Benefits (Losses Avoided):** potentially reduce the possibility of a major propane release in the future.

**Potential Funding:** To be determined

**Schedule:** When funding is available