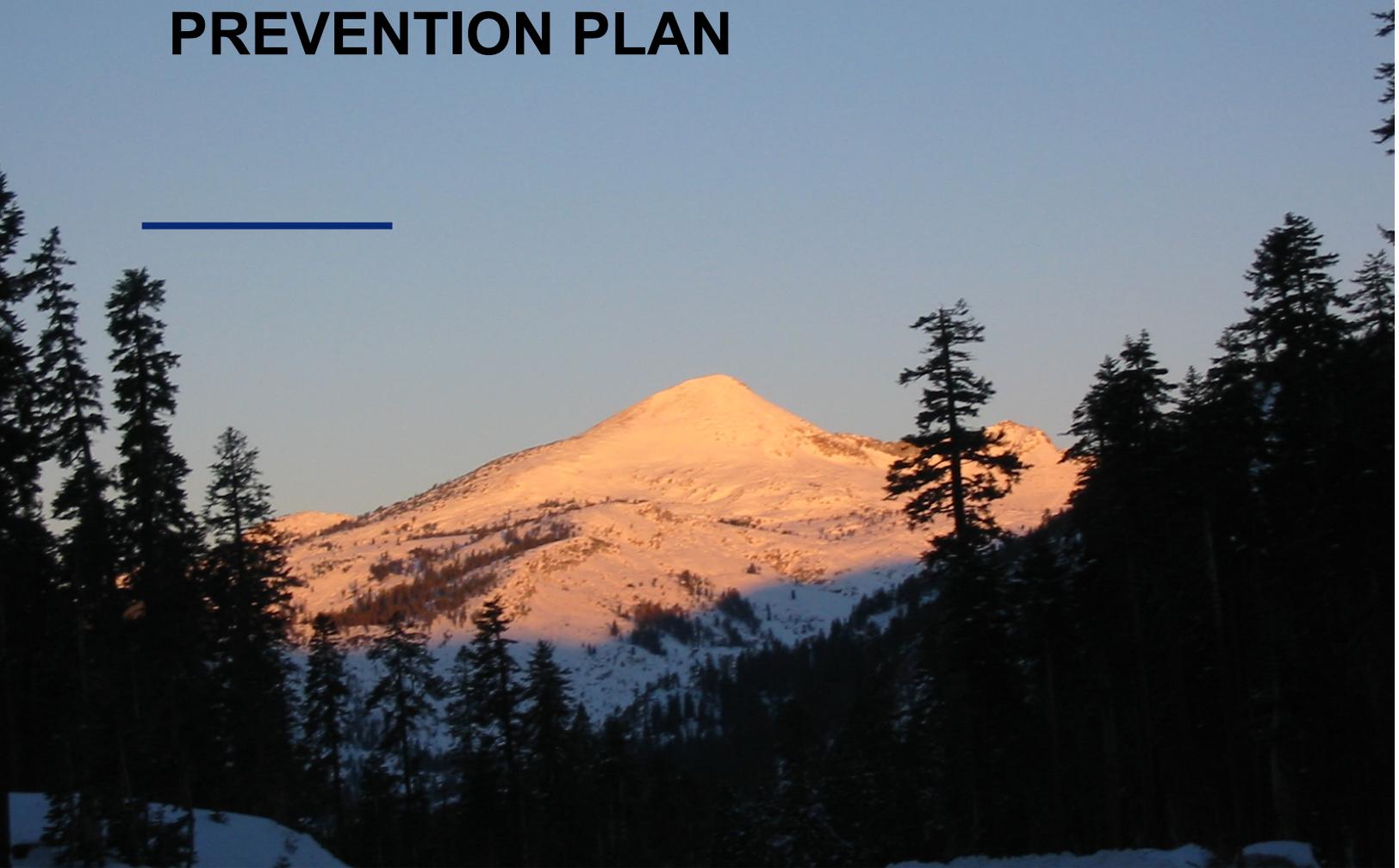


WILDFIRE PREVENTION PLAN



August 27

Sierra at Tahoe Snowsports Resort

PURPOSE



SIERRA AT TAHOE

Need for Plan

In recent years, the focus of fire prevention has changed. While the end goal of preventing catastrophic loss of life, property, and natural resources has remained the same, the strategies and tactics involved have been modified. Ski resorts are located in mountain ecosystems, yet do not present the high degree of risk present in undeveloped areas. Ski resorts in fact present both natural (ski trails) and man-made (paved surfaces) fire breaks that can be useful in the event of a wildfire. Resorts have developed water resources on site ranging from hydrants to snowmaking systems, rivers, ponds and reservoirs to be used to suppress fire threats. Sierra's focus is to prevent wildfires, 9 Of 10 which are caused by humans. Lightning and other natural causes are not in our control, but the prevention plan in place considers these risks. Awareness and communication are key to prevention.

Many ski resorts in CA have pre-arranged contracts in place as staging areas for firefighting resources such as the USFS, OES (Cal Fire) and local agencies. Finally, resorts have been practicing defensible space best practices for years, with fuels and vegetation management practices in place. Sierra at Tahoe is the designated staging site for fire crews in the area. There are reservoirs nearby for air attack, and multiple firefighting resource crews in place within a 5-mile radius of the resort. Sierra has built a strong relationship with federal, state and local agencies in the unlikely event of a wildfire and conduct joint training with them.

The purpose of this plan is to identify the wildfire prevention plans and resources that Sierra at Tahoe uses. While there have been no catastrophic fires at the resort in the 51 years it has been present, the ski area has a comprehensive plan in place that involves prevention, training, resource coordination and response.

The goal of the wildfire prevention program is to prevent unwanted human caused fires

INTRODUCTION AND SITE DESCRIPTION

Sierra at Tahoe is located in El Dorado County, and the Eldorado National Forest, located near US Highway 50 in Twin Bridges, CA. The resort has operated as an alpine winter sports area at the present location since 1968. Access from Highway 50 to the base lodge at an elevation of 7350 feet is provided by a 2 and ½ mile paved service road. Terrain varies on an assortment of cleared ski trails, summer access roads and forested areas. Sierra operates under a special use permit from the USFS. The permit area encompasses approximately 2000 acres. There is snow on the ground from November to June. While primarily a winter sports site, Sierra hosts one day events in the summer such as corporate meetings, weddings/receptions, and other events held in the base area in paved and improved areas. Motorized vehicles on the mountain are limited to maintenance vehicles, and while public lands are nearby there are no motorcycles or other outside vehicles allowed on property with the exception of utility, contractors or USFS personnel who have specific reasons to be on the mountain. Currently there are no overnight activities such as camping allowed on property. Security is present 24/7 and security cameras are in place to deter improper behaviors, vandalism or other human activity that could lead to fire hazards. Fire prevention is a key initiative during both winter and summer operations.

In general, the chance of a catastrophic loss due to wildfire is very minimal for a number of reasons. In the 51 years that the resort has been located at the current site there have been zero wildfires that have caused damage. There is an abundance of granitic rock and defensible space between the tree canopy to the buildings and lifts. There is no lodging, urban development or structures located within 10 miles of the resort in either direction. Fire prevention plans are in place, and relationships with local fire agencies are strong. The following report lists specific information regarding assets, fire risk and resources to prevent and contain fires at Sierra. Fire awareness is very high in the region near Lake Tahoe.



Administration Building

The three-story stick frame building houses offices, lockers, children's ski school and daycare in winter months. The building is bordered by parking/roads and cleared ski trails and staging areas with no overhanging trees in the area. There is a 10k gallon propane tank located a few hundred yards east of the building, with emergency shutoff and fire extinguishers nearby. The roof is constructed of fire retardant rolled composite material. Wildfire risk is minimal and there have been no fires near this facility since it was installed in 1968.

The photos below show the building façade and the asphalt tile roof





BASE AREA

- The wildfire risk at the base area is minimal, as it is bordered by 6 parking lots that holdover 2500 cars and serve as a fire break. The local fire authority at the resort is Lake Valley Fire Protection, located in Meyers nearby. The resort also serves as a staging site for the United States Forest Service in the event of a fire. A standing contract exists that provides for overnight camping, food and shelter for fire crews. To this date it has not been activated as a crisis center location.
- Defensible space practices are part of daily operations, there are clear paths around buildings in the base area and on the hill.

The Photo below show a bird's eye view of the base area. Note the paved parking surfaces and defensible space around buildings. There are 6 parking lots that provide a fire break of approximately 150 feet width each.



MOUNTAIN

- There have been a few small lightning caused fires near the resort boundaries over the last 25 years, but those have been spotted and put out before reaching any level of threat to the resort or surrounding properties. Awareness is high in the region, employees keep an active watch for smoke plumes and the UNR fire camera at the top of Huckleberry Peak keeps eyes on the forest.
- There are four water sources nearby (Echo Lake, Wrights Lake, Union Valley Reservoir and Ice House Reservoir) that the USFS can use **(and has used in the past)** for helicopter firefighting resources.
- Employees who work on the mountain in summer months carry fire tools and extinguishers and use spark arrestors on chainsaws and other powered equipment. Smoking is prohibited, and welding operations are not allowed on the mountain during high fire risk periods.
- Staff are trained in fire prevention and first response if necessary, for small spot fires. Company vehicles are equipped with fire extinguishers and staff

carry hand held radios to report any signs of smoke or fire on the mountain or in nearby surrounding areas.

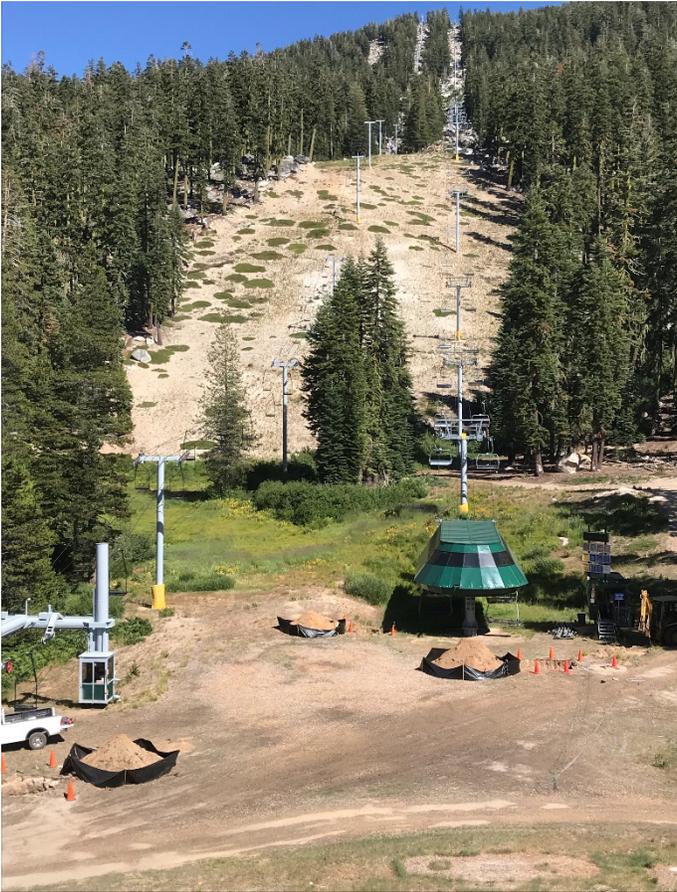


SURROUNDING ACREAGE

The resort boundary is bordered by backcountry/Wilderness to the South, West and East, with a two-mile buffer of part time USFS residences to the North. There are no high use hiking, camping or other sites within miles of the resort which limits summer wildfire risk from human activity nearby.

SKI LIFTS

- There are 9 chairlifts on the mountain, all which have pathways cut around them for clearance. Some towers and equipment may be exposed that route through tree sections, but upper and lower terminals where sensitive equipment is located are generally clear of vegetation and tree risks.
- In the event of a wildfire, ANSI code calls for starting the lifts to run and ½ speed to prevent haul rope “hot spots”. If a fire is sweeping across a lift line, the chairlift and tower machinery will generally not be affected if the chair is in operation as the fire passes through.



Ski lift stations are surrounded with defensible space. Lift lines are cleared from vegetation annually. In the unlikely event of a fire, lifts are turned on and run ant ½ speed to prevent cable damage

SKI TRAILS

- The resort has 45 ski trails, some of whom have ski runs as wide as 300 feet that serve as natural fire breaks in the event of a wildfire.

The photos below show the Broadway, Lower Main and Bashful trails



SUMMER/FALL USES

- Sierra hosts weddings and receptions, corporate meetings and some other one-day events in the summer.
- Strict regulations are given to users regarding no candles, torches, smoking, fireworks or open flames are allowed. Security is present at events to ensure compliance.

The photos below show a summer wedding and reception on the plaza



FIRE PROTECTION AUTHORITY OFF SITE

- The resort falls within the boundaries of the Lake Valley Fire Protection District. The current General Manager of Sierra serves on the board of directors for the LVFD, and the resort receives prompt response for any needs, training or response as requested.
- Sierra is 100% located on USFS land, and the nearest facilities are in Camino/Placerville. The resort has a close relationship to the Placerville Ranger District personnel with respect to fire and resource needs in summer and winter months. The resort is a designated USFS crisis and response staging center in the event of a fire in the region.
- Cal Fire has a fire station in Meyers with equipment and resources to respond in the event of a wildfire at Sierra.

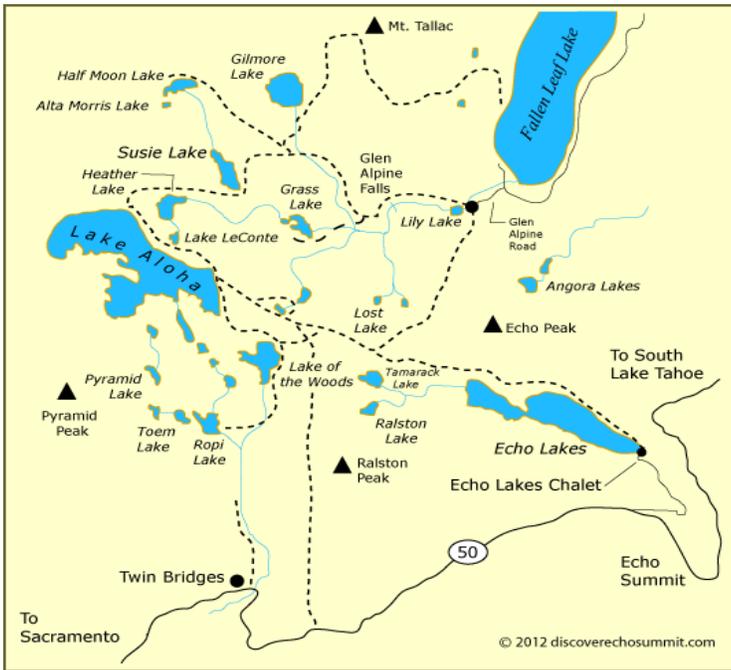
- The California Conservation Corps is located 8 miles away in Meyers and has resources to help fight a wildfire.
- The USFS has personnel, trucks and resources in Meyers to assist in a fire.



FIREFIGHTING RESOURCES ON SITE

- Each building has extinguishers and escape routes established. Buildings are inspected by the local fire marshal annually, and staff are trained in fire first response and notification. Staff are trained in first response.
- The resort has a snowmaking system in the base area that can be active in the event of a fire in the area. There is a nearby creek, as well as a 90k gallon storage tank that feeds the water system and fire hydrants in the base. Local fire agencies have quick release hose couplers that match Sierra's fire protection hydrants.
- In the event of a fire, the snowmaking capacity is 225 GPM in the base area. Hydrants would be positioned near the top of the Broadway trail and lower shop to protect the base area.
- Fire hydrants are located:
 - Top of stairs leading to the Solstice (with hose)
 - Front of Lower Shop (with hose)
 - Administration Building (2 hose stations)
 - Main Lodge 4 (Aspen, Rental hallway, Conference room, locker room)

WATER RESOURCES NEARBY



There are a number of nearby reservoirs and lakes in the region that can be used to fill Helicopter air attack units, with the closest being Echo Lakes within 2 miles by air to Sierra at Tahoe.

NOTIFICATION AND COMMUNICATIONS

- In the event of a fire or smoke detected by staff or fire camera, Sierra notifies 9-1-1, the USFS in Camino dispatch and the local fire agency. In past experience the response has been immediate and no large fire events have occurred.
- Sierra is pre-registered as a host site for fire crews, including public information and media response.
- Sierra uses its communication systems to notify proper authorities and nearby agencies; phone, website, fire camera and email.
- **Sierra has a cell tower on site, as well as hand held radios with a repeater for on ground communication**
- **Media and external communications are coordinated through the crisis communications plan**

TRAINING

- Staff at Sierra hold weekly safety meetings for all employees.
- During summer and fall seasons fire prevention and response is the most common topic of discussion.
- Local fire agencies (Lake Valley Fire Protection District and the USFS) conduct fire awareness safety training at the resort in summer months.

Below is a sample summer fire prevention training pamphlet

Key Points:

- Fire prevention is our priority.
- Different types of fires require different types of fire extinguishers – learning the specifics could save your life.
- Know what to do in case of a fire in the workplace.

Do you know?

- ? Do you know where the nearest fire extinguisher is to your work location?
- ? Do you know what type of fire extinguisher it is?
- ? In your work area, do you know what type of fire is most likely to break out?
- ? Do you know how to safely operate a fire extinguisher?
- ? Do you know when NOT to use one?

Fire Basics

Four things must be present at the same time in order to produce fire. Keep these four things apart and you will not have a fire:



1. enough OXYGEN to sustain combustion
2. enough HEAT to raise the material to its ignition temperature
3. enough FUEL or combustible material
4. a chemical reaction

Since oxygen is abundant in the air around us, fire safety – at its most basic – is based on keeping fuel sources and ignition sources separate.

- What fuel sources exist in your work area?
- What combustible materials are in your work location?
- Are there any heat sources in your work area?

It Starts With Prevention

The best defense against a fire is to prevent it from starting in the first place.

Can you add to the following list of fire-prevention practices?

- ⇒ Keep motors and machine tools free of dust and grease
- ⇒ Dispose of combustible scrap-like oil rags in tight metal containers – empty daily.
- ⇒ Check chemical labels and SDS's so you don't store incompatible substances together.
- ⇒ Keep all passages and fire doors clear.
- ⇒ Don't store oxygen cylinders near combustible materials.
- ⇒ Watch for exposed electrical wires and replace any faulty ones.
- ⇒ Report any suspicious fire hazards immediately.
- ⇒ Use space heaters safely – plug directly into wall outlet



The ABCD's of Fire & Fire Response

There are four classifications for fires, based on the combustible materials involved and the kind of extinguisher needed to put them out.

Class A	Class B	Class C	Class D
Ordinary Combustibles Such as wood, cloth, paper, rubber, plastics.	Flammable Liquids Such as grease, oil, gases, and other flammable liquids.	Electrical Equipment Anything involving electricity.	Combustible Metals Such as magnesium, titanium, zirconium, and sodium.
Extinguishing agent is usually water, but dry chemicals are also effective.	Extinguishing agents include dry chemical, foam and carbon dioxide.	Use a non-conducting agent such as carbon dioxide and dry chemical extinguishers.	Specialized techniques to extinguish these fires. Use dry powder extinguishers specific for the metal hazard.
Do not use carbon dioxide extinguishers or those using sodium or potassium bicarbonate chemicals.	Do not use water for flammable liquid fires.	Never use foam or water-type extinguishers on these fires.	Do not use common extinguishers. They can increase the intensity of the fire by adding to the chemical reaction.

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PRE-FIRE PLANNING

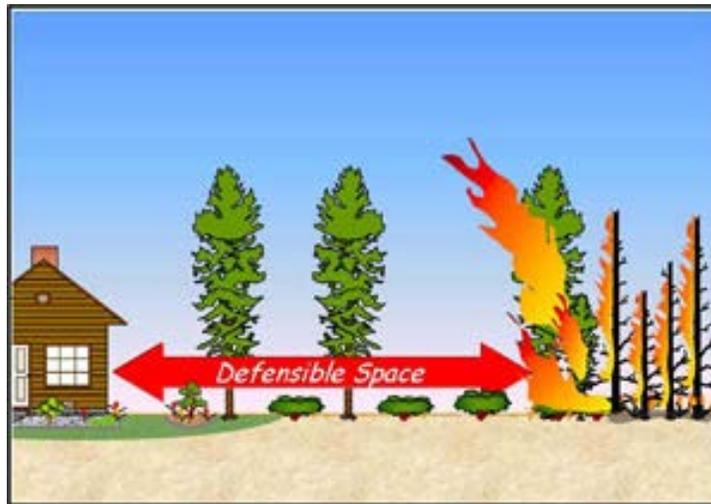
- The Wildfire Emergency Plan is shared with summer staff and used as a training guide. To date there have been no wildfires in the area, however staff are trained and when conditions present higher risk, all activities on the mountain that could result in wildfire are discussed. No smoking, open fire sources, shooting or welding are allowed in the area during red flag conditions.
- Defensible space is kept at all facilities to assist in wildfire prevention. Dead or dying trees are removed as hazard trees with approval from the USFS. Slash or dry vegetation is not allowed to pile up. Native grasses and flowers are mowed in the fall around buildings and on ski trails to prevent fires.

- Flammables are stored properly, inside buildings with fire resistant storage cabinets. Containers are marked appropriately, and transient fuels are kept in proper style fuel cans. Resort vehicles are equipped with spark arrestors and fire extinguishers, Pulaski's and water sprayers during peak fire season.
- Summer lightning risks are monitored, cameras are watched and generally the USFS will fly the impacted areas with a helicopter after storms to look for any activity that may develop post storm.
- The contingencies of wildland and structure fire are part of the resort's Emergency Response Plan and are trained on annually. Incident commanders and other individual responsibilities are spelled out clearly within.
- On mountain vehicles carry at a minimum one shovel, one ABC fire extinguisher, and one five-gallon water spray can.
- The National Weather Service and the USFS post daily fire risk warnings, on red flag advisory days, maintenance activities are limited, and fire watch is high.



DEFENSIBLE SPACE

- The resort, by design, has defensible space between fuels and its facilities. The asphalt paved parking lots provide enough parking for 2500 vehicles, which creates a buffer and fire break.
- Buildings are surrounded by paved surfaces and dirt, with very minimal fuel growth that is maintained and landscaped.
- Ski trails provide natural fire breaks and are mowed each fall
- Chairlifts have a buffer between trees, and all lift stations are surrounded by dirt areas
- There are creeks and tributaries in and around the resort
- Roof materials for the most part are not combustible and buildings have hydrants to keep roofs wet in the event of flying embers.



WILDFIRE THREAT ACTIONS

If conditions present where a wildfire is possible, the following precautions are taken:

1. A fire watch is initiated, any staff working outside constantly scan for smoke or signs of fire
2. Hydrant lines are tested to ensure they are in working order
3. The snowmaking system is charged, and snowmaking hydrants are located near the base area buildings
4. Gas lines leading to the buildings are in ready to shut off mode
5. On mountain activities are limited, no smoking, welding, cutting or machines allowed on the hill
6. Employee vehicles are moved to the middle of parking lots
7. Remove sensitive IT information and backup offsite critical data

IN THE EVENT OF A WILDFIRE REPORT IN THE ELDORADO NATIONAL FOREST

If an active wildfire is reported to the south or west direction of the resort, and prevailing winds are moving toward the resort, active measures are taken to prevent losses.

1. Local Lake Valley, State OES/Cal Fire and Federal USFS (**Forest Service**) and EDSO (**Sheriff's office**) resources are notified
2. The resort prepares for staging of the firefighting crews that may come on site
 - a. Solstice and Main Lodge facilities are opened, kitchen and restroom facilities activated
 - b. Radios, internet and phone lines are made available to the response crews

- c. Sierra's emergency procedures plan goes into effect to work with local crews, fire and law enforcement
- 3. Evacuation orders are given if the on-site crews feel the threat to property and life exists. (unlikely event as the fire crews will be staged on site and protect the site)
- 4. Prepare public information, track employees, coordinate with agencies

LAW ENFORCEMENT

- Sierra does not allow motorized vehicles not belong to the resort on premises. Unauthorized vehicles are cited by local **El Dorado County Sheriff** and **Federal Forest Service LEO officers**
- Camping, campfires and other activities that could pose fire risk are not allowed on the premises. Illegal camping is addressed on site security with assistance from local law enforcement.
- Extra security presence is called for during peak fire risk times, especially during the 4th of July holiday.
- Shooting firearms in not allowed on premises, and USFS Law Enforcement are called in when that activity is present.
- Any sign of fire risk, illegal or prohibited activity is investigated, documented and followed up with Sierra security and local law enforcement.

SHOOTING		
<p>PROHIBITED: Exploding targets (including Tannerite), tracer ammunition and incendiary devices (including fireworks).</p>	Exploding Targets	Tracer Rounds
CAMPFIRES		
<p>PROHIBITED: Building, maintaining, attending or using a fire, campfire or stove fire, including charcoal briquette fire.</p> <p>PERMITTED: You can have a campfire (including charcoal briquette fire) within FS-provided steel rings at improved campgrounds.</p>		
SMOKING		
<p>PROHIBITED: Smoking while traveling in timber, brush or grass areas</p> <p>PERMITTED: You can smoke in vehicles on roads, in a building or cleared areas at least 3 feet in diameter, or on boats on rivers and or lakes.</p>		
OTHER RESTRICTIONS		
<p>PROHIBITED: Using a Chainsaw without an approved spark arrester</p> <p>PERMITTED: You must have approved spark arrester, a 2A rated fire extinguisher, and a round pointed shovel at least 35 inches available.</p>	<p>PROHIBITED: Welding or operating a torch</p> <p>PERMITTED: in a cleared area of at least 10 feet in diameter and possess a 2A pressurized fire extinguisher.</p>	

AGENCY CONTACT INFORMATION

Lake Valley Fire Prevention District - **Station #7 (4.7 miles from Sierra)**

2211 Keetak Street South Lake Tahoe, CA. 96150

Phone: (530) 577-3737. Fax: (530) 577-3739 <https://www.lakevalleyfire.org>

United States Forest Service – **Lake Tahoe Basin Management Unit**

35 College Dr, South Lake Tahoe, CA 96150

Phone: (530) 543-2694 <https://www.fs.usda.gov/ltbmu/>

California Department of Forestry and Fire Protection (CAL FIRE) – **(Meyers 4.7 miles)**

<https://www.ca.gov/agency/?item=california-department-of-forestry-and-fire-protection>

El Dorado County Sheriff – **South Lake Tahoe/Placerville (530) 573-3000**

SIERRA AT TAHOE CONTACT LIST

Risk Management Department

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