DYNAMIC
AVALANCHE CONSULTING LTD

Silver Cloud Resort

Avalanche Safety Plan

August 7, 2024 | Rev C | 23-0032-COL-02

Prepared By:
Dynamic Avalanche Consulting Ltd.
Box 2845
Suite 301, 306 1st St. W
Revelstoke, BC, V0E 2S0
250.837.4466

Prepared For:
Colby Barrett
Bonanza Boy, LLC
PO Box 3387
Telluride, Colorado
81435

This page intentionally left blank.

ASP Review and Revision Records

This ASP must be reviewed annually.

Annual Review Record		
Date	**By**	**Comment**
2024-08-07	DR, KF, GS	Issued for Review

When this ASP is revised, the table below must be updated. Substantive changes should be described.

Revision Record			
Date	**Revision**	**By**	**Description**
2024-08-07	Rev C	DR, KF, GS	Issued for Review

Limitation Statement

This Avalanche Safety Plan (ASP) was prepared for the exclusive use of Bonanza Boy LLC for the operation of the Silver Cloud Resort (SCR). Use of this ASP is subject to the Contractual Terms and Conditions executed by Dynamic Avalanche Consulting Ltd. (DAC) and Bonanza Boy LLC.

Avalanches are complex natural phenomena and there is considerable uncertainty in the estimates of magnitude, frequency, runout, and potential snow avalanche effects described in this ASP. Under extremely unstable snow conditions, avalanches may be observed in terrain where they would not otherwise occur, such as forested areas or low-angle slopes. New avalanche paths may also be formed by forest harvesting, wildfire, or slope mass movement processes.

Table of Contents

1.0 Introduction

The Silver Cloud Resort (SCR) is a unique, year-round alpine lodging experience located in Mill Creek, ~6 miles northwest of Silverton, Colorado in the San Juan Mountains. SCR will be converted from a historic mining site into a modern lodging experience that combines above ground with underground facilities inside historic mine portals. The SCR also includes staff accommodation and a garage facility located below the lodge along Highway 550. Guests staying at the SCR will enjoy year-round outdoor recreation opportunities based from the main lodge site.

The SCR's entire access road and main lodge site are exposed to avalanche hazard. This Avalanche Safety Plan (ASP) describes the safety measures required to operate SCR during the avalanche season. Figure 1 identifies the location of the lodge, garage, and access between both facilities. It also identifies the mapped avalanche terrain in lower Mill Creek, which is nearly continuous on both sides of the valley. While this ASP outlines measures to manage avalanche risk to SCR operations, this risk cannot be fully eliminated. Even with a robust avalanche safety program, there will be inherent avalanche risk to SCR staff, clients, and vendors. Clients need to be informed of this risk prior to booking.

To achieve an appropriate risk target, operational closures will be required during periods of elevated avalanche hazard. These closures typically can't be forecasted more than 48-72 hours in advance and may last for multiple days. Explosive avalanche control will be used to reduce the hazard; however, this may not always work. Closures could last until the snowpack has stabilized naturally. Clients need to be informed prior to booking of these potential closures, and planning for contingency accommodations will be important.

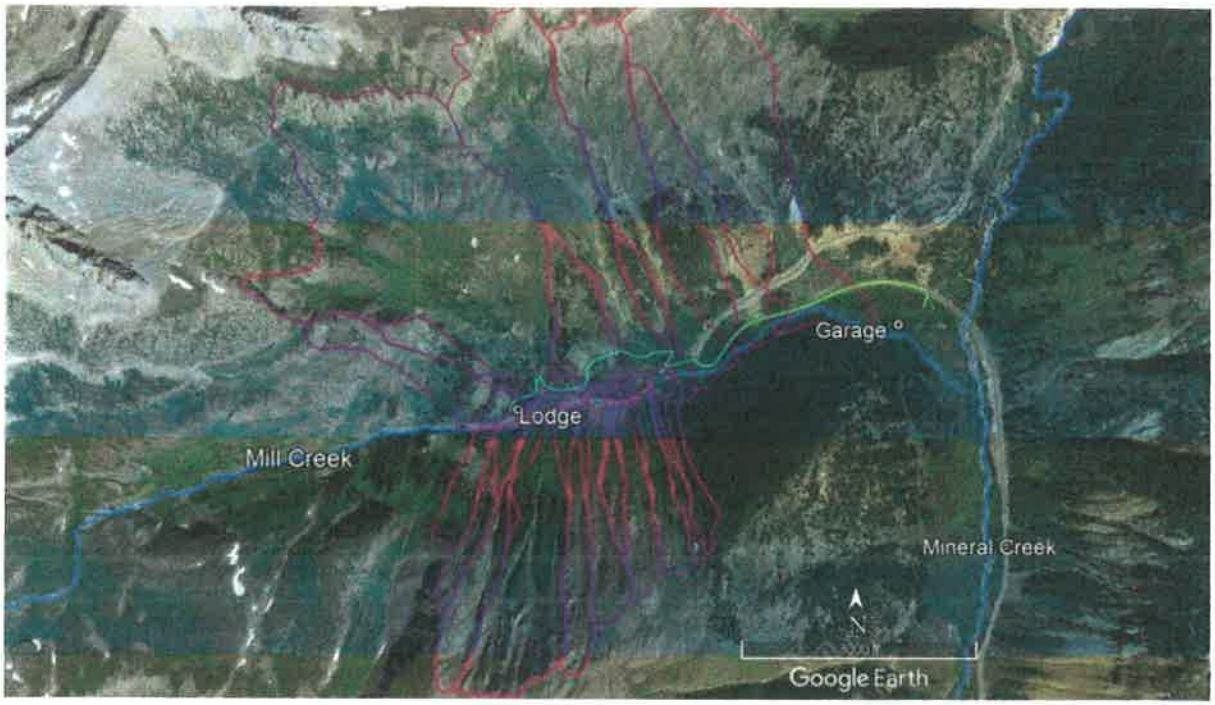


Figure 1. Overview of the SCR project area. The lodge and garage areas are identified. Access from the garage to the lodge (in yellow) runs west along Highway 550 to the bend in Mill Creek, at which point FSR 821 is followed. Mapped avalanche terrain affecting operations is identified in red.

1.1 Winter Operational Overview

SCR operations that will occur during the avalanche season include:

1. **Road Use:** Travel (multiple times daily) between the garage and the lodge via Highway 550 (road maintenance and avalanche safety managed by the state) and FSR 821 (road maintenance and avalanche safety managed by SCR). Travel along FSR 821 may be on foot, snowmobiles, enclosed passenger vehicles, or heavy equipment. Both staff and clients will travel this route, which is shown in yellow in Figure 1.
2. **Lodging:** Continuous (i.e., 24/7) occupation of the lodging facilities by clients and staff. While structural mitigation protects people within the structures, there is exposure to avalanche hazard in the immediate area outside of the structures. At full capacity, the SCR will have up to 36 guests and 3-4 staff on site.
3. **Worksites:** Staff may access additional areas that clients will not access. One example includes maintenance of the hydroelectric facility located downstream of the lodge on the north side of Mill Creek. Another example includes avalanche forecasting staff travelling through various locations in Mill Creek.
4. **Recreation:** Guided recreational activities for clients in Mill Creek and the surrounding area. Recreation will typically be backcountry skiing, however other activities such as ice climbing and use of a via ferrata may be done within Mill Creek.

1.2 Scope of ASP

1.2.1 Within the Scope

This ASP outlines the avalanche safety measures required to manage avalanche risk along FSR 821, at the lodge, and for staff safety at additional worksites (points 1 through 3 above).

1.2.2 Outside the Scope

Recreational activities: This ASP does not include the recreational component of SCR winter operations (point 4 above). It is assumed that all SCR recreational activities with exposure to avalanche hazards will be guided by qualified avalanche professionals with their own avalanche safety procedures in place. It should also be noted that this ASP does not apply to any members of the public or other professional operations (e.g., guiding operations) accessing the area.

Highway 550 operations: Avalanche hazard to travellers and staff on Highway 550 is managed by the Colorado Department of Transportation (CDOT) who have the authority to close the road. Therefore, the use of Highway 550 between the garage and turnoff to FSR 821 is dictated by CDOT. Highway closures must be adhered to unless specific arrangements have been agreed upon between SCR and CDOT.

2.0 Avalanche Background

2.1 Avalanche Magnitude and Frequency

Magnitude and frequency of avalanches depend on snow supply and terrain. Snow supply is determined by the frequency and depth of snowfalls and effects of wind transported snow. Important terrain characteristics include slope incline, elevation, aspect, size, and configuration of avalanche paths. Snowpack structure can also affect magnitude. For example, a weakness buried deeply in the snowpack can result in large avalanches.

An avalanche occurring every year at a specific location is described as high frequency, whereas one occurrence every 100 years is considered very low frequency (Table 1). Avalanche frequency is commonly communicated as a return period, which is the reciprocal of the frequency. Average avalanche return period is typically given in a range from 1 to 100 years. Return period estimates are provided with the generalized average return periods of 1, 3, 10, 30 and 100 years.

Table 1. Avalanche return periods and frequency descriptors.

Average Return Period (years)	Range (years)	Frequency Descriptor	Comments
1	≥1	Very High	Regular interruption of winter operations
3	2 to 5	High	Active during most winters
10	5 to 20	Moderate	Active during heavy snow winters
30	20 to 50	Low	Long return period avalanches
100	50 to 300	Very Low	Very long return period avalanches

Magnitude is related to return period in that large destructive avalanches will occur less often than smaller ones in a given avalanche path. The return period of avalanches reaching a location in a path increases (or frequency decreases) with increasing distance from the starting zone.

Magnitude estimates are described in Table 2 which are based on destructive potential. Scaling parameters of typical mass, path length and impact pressure are also included. The maximum size class (destructive effect) for a given avalanche path relates to the snow supply (depth of avalanches) and terrain (area, length, configuration, and incline of the avalanche path).

Table 2. Avalanche Size – Destructive Force (after CAA, 2007; Perla, 1980). From: (A3, 2016).

Size	Avalanche Destructive Potential	Typical mass (t)	Typical path length (m)
D1	Relatively harmless to people.	<10	10
D2	Could bury, injure, or kill a person.	10^2	100
D3	Could bury and destroy a car, damage a truck, destroy a wood frame house, or break a few trees.	10^3	1000
D4	Could destroy a railway car, large truck, several buildings, or substantial amount of forest.	10^4	2000
D5	Could gouge the landscape. Largest snow avalanches known.	10^5	3000

In this ASP, avalanche magnitude and frequency are estimated based on the size, incline, aspect, path configuration, and damage to vegetation in the runout zone of an avalanche path as well as snow supply estimates derived from snow climate data.

2.2 Avalanche Risk

Avalanche risk is determined by the exposure and vulnerability of an element at risk (life and property) to an avalanche hazard (Figure 2).

Figure 2. Avalanche risk triangle

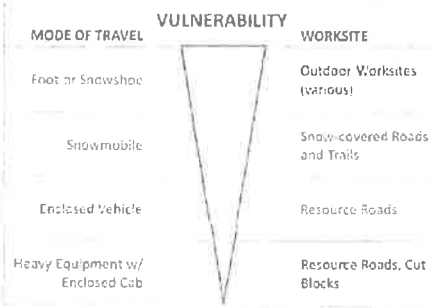


Figure 3. Vulnerability to avalanches by mode of travel.

Avalanche hazard is determined by the magnitude and frequency of avalanches, which are driven by terrain (slope incline, aspect, scale, and configuration), the location of worksites and roads in relation to avalanche paths and the seasonal weather patterns (which determine snowpack structure).

Exposure to avalanche hazard is measured in terms of location, time, as well as by the number of people and/or equipment exposed to the hazard. Exposure escalates as the number of people/equipment and the length of time spent in the hazard area increases.

Vulnerability is an expression of susceptibility to the consequences of avalanche involvement. Reduced vulnerability can result in risk reduction for a given avalanche hazard. Vulnerability of people to avalanche hazard will vary depending on the mode of travel. Common modes of travel in avalanche terrain are ranked in order of vulnerability from most vulnerable (on foot) to least vulnerable (in enclosed heavy equipment) (Figure 3).

2.2.1 Avalanche Risk Guidelines

This ASP outlines operational procedures which meet acceptable avalanche risk thresholds as defined by Technical Aspects of Snow Avalanche Risk Management (TASARM) developed by the Canadian Avalanche Association (CAA, 2016). While equivalent guidelines are not published in the USA, TASARM guidelines are considered industry-standard and therefore sufficient for reference in this ASP. TASARM recommends mitigation when avalanche size and return periods exceed thresholds presented in Table 3.

Table 3. TASARM (CAA, 2016) avalanche assessment guidelines for elements at risk by threshold size and return period.

Element at Risk	Critical Avalanche Size	Typical Return Period (years)
Access Road (vehicles travelling along FSR 821)	≥ Size 2	≤ 30
Pedestrian Areas (people outside near the Lodge)	> Size 1	≤ 100
Outdoor Worksites (e.g., hydroelectric facility)	> Size 1	≤ 30

3.0 Project Background

3.1 Snow Climate Overview

The SCR is located within a high elevation, continental snow climate, which is characterized by relatively low snowfall (for its elevation) and cold temperatures. The project area benefits from nearby weather stations with long-duration historical snow depth (HS) and snow water equivalent (SWE) data. The Mineral Creek SNOTEL site is located ~1.5 miles south of Chattanooga and provides excellent valley bottom data. The Red Mountain Pass SNOTEL site is located ~2 miles North of Chattanooga and provides excellent mid-elevation data.

Statistical estimates for HS were calculated from the historical data. Annual maximum values from the two stations were fit to Gumbel extreme value distributions to obtain theoretical maximum HS values at given return periods (Table 4). Note that the maximum observed HS for both weather sites was from 2019, which was considered an extreme winter for snowfall and avalanche activity. Snow depths at the lodge are inferred from the two weather stations.

Table 4. Statistical Height of Snow (HS) in inches for various return periods.

Station Name	Mineral Creek	Red Mountain Pass	Inferred Lodge HS
Station ID	07M14S	07M33S	~
Elevation (ft)	10,040	11,200	10,800
N (years)	17	25	~
Mean Annual HS (in)	57	82	*74*
Maximum Observed HS (in)	93	127	~
Statistical HS $_{10\,year}$ (in)	73	103	*94*
Statistical HS $_{30\,year}$ (in)	84	117	*105*
Statistical HS $_{100\,year}$ (in)	96	133	*120*

The typical avalanche season is expected to begin in early November, and end in early May. However, it is possible to get enough early-season snowfall that an avalanche hazard develops in October. Also, an above average snowpack in winter or a prolonged cold spring may result in an avalanche hazard persisting into June. While the avalanche safety measures described in this ASP will typically only be required between November and early May, there is potential for an avalanche hazard to develop when snow depths in the project area exceed one foot (30 cm).

3.2 Geographic Overview

Mill Creek drains from Columbine Lake in the high alpine east into Mineral Creek. While upper Mill Creek is characterized by lower angle terrain, lower Mill Creek (where SCR operations are located) runs through a narrow valley with steep terrain on either side. Ridgetop elevations exceed 13,000 ft, with valley bottom elevations of 10,300 ft (at the garage area). There is steep terrain on both the north and south sides of the valley with minimal forest cover. Broad gullies run from ridgetop to valley bottom resulting in avalanche paths with over 2,000 ft of vertical fall.

3.3 Project Stakeholders

Avalanche safety for the SCR involves several stakeholders. While the SCR only manages avalanche safety for FSR 821 (and not Highway 550), successful winter operations require significant coordination with CDOT for lodge access via the highway and explosive avalanche control. CDOT receives support from the Colorado Avalanche Information Center (CAIC). Therefore, the local CAIC avalanche forecasters are also indirectly stakeholders associated with winter operations at the SCR.

Similarly, while the SCR is not responsible for the avalanche safety of public backcountry users, appropriate notification will be required to inform the public of operational measures such as avalanche control within the Mill Creek drainage.

Finally, while the SCR is responsible for avalanche forecasting, it may contract explosive avalanche control (AC) from nearby ski operations (referred to as "AC contractor" in this ASP). The roles and responsibilities from an avalanche safety perspective for the various stakeholders are outlined later in this ASP.

3.4 Project Infrastructure

This ASP includes the following SCR infrastructure which will be occupied or accessed during the avalanche season:

- **Lodge buildings:** Located at ~10,800 ft ASL in Mill Creek, the lodge area includes a number of buildings as well as facilities within the underground mine workings. This is where SCR guests will be sleeping and dining. The lodge has capacity for 36 guests as well as an Avalanche Forecaster.
- **Garage buildings:** Located downstream from the lodge area at ~10,300 ft ASL near the confluence of Mill Creek and Mineral Creek. Staff and client vehicles will be parked here, and SCR equipment and vehicles will be stored here. Staff accommodation will also be here.
- **FSR 821:** This is the ~0.6-mile-long access road between Highway 550 and the lodge area and is located on the north side of Mill Creek. During winter operations, SCR will clear the road with heavy equipment. Staff and clients will travel to the lodge in standard passenger vehicles. If snow clearing operations cannot keep up with snowfall, snowmobiles and enclosed snow vehicles may be used.
- **Hydroelectric facility:** The main power source for the SCR lodge buildings will be hydroelectric generation. This structure will be located ~1000 ft downstream from the lodge on the north side of Mill Creek at ~10,600 ft ASL, below FSR 821. Staff access (on foot or snowmobile) may be required for maintenance purposes during the avalanche season.

4.0 Avalanche Hazard Identification

The north and south slopes of lower Mill Creek consist of nearly continuous avalanche terrain. This combined with a snow climate which promotes fast-moving dry avalanches results in nearly the entire valley bottom of lower Mill Creek being exposed to avalanche hazard. Appendix A – Avalanche Hazard Maps outlines the approximate 100-year boundaries for each avalanche path. While dense flow is expected to terminate within the mapped polygons, the powder component may run farther. Appendix B – Magnitude Frequency Tables provides a brief description of each path. Appendix C – Terrain Photos provides an oblique photo of each path with the estimated 100-year extents overlaid.

Avalanche paths are named based on the drainage, the side of the valley, and the consecutive path number up-valley. For example, path MC-N-13 is located on the north side of Mill Creek and is the 13th path identified working upstream from Mineral Creek towards Columbine Lake. Many of these paths have other names as referenced by CDOT and previous avalanche studies.

4.1 Highway 550

While avalanche safety along the section of Highway 550 connecting the garage to FSR 821 is managed by CDOT, the avalanche paths are discussed here for completeness and because coordination with CDOT is essential. Three large south-facing paths run beyond the lower switchback of the highway. These are MC-N-04 (Eagle), MC-N-06 (Telescope), and MC-N-08 (Muleshoe). They frequently (every 1-3 years) produce large Size D3 avalanches with dense flow reaching the highway, and powder flow reaching the south side of the valley. See Figure 4 below.

Figure 4. Three large avalanche paths which produce Size D3 avalanches which reach the lower switchback of Highway 550 every 1-3 years. Access between the garage and lodge in yellow.

4.2 FSR 821

Two large avalanche paths, two small avalanche paths, and one short-slope path on the north side of Mill Creek affect FSR 821. Path MC-N-10 (Bullion King) is similar in character to the paths above Highway 550, with Size D3 avalanches reaching the road frequently (every 1-3 years). Path MC-N-13 (Silver Cloud) is the largest in the valley, with annual Size D3 avalanches and the potential for Size D4 avalanches with a frequency of 10- to 30-years. Both paths can produce large fast moving dry avalanches with dense flow reaching the other side of the valley and a powder component which can run up the opposite slope.

Path MC-N-09 is lower frequency, with 30-year Size D2's estimated. Path MC-N-11 is expected to produce 3-year Size D2's. Path MC-N-12 (Hydro Hill) is a steep short slope that will routinely slough onto the road, with the potential for Size D2 avalanches during large snowfall events. See Figure 5 below.

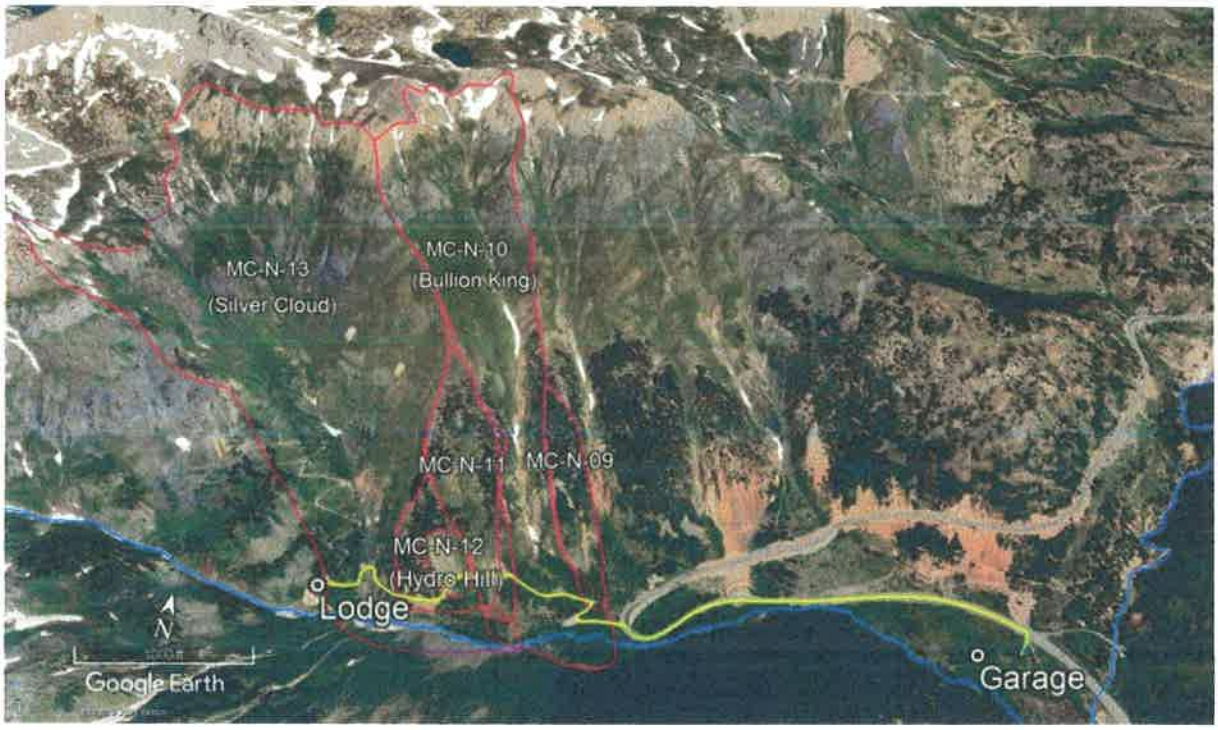


Figure 5. Avalanche terrain on the north side of Mill Creek affecting FSR 821. MC-N-10 (Bullion King) and MC-N-13 (Silver Cloud) frequently produce large destructive avalanches which reach the access road. The other three paths (MC-N-09, -11, and -12) are much smaller in scale.

The access road is also exposed to potential powder avalanche impacts from the south side of Mill Creek. Eight paths (MC-S-05 through -12) have been identified along the gullied north-facing terrain capable of producing Size D3 avalanches (Figure 6). These are also backcountry ski runs, locally known as the Chattanooga North zone. While dense flow is not expected to reach the access road, it is possible for powder flow to run up the north side of the valley, reaching the access road. After gaining experience operating in Mill Creek during the winter months it may be determined that only a subset of these paths present a hazard to the road.

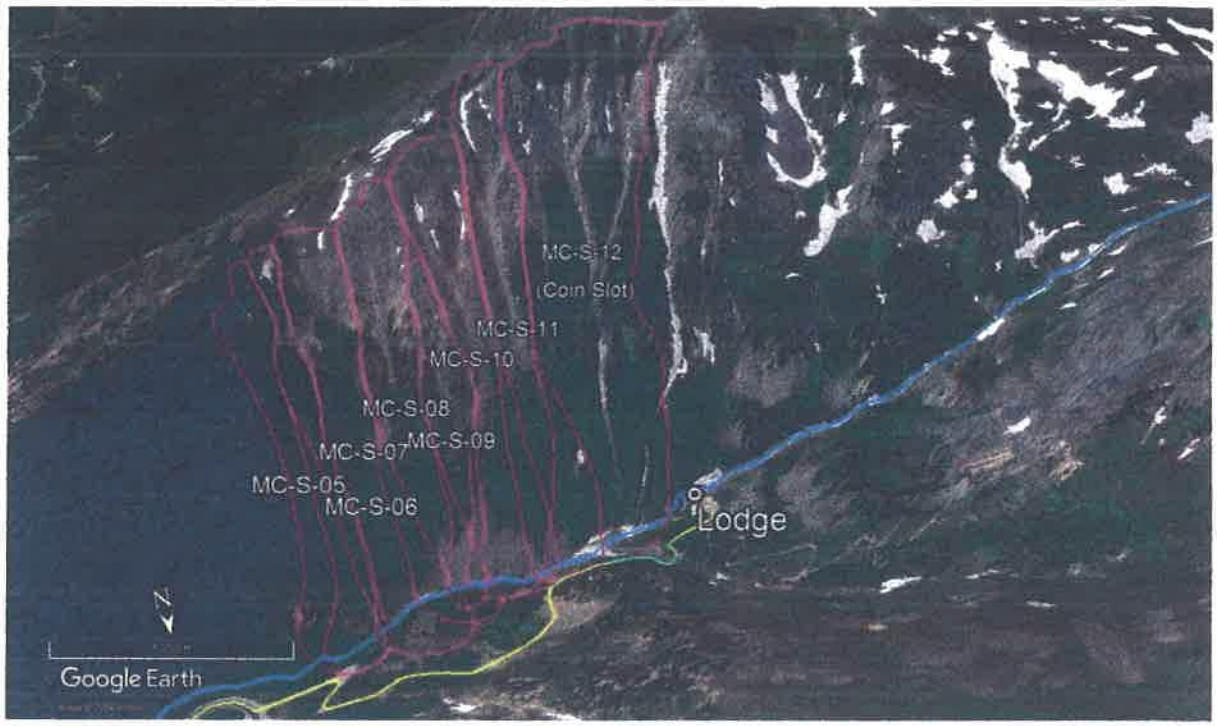


Figure 6. Avalanche terrain on the south side of Mill Creek with the potential for producing Size D3 avalanches with a powder component that could reach FSR 821. Locally known as the Chattanooga North backcountry ski zone.

4.3 Lodge Area

The lodge area is exposed to avalanche hazard from multiple paths on either side of the valley (Figure 7). While engineered structural mitigation protects the buildings (and occupants) from this hazard, people outside of the buildings are still exposed to avalanche hazard.

From the north side of the valley, the lodge area is exposed to powder impacts from path MC-N-13. Paths MC-N-17 and -19 present a short slope avalanche hazard to the lodge. A theoretical design avalanche could run-up over the engineered avalanche fence, over the lodge roof, and impact the area immediately east of the lodge. An extreme avalanche from MC-N-20 could impact the lodge area.

From the south side of the valley, the lodge area is exposed to impacts from paths MC-S-13 (Corner Pocket) through -15. Structural mitigation protects people inside the buildings, however the outdoor lodge area may still be exposed to avalanche impacts.

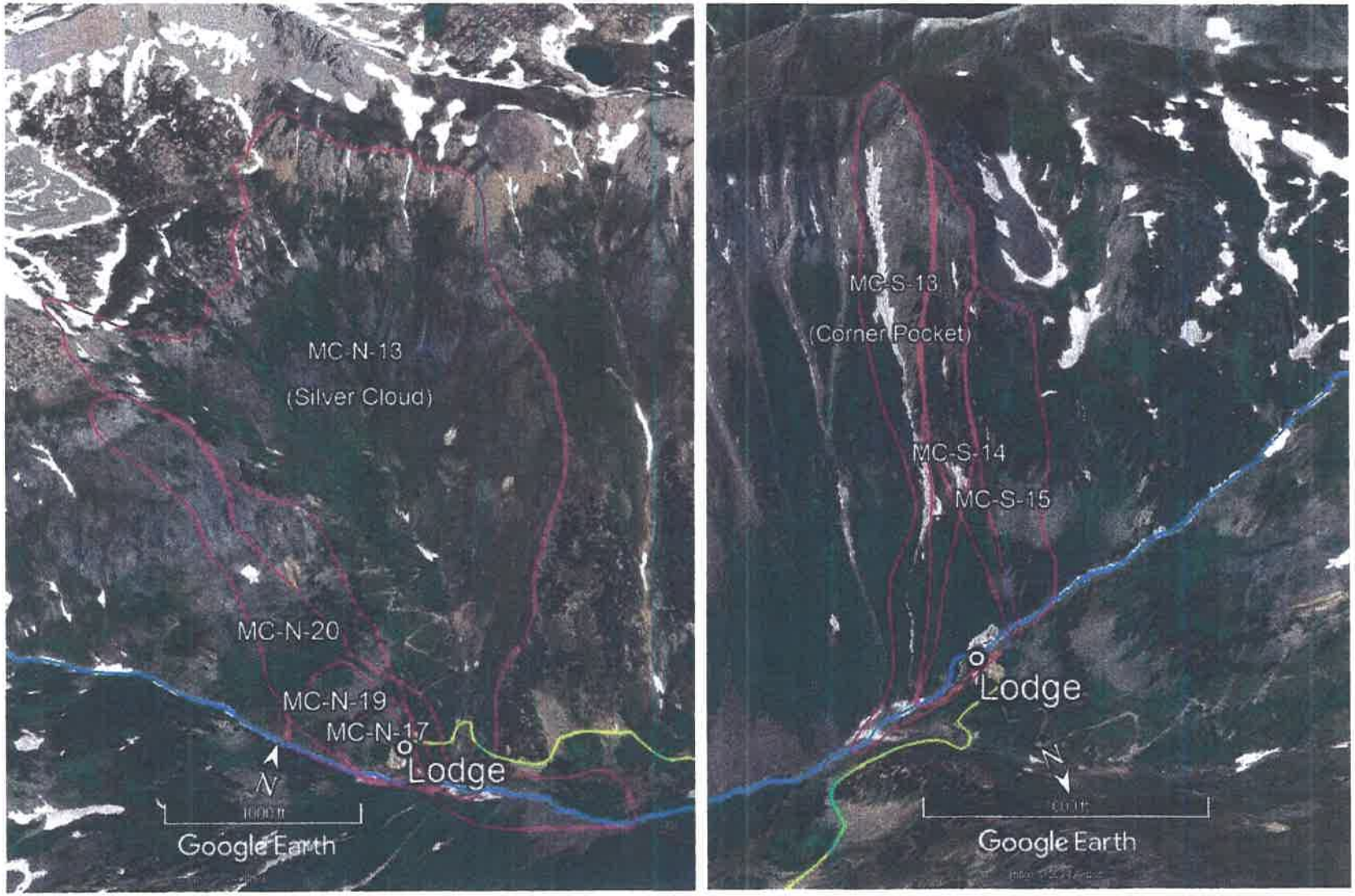


Figure 7. Avalanche paths affecting the lodge area from the north (left image) and south (right image). Impacts are possible from paths MC-N-13 (Silver Cloud), MC-S-13 (Corner Pocket), MC-S-14, MC-S-15, and MC-N-20. Design avalanches from MC-N-17, and -19 could result in dense flow overtopping the lodge and impacting the lodge area immediately to the east of the buildings.

4.4 Garage Area

The garage area is not exposed to avalanche hazard. A design avalanche from path MC-N-04 (Eagle) could produce a powder cloud large enough to come close to the garage. However, this event would not be expected to be destructive near the garage, and there would be no risk to people or property. See Figure 8 below.

Figure 8. The garage area is not exposed to destructive avalanche flow from path MC-N-04 (Eagle).

4.5 Hydroelectric Facility

The proposed hydroelectric facility is exposed to avalanche hazard from paths MC-N-13 (Silver Cloud) and MC-N-11 (Figure 9). The facility is located in the extreme runout of these paths and will therefore only rarely be impacted by avalanches. The most likely hazard is flow from path MC-S-10. The facility can either be accessed on foot from FSR 821, or by snowmobile from the lodge along the valley bottom. The point on FSR 821 directly upslope from the hydroelectric facility is the safest place to stop along the entire road (Figure 9). It is therefore reasonable in many conditions to park at this point and walk downslope to the hydroelectric facility. However, this work is at the discretion of the SCR Avalanche Forecaster.

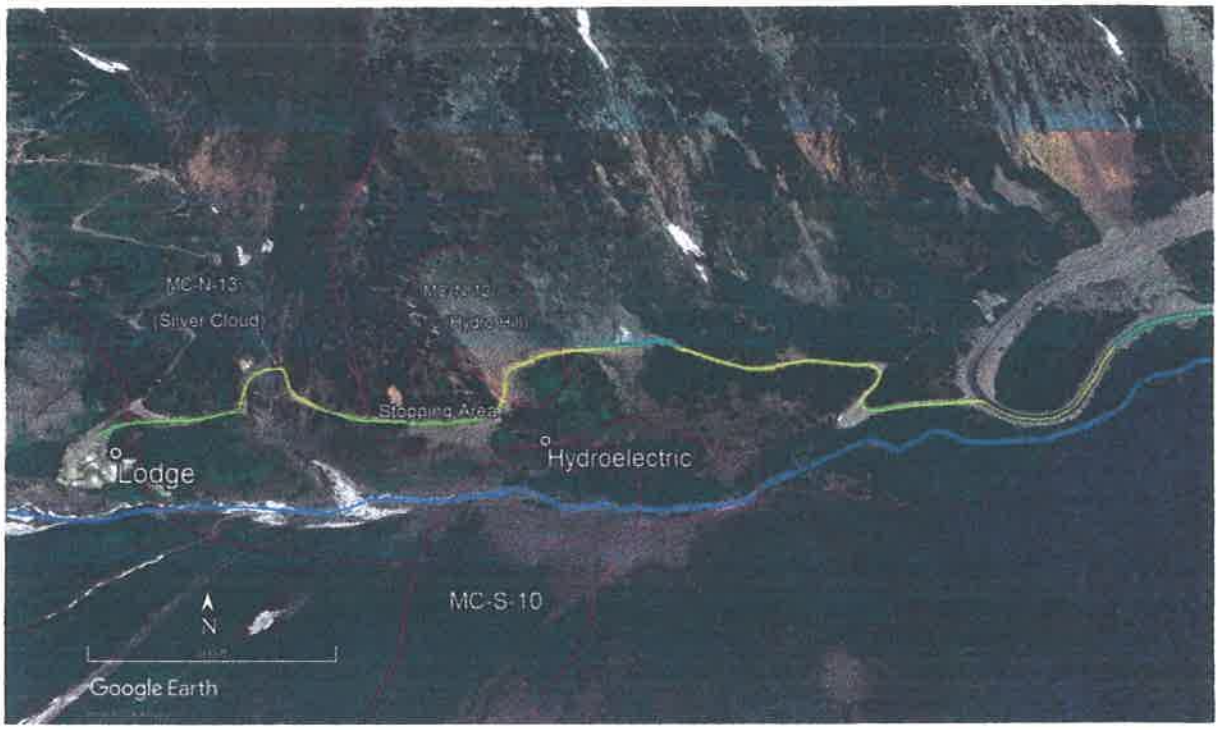


Figure 9. The hydroelectric facility will be located below FSR 821 on the north side of Mill Creek. The facility (and access to the facility) may be exposed to avalanche hazard with low frequency from either MC-N-13 (Silver Cloud) or MC-S-10. Note that the only section of road that is reasonable to stop in most conditions is identified between the path boundaries of MC-N-13 (Silver Cloud) and MC-N-12 (Hydro Hill). Note that during large avalanche cycles, this section of road is likely exposed to powder impacts from MC-S-11 through MC-S-12.

4.6 Additional Worksites

It is likely that any additional worksites located within the Mill Creek drainage would be exposed to avalanche hazard. Whether these worksites are for avalanche forecasting (e.g., study plots, weather stations), infrastructure/equipment maintenance, or any other purpose, these sites will need to be assessed by the SCR Avalanche Forecaster. Site specific procedures should be established for any routine worksites that are exposed to avalanche hazard. Standard access routes should be established for regular, high-elevation snow study sites that minimize staff exposure to avalanche hazards.

5.0 Avalanche Safety Program Overview

Based on the estimated avalanche sizes and return periods discussed above, SCR winter operations are exposed to avalanche hazards which exceed the TASARM thresholds presented previously. Therefore, an avalanche safety program with recommended avalanche safety measures should be implemented to appropriately manage avalanche risk for staff and clients.

5.1 Roles and Responsibilities

This section establishes responsibility for the elements in this ASP and the communication of avalanche hazard information. Specific roles and responsibilities are listed below.

SCR Owner:

- Ensure that the ASP meets SCR safety objectives and is implemented.
- Ensure that the avalanche forecasting team receives the support and resources required to effectively manage the avalanche safety program.
- Ensure that clients are made aware of the inherent avalanche risk and potential for last-minute operational closures prior to booking at SCR.

SCR Avalanche Forecaster:

- Execute pre- and post-season checklists.
- Maintain and collect data from the snow study plot.
- Maintain, inventory, and regularly inspect SCR avalanche safety equipment.
- Avalanche hazard monitoring (via weather, snowpack, and avalanche observations).
- Daily evaluation (forecasting) of avalanche hazard.
- Record keeping consistent with avalanche industry best practice.
- Implement appropriate risk reduction measures based on the avalanche hazard.
- Communicate the hazard (and risk reduction measures) via the daily advisory.
- Delivery of avalanche safety and rescue training to staff.
- Ensure that SCR clients receive a brief avalanche awareness presentation upon arrival.
- Provide avalanche rescue response capability.
- Determine the need for avalanche control and coordinate with CDOT and AC contractor.
- Determine the shot list for avalanche control to be completed by the AC contractor.
- Ensure that operations don't expose public to explosive risk or increased avalanche risk.
- Manage ongoing operational relationships with CDOT, CAIC and the AC Contractor.

Avalanche Control (AC) Contractor

- When contracted by SCR to complete avalanche control, do so according to best practices and strictly adhere to all applicable regulations.
- Provide all staff and explosives product to execute the mission.

- Plan to complete the mission as requested by the SCR Avalanche Forecaster. However, flight and staff safety are the priority, and weather conditions or pilot input may require alteration to the proposed control mission.
- Provide additional forecasting services (e.g., field observations) if available when requested by the SCR Avalanche Forecaster.
- Communicate AC results with the SCR Forecaster via radio immediately post-mission and deliver a follow-up report by the end of day.

5.2 SCR Avalanche Forecasting Team

Full-time avalanche forecasting personnel will be required to manage the avalanche safety program and to monitor/forecast the avalanche hazard for the duration of the avalanche season. One Avalanche Forecaster will be required to be on-site every day, and that forecaster will work closely (daily) with the AC Contractor to monitor weather, snowpack, and avalanche conditions. It is anticipated that, due to scheduling purposes, two individuals will need to be hired to ensure this role is filled 7 days per week. These individuals will be employed full-time through the avalanche season by SCR and will be responsible for ensuring that SCR operations are appropriate given the avalanche hazard. The forecaster position will be housed at the lodge, with office space provided to complete forecasting duties.

During extended periods of low avalanche hazard, the responsibilities of the avalanche forecaster may not fill a day. While there could be efficiencies gained by merging this role with other roles (such as first-aid attendant), managing the avalanche safety program must be the first priority. Conversely, during periods of elevated avalanche hazard, this role might become more than full time.

In the event that a winter ski guiding program is implemented, it should be noted that the roles of Guide and Avalanche Forecaster should not be combined, as guiding would make the individual unavailable for extended periods during the day. However, close communication and data sharing between the SCR Avalanche Forecaster and the contracted guides would benefit both operators from an avalanche safety perspective.

Guidance is provided below for recommended experience and qualifications (in decreasing order of importance) for the Avalanche Forecaster position.

5.2.1 Avalanche Forecaster

- Extensive avalanche forecasting experience in a continental snow climate (minimum of 10 years in a decision-making role), ideally with experience in a highway avalanche program.
- Extensive experience with explosive avalanche control, including heli-bombing.
- Professional Member of the American Avalanche Association (A3).
- Completed the Pro 2 certification process through A3 (or equivalent).
- Ski guiding experience would be an asset to better liaise with the local guides who would be taking SCR clients into the backcountry.
- Certification with the American Mountain Guides Association (AMGA) or International Federation of Mountain Guides Association (IFMGA) is an asset.

5.3 Avalanche Forecast Zones

SCR operations are exposed to avalanche hazard in two distinct avalanche terrain zones. Also, the activities in these two zones typically results in different exposure and vulnerability to people, resulting in a need for separate assessment.

5.3.1 FSR 821

The FSR 821 zone encompasses ~0.6 miles of access road between Highway 550 and the lodge. Exposure for lodge access along FSR 821 will usually be brief with people in enclosed vehicles (e.g., pickup truck). Road maintenance will have significantly increased exposure time for staff; however, vulnerability will be slightly reduced as they will be in heavy equipment (e.g., loader, grader).

5.3.2 Lodge Area

The Lodge Area zone includes all outdoor areas in the immediate vicinity of the lodge buildings. People outside of the lodge buildings will be on foot and often stationary. While this area will often be exposed to less avalanche hazard than the road (due to location and structural mitigation), there will still be potential exposure to hazard (primarily powder) during larger avalanche cycles.

5.4 Avalanche Hazard Monitoring

Monitoring of avalanche hazard is an essential element of the avalanche safety program. Avalanche hazard levels typically vary substantially over the course of each winter season and even during the day, depending on the nature of the weather patterns and snowpack characteristics. Snowpack, weather, and avalanche occurrence data used for monitoring purposes will come from a combination of on-site observations, data from electronic weather stations, regional snow and weather data, and data supplied regularly by the AC contractor. These are discussed separately below.

5.4.1 Weather Observations

Quality real-time weather data from nearby weather stations is a key input into an avalanche forecast. Nearby relevant weather stations are included in Table 5 below. This list is likely to change based on experience forecasting in the Mill Creek drainage. As the avalanche program evolves, there may be value in installing an additional weather station within the Mill Creek drainage that would be owned and maintained by SCR. This would increase station reliability and not depend on others to maintain stations for obtaining reliable data.

Table 5. Nearby relevant weather stations providing data for the avalanche hazard evaluation process.

Station	Provider	Elevation	Available Data
Mineral Creek	SNOTEL	10,040 ft	Temperature, precipitation, HS, SWE.
Red Mountain Pass	SNOTEL	11,200 ft	Temperature, precipitation, HS, SWE.
Eagle	CAIC	12,852 ft	Temperature, RH, wind.
Senator Beck	USGS	12,210 ft	Temperature, RH, wind, HS, SWE.
PHQ	Telluride	11,850 ft	Temperature, RH, wind, HN24, HS.

5.4.2 Weather Forecasts

While real-time weather data is important for understanding the current avalanche conditions, accurate weather forecasts are important for forecasting the trend in avalanche hazard. A variety of quality weather forecasting products are available. It is important for the Avalanche Forecaster to be able to interpret synoptic and regional (macro) scale weather patterns to best predict what will occur at the micro-scale within the Mill Creek drainage.

5.4.3 Weather, Snowpack and Avalanche Observations

Manual snow and weather observations are typically obtained by the Avalanche Forecaster from an established snow study plot at a frequency of twice per day. This study plot needs to be easily accessible. Ideally a location close to the lodge without exposure to avalanche hazard is chosen. A secondary study plot at the garage should be established so that data collection can continue when the lodge is closed. The study plot locations need to be undisturbed (no traffic beyond the forecaster), have a clear sky view, and should be relatively sheltered from wind.

Data obtained from the snow study plot typically includes air temperature, sky cover, wind, precipitation type and rate, total height of snow (HS) and several snowfall height measurements. These snowfall height measurements are made by placing wooden snow height boards on the surface of the snowpack and measuring the snow height on the board at regular intervals before clearing the snow from the boards. Typical snow height boards include a twice daily board (H2D), daily board (HN24), storm board (HST) and shoot board (HSB). It is standard at many operations to measure the density of the new snow when more than 2 inches of new snow has accumulated.

High elevation snowpack conditions will be observed by the Avalanche Forecaster as safety, access, and time allow, with the goal of regular updates of snowpack structure or as significant changes in the snowpack structure are expected. Access from the lodge to the upper elevation observation sites is difficult and can only be undertaken in good conditions via ski touring or by helicopter. Snowpack and weak-layer monitoring will also be required near the lodge snow study plot.

It is anticipated that the AC Contractor will be a local heliski company (HeliTrax) and that they will become an essential partner with SCR for collecting and sharing weather, snow, and avalanche observations from high elevation sites, where they operate every day. This will be essential information for the SCR Forecaster and the provision of this data by the AC Contractor should be written into the services agreement.

5.4.4 Information Exchange

The sharing of snowpack and avalanche observation data between operators is crucial for improving the quality of avalanche forecasts. In Canada, all operators subscribe to a platform called the InfoEx developed by the CAA. Once or twice daily, all avalanche operators (guiding, ski hills, highways, rescue teams, and industrial) submit weather, snowpack, and avalanche data along with their avalanche forecast. This allows the entire avalanche community to understand regional trends in avalanche activity, thereby improving the quality of their individual avalanche forecasts. The InfoEx also provides quality workflows for completing avalanche forecasts.

While the InfoEx is available in the USA, its use is not widespread in Colorado. Ideally, all local operators would subscribe to the InfoEx (or an equivalent). There are numerous operators collecting field data in the nearby San Juans such as the Telluride and Silverton ski resorts, CAIC, CDOT, Helitrax, and other guiding operations. While the InfoEx is preferred, the SCR Avalanche Forecaster needs to establish relationships with "nearest neighbours" to share daily observations.

5.4.5 Daily Hazard Evaluation

The Avalanche Forecaster will complete a daily avalanche hazard evaluation process each morning (even during lengthy periods of elevated avalanche hazard with operational closures). The process will consider all weather, snowpack, and avalanche data discussed above. The avalanche hazard evaluation process will follow best practices as described in (CAA, 2016) and in the Conceptual Model of Avalanche Hazard (Statham, et al., 2018). The objective of the hazard evaluation is to identify the likelihood of avalanches and their potential size and runout distance with respect to SCR facilities. A hazard rating is then assigned to both the lodge area and the road (FSR 821) based on these factors. It is important to note that this hazard rating will be specific to SCR operations, which are mitigated, and should not be confused with the CAIC backcountry avalanche danger ratings, which are unmitigated.

The hazard evaluation process for SCR should be well documented and is ideally completed through a standard online industry application such as the InfoEx. An example workflow alternative to InfoEx is provided in Appendix E - Sample Avalanche Hazard Evaluation.

Hazard ratings, their definitions, and the associated typical actions for each forecast zone are provided below in Table 6. Note that these are specific to the SCR project and will likely be different than public CAIC danger levels.

5.5 Avalanche Hazard Advisories

The SCR Avalanche Forecaster will issue a daily avalanche hazard advisory each morning which serves to inform all SCR staff of the forecasted avalanche hazard and any resulting restrictions or closures of FSR 821 and/or the Lodge Area. Advisories will also include a mountain weather forecast to assist in operational planning. A sample avalanche advisory is provided in Appendix F – Sample Avalanche Advisory.

If avalanche hazard levels are changing quickly due to dynamic weather patterns, hazard advisories may be updated during the course of the day, and also during the night if operations are occurring (e.g., road maintenance). If the avalanche hazard changes, the Avalanche Forecaster must ensure clear communication to all SCR personnel.

5.6 Safety Audits

Audits of the avalanche safety program should be conducted at regular intervals. During the first few winters of operation, audits should be completed annually by DAC to ensure all aspects of this ASP are being implemented appropriately. Once SCR winter operations have gained a few years of experience, audits could occur less frequently (e.g., every 3-5 years), and by other local avalanche professionals.

Table 6. Avalanche hazard definitions and typical actions to mitigate avalanche risk to staff and clients.

Hazard Levels	Hazard Definition	Status of SCR Paths	Typical Action FSR 821[2]	Typical Action Lodge Area[2]	
No hazard	There is insufficient snow for avalanche hazard to exist.	No hazard	No avalanche safety measures required.	No avalanche safety measures required.	**Normal operations**
Low	Avalanches are unlikely. **OR** Small avalanches are possible but are expected to terminate far above the road, lodge, or worksite.	SCR paths are generally cleaned out and minimal residual volume exists.	No avalanche PPE[1] required on the road. Stationary road maintenance permitted with 1-hour check-ins[3] and avalanche PPE[1] required.	No avalanche PPE[1] required in designated lodge area. Avalanche PPE[1] required outside of lodge area.	
Moderate	Small avalanches are likely but are expected to terminate above the road, lodge, or worksite. **AND/OR** Large avalanches are possible but are expected to terminate far above the road, lodge, or worksite.	Hazard remains in specific SCR paths, but none are expected to release naturally.	No avalanche PPE[1] required on the road. Stationary road maintenance permitted with 30-minute check-ins[3] and avalanche PPE[1] required. No travel on foot. No snowmobile travel without first contacting the Avalanche Forecaster.	No avalanche PPE[1] required in designated lodge area. Avalanche PPE[1] required outside of lodge area. No access outside of lodge area without first contacting the Avalanche Forecaster.	
Considerable	Small avalanches are very likely and may reach the road, lodge, or worksite. **AND/OR** Large avalanches are likely but are expected to terminate above the road, lodge, or worksite.	Hazard is building or residual in numerous SCR paths and natural releases may occur.	Avalanche PPE[1] required. No stationary road maintenance. Through-travel in enclosed vehicles only.	Avalanche PPE[1] required. Outdoor activity limited to egress from lodge.	**Evacuation and closure**
High	Numerous small avalanches are expected to affect the road, lodge, or worksite. **AND/OR** One or more large avalanches are expected to affect the road, lodge, or worksite.	Avalanche cycle in progress and many SCR paths can release naturally.	Road closed.	Lodge area closed.	

[1]Avalanche PPE: Avalanche transceivers are worn, and there is immediate access to shovels and probes.
[2]SCR avalanche briefing is required for all clients/vendors, and pre-season training is required for all staff prior to being exposed to any avalanche hazard. See Section 6.2.
[3]Check-ins are completed with another SCR staff assigned dispatch duty. This could often be the Avalanche Forecaster; however, other SCR staff should be trained to be able to complete this role. See Section 6.7.

6.0 Avalanche Safety Measures

6.1 Checklists

Preparation and planning are required to operate in accordance with this ASP. Several items must be addressed including acquiring and maintaining rescue equipment, continuous updating of the ASP and rescue plans, and avalanche training. Annual checklists are important in ensuring the avalanche program is kept up to date.

6.1.1 Pre-Season Checklist

Pre-season checklists outline tasks to be completed outside of the avalanche season to ensure that all program equipment and documentation are in proper order prior to the season.

- Ensure services agreement with AC contractor is established.
- Assemble and inspect avalanche rescue equipment.
- Test all avalanche rescue transceivers according to manufacturer's specifications.
- Setup the snow study plot.
- Inspect and maintain avalanche signage and gate.
- Contact adjacent operators to establish (or re-establish) regular data sharing.
- Review and update training program for SCR staff and clients.
- Review and update the ASP and avalanche rescue plan (ARP) as required.
    - Review contact lists in the ARP and update as required.
    - Meet with AC contractor to ensure procedures are up to date.
    - Meet with CDOT to review and update procedures.

6.1.2 Post-Season Checklist

Post-season items to be considered include:

- End of season debrief, keep records to update the ASP and Rescue Plan.
- Remove or cover up avalanche signage.
- Inventory rescue caches to ensure complete contents.
- Inventory and remove batteries from avalanche transceivers.
- Inventory and store snow and weather observation equipment as required.

6.2 Avalanche Training

All SCR staff, clients, and vendors who are exposed to avalanche hazards will receive an SCR specific avalanche briefing or training delivered by the Avalanche Forecaster. The level of training differs between staff and clients/vendors, with an outline of training for each described below.

6.2.1 Staff Training

Training is required on an annual basis for all SCR staff, typically at the start of the avalanche season. Due to the distance from SCR to emergency services, it is important to train all staff to a level where they can be effective members of an avalanche rescue response. Staff need to have a basic knowledge of avalanche theory, they must be aware of all avalanche hazard areas they may be exposed to, and they need to understand key components of the avalanche safety program. A brief outline of training for staff is provided in Table 7.

Table 7. Avalanche training outline for SCR staff.

Location	Avalanche Training Topics	Approximate Time
Indoor Presentation	Avalanche theory	30 min
	Overview of SCR avalanche terrain	30 min
	Overview of SCR avalanche program	30 min
Outdoor Practical	Introduce avalanche safety equipment	30 min
	Avalanche rescue scenarios	60 min

6.2.2 Client and Vendor Briefing

All SCR clients must be made aware of avalanche risk prior to booking their trip, and then require an avalanche briefing at the start of their stay, prior to exposure to avalanche hazards. For this reason, briefings should take place at the garage before travelling to the lodge and this should be explained in any pre-trip information sent to clients. Client briefings are much less comprehensive than staff training with the main purpose of making them aware of the avalanche areas, avalanche safety equipment, and safety protocols along FSR 821 and the around the lodge. The briefing could take the form of a short video, or in-person by the avalanche forecaster. This training is not intended to prepare clients who will participate in guided backcountry trips (this should be provided by the contracted guides). It is intended for access and lodging at SCR. Vendors travelling to the lodge when there is avalanche hazard must also receive this training once annually. Exceptions may be granted at the discretion of the avalanche forecaster for infrequent vendors during low hazard. This exception could come in the form of escorted travel with an SCR staff member. See Table 8 for a brief outline of client/vendor training.

Table 8. Avalanche training outline for clients and vendors.

Location	Avalanche Training Topics	Approximate Time
Indoor Presentation	Awareness of hazard areas and safety protocols	15 min

6.3 Avalanche Safety Equipment

Avalanche safety equipment (also referred to as Avalanche PPE) is a requirement of this ASP. The three key pieces of equipment for avalanche rescue are avalanche transceivers, shovels, and probes. Table 6 identifies when transceivers must be worn by clients and staff. Probes and shovels are found in rescue caches located in strategic locations. This equipment must be inspected annually as per the pre-season checklist. One important duty of the Avalanche Forecaster is to maintain, inventory, and regularly inspect SCR avalanche safety equipment.

6.3.1 Avalanche Transceivers

SCR needs to maintain a fleet of avalanche transceivers sufficient in quantity such that all staff and clients exposed to avalanche hazards can be equipped (e.g., approximately 40 units). Transceivers need to be modern three-antenna units that are maintained in excellent working condition. The Avalanche Forecaster should routinely check and document the battery level of all transceivers. Care and maintenance of avalanche transceivers are per the manufacturer's

recommendations, including regular software updates. Batteries should be removed from the transceivers outside of the avalanche season to prevent corrosion.

6.3.2 Avalanche Rescue Caches

Comprehensive rescue caches should be established in easily accessible locations in the event of an avalanche involvement. There should be one cache at the lodge and another at the garage. These rescue caches will contain avalanche probes and shovels as well as first aid and survival equipment, all within large backpacks. Rescue cache contents are listed in Appendix G. It is recommended that all SCR vehicles which regularly travel FSR 821 carry some rescue equipment as well (also listed in Appendix G).

6.4 Operational Restrictions

To manage the avalanche risk to SCR staff and clients, various restrictions should be implemented. These have already been introduced in Table 6.

Restrictions at one hazard level include all restrictions from the previous (lower) hazard level. Note that High hazard is not discussed in this section as it implies operational closure.

6.4.1 Access Road

Low Hazard

Once an avalanche hazard develops along FSR 821 (Low hazard or higher), baseline avalanche safety measures require all travellers to have received the SCR avalanche training (staff or client). No stopping of passenger vehicles along FSR 821. Travel on foot along the access road needs consultation with the Avalanche Forecaster. Road maintenance permitted with 1-hour check-ins, and avalanche PPE is required.

Moderate Hazard

When the hazard increases to Moderate, no travel on foot is permitted along the access road, and travel on snowmobiles (or other open vehicles) needs consultation with the Avalanche Forecaster. Road maintenance is still permitted, however 30-minute check-ins with the operator should be completed.

Considerable Hazard

When the hazard increases to Considerable, travel along FSR 821 is limited to through-travel in enclosed vehicles only. Road maintenance is not permitted. An increase to Considerable hazard will often precede High hazard, so evacuating the lodge area in anticipation of a closure is recommended. No travel at night during periods of Considerable hazard unless necessary due to an emergency (i.e., medical condition requiring urgent, off-site care). Both staff and clients require avalanche PPE when travelling along the road.

6.4.2 Lodge Area

Low Hazard

Once an avalanche hazard develops at the Lodge Area (Low hazard or higher), baseline avalanche safety measures require all persons to have received the SCR avalanche training (staff or client). Signage should be placed in the immediate vicinity of the lodge buildings to identify the extent of the lodge area. This is the specific area that is being forecasted for. Outside of the identified lodge area and the road, avalanche transceivers are always required during the avalanche season. See Figure 10 below.

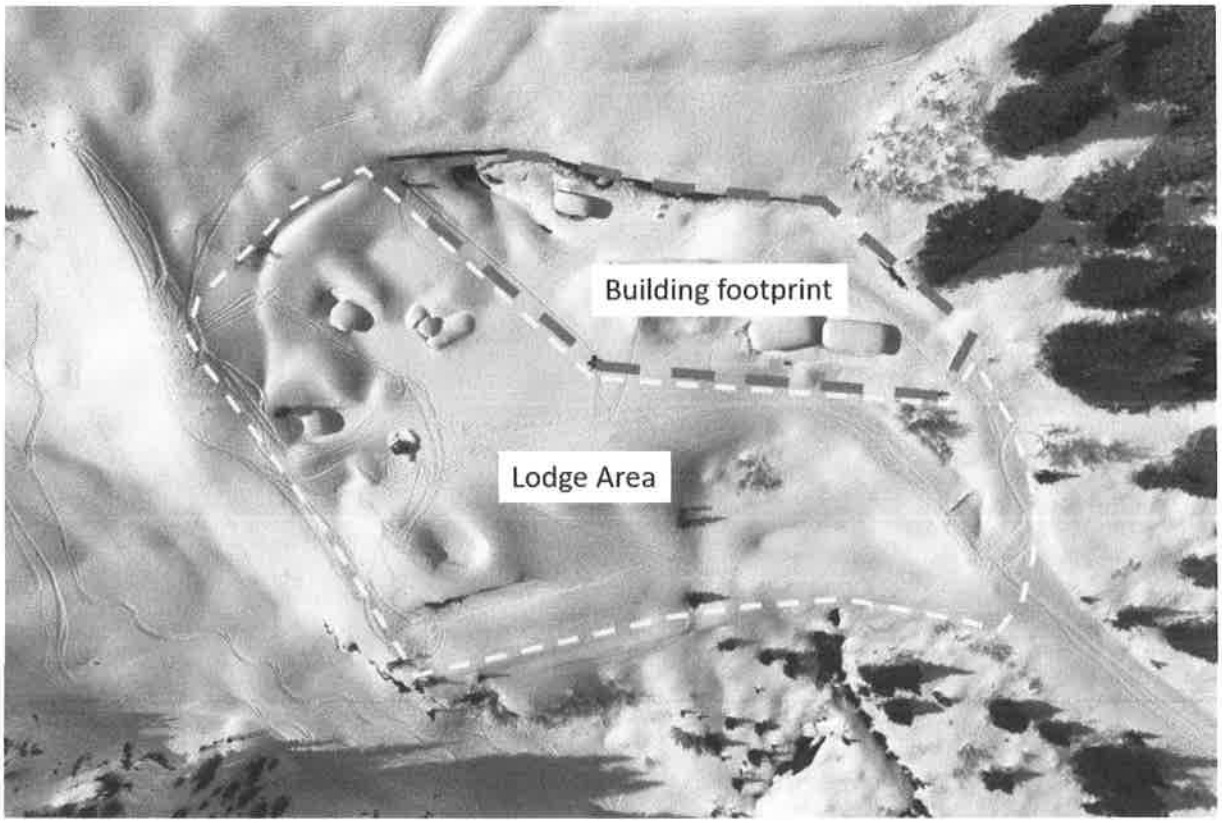


Figure 10. Overview photo highlighting the approximate outdoor "lodge area" (in yellow) outside of the lodge building (in green). Structural mitigation protects lodge occupants.

Moderate Hazard

When the hazard increases to Moderate, there should be no access outside of the designated lodge area without first contacting the Avalanche Forecaster. At their discretion, the Avalanche Forecaster may be away from the lodge completing other duties at Moderate (and Low) hazard.

Considerable Hazard

When the hazard increases to Considerable, outdoor activity should be limited to egress from the lodge buildings, and the Avalanche Forecaster needs to be at the lodge. No access outside of the designated lodge area. Like the access road, an increase to Considerable hazard indicates a trend towards High hazard (closure), and therefore evacuation from the Lodge area is recommended. Nobody should be outside of the buildings at night during Considerable hazard.

6.5 Avalanche Control

To mitigate elevated avalanche hazard, explosive avalanche control (AC) will be required with the objective of triggering regular, small avalanches that terminate above the road/lodge rather than less frequent large ones that block the road or affect the lodge with powder. Since most of the start zones (and therefore shot placements) are located near ridgeline (and usually inaccessible on foot), helicopter avalanche control (AH) will be the primary method. Certain avalanche paths may be controlled by roadside case-charging or hand-charging (AE); however, it will often be most practical to complete the entire control mission by helicopter.

Note that AH is not always possible due to weather. Also, AC may not successfully reduce the hazard. "Hang fire" may remain in the start zones and continue to threaten SCR operations. AC may not produce the anticipated avalanche results, and the Avalanche Forecaster may not have the confidence to resume SCR operations. These scenarios may result in extended operational closures.

6.5.1 Logistics

SCR will contract AC missions to an AC contractor. SCR's role in AC is to evacuate all personnel from the danger area (which means evacuating Mill Creek), to notify the public to ensure no conflict, to coordinate with CDOT and the AC contractor, and to develop the control plan with desired shot placements.

The AC contractor's role in AC is to supply and assemble the explosives, transport them to site, sweep the area for potential conflicts with recreational users, complete the mission as planned by the SCR Avalanche Forecaster as much as is safe/practical to do so and then follow-up and report the results to the SCR Forecaster. Flight safety is the top priority.

Based on the directive of CAIC Avalanche Forecasters, CDOT performs regular AC along Highway 550, with an average of 10 missions per year. It is assumed that SCR operations will require roughly the same number of missions, and it is assumed that both CDOT and SCR will need to complete AC at similar times. For this reason, coordination will be required between the SCR Avalanche Forecaster, CDOT/CAIC personnel, and the AC contractor. Ideally, AC missions for SCR can be completed at the same time as the CDOT control mission.

AC for Highway 550 is completed using artillery (AA) and Avalauncher (AL). These methods allow CDOT to perform AC in any weather condition. AH is not as reliable because favourable flying conditions are required. For this reason, it might not always be possible to complete a SCR mission at the same time as a CDOT mission. Should AC be required in the Bullion King path at a different time that CDOT, coordination will be required to close the highway prior to the mission, as Bullion King may threaten the highway or trigger avalanches in adjacent paths. AC missions farther up Mill Creek may be possible without highway closure with CDOT permission.

In some scenarios, CDOT may avoid AA/AL and choose to cost-share AH missions with SCR.

An AC procedure is provided in Appendix D which serves to highlight a recommended control mission sequence in coordination with CDOT and the AC contractor.

6.5.2 Avalanche Control for FSR 821

Avalanche paths MC-N-10 (Bullion King) and MC-N-13 (Silver Cloud) will require the most frequent AC to mitigate the hazard to FSR 821. During one mission, multiple shots will likely be required in each path. Less frequently, AC may be required in paths MC-N-09, -11, and -12 (and AE may be considered instead of AH). If the Avalanche Forecaster determines that powder impacts from paths across the valley (MC-S-05 through -12) may impact the road, the AH mission should be expanded to include shot placements there.

6.5.3 Avalanche Control for the Lodge Area

Avalanche Path MC-N-13 (Silver Cloud) threatens the lodge area with powder impacts, so it needs to be controlled to mitigate the avalanche hazard to the road and the lodge. The lodge area is also threatened by impacts from across the valley from paths MC-S-13 (Corner Pocket) through -15. Regular AC will be required in these three paths to ensure that persons outside of the lodge building are not exposed to avalanche hazards. In rare cases, the Avalanche Forecaster may determine that AC is also required in path MC-N-20. The two short slopes above the lodge (MC-N-17 and -19) will usually be maintained by regular ski cutting and skier traffic. In rare cases, hand charging may be warranted to control these slopes (with the lodge area evacuated).

6.6 Operational Closure

Operational closure during periods of High avalanche hazard is a simple and effective tool in avalanche risk reduction. This will be the primary avalanche safety measure at SCR when other measures such as operational restrictions and AC do not adequately reduce avalanche risk. The frequency of operational closures will depend on the avalanche season. The duration of closures will depend on the avalanche hazard, the weather, and the effectiveness/feasibility of other safety measures (for example, AH may not be possible due to weather). While the SCR Avalanche Forecaster should try and provide as much notice for closures as possible, they will potentially need to be implemented on a last-minute basis.

During periods of extended closure, the avalanche forecasting team will continue with their avalanche hazard monitoring responsibilities. Even if a closure is many weeks in duration, conditions must be continually assessed if SCR operations are planned to reopen later in the avalanche season.

6.6.1 Closure Procedure

The Avalanche Forecaster will monitor weather forecasts to anticipate required closures with as much notice as possible (but often with less than 48-72 hours notice). When the Avalanche Forecaster determines that a closure will likely be required, they will notify SCR management who are responsible for arranging the closure (manage client bookings, inform SCR staff, etc.). The standard procedure will be to evacuate all personnel (staff and clients) from Mill Creek before the closure is required. The closure will remain in place until the Avalanche Forecaster determines that the hazard has reduced sufficiently to resume operations. While this may occur naturally as the snowpack settles and strengthens over time, it will likely require explosive avalanche control to reduce the hazard.

6.6.2 Shelter in Place

In some circumstances, the avalanche hazard could increase unexpectedly over a short period of time. In this scenario, staff and clients will need to shelter in place at the lodge as it may be unsafe to travel along FSR 821 (or not possible if a large avalanche deposit blocks the road). They may also have to shelter in place due to last-minute highway closure. While people are safe inside the buildings, it may not be safe outside. This scenario should be avoided as much as possible. Evacuation via helicopter should be completed at the earliest opportunity, however it may not be possible immediately due to weather or the elevated avalanche hazard at the lodge.

AC in Mill Creek should be avoided while people are occupying the lodge buildings. The priority when people are sheltering in place at the lodge should be to evacuate them when the weather allows helicopter access. Once evacuation is complete, AC can commence. In rare and undesirable circumstances, AC may be required while people are sheltering in place. While the engineered mitigation is designed to protect the buildings from damaging avalanche impacts, it is recommended to shelter within the mine portal if AC is taking place.

During a shelter in place scenario, the consequences of other emergencies (e.g., fire, medical) are increased. Closures could be extended, which means the lodge buildings need to be equipped with up to one week's food and water rations. Heating and electrical systems need redundancy in case of this situation.

6.6.3 Minimizing Operational Pressure

It is important that closures are respected and that operational pressures do not cause the re-opening of SCR operations prematurely. To minimize operational pressures, clients should be made aware prior to booking that last-minute closures of the lodge due to elevated avalanche hazard are possible. There should be thorough contingency plans in place to house clients elsewhere during closure periods. During active avalanche winters, lodge closures (and therefore client booking cancellations) must be anticipated with greater frequency. It is the responsibility of SCR management to support the Avalanche Forecaster in their decision for closure.

6.7 Communications and Check-ins

It is important that personnel travelling or working in avalanche areas are equipped with at least one reliable means of communicating with other personnel and with outside resources. VHF radios are the standard communication tool. Satellite phones or satellite communication devices (i.e., SPOT, InReach) should be used as backup communication.

A check-in system is required for work and travel in avalanche areas. Vehicles should announce over the radio when they are beginning to travel along FSR 821, and they should again announce when they have reached the other end of the road. Maintenance equipment should check-in every hour during periods of Low hazard, and every 30 minutes during Moderate hazard (and for through-travel at Considerable hazard).

For the check-in procedure to be effective, one SCR staff should be assigned dispatch duty. This duty could often be taken by the Avalanche Forecaster; however, other staff members should be

trained in this role. In addition to checking in with other staff, the dispatcher would contact outside resources during emergencies, and should therefore be familiar with the Avalanche Rescue Plan (Appendix H). The dispatcher could be located at the Lodge or the Garage.

The frequency of check-ins for other tasks will depend on the level of risk. More frequent check-ins are recommended when staff are more vulnerable (i.e., work on foot), are more exposed (i.e., stationary work in avalanche terrain), or when the avalanche hazard is elevated.

6.8 Avalanche Gate and Signage

The entrance to FSR 821 from Highway 550 will be gated during the avalanche season. This is to ensure that public vehicles do not access the plowed FSR 821, thereby unknowingly exposing themselves to avalanche hazard. This will not stop ski tourers from accessing Mill Creek but will simply prevent public road traffic.

Avalanche signage will be installed on the gate notifying the public of the avalanche hazard along FSR 821 (and therefore the reason that access is closed). On days when avalanche control is planned, a notice will be posted on the gate and at the Columbine Lake Trailhead (and other common parking areas which access Mill Creek).

Signage should identify each avalanche path along FSR 821 such that avalanche observations can easily be reported by road traffic (e.g., road maintenance personnel) to the SCR dispatch and Avalanche Forecaster. These signs should be positioned at the boundaries between paths.

While clients will be informed of avalanche restrictions at the Lodge Area during their training, signage will also be installed to clearly mark the boundaries of the Lodge Area.

6.9 Working Alone in Avalanche Hazard Areas

For the purposes of this ASP, working alone means when one person (or multiple people in one vehicle) are working in an avalanche area. In general, working alone in avalanche areas should be avoided. If required, a check-in procedure should be implemented at intervals that increase with in frequency with the avalanche hazard, for example a 15-, 30- or 60-minute mandatory check-in (plan to be approved by the Avalanche Forecaster).

6.10 Procedures for Roads Blocked by Avalanche Deposit

In the scenario in which an avalanche deposit is encountered by SCR personnel on Highway 550 while it is open, CDOT will coordinate traffic control. Immediately turn on 4-way flashers and do not get out of the vehicle. Try to safely reverse back out of the avalanche path and into a safe area. Be aware of other highway traffic.

If an unexpected avalanche deposit is blocking FSR 821, staff and clients should stay in the vehicle and back out to a safe area. If a vehicle is struck by an avalanche and becomes stuck, do not exit the vehicle. Contact the Avalanche Forecaster and await direction. If avalanche deposits are on the road after a closure or explosive avalanche control, advice on deposit removal will be provided to equipment operators by the Avalanche Forecaster.

7.0 Avalanche Emergency Response

7.1 Avalanche Rescue Plan

In the event of an emergency, refer to the Avalanche Rescue Plan (Appendix H). This plan should be updated annually with any changes to the operations and contact lists. All SCR personnel must be familiar with its contents. It is intended to be a stand-alone document and should be printed and kept at the various locations described in Appendix H. Avalanche safety measures and rescue training should be conducted upon avalanche program implementation. Avalanche rescue follows best practice recommendations from the International Commission for Alpine Rescue (ICAR).

7.2 Incident and Near-Miss Reporting

A snow avalanche incident is defined as an avalanche-related event that can cause injury or death, or damage to infrastructure or property. All incidents which may have or do result in injury or loss should be reported immediately to SCR management and the Avalanche Forecaster.

Avalanche incidents resulting in loss should be investigated by an independent avalanche professional using standard investigation protocols. Technical site investigations should be conducted at the earliest opportunity when safe access can be gained. The Avalanche Forecaster will file avalanche accident reports internally, and a technical summary will be reported to nearest neighbour operators as soon as possible. Appropriate OSHA workplace incident reporting should also be completed if SCR staff are involved in an avalanche incident.

A debriefing with personnel involved in the incident should be conducted at the earliest opportunity, which may include Critical Incident Stress Debriefing for serious incidents. An avalanche professional from outside the local operation should be brought in to assist as required.

8.0 Closure

This ASP has been developed to outline the elements of an avalanche safety program for SCR operations in the Mill Creek drainage. A thorough review of this ASP should be completed annually, or after any significant changes to SCR operations have occurred.

References

A3. (2016). *Snow, Weather, and Avalanches: Observation Guidelines for Avalanche Programs in the United States (3rd ed). American Avalanche Association.* Victor, ID.

CAA. (2016). *Technical Aspects of Snow Avalanche Risk Management - Resources and Guidelines for Avalanche Practitioners in Canada (Campbell, C.; Conger, S.; Gould, B.; Haegeli, P.; Jamieson, B.; Statham, G. Eds.).* Canada: Canadian Avalanche Association.

McClung, D., & Schaerer, P. (2006). *The Avalanche Handbook.* Seattle, WA. USA: The Mountaineers Books.

Statham, G., Haegeli, P., Greene, E., Birkeland, K., Israelson, C., Tremper, B., . . . Kelly, J. (2018). A Conceptual Model of Avalanche Hazard. *Nat Hazards 90*, 663-691.

Appendix A – Avalanche Hazard Maps

To be developed for the final ASP. Will consist of two map sheets with the same extents. One will illustrate the MC-N- paths, and the other will illustrate the MC-S- paths. Both maps will identify:

- Highway 550
- FSR 821
- Mill Creek
- Mineral Creek
- Lodge area facilities
- Garage area facilities
- Hydroelectric facility
- Avalanche gate location
- Columbine Lake Trailhead
- Location of avalanche defense structures
- Location of CAIC Eagle weather station

Appendix B – Magnitude Frequency Tables

Mill Creek North:

Path ID (Name)	Avalanche Return Period to Element(s) at Risk (years)			Avalanche Type	Element(s) at Risk	Comments
	Size 2	Size 3	Size 4			
MC-N-04 (Eagle)	1	3	N/A	Mixed	Highway 550	Managed by CDOT. Powder cloud from extreme event may dust the garage area; however, with no impact forces.
MC-N-06 (Telescope)	1	3	N/A	Mixed	Highway 550	Managed by CDOT.
MC-N-08 (Muleshoe)	1	3	N/A	Mixed	Highway 550	Managed by CDOT.
MC-N-09	10	30	N/A	Dense	FSR 821	Small sparsely forested rocky start zones, shallow gully in runout. Infrequently effects access road switchback.
MC-N-10 (Bullion King)	1	3	N/A	Mixed	FSR 821	Large gully with broad start zone, runs out onto debris fan, across the access road, and can cross the valley.
MC-N-11	3	10	N/A	Mixed	FSR 821	Sparsely forested starting zone, steep open slope below. Access road crosses through lower track.
MC-N-12 (Hydro Hill)	3	N/A	N/A	Dense	FSR 821	Short, open slope immediately upslope of the road near the hydroelectric facility.
MC-N-13 (Silver Cloud)	N/A N/A N/A	3 10 N/A	10 10 100	Mixed Powder Mixed	FSR 821 Lodge Area Hydroelectric	Very large, broad alpine bowl converges into narrow gully at the access road. Avalanches turn in valley bottom and runout towards the hydroelectric facility.
MC-N-17	30	100	N/A	Dense	Lodge Area	Short slope with avalanches starting at upper end of talus slope. Avalanche wall and fence will protect buildings from impacts. Potential for design event to run-up and over the buildings with deposits in the lodge area.
MC-N-19	N/A	100	N/A	Dense	Lodge Area	Short slope with small avalanches starting at upper end of talus slope. Theoretical design event could impact the Lodge area similarly to MC-N-17.
MC-N-20	N/A	100	N/A	Powder	Lodge Area	Dense flow will be diverted by topography from lodge buildings. Potential for powder impacts from design event.

Mill Creek South:

Path ID (Name)	Avalanche Return Period to Element(s) at Risk (years)			Avalanche Type	Element(s) at Risk	Comments
	Size 2	Size 3	Size 4			
MC-S-05	N/A	100	N/A	Mixed	FSR 821	Well-confined gully within forested slope, lower slope is without forest cover. Reaches valley bottom and may affect switchback on access road.
MC-S-06	N/A	100	N/A	Mixed	FSR 821	Narrow gully that merges runout with MC-S-05. Reaches valley bottom and may affect switchback on access road.
MC-S-07	N/A	N/A	N/A	Powder	FSR 821	Alpine starting zone converges into gully and open talus fan, reaches valley flats. Powder may reach access road.
MC-S-08	N/A	N/A	N/A	Powder	FSR 821	Steep, rocky start zone converges into gully. Reaches valley flats. Powder may reach access road.
MC-S-09	N/A	N/A	N/A	Powder	FSR 821	Small gully with rocky start zone, reaches valley bottom. Powder may reach access road.
MC-S-10	N/A	100 100	N/A	Mixed	FSR 821 Hydroelectric	Gully with rocky start zone, runs out onto talus fan and may reach hydroelectric facility. Powder may reach access road.
MC-S-11	N/A	N/A	N/A	Mixed	FSR 821	Gully with rocky start zone, runs out onto talus fan. Reaches valley bottom, powder may run up on north side of valley and affect access road.
MC-S-12 (Coin Slot)	100	100	N/A	Mixed	FSR 821	Large path with multiple rocky start zones and gullies converging into main gully and open fan. Reaches creek and turns towards the hydroelectric facility. Powder runs up opposite side of valley potentially affecting access road.
MC-S-13 (Corner Pocket)	N/A	30	N/A	Mixed	Lodge Area	Narrow gully with rocky start zone, avalanches spread on fan and reach Mill Creek. Impacts to lodge mitigated by structural protection.
MC-S-14	N/A	30	N/A	Powder	Lodge Area	Narrow gully with rocky start zone, avalanches spread on fan and reach Mill Creek. Dense flow diverted by deflection structure. Powder impacts to Lodge area.
MC-S-15	N/A	30	N/A	Powder	Lodge Area	Mid-elevation start zone on steep rock bluff, smaller avalanches expected to stop in Mill Creek and turn to flow downstream, runout merges with MC-S-14. Powder may run up opposite side of valley.

Appendix C – Terrain Photos

This appendix will be created for the final ASP after winter terrain photos have been collected during the field work. It will serve as an avalanche path atlas identifying each path individually and providing some path information below the photos.

Appendix D – Avalanche Control Procedure

1. SCR Avalanche Forecaster to coordinate with CDOT and CAIC when the need for avalanche control is anticipated. Ideally day(s) in advance.
    a. It is assumed that SCR and CDOT will often need control on the same day.
2. SCR requests control mission from AC contractor.
3. SCR undertakes messaging, sweeps, and closures ahead of time to ensure no staff, clients, or public are in any danger areas.
4. SCR to place signage at common trailheads and Mill Creek avalanche gate warning of the planned control mission.
5. Lodge area is evacuated. SCR staff and clients shelter at the garage.
6. SCR ceases operations while CDOT conducts their control mission.
    a. There is potential for a combined CDOT/SCR mission that only uses the helicopter for AC. In this scenario, CDOT does not use the howitzer or avalauncher.
7. If AC contractor helicopter was inbound prior to CDOT mission, an aerial sweep would be conducted prior to both missions.
8. AC contractor will arrive with shots prepared.
9. SCR will begin their mission immediately after CDOT mission is complete.
10. Take advantage of highway closure to control Bullion King.
11. Once control close to highway is complete, coordinate with CDOT to open highway and continue AH control mission up valley.
12. SCR and AC contractor continuously perform visual sweeps before shot placements to ensure no public (or wildlife) have entered danger area.
13. Typical sequence would be starting at east end of south-facing terrain (Bullion King), and working up valley to the lodge, ending with the north-facing terrain.
14. After AH is complete (and assuming the SCR forecaster is comfortable resuming operations), clear any deposits on road (but maintain closure for all other personnel).
15. Complete case charging and/or hand charging, if required.
16. Any additional deposits cleared, then avalanche forecasting/control team makes decision to reopen road and resume activity outside lodge.

Appendix E – Sample Avalanche Hazard Evaluation

Avalanche Hazard Worksheet

SILVER CLOUD RESORT

ISSUED		VALID UNTIL	
2024-06-14	6:00	2024-03-27	6:00

Lead Tech	Asst. Tech 1	Asst. Tech 2	Asst. Tech 3	Field Day	Tech Location
John Smith				Yes	On Site

WEATHER STATION OBSERVATIONS

Weather Site	Time	Temperature			Wind		Precipitation (in)				Snowfall (in)					Pressure		Cloud Cover
		Max	Min	Present	Speed	Direction	H2OW	HN24W	HSTW	Date Reset (HSTW)	H2O	HN24	HST	Date Reset (HST)	HS	mbar	Trend	
Mineral Ck (10,040 ft)	5:00																	
Red Mtn (11,200 ft)	5:00																	
Eagle (12,852 ft)	5:00																	
PHQ Telluride (11,850 ft)	5:00																	

FIELD WEATHER OBSERVATIONS

Field Weather Site (Elevation)	Obs Date	Time	Present Temp	Wind		Precip Rate	Precipitation (in)				Snowfall (in)					Cloud Cover
				Speed	Direction		H2OW	HN24W	HSTW	Date Reset (HSTW)	H2O	HN24	HST	Date Reset (HST)	HS	
Eagle Plot 12,700ft	2024-02-08	13:00	25.0	M	SW	S2	-	-	-	-	3.0	8.0	15.0	1-Feb	11.0	OVC

WEATHER FORECAST

Synopsis (Internal)							
	Sky		Precipitation		Snow Level (snow above this point)	Lodge Temperature	Comments
Today	Icon	Clear - Day	Icon	Nil	No Precipitation	+28 °F *High*	
			Value	Nil			
Tonight	Icon	Overcast	Icon	Snow 11-25cm	Garage 10,300 ft	+15 °F *Low*	Snow is forecast to begin around 2am.
			Value	4-5 in			
Tomorrow	Icon	Overcast	Icon	Rain/Snow 26+mm	Lodge 10,800 ft	+30 °F *High*	Heavy snowfall.
			Value	5-10 in			
Outlook (Client-Facing)	A series of frontal systems will bring 20-30 inches of snow by the end of the week.						

Avalanche Hazard Worksheet

SILVER CLOUD RESORT

ISSUED		VALID UNTIL	
2024-06-14	6:00	2024-03-27	6:00

Lead Tech	Asst. Tech 1	Asst. Tech 2	Asst. Tech 3	Field Day	Tech Location
John Smith				Yes	On Site

INFLUENCE OF WEATHER ON AVALANCHE HAZARD

Factor	Effect on Hazard	Comment
Precipitation		
Wind		
Temp/ FL		
Solar		
Summary		

NEAR NEIGHBOUR INPUT

Helitrax	No submissions.
Telluride Resort	No submissions.
SJMG	No submissions.
Silverton Resort	No submissions.
Other:	No submissions.

AVALANCHE OBSERVATIONS (within project area during the past 24 hours)

Avalanche Size	Size 1	Size 2	≥ Size 3	Avalanche Control in past 24 hours?
Number of Avalanches	0	0	0	None

CAUTION, THE AVALANCHE OBSERVATION VALUES RESET TO ZERO EACH TIME YOU CLOSE THE SPREADSHEET

AVALANCHE SUMMARY

None.

SNOWPACK SUMMARY

A dusting of snow above 1500 m.

AVALANCHE PROBLEMS

Layer Name	Avalanche Character	Layer Description	Layer Depth (cm)	Sensitivity to Triggers	Size		Aspect (clockwise)		Elevation		Spatial Distribution
					From	To	From	To	From	To	
Jan-25	Persistent Slab	Jan 25 surface hoar.	100	Stubborn	2	3	ALL		ALL		Specific

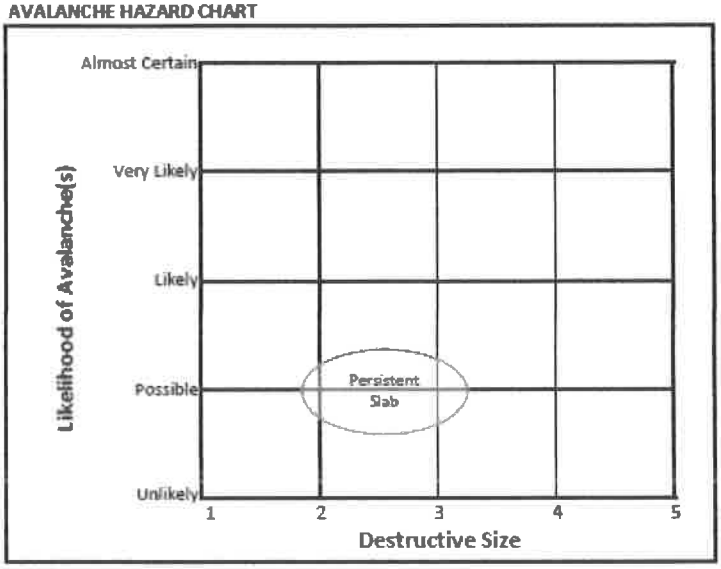
Avalanche Hazard Worksheet

SILVER CLOUD RESORT

ISSUED		VALID UNTIL	
2024-06-14	6:00	2024-03-27	6:00

Lead Tech	Asst. Tech 1	Asst. Tech 2	Asst. Tech 3	Field Day	Tech Location
John Smith				Yes	On Site

AVALANCHE HAZARD CHART



AVALANCHE HAZARD DISCUSSION

The Jan 25 interface is stubborn trending unreactive. No natural triggers expected today. Low Hazard at the lodge, and moderate hazard along CO Road 821. Significant snowfall in the forecast will elevate the hazard tomorrow.

AVALANCHE HAZARD RATINGS

Avalanche Area	Today	Comments and Restrictions	Tomorrow
Lodge Area	LOW	Avalanche PPE and training required.	CONSIDERABLE
CO Road 821	MODERATE	Avalanche PPE and training required. No work on foot without first contacting the avalanche technicians.	CONSIDERABLE

Avalanche Hazard Worksheet

SILVER CLOUD RESORT

ISSUED		VALID UNTIL	
2024-08-14	6:00	2024-08-27	6:00

Lead Tech	Asst. Tech 1	Asst. Tech 2	Asst. Tech 3	Field Day	Tech Location
John Smith				Yes	On Site

COMMENTS ON SOURCES OF UNCERTAINTY

Uncertainty amoung models around intensity of precipitation tonight.

NOTES

OPERATIONAL OBJECTIVES

AVALANCHE TECHNICIAN OBJECTIVES

Appendix F – Sample Avalanche Hazard Advisory

Avalanche Hazard Advisory

SILVER CLOUD RESORT

ISSUED		VALID UNTIL	
June 14, 2024	6:00	March 27, 2024	6:00

Avalanche Technician	Email	Phone	Tech Location
John Smith	john.smith@SCR.com	1-234-567-8910	On Site

AVALANCHE HAZARD RATINGS

Avalanche Area	Today	Comments and Restrictions	Tomorrow
Lodge Area	LOW	Avalanche PPE and training required.	CONSIDERABLE
CO Road 821	MODERATE	Avalanche PPE and training required. No work on foot without first contacting the avalanche technicians.	CONSIDERABLE

NOTES

WEATHER OBSERVATIONS *(previous 24 hours)*

Weather Site	Temperature (°F)			24 Hour Precipitation		Height of Snow (in)
	Max	Min	Present	Rain/Snow Water (in)	Snowfall (in)	
Mineral Cr. (10,040 ft)	0.0	0.0	0.0			
Red Mtn (11,200 ft)	0.0	0.0	0.0	0.0	0	0

WEATHER FORECAST

	Sky	Precipitation	Snow Level (snow above this point)	Lodge Temperature	Comments
Today	Clear	Nil	No Precipitation	+28 °F *High*	
Tonight	Overcast	3-5 in	Garage 10,300 ft	+15 °F *Low*	Snow is forecast to begin around 2am.
Tomorrow	Overcast	5-10 in	Lodge 10,800 ft	+30 °F *High*	Heavy snowfall.
Outlook	A series of frontal systems will bring 20-30 inches of snow by the end of the week.				

Avalanche Hazard Rating Scale

NO HAZARD	LOW	MODERATE	CONSIDERABLE	HIGH	NOT RATED

THIS ADVISORY IS SPECIFIC TO SCR OPERATIONS. SEE www.avalanche.state.co.us FOR BACKCOUNTRY CONDITIONS

Printed 2024/03/26 at 11:58
Page 1 of 1

Appendix G – Avalanche Rescue Cache Contents

Lodge and Garage Caches (in large back packs):

- 1 x copy of Avalanche Rescue Plan
- 6 x 3.2 m aluminum collapsible probes
- 6 x aluminum avalanche shovels
- 6 x headlamps
- 1 x basic level first aid kit
- 2 x thermal blanket/tarp
- 6 x chemical heat packs
- 1 x wool blanket
- 1 x air horn
- 1 x whistle

SCR Vehicles (in smaller back packs):

- 1 x copy of Avalanche Rescue Plan
- 2 x 3.2 m aluminum collapsible probes
- 2 x aluminum avalanche shovels
- 2 x headlamps
- 1 x basic level first aid kit
- 1 x thermal blanket/tarp
- 2 x chemical heat packs
- 1 x wool blanket

Appendix H – Avalanche Rescue Plan

The Avalanche Rescue Plan is intended to be a stand-alone document. It should be printed separately and be readily available in case of an avalanche incident. Copies should be available in rescue caches, SCR vehicles, and strategic locations at the Lodge and Garage.

SILVER CLOUD RESORT

AVALANCHE RESCUE PLAN

Table of Contents

Rev C
August 2024

DYNAMIC

Quick Reference

When an Avalanche Emergency is reported to you

YOU are in charge (Incident Commander)

until a more experienced Incident Commander relieves you.

When at an Avalanche Emergency Scene

For ALL Avalanche Emergencies

- Use the Companion Rescue card on **Page 1**

For Buried Subjects NOT Wearing Transceivers

- Use the Probe Line Techniques card on **Page 2.**

For Vehicles Buried or Stuck in an Avalanche

- Use the Vehicles Buried or Stuck in an Avalanche card on **Page 3.**

Lodge Dispatch Actions

- Record initial details using the Avalanche Incident Report form on **Page 4.**
- Follow prompts and record actions on Incident Commander Checklist on **Page 5.**
- Call Primary Rescue Contacts on **Page 6.**

Avalanche Forecaster Actions

- Assume Incident Command until relieved by Search and Rescue or another agency.
- Record initial details using the Avalanche Incident Report form on **Page 4.**
- Confirm status of rescue and actions taken.
- Follow prompts and record actions on Incident Commander Checklist on **Page 5.**
- Call Primary Rescue Contacts on **Page 6.**
- Until relieved, record actions taken and details on appropriate forms.
- Assume the role of Avalanche Safety Officer once relieved of Incident Command.

References for On-Site Actions

Companion Rescue Card

Avalanche Emergency

1 - STOP, ASSESS SAFETY FOR RESCUERS!
Stay on debris, avoid adjacent slopes and avalanche paths.

2 - ASSIGN A LEADER
Delegate tasks below
Keep rescuers organized

3 - HEAD COUNT
How many people are missing?
How many people are onsite?

4 - IDENTIFY LAST SEEN POINT
Of missing workers, if known

5 - ACTIVATE AVALANCHE RESCUE PLAN
Call for help *(radio, sat phone, InReach, Zoleo)*

6 - SWITCH ALL TRANSCEIVERS TO SEARCH
Check that no rescuers are sending

7 - REQUEST RESCUE EQUIPMENT
From rescue cache or external help

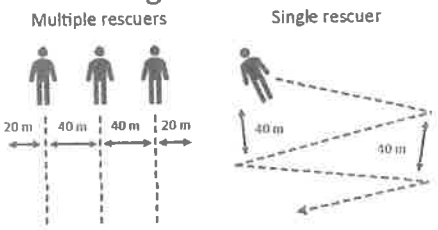
8 - TRANSCEIVER SEARCH (Fig. 1 & 2)
40 m apart for signal search
Move fast, watch for surface clues
At 10m, slow down
At 3m, get low, find lowest number

9 - PROBE (Fig. 3)
Expanding square pattern, 1 ft apart, perpendicular to snow
Leave probe in place on strike

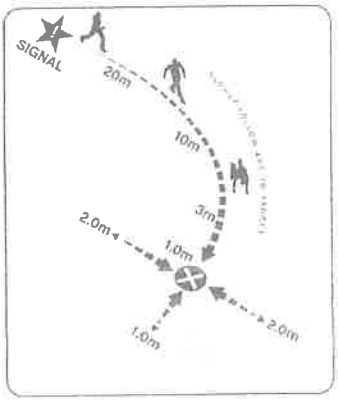
10 - DIG (Fig. 4)
In a line downhill from the probe
Rotate often

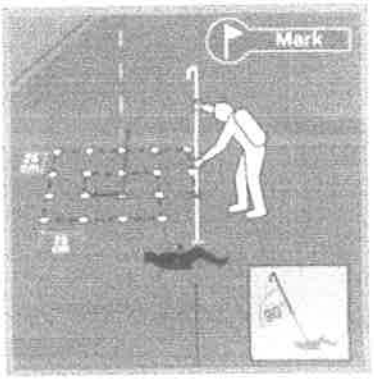
11 - FIRST AID
ABCD's of first aid, clear airway
Treat where found until help arrives

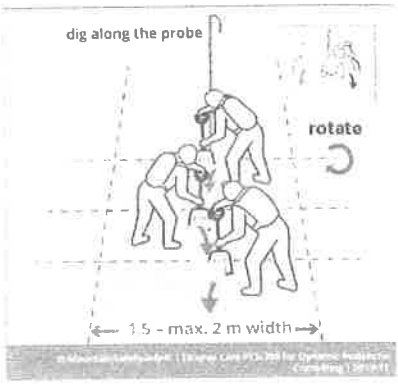
Signal Search



Coarse and Fine Search

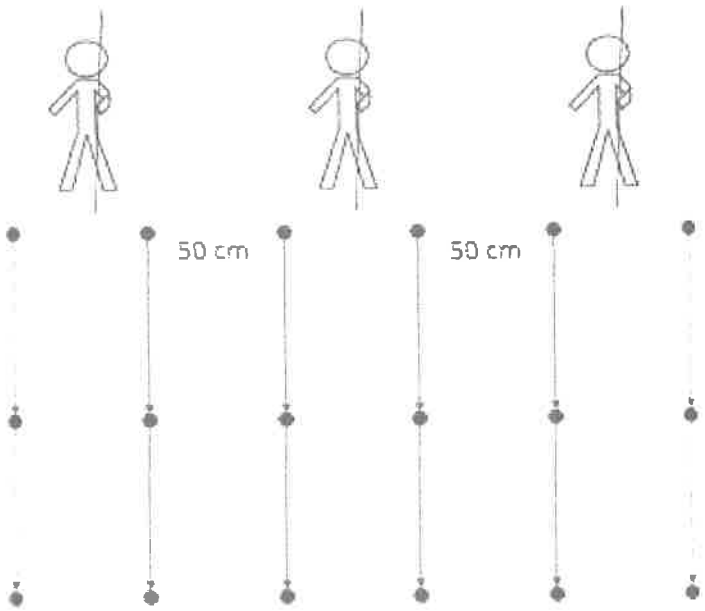




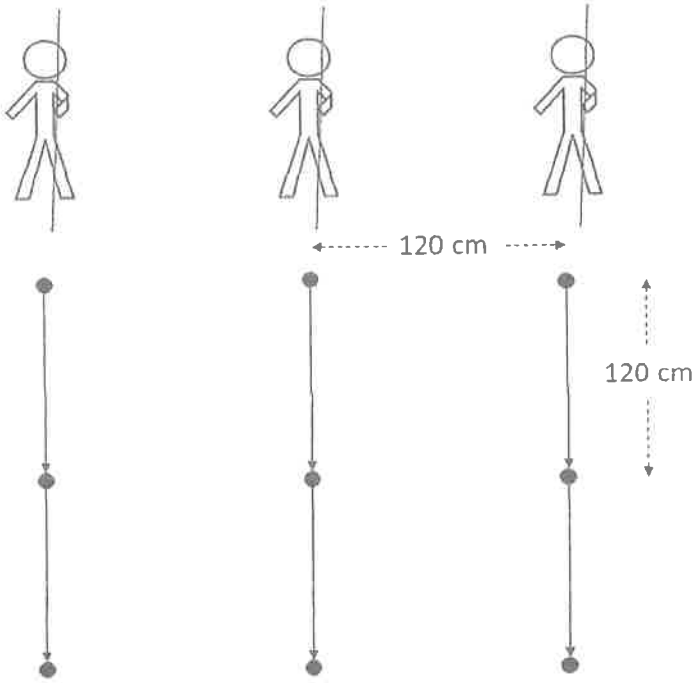


Probe Line Techniques

Probing For a Buried Person



Probing For A Vehicle



Procedures for Vehicles Buried or Stuck in an Avalanche

Avalanche deposit blocking the road (no vehicle involved):

1. **DO NOT EXIT VEHICLE.** Back out to a safe area.
2. Contact avalanche technician.
3. Heavy equipment will clear the debris from the road once clearance to do so is provided by the avalanche technician.

Vehicle struck by avalanche (stuck or buried):

1. **DO NOT EXIT VEHICLE.**
2. Turn engine off and activate hazard lights.
3. Radio for assistance and contact the avalanche technician.

Under direction from the avalanche technician, personnel may be directed to exit the vehicle and transition to the protection of another vehicle. Typically, this requires avalanche transceivers, and the use of a spotter watching from inside a separate vehicle.

Forms and Checklists

Avalanche Incident Report Form

Time:		**Time of Avalanche:**	
Initial Information:			
Name of Reporting Person & Witness(es):			
Location: *(Site Name, Road KM, Path ID, GPS Coords)*			
Involvement Details:			
Number of People Buried/Injured:			
Number of Vehicles Involved:			
Transceivers Worn?			
Trained Rescuers On-Site: ***(Move all untrained people to safe area)***			
INITIATE AVALANCHE RESCUE PLAN **COMPLETE STEPS 2 THROUGH 13 OF THE INCIDENT COMMAND CHECKLIST** **UPDATE THIS FORM WITH ADDITIONAL INFORMATION AS IT BECOMES AVAILABLE**			
Hazards:			
Site Description: *(terrain above/below, etc.)*			
Is there further avalanche hazard?			
Is the hazard assessment reliable?			
Spotter required? Name:			
Current Weather: *(precipitation type/intensity, visibility, wind)*			
Resources On-Site:			
Trained Rescuers:			
Untrained Personnel:			
Rescue Equipment: *(transceivers, shovels, probes)*			
First-Aid Supplies:			
Vehicles / Heavy Equipment:			
Resources Required On-Site:			
Trained Rescuers (internal):			
Trained Rescuers (external):			
Rescue Equipment: *(transceivers, shovels, probes)*			
First-Aid Supplies:			
Avalanche Dog Teams:			
Vehicles / Heavy Equipment:			
Helicopter Support:			
Other Information: *(avalanche size, deposit depth and width)*			

Incident Commander Response Checklist

Step	Action	Time Complete
1	Complete known information on **Avalanche Incident Report Form.**	
2	Initiate response and assign Rescue Leader. *(on-site commander).* Name: _____	
3	Record names of Rescue Team • Minimum team size **2 people**, including the Rescue Leader. • Dispatch second rescuer if a single rescuer is on scene 1. _____ 4. _____ 2. _____ 5. _____ 3. _____ 6. _____	
4	Close the road / area (protect the scene).	
5	Cease all non-critical activities	
6	Notify site workers of avalanche and road / area closure. Request they muster at Lodge/Garage and stay on radio channel.	
7	Mobilize Primary Rescue Resources using the Avalanche Rescue Call Out List	
8	Establish a safe muster location at the scene for the avalanche rescue team in consultation with the Rescue Leader. Record Location: _____	
9	*Dispatch closest avalanche rescue pack to muster location.* *(Avalanche rescue packs are located at the Lodge and Garage)*	
10	Dispatch first-aid team to avalanche rescue muster location, in coordination with the Rescue Leader.	
11	Status of Rescue: • Transceiver Search initiated: Yes / No Time: → • Probe line required: Yes / No Time: → • Subject(s) excavated: Record time and status in log	
12	Maintain communications log, resource log and medical log (below).	
13	Re-assess resource needs and response level. Activate additional resources as required in coordination with the Rescue Leader *(see Avalanche Rescue Call Out List).*	
14	Re-assess hazard and risk control on-scene.	
15	Activate demobilisation checklist	

Rescue Call Out Lists

PRIMARY RESCUE CONTACTS			
Priority	Resource	Location	Contact Number
1	Helitrax	Telluride	970-728-8377
2	Silverton Medical Rescue	Silverton	911 970-387-5531
3	Vance Kelso (CDOT)	Ridgway	To be added.
4	CAIC Lead Forecaster	Silverton	To be added.
5	Silverton Resort	Silverton	970-387-5706
6	Telluride Resort Patrol	Telluride	970-728-7585

Silver Cloud Resort Contacts			
Priority	Contact Name	Location	Contact Number
1	Colby Barrett	Telluride	
2			
3			
4			
5			

Secondary Resources

Secondary Rescue Resources *(Contact as needed)*			
Resource	Location	Contact	Details
Local Helicopters 1			
US Forces SAR (Night flight capabilities)			
Ambulance	Silverton		
Hospital	Silverton		

Radio Frequencies

Location	Receive	Transmit	Tone

Communication Log

Date:		**Date of Avalanche:**	
Operational Period:		**Time of Avalanche:**	
Page:	____ of ____	**Log Keeper:**	

Time	Call From	Call To	Subject

Resource Log

RESOURCE LOG	Date:		Opertional Period:	
	Page:	____ of ____	Log Keeper:	

Contact Name	Resource Type	Time Dispatched	Time On Scene	Time Returned

Medical Log

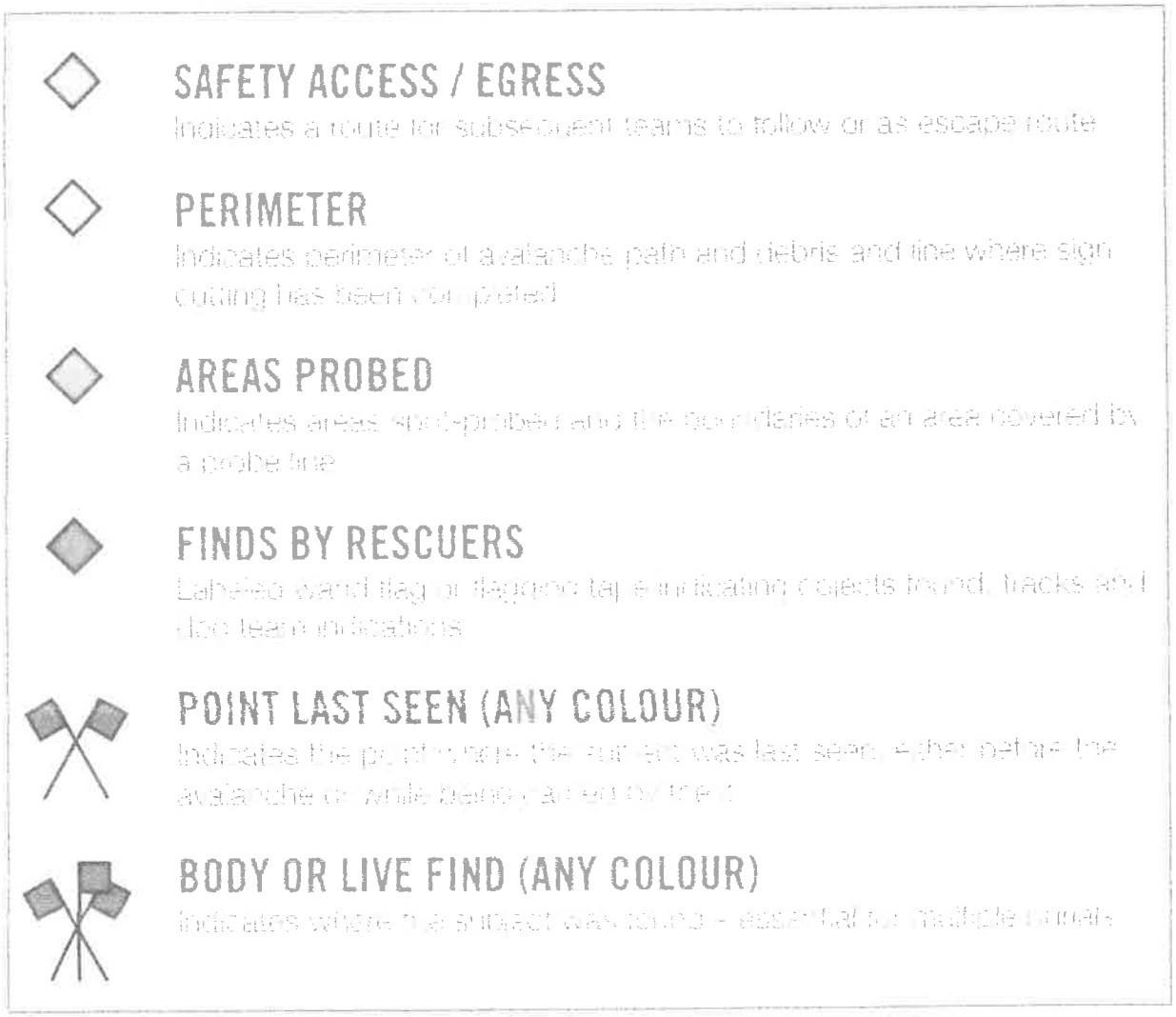
MEDICAL LOG	Date:		Opertional Period:	
	Page:	____ of ____	Log Keeper:	

Time	Rescuer Name	Subject Identifier	Subject Age/Sex	Subject Condtion / Injuries	Burial Type	Burial Duration	Air Pocket	Time Recovered	Transport Time/Type
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		
					Full / Partial		Yes / No		

Demobilization Checklist

Step	Action	Time Complete
1	Commencement of demobilization.	
2	Confirm all missing subjects are accounted for.	
3	Mark scene with flagged wands according to ICAR standard: • Avalanche deposit boundary. • Location of recovered subjects and articles. • Areas probed. *(See marking wand color guide below)*	
4	• Draw a map of avalanche deposit, indicating the location of recovered subjects, found articles and areas probed. • Take photographs.	
5	All equipment is accounted for and removed from the search area.	
6	All rescue personnel are accounted for and logged off the scene in Resource Tracking Log.	
7	Notify management groups, if not yet done.	
8	Check all equipment and restore to a state of readiness.	
9	Debrief with all personnel immediately following return to readiness.	
10	Determine if Critical Incident Stress Debrief is needed.	
11	Resume non-critical activities / work at site.	
12	Prepare incident report.	

Marking Wand Color Guide



From the International Commission for Alpine Rescue (ICAR).

R.Hodgetts
1044 Mineral Street,
PO box 465
Silverton,
CO. 81211

To Whom It May Concern,

My name is Rebecca Hodgetts. As an avalanche professional who is very familiar with the area, I was asked to review the Avalanche Safety Plan *(Rev B, dated April 4, 2024)* prepared by Dynamic Avalanche Consulting for the proposed Silver Cloud Resort in Mill Creek, approximately 8 highway miles north of Silverton.

The following is a summary of my avalanche experience: I worked for the Colorado Avalanche Information Center (CAIC) as the lead forecaster for the Southern Mountains until May of 2024, owning a home and spending winters in Silverton since 2016. During this time, I managed the CAIC highway forecasting group that supports the CDOT section overseeing the avalanche areas described in the ASP as MC-N-04,06 and 08 (Muleshoe, Eagle, and Telescope). Recreationally, I have skied in the Mill Creek drainage and am very familiar with the terrain and backcountry use in the area. Before my role in the Southern Mountains, I worked as a backcountry public avalanche forecaster and highway avalanche forecaster supporting the Colorado Department of Transportation. Before beginning work for the CAIC in 2013, I was an avalanche technician and assistant Ski Patrol Director at Arapahoe Basin in Summit County, Colorado, for 12 years. Throughout the 90s and early 2000s, I ski patrolled in Canada and New Zealand. I will begin my new position as an Avalanche Specialist at the National Avalanche Center in August.

The Avalanche Safety Plan for the proposed Silver Cloud Resort meets industry standards. It achieves an appropriate risk target to manage the avalanche challenges presented by the terrain surrounding the proposed resort. It accurately describes the avalanche areas and *reasonably* assesses the frequency of avalanche activity and the risk to various elements exposed to the avalanche hazard. It outlines a practical, comprehensive action plan for minimizing risk to the infrastructure and persons working and recreating at the proposed Silver Cloud Resort.

The following are minor points and questions that SCR could consider adjusting in the ASP:

- Section 3.3 -Project Stakeholders: CDOT makes all road closure decisions and communicates this information. The CAIC supports and makes avalanche mitigation recommendations to CDOT, but the final decision, communication, and mitigation planning come from CDOT (as described in 1.2.2).
- Section 4.2 - FSR 821: From local anecdotal experience, the return period for a D3-sized avalanche from the MC-N-10 Bullion King path is closer to 3 years than 1. However, a conservative approach is a reasonable risk management practice for a new

forecasting operation. As the ASP outlines, the forecasters will update the plan as the operation builds accurate avalanche occurrence records.

- Section 6.4.1 - Operational Restrictions:
    - When operating under a LOW danger rating, how does SCR plan to manage vendors (such as food, cleaners, or tradespeople) who need access to the lodge and surrounding structures but will not have PPE or the specified training? The current requirement for PPE and training may be too onerous to be practical. To address this issue, some organizations allow the avalanche forecaster or operations manager to escort external personnel to and from the facility.
    - Are 30-minute check-ins practical at LOW danger? As mentioned above, this is a good practice but can be challenging when working on a large or complex task. Additionally, defining who is responsible for checking in with whom here would be good. A dispatcher is recommended later in the document. However, the typical action table should clarify this (or subscript/linked).
    - 6.4.2 - Evacuation of the Resort due to rising avalanche danger. Where do guests and personnel go? An evacuation plan should be developed (either to complement the ASP or in a Resort Operational Plan) to account for all evacuated people.

Mill Creek is a narrow, near-treeline valley with significant avalanche terrain extending over 2,000 feet above it. The proposed Sliver Cloud Resort will be located at the valley's base and exposed to considerable avalanche risk through the winter. After a thorough professional review, the prepared Avalanche Safety Plan outlines a comprehensive set of procedures to appropriately manage avalanche risk for Silver Cloud Resort clients and workers in Mill Creek.

Please don't hesitate to reach out with comments or questions.

Best,

Rebecca Hodgetts

Digitally signed by Rebecca Hodgetts
Date: 2024.08.14 10:48:32 -06'00'

Rebecca Hodgetts

SILVER CLOUD LODGE
EMERGENCY RESPONSE PLAN
Draft 3-6-2025

Table of Contents

Executive Summary

This document outlines actions that Silver Cloud Lodge Leadership and employees may take in the event of an emergency. The ERP serves a guide for lodge management and staff to effectively manage the response to the event or incident. Actual circumstances may require actions that are varied from or not covered in the ERP. The primary objectives of Silver Cloud Lodge's Emergency Response are to:

- Protect the health and safety of employees and guests.
- Protect company property and infrastructure.
- Ensure business continuity.

This document is meant to serve as a reference and training guide in the management, stabilization, and recovery of emergency incidents and accidents.

PLAN SECTIONS

This plan is organized into seven sections to allow it to be used as both a tool during an emergency as well as a training guide. The sections in the order are as follows:

- Mountain Evacuation Plan
- Incident Action Plans
- Resort/Property Contact Information
- Incident Command Team Checklists
- Department Roles and Responsibilities
- Emergency Response Program
- Reference Materials (Appendices)

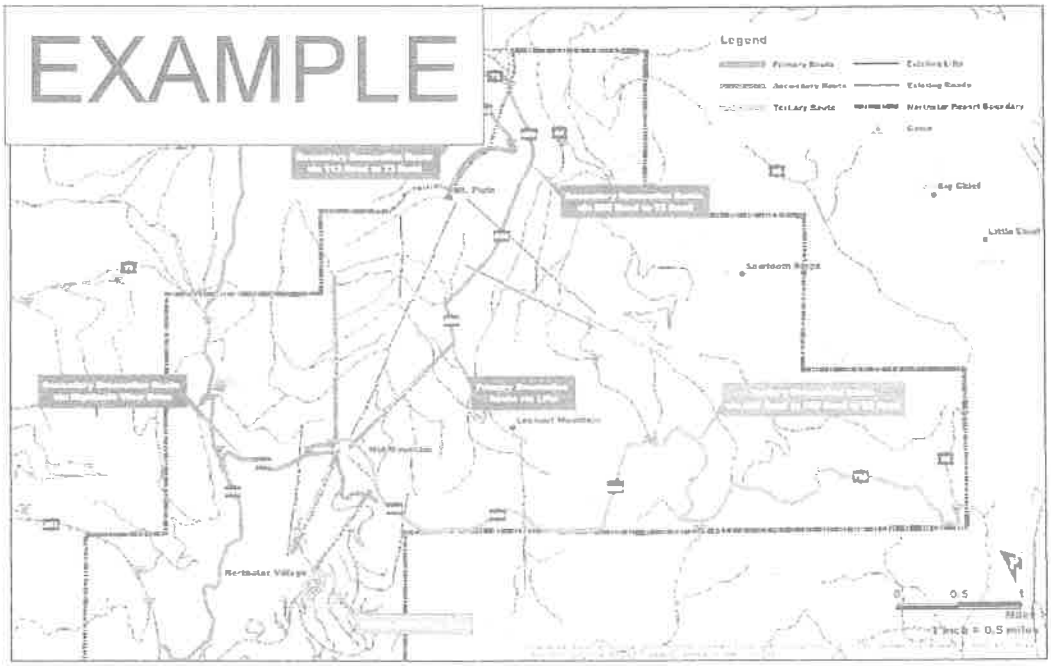
Incident Action Plans

Mountain Evacuation Plan

The mountain evacuation of guests and employees is an essential part of many emergency response plans. Evacuation should be initiated if conditions such as inclement weather or wildland fire have the potential to strand and/or threaten guest or employee safety. Partial evacuation may also be necessary to effectively respond to emergency events. The following factors and steps should be considered:

1. Communicate the initiation of mountain evacuation and closure to employees and guests.
2. Guide guests in a calm manner to primary evacuation route.
3. If primary evacuation route is compromised, use alternate route(s).
4. Sweep and secure mountain facilities and activities.
5. Ensure employees and guests are safely evacuated and accounted for.

The Mountain Evacuation Map can be found in every mountain structure and the plan is located below.



Mountain Evacuation Plan

The evacuation plan is the process to be followed for the immediate and urgent movement of people away from the threat or actual occurrence of a hazard.

RESPONSE CHECKLIST:

- Ensure that guest and employee safety are the top priority when making any decisions.
- Notify appropriate personnel via the Silver Cloud Lodge Incident Notification Diagram, as dictated by particular emergency event.
- Identify evacuation method; refer to mountain evacuation map.
- Evacuation by vehicle should be primary method.
- If vehicles cannot be used, secondary method will be foot, bike, or ski traffic if safe to do so.
- If threat is due to severe weather and vehicles cannot be used, enact a shelter in place until it is safe to leave the facility.
- Tertiary vehicle routes and assets should only be used if secondary routes cannot be accessed.
- Enlist supervisory personnel to assist.
- If using vehicle assets, contact Security and Transportation immediately for arrangement of vehicles.
- If using shelter in place:
    - Communicate with Manager for weather monitoring and updates.
    - Distribute water, blankets, meals, and additional services as required.
    - Once deemed safe, identify evacuation method and continue.
    - Account for all guests and employees once evacuation is complete.
    - Confirm sweeps for mountain buildings.
    - Do not discuss incident with media or guests. Refer any questions to Manager.

Active Shooter

An active shooter is an individual actively engaged in killing or attempting to kill people in a confined and populated area; in most cases, active shooters use firearms and there is no pattern or method to their selection of victims.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- Call 911 to report an active shooter in progress at (location). This will get immediate response from all local Law Enforcement agencies.
- Announce over radio, "All personnel take immediate action, active shooter on property at (location); evacuate area as quickly as possible. In unable to do so barricade or lock yourselves inside a secured room."
- Restrict radio traffic to emergency communication only.
- Initiate incident notification calls via the Incident Notification Chart.
- Remain on station as long as it is safe to do so.
- Track incident progress and occurrences.
- Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMANDER CHECKLIST:

- Ensure emergency response teams are notified.
- Ensure swift evacuation of affected area.
- Update dispatch with pertinent information and additional requests.
- Activate Incident Command Center and positions as needed.
- Consider closing Mountain Operations; start sweep procedures.
- Confirm if there are affected and/or injured guests and employees.
- Ensure affected departments account for all employees.

- Ensure the Lodge Manager has been notified and has a statement and communication strategy.
- Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

SECURITY CHECKLIST:

- Do not send security officers into affected area.
- Facilitate needs of law enforcement.

Refer to the Dept. of Homeland Security's Active Shooter Preparedness program available at www.dhs.gov.

Air Quality

Poor Air Quality occurs when pollutants in the air reach high enough concentrations to endanger human health and/or the environment. It can include but is not limited to smoke from wildland fires, chemical spills, and hazardous fumes.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

At first sign of poor air quality, reporting party should notify the Lodge Manager.

DISPATCH CHECKLIST:

- Track incident progress and occurrences.
- Initiate notification calls via the Incident Notification Chart.
- Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMAND CHECKLIST:

- Update dispatch with pertinent information and additional requests.
- Activate Incident Command Center and positions as needed.
- Ensure Communications has been notified and has a statement and communication strategy.
- Confirm if there are affected and/or injured guests and employees.
- Ensure messaging regarding conditions and permitted activities reaches all applicable departments.
- Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

HEALTH & SAFETY CHECKLIST:

- If poor air quality is the result of chemical fumes, refer to "Hazardous Material Spill" section.
- Continuously monitor reported air quality readings of San Juan County.
- Refer to EPA Air Quality Guidelines Chart found on page 9.

- Determine daily employee and guest operations based on EPA/Health & Safety recommendations for current Air Quality Index.

Refer to AIRnow.gov for the Air Quality Index and daily local air quality forecasts, available at airnow.gov/index.cfm?action=airnow.main

EPA Air Quality Guidelines

AIR QUALITY INDEX LEVELS OF HEALTH CONCERN	NUMERICAL VALUE	MEANING
Good	0 to 50	Air quality is considered satisfactory, and air pollution poses little or no risk
Moderate	51 to 100	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The general public is not likely to be affected.
Unhealthy	**151 to 200**	**Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.**
Very Unhealthy	**201 to 300**	**Health warnings of emergency conditions. The entire population is more likely to be affected.**
Hazardous	**301 to 500**	**Health alert: everyone may experience more serious health effects**

Health & Safety Recommendations

LEVEL	RECOMMENDATION
Good	No guest or employee work restrictions
Moderate	No guest or employee work restrictions
USG	A message will be sent to Lodge Manager notifying of the air quality level. Guests or employees with pre-existing respiratory or medical conditions will be encouraged to reduce outdoor activity.
Unhealthy	A message will be sent to Lodge Manager notifying of the air quality level. All guests and employees will be encouraged to reduce outdoor activity.
Very Unhealthy	A message will be sent out to Lodge Manager notifying of the air quality level. All outdoor activity will be suspended until further notice.
Hazardous	A message will be sent out to Lodge Manager notifying of the air quality level. Follow recommendations of local authorities.

Aircraft Crash

An aircraft crash is defined as an incident in which an aircraft hits land or water and is damaged or destroyed. Any crash or emergency landing that is within or adjacent to resort property and is affecting operations should be considered.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- ☐ Obtain information on location and notify 911.
- ☐ Track incident progress and occurrences.
- ☐ Restrict radio traffic to emergency communication only.
- ☐ Initiate notification calls via the Incident Notification Chart.
- ☐ Coordinate evacuations as necessary in consultation with IC.
- ☐ Do not discuss incident with media or guests. Refer any questions to Lodge Manager.

INCIDENT COMMANDER CHECKLIST:

- ☐ Facilitate evacuation of affected area.
- ☐ Confirm if there are affected and/or injured guests and employees.
- ☐ Ensure affected departments account for all employees.
- ☐ Facilitate any resource needs of rescue personnel.
- ☐ Ensure the Federal Aviation Administration has been contacted and informed of the crash.
- ☐ Determine need for patrol response or potential cascading events.
- ☐ Activate Incident Command Center and positions as needed.
- ☐ Update dispatch with pertinent information and additional requests.
- ☐ Ensure Communications has been notified and has a statement and communication strategy.
- ☐ Consult Silver Cloud Lodge management for guest recovery procedures as needed.

Avalanche/Snow Immersion

An avalanche is defined as a significant snow slide that could potentially bury a person or persons and adversely affect the operation of the ski area. A snow immersion is defined as a hidden void or depression that has the potential to cause suffocation.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

Upon initial report of an avalanche, reporting party should notify Lodge Manager.

DISPATCH CHECKLIST:

- Refer to Avalanche Procedures found in Appendix A.
- Track incident progress and occurrences.
- Restrict radio traffic to emergency communication only.
- Initiate notification calls via the Incident Notification Chart.
- Notify San Juan County Sheriff in consultation with IC.
- Do not discuss incident with media or guests. Refer any questions to Lodge Manager.

INCIDENT COMMANDER CHECKLIST:

- Confirm if there are affected and/or injured guests and employees.
- Authorize the execution of rescue procedures.
- Communicate with Management on rescue strategies and plan.
- Confirm search area has appropriate closures; access to slide area may need to be restricted.
- Facilitate additional equipment, supplies, and personnel needed by Rescue Leader. Consider calling in rescue personnel from adjacent resorts or Search and Rescue.
- Update dispatch with pertinent information and additional requests.
- Ensure reporting party is escorted to Incident Commander.

- ☐ Activate Incident Command Center and positions as needed.
- ☐ Ensure US Forest Service and Colorado Avalanche Information Center are notified as appropriate.
- ☐ Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

RESCUE TEAM CHECKLIST

- ☐ Activate Silver Cloud Lodge Avalanche Procedures with authorization from IC. Refer to Page 106 (Appendix A).
- ☐ Identify a Rescue Leader.
- ☐ Maintain continuous reporting to IC and Dispatch.

Bomb Threat

A threat – usually verbal, written, or via telephone – to detonate an explosive or incendiary device and cause property damage, death, or injuries, whether or not such a device actually exists.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- Obtain information on location and type and notify 911.
- Refer to Bomb Threat procedures found on page 15.
- Coordinate evacuations as necessary in consultation with IC.
- Track incident progress and occurrences.
- Restrict radio traffic.
- Initiate incident notification calls via the Incident Notification Chart.
- Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMANDER CHECKLIST:

- Ensure emergency response teams are notified.
- Ensure affected departments account for all employees.
- Facilitate needs of law enforcement.
- Confirm if there are affected and/or injured guests and employees.
- Activate Incident Command Center and positions as needed.
- Update dispatch with pertinent information and additional requests.
- Ensure Communications has been notified and has a statement and communication strategy.
- Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

SECURITY CHECKLIST:

Facilitate needs of law enforcement.

Refer to the Dept. of Homeland Security's What to Do During a Bomb Threat program available at www.dhs.gov.

Bomb Threat Procedures

The purpose of this procedure is to protect employees, visitors, property, merchandise, and equipment. All bomb threats must be treated seriously. When a bomb threat is received, always remain calm and friendly when speaking with the caller.

PROCEDURES:

Keep the caller on the phone and gather as much information as possible. Do not hang up the telephone before the caller does.

- Keep the caller on the line as long as possible!
- Write down the number from caller I.D.
- Make a note of the exact time and date of call
- Discreetly contact the Supervisor on Duty
- Take notes of the exact words said using the Bomb Threat Checklist
- Ask the caller questions:
  - When is bomb going to explode?
  - Where is the bomb?
  - What does it look like?
  - What kind of bomb is it?
  - What will cause it to explode?
  - Did you place the bomb?
  - Why did you place the bomb?
  - Where are you calling from?
  - What is your address?
  - What is your name?
- You must call 9-1-1 immediately and report the threat and all additional information. All Silver Cloud Lodge staff will take direction from San Juan County Sheriff personnel when they arrive.
- Contact the Lodge Manager immediately.
- If the caller mentioned a specific area, then that area should be searched first.
- Attention should focus on the unlocked common use areas of any buildings or areas, including restrooms and trashcans.
- Never touch a suspicious package. Do not open or move the item.
- If a suspicious package is found, cease radio communications near the suspicious package. Radios should be turned off.
- The Lodge Manager shall approve evacuation.
- Possible evacuation of an area, floor, or the building will be determined by the following:
  - Specifics or non-specifics of the threat.
  - Evaluation of the Bomb Threat Checklist information.
  - Indication of unrest, or disturbance of any sort in the area.
  - Identification of the caller and location calling from.
  - History of similar threats.
  - Knowledge of any recent bomb threats directed at nearby businesses, or similar agencies.

- Present status of any social unrest within the area, labor disputes, etc.
- Intelligence information concerning plans and strategy of extremist groups or terrorist groups.
- International connection of the Company to unpopular causes or support of a particular group.
- Location of the possible bomb.
- Characteristics of the possible bomb.
- Results of physical search.

- If evacuation is necessary, do so calmly and orderly.
- Complete an Incident Report.

ADDITIONAL CONSIDERATIONS:

There is also the possibility of a written bomb threat. Written threats may take the form of letters, postcards, or notes left on the premises. Save all material, including any envelopes, or containers. If the message is recognized as a bomb threat, it should not be handled unnecessarily in order to preserve possible fingerprints and avoid smudging. Immediately report receipt or discovery of such a threat to the Lodge Manager.

FORMS:

Bomb Threat Checklist (page 17)

Bomb Threat Checklist

** Keep the caller on the line as long as possible **

Exact time and date of call: _____

Exact words of caller: _____

_____

_____

VOICE:
- Loud
- High pitched
- Raspy
- Intoxicated
- Soft
- Deep
- Pleasant
- Other _____

ACCENT:
- Local
- Foreign
- Race
- Not local
- Region

SPEECH:
- Fast
- Distinct
- Stutter
- Slurred
- Slow
- Distorted
- _____
- Nasal
- Lisp
- Other _____

MANNER:
- Calm
- Rational
- Coherent
- Deliberate
- Righteous
- Angry
- Irrational
- Incoherent
- Emotional
- Laughing

BACKGROUND NOISE:
- Machines
- Music
- Office noise
- Vehicles
- Animals
- Quiet
- Voices
- Party atmosphere

LANGUAGE:
- Excellent
- Fair
- Foul
- Good
- Poor
- Other _____

FAMILIARITY WITH SILVER CLOUD LODGE:
- Other _____
- Much
- Some
- None

QUESTIONS TO ASK THE CALLER:

1. When is the bomb going to explode?
2. Where is the bomb?
3. What does it look like?
4. What kind of bomb is it?
5. What will cause the bomb to explode?
6. Did you place the bomb?
7. Why did you place the bomb?
8. Where are you calling from?
9. What is your name?

If the voice sounds familiar, whom did it sound like?
Telephone number received at:
Person receiving call:
Additional comments:

Lodge Personnel have to be aware of what would constitute a letter, package, or unattended bag being suspicious and what the proper response is.

SUSPECT INDICATORS:

- Unexpected mail or packages from someone unfamiliar
- Mail or packages that are addressed to someone no longer with the company or are otherwise outdated
- Mail or packages that have no return address, or have one that can't be verified as legitimate
- Mail or packages that are marked with restrictive endorsements, such as "Personal", "Confidential" or "Private"
- Mail or packages that show a city or state in the postmark that doesn't match the return address.
- Mail or packages that have oil stains or that emit a peculiar odor
- Mail or packages with tinfoil or string present
- The outer container of a letter or package has an irregular or is asymmetric in shape or has soft spots or bulges
- The wrapping of a letter or package exhibits previous use such as traces of glue, mailing labels, return addresses or tape
- On the address label on mail or packages where the address is badly typed or written, misspelled, typed with no name, or with the wrong title and name combination
- A buzzing or ticking noise emits from a letter, package, or bag.
- Mail, packages, or bags that are of unusual weight, given their size, or are lopsided or oddly shaped
- Mail, packages, or bags that have protruding wires, strange odors or stains

Not one of these alone is a definite indication of a bomb. The whole situation will need to be evaluated.

PROCEDURE:

If a confirmed suspect letter, package, or bag is found, follow these procedures:

- Contact the Supervisor on Duty
- Contact the Security Manager, and the Risk Manager, if they are not already aware of the situation.
- Never touch a suspicious package. Do not open or move the item.
- If a suspicious package is found, all two-way radios and electronic devices in the immediate area of the suspicious item should be turned off immediately.
- Isolate the item.
- With the approval of the Security Manager, or the General manager of Silver Cloud Lodge-at- Tahoe to evacuate the immediate area. The following will be consider when making the determination to evacuate:
  - Suspect indicators of the item discovered.
  - Location of the item.
  - Information associated with the incident.

- Contact the San Juan County Sheriff's Department emergency number, 9-1-1.
- Take direction from the Sheriff's Department when they arrive.

Carbon Monoxide

A colorless, odorless, and tasteless gas that is slightly less dense than air. It is toxic to humans and animals when encountered in higher concentrations, and is commonly formed in the process of incomplete combustion.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- ☐ Call 911 if necessary.
- ☐ Track incident progress and occurrences.
- ☐ Initiate notification calls via the Incident Notification Chart.
- ☐ Coordinate evacuations as necessary in consultation with IC.
- ☐ Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMAND CHECKLIST:

- ☐ Confirm if there are affected and/or injured guests and employees.
- ☐ Ensure affected departments account for all employees.
- ☐ Ensure Silverton Fire is notified as appropriate.
- ☐ Update dispatch with pertinent information and additional requests.
- ☐ Activate Incident Command Center and positions as needed.
- ☐ Ensure Communications has been notified and has a statement and communication strategy.
- ☐ Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

LODGE MANAGER CHECKLIST:

- ☐ Stop all work and notify employees.
- ☐ Turn off any fuel fired equipment (i.e. fire place or stove).
- ☐ Ventilate area if safe to do so.
- ☐ In consultation with IC, facilitate evacuation of affected building(s) or base area when deemed safe using designated routes and procedures.
- ☐ Account for all employees.
- ☐ Do not return to buildings until cleared by Fire Department or Building Maintenance.

BUILDING MAINTENANCE CHECKLIST:

- ☐ Measure CO levels.
  a) If levels are ≥ 200 ppm, leave area and await Fire Department
  b) If levels are < 200 ppm, continue area evaluation in consultation with Fire Department
- ☐ Evaluate alarms and fuel fired equipment for malfunctions.
- ☐ Allow re-occupation of space when CO has reached < 25 ppm and if
  a) Faulty equipment is locked out or repaired
  b) Fire Department has approved re-occupation
  c) A functional CO detector has been installed

Hazardous Material Spill

A hazardous material spill is defined as a leak of any material that because of its quantity, concentration, physical or chemical properties poses a significant present or potential hazard to human health and safety or the environment.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- Refer to Resort Spill Response Flow Chart found on page 30 and Resort SPCC plan found on page 25.
- Track incident progress and occurrences.
- Restrict radio traffic to emergency communication as necessary.
- Initiate notification calls via the Incident Notification Chart.
- Coordinate evacuations as necessary in consultation with IC.
- Do not discuss incident with media or guests. Refer any questions to Lodge Manager.

INCIDENT COMMAND CHECKLIST:

1. Update dispatch with pertinent information and additional requests.
2. Confirm if there are affected and/or injured guests and employees.
3. Activate Incident Command Center and positions as needed.
4. Ensure Colorado Water Quality Control Commission, Colorado Office of Emergency Services, National Response Center, San Juan County Health & Human Services, and San Juan County Sheriff are notified as appropriate.
5. Ensure all required steps from the Spill Prevention Control and Countermeasures Plan (SPCC) are being completed.
6. Facilitate any resource needs of spill recovery personnel.
7. Ensure affected departments account for all employees.
8. Ensure Communications has been notified and has a statement and communication strategy.
9. Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

LOCATION MANAGER CHECKLIST:

- ☐ Assure that Dispatch and Environmental Manager have been notified.
- ☐ Assess size and scope of spill.
- ☐ Account for all employees.
- ☐ Shut down operations if warranted.
- ☐ Evacuate customers and personnel as needed in consultation with IC.
- ☐ Contain the spill if capable and safe to do so.

LODGE MANAGER CHECKLIST:

- ☐ Complete all required steps from the Spill Prevention Control and Countermeasures Plan (SPCC).
- ☐ Identify type and quantity of material spilled.
- ☐ Consult MSDS for chemical information and follow all PPE requirements.
- ☐ Stop and contain the spill if it can be safely dealt with without any risk or additional safety equipment. Consult Spill Kits location chart on page 24.
- ☐ If any of the following conditions are true, the spill is not considered small and outside assistance is needed:
  a) There are injuries
  b) There is a fire hazard
  c) The spilled material has not been identified
  d) The spill cannot be safely stopped, contained, and cleaned up using a Spill Kit
  e) There has been a release to water, soil, or drains
- ☐ Refer to Silver Cloud Lodge Spill Response Flow Chart found on page 30 and contact authorities as needed.
- ☐ If the spill has potential to affect air quality, refer to "Poor Air Quality" section.
- ☐ If spill has compromised waterways, sewer system, or a water source, refer to "Water Supply Contamination" section.
- ☐ Cooperate with responding regulatory authority for appropriate actions.
- ☐ Follow Spill Recovery Process steps.
  a) Clean and sanitize all areas of the operation
  b) Investigate to find the cause of spill
  c) Establish new procedures or revise existing ones based on the investigation results, so as to prevent the incident from recurring
- ☐ Complete Silver Cloud Lodge Hazardous Material Spill Reporting Form.

EMERGENCY NUMBERS

Agency	Business Hours Phone Number	After Hours or Alternate Phone Number
Silverton San Juan Fire & Rescue Authority		
San Juan County Sheriff	(970)387-5531	911
San Juan County Office of Emergency Services	(970) 387-9984	
Colorado Avalanche Information Center		
State of Colorado Emergency Operation Center	(800)852-7550	
National Response Center	(800) 424-8802	(800) 424-8802
San Juan County Public Health	(970)-387-0242	
US EPA Region 8		N/A
National 3rd Party Spill Response Line (Clean Harbors)	(800) 645-8265	(800) 645-8265

SILVER CLOUD LODGE SPILL RESPONSE MATERIAL LOCATIONS

Fixed Location Kits	Absorbent Pads	Floor Dry	Large Absorbent Booms	Small Absorbent Booms	Overpack Container (drum)
Vehicle Maintenance Shop	X	X	X	X	> 50 gal
Main Lodge	X	X	X	X	
Hydro House	X			X	
Vehicle Kits					
BVs	X			X	
4WD Vans	X			X	

RESPONSIBLE PERSONNEL DUTIES

The Lodge Manager is responsible for assuming the responsibility of Site Coordinator during a significant spill event and has the following responsibilities:

- Review procedures and guidelines to verify information is updated and correct.
- Verify that employees are properly trained in emergency response procedures.
- Schedule emergency response drills, as necessary.
- Notify governmental agencies and request agency assistance, if required.

Personnel on duty at the facility have the following responsibilities:

- Assess spill situations.
- Identify type and quantity of spilled material.
- Notify supervisors or the Lodge Manager.
- Shut down operations.
- Safely evacuate customers and personnel.
- Secure areas affected by spills.
- Account for the safety of customers and personnel and request first-aid.

SPILL RESPONSE PROCEDURES – 40 CFR 112.8 (C)(10)

Silver Cloud Lodge personnel will respond to a release according to the emergency procedures outlined in this section.

First Responder Tasks:

The employee to first discover a spill is the First Responder. The First Responder must be trained according to Silver Cloud Lodge's Employee Training Plan attached in Appendix F and is responsible for the following tasks:

1. Stop and contain the spill, if:
   a) The spilled material has been identified, i.e., if it is easily identified and all hazardous properties are known (from HAZCOM training, MSDS, or work experience).
   b) The spill can be safely dealt with without any safety equipment that the First Responder doesn't have.

Under no circumstances shall any First Responder attempt to clean up or otherwise physically deal with any chemical spill unless either the hazardous properties or the type of material involved has been determined.

If any of the following conditions are true, the spill is not considered small, and the First Responder must notify his/her immediate supervisor of the circumstances and proceed to implement all remaining First Responder tasks (unless instructed otherwise by management personnel).

- There are injuries.

- There is a fire hazard.
- The spilled materials have not been identified.
- The First Responder determines he/she cannot safely stop, contain, and clean up the spill.
- There has been a release to water, soil, or drains.

Manage injuries: Call the Fire Department by telephone at 911, or contact a local medical facility, to obtain emergency medical attention. Ensure follow-up paperwork is completed in accordance with company policies and procedures.

Call the Fire Department by telephone at 911 if:

- The spill is flammable or combustible, i.e., diesel or gasoline, and the spill is greater than 55 gallons or the flammable material has spread over an area greater than 10 feet across.
- The First Responder and supervisor or manager to determine that a fire hazard exists.

If the spilled chemicals or their hazardous properties cannot be identified it will be necessary to:

- Identify them before a properly trained employee can clean them up.
- Summon emergency response personnel to the scene so they can handle the unknown chemicals.

Complete a Silver Cloud Lodge Chemical Spill Reporting Form, included as Appendix H.

Disposal of Recovered Materials:

Recovered materials will be disposed of per all applicable State and Federal laws and regulations.

Site Coordinator Tasks:

Spills that meet one or more of the criteria below must have a Site Coordinator assigned for the purpose of coordinating Silver Cloud Lodge's legal and financial obligations and associated response tasks:

- There has been injury, fire, or property damage.
- The spill has affected manufacturing operations.
- Non-Silver Cloud Lodge emergency response personnel are called in.
- The tasks to stop, contain, and clean up the spill will take more than one hour to complete.
- More than 42 gallons of any chemical have contaminated water, soil, or drains, or if any release results in a sheen on surface waters.

In these situations, it is imperative to locate the most senior management employee available to coordinate Silver Cloud Lodge's response. If available, the onsite designated responsible person (identified in Section 2.1) should be contacted immediately to act as Site Coordinator.

If non-management personnel are required to implement Site Coordinator tasks as described below, they shall make all reasonable efforts to locate management personnel and to transfer Site Coordinator responsibilities as soon as possible. This effort shall include calling management personnel at home as required, informing them of the incident, and requesting they proceed to the station.

1. The Site Coordinator is responsible for managing Silver Cloud Lodge's response to significant chemical spills. The primary objectives are, in priority order, to:
   - Protect life and care for injuries.
   - Protect the environment.
   - Protect property.

2. The Site Coordinator must implement the tasks listed below. If the Site Coordinator is not properly trained in spill response procedures, he/she must attempt to obtain technical assistance before proceeding.
   - Obtain a verbal report from the First Responder regarding all relevant details of the chemical spill. If a Chemical Spill Report Form has been completed, review it as well.
   - Determine whether there are any tasks itemized above in the First Responder Tasks that should have been implemented, but have not been, as yet. Complete these tasks before proceeding further.
   - Coordinate all on-going response activities, including the management of emergency response personnel.

3. The Site Coordinator is also responsible for coordinating work performed by outside contractors. The coordinator will monitor contractor activities to ensure proper clean-up methods are being employed.

NOTIFICATIONS AND REPORTING

Internal Notification: A Silver Cloud Lodge Spill Reporting Form, included as Appendix G, should be completed for any spill that has contaminated water, soil, or a drainage system.

In the event of a spill, the following Silver Cloud Lodge responsible officials should be notified:

TBD

External Notification: If any oil, fuel, CERCLA hazardous material, or other material is spilled in sufficient quantity to exit lodge property, pose a threat to human health and environment, enter the storm water sewer system, enter "waters of the State" (includes surface and subsurface waters), or cause a film or sheen on a navigable water surface, then CDPHE needs to be notified immediately at **1-877-518-5608**.

Other Emergency Numbers

Chemical Transportation Emergency Center (CHEMTREC)
(800) 424-9300 (24 hrs/day)

For Chemical Emergencies only, involving spills, leaks, fires, or exposures to chemicals. Provides immediate and comprehensive initial emergency response information for first responders involved in responding to or operating at the scene of hazardous material emergencies

The United States Environmental Protection Agency (USEPA) Guidance for Reporting is as follows:

- Oil spills greater than 42 gallons onto land or any amount entering or threatening to enter waters of State,
- Hazardous substances release exceeding CERCLA thresholds (Reportable Quantities, SARA Title III), and
- Wastewater excursion releases in excess of 1000 gallons improperly diverted.

Personnel notifying the agencies should have the following information available:

- Name of person making the contact
- Time and place of spill
- The description, type, and estimated quantity of spill
- Corrective and clean-up actions taken and proposed to be taken

IDENTIFICATION AND INVENTORY OF EMERGENCY RESPONSE EQUIPMENT

The location of the following emergency response equipment is illustrated on Figure 2.

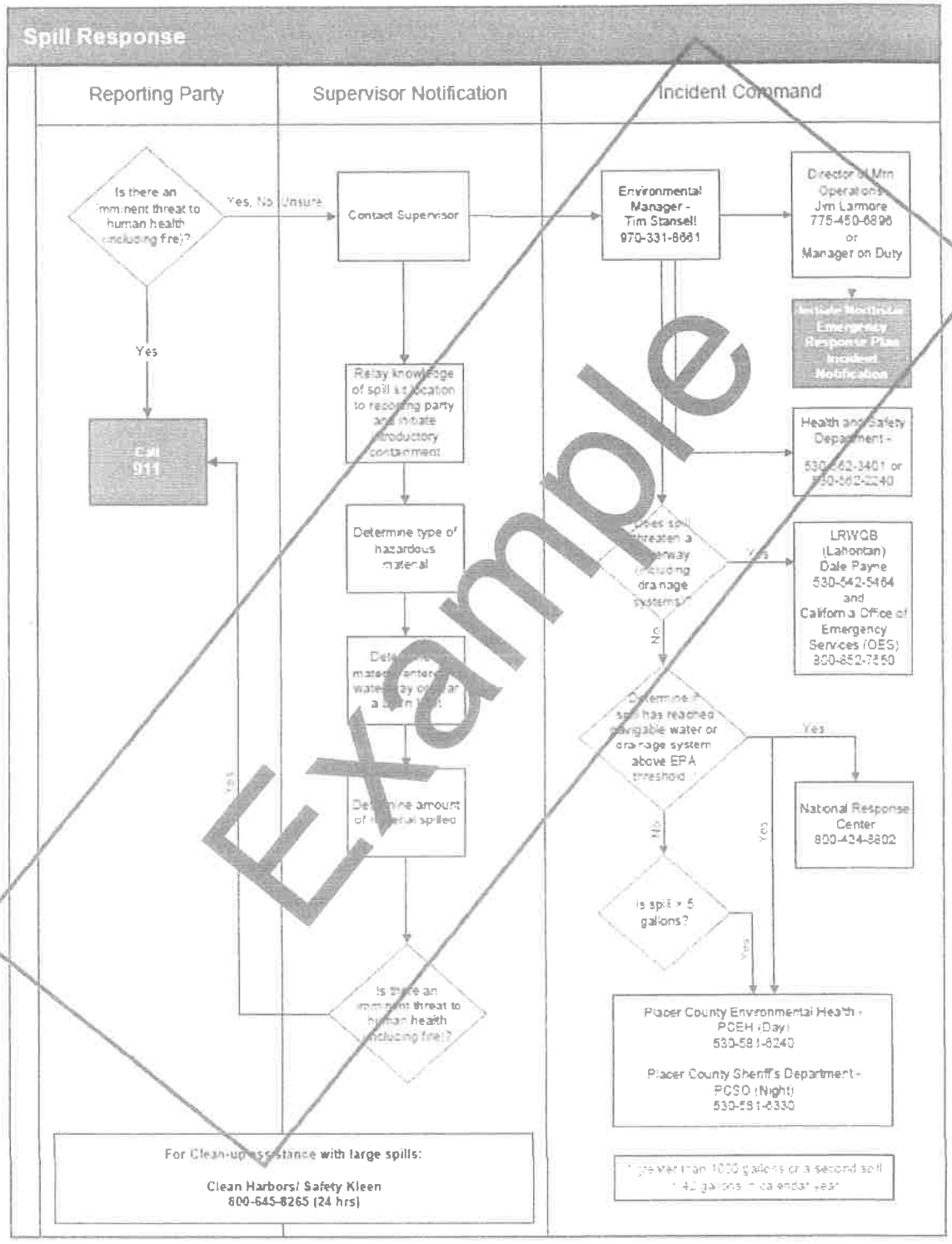
Spill Kits: Spill response supplies and kits, including absorbent drain covers, absorbent pads and socks are positioned in strategic locations throughout the facility and garage to facilitate quick response to releases. The spill response supplies and kits are inspected in conjunction with the monthly inspections to ensure that they are adequately stocked, easily accessible and functional.

Fire Extinguishers: Fire extinguishers are located throughout the facility. Fire extinguishers are regularly checked to verify that they are operable.

Avalanche Rescue Equipment: Located in multiple locations throughout the property. Refer to Avalanche Safety Plan.

Search and Rescue Locker: Located at the Employee Housing/Garage facility.

Silver Cloud Lodge Spill Response Flow Chart



Silver Cloud Lodge Material Spill Reporting Form

Date/Time	
Location	
Material of Waste	
Amount	
Injuries, If Any	
Cause	
Corrective Action Taken	
Date/Time	
Method of Disposal	
Reportable Discharge	No _ Yes _
Responsible Official/Designated Emergency Coordinator Signature Title	

Child Safety – SafePlace

"Safe Place" means staying inside a building during an emergency and as an example may be used in a situation where there is a threatening person outside. The location and type of Safe Place will depend on the type of emergency.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- ☐ Track incident progress and occurrences.
- ☐ Restrict radio traffic to emergency communication as necessary.
- ☐ Initiate notification calls via the Incident Notification Chart.
- ☐ Contact 911 to begin sending assistance in controlling the threat.
- ☐ Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMAND CHECKLIST:

- ☐ Update dispatch with pertinent information and additional requests.
- ☐ Activate Incident Command Center and positions as needed.
- ☐ Ensure San Juan County Sheriff is notified as appropriate.
- ☐ Ensure Communications has been notified and has a statement and communication strategy.
- ☐ Confirm if there are affected and/or injured guests and employees.
- ☐ Ensure that children are accounted for and parents are notified as necessary.
- ☐ Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

LODGE MANAGER CHECKLIST:

- ☐ Upon first indication of danger, immediately bring all guests inside the nearest resort building, using only rooms that can be completely locked and sheltered from view of a visible threat.
- ☐ Close and lock all doors and windows and do not allow any unknown individuals inside the building.
- ☐ Notify Dispatch.
- ☐ Account for all guests.
- ☐ Keep in contact with Dispatch and emergency agencies.
- ☐ Remain in safe place until further notice from authorities.

Communication Outage

A communication outage is defined as a loss of communication services including phone, radio, and/or internet service. In the case of severe weather events, outages can result in isolation.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. IT Services				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2.				

DISPATCH CHECKLIST:

- ☐ Refer to emergency radio communications plan found on page 36.
- ☐ Track incident progress and occurrences.
- ☐ Restrict radio traffic to emergency communication as necessary.
- ☐ Initiate notification calls via the Incident Notification Chart.
- ☐ Coordinate evacuations as necessary in consultation with IC.
- ☐ Contact Telecommunications/Information Technology.
- ☐ Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMAND CHECKLIST:

- ☐ Determine back up communication method (i.e. line of sight) in consultation with dispatch, IT, and Environmental Manager.
- ☐ Assess level of outage.
  - o Determine which operations must cease and which can continue
- ☐ Update dispatch with pertinent information and additional requests.
- ☐ Activate Incident Command Center and positions as needed.
- ☐ Ensure Starlink and Silverton San Juan Fire & Rescue are notified as appropriate.
- ☐ Ensure Communications has been notified and has a statement and communication strategy.
- ☐ Confirm if there are affected and/or injured guests and employees.

- If outage is the result of a storm, refer to "Severe Weather" section.
- Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

TELECOMUNICATION/INFORMATION TECHNOLOGY CHECKLIST:

- Facilitate backup communication services.
- Contact service providers.
- Determine whether level of back up reporting and communications will allow business to continue.
- Follow instructions of and assist telecommunications companies as needed.

Emergency Radio Communications Plan

In the event of an electrical power outage at the Silver Cloud Lodge repeater located at X, a backup generator will supply power to channels 1, 2, 5, 8, and 11 after a delay of approximately 10-15 minutes (generator warm-up).

As appropriate for time of year/season; Guides and Administration users shall switch to non-repeated Channel 12 and await confirmation of power outage and further instruction from Lodge Dispatch.

Lodge Dispatch shall:

- Announce "Emergency Radio Communications Plan is in effect and only non-essential communication is permitted" on Channel 8.
- Assign one radio/staff member to monitor Channel 1 (for successful repeater squelch) and the X back-up generator run status.
- Upon successful automatic start, warm-up, switch to generator power, and function of the Channel 1 repeater, Lodge Dispatch shall announce "Resume use of assigned channels. Be aware that radio system is functioning on back-up power."
- When power is reestablished and the generator has shut down, Lodge Dispatch shall announce that power has been re-established and the radio system is in normal operating mode.

Earthquake

An earthquake is defined as a sudden and violent shaking of the ground, sometimes causing great destruction, as a result of movements within the earth's crust or volcanic action. Potential damage can include structure collapse, utility service disruption, and other natural disasters such as landslides, avalanches, flash floods, and fires.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- ☐ Track incident progress and occurrences.
- ☐ Notify local authorities of any injuries or immediate health hazards caused by damage.
- ☐ Restrict radio traffic to emergency communication as necessary.
- ☐ Initiate notification calls via the Incident Notification Chart.
- ☐ Remain in contact with and follow recommendations of responding agencies.
- ☐ Coordinate evacuations as necessary in consultation with IC.
- ☐ Do not discuss incident with media or guests. Refer any questions to Lodge Manager.

INCIDENT COMMAND CHECKLIST:

- ☐ Update dispatch with pertinent information and additional requests.
- ☐ Activate Incident Command Center and positions as needed.
- ☐ Ensure Silverton San Juan Fire & Rescue and San Juan County Sheriff are notified as appropriate.
- ☐ Confirm if there are affected and/or injured guests and employees.

- ☐ Initiate facility damage assessment.
- ☐ Facilitate resource needs of rescue personnel.
- ☐ Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

ALL EMPLOYEES CHECKLIST:

- ☐ Communicate and follow earthquake response steps:
  a) Drop to the ground and take cover in a doorframe or under a sturdy piece of
  b) furniture.
  c) Remain in place until shaking stops.
  d) If cover is not available, shield your face and head with your arm and crouch in an interior corner of the building.
  e) Stay clear of exterior windows, doors, and walls, as well as loose fixtures.
  f) Do not exit the building until quake is over.
  g) If outside, move to nearest open space away from buildings or overhangs and crouch for cover.
  h) Avoid talus slopes or other rockfall source areas.
- ☐ Ensure the safety of all guests.
- ☐ Account for all employees.
- ☐ Notify dispatch of any injuries or immediate health hazards caused by damage.
- ☐ In consultation with IC, facilitate evacuation of affected building(s) when deemed safe using designated routes and procedures.
- ☐ Follow the instructions of law enforcement and management.
- ☐ Do not return to buildings until cleared by Fire Department.

Explosion

An incident involving a violent and destructive shattering or blowing apart of something, regardless of cause.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- ☐ Track incident progress and occurrences.
- ☐ Obtain information on location and type and notify 911.
- ☐ Restrict radio traffic to emergency communication only.
- ☐ Initiate notification calls via the Incident Notification Chart.
- ☐ Coordinate evacuations as necessary in consultation with IC.
- ☐ Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMAND CHECKLIST:

- ☐ Update dispatch with pertinent information and additional requests.
- ☐ If resort closure is needed, authorize sweep procedures.
- ☐ Activate Incident Command Center and positions as needed.
- ☐ Ensure San Juan County Sheriff and Silverton San Juan Fire & Rescue are notified as appropriate.
- ☐ Confirm if there are affected and/or injured guests and employees.
- ☐ Ensure affected departments account for all employees.
- ☐ Consult Silver Cloud Lodge Management for guest recovery procedures as needed.
- ☐ Initiate property damage assessment.

- Facilitate 360-degree closures to prevent guests or employees from entering affected areas. Closure distance will be based on amount of damage, terrain, and continued threat potential.
- Ensure shutdown of potential sources (i.e. gas lines, air hoses, electrical lines, etc.) via communication with Maintenance and Silverton San Juan Fire & Rescue.
- Determine need for rescue procedures and communicate to IC and responding agencies.
- Facilitate additional resources if needed (refer to "Mass Casualty" section).
- Follow recommendations of responding agencies.

ALL EMPLOYEES CHECKLIST:

- Ensure the safety of all guests.
- Account for all employees.
- Notify dispatch of any injuries or immediate health hazards caused by damage.
- Follow the instructions of law enforcement and management.
- In consultation with IC, facilitate evacuation of affected building(s) or base area when deemed safe using designated routes and procedures.
- Do not return to buildings until cleared by Fire Department or Law Enforcement.

Fire – Structure

A structure fire is defined as a fire involving the structural components of various residential or commercial buildings, as differentiated from room fires, vehicle fires, or outdoor fires.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- ☐ Track incident progress and occurrences.
- ☐ Confirm that alarms triggered by smoke or heat have signaled Fire Department, Security, and Maintenance.
- ☐ Restrict radio traffic to emergency communication as necessary.
- ☐ Initiate notification calls via the Incident Notification Chart.
- ☐ Coordinate evacuations as necessary in consultation with IC.
- ☐ Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMAND CHECKLIST:

- ☐ Ensure Silverton San Juan Fire & Rescue is notified.
- ☐ Update dispatch with pertinent information and additional requests.
- ☐ Confirm if there are affected and/or injured guests and employees.
- ☐ Activate Incident Command Center and positions as needed.
- ☐ Ensure Communications has been notified and has a statement and communication strategy.
- ☐ Ensure affected departments account for all employees.
- ☐ Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

LODGE CHECKLIST:

- ☐ Facilitate evacuation of affected building(s) in consultation with IC, using designated routes and procedures.

- Account for all employees.
- Notify appropriate personnel to assist with evacuation plans, including Transportation to vehicles.
- If affected structure is the Silver Cloud Lodge:
  - Direct Fire personnel and provide gate access to FSR 821.
  - Prepare for use of existing fire suppression pond for structure protection.
- If fire has potential to spread, refer to "Wildland Fire" section.
- Follow instructions of responding authorities.

BASE AREA OR EMPLOYEE HOUSING/GARAGE CHECKLIST:

- Facilitate evacuation of affected building(s) in consultation with IC, using designated routes and procedures.
- Account for all employees.
- Notify appropriate personnel to assist with evacuation plans, including Transportation to stage shuttles.
- Follow instructions of responding authorities.

Fire – Wildland

A wildland fire is defined as an uncontrolled fire in an area of combustible vegetation that occurs in the countryside or a wilderness area.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

Upon first sign of fire, reporting party should immediately contact dispatch and/or call 911.
*****ONLY IF TRAINED*** Attempt to extinguish fire if small or smoldering, using authorized fire suppression techniques.**

DISPATCH CHECKLIST:

- Track incident progress and occurrences.
- Contact 911 to report a vegetation fire. Provide size and closest point of origin, and alert if any structures are threatened.
- Initiate mountain activity evacuation protocols in consultation with IC:
  - Enlist supervisory personnel to assist
  - Establish a mandatory evacuation using vehicle assets not in fire path
  - Confirm sweeps for all buildings
  - Secure building utilities and unlock doors
- Restrict radio traffic to emergency communication only.
- Initiate notification calls via the Incident Notification Chart.
- Communicate with Silverton San Juan Fire & Rescue to determine a mountain access point for designated personnel to direct Fire Agency(s) and provide gate access to Silver Cloud Lodge road system.
- Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMAND CHECKLIST:

- Ensure Silverton San Juan Fire & Rescue is notified.
- Update dispatch with pertinent information and additional requests.
- Confirm if there are affected and/or injured guests and employees.
- Activate Incident Command Center and positions as needed.
- Ensure all necessary and available resources have been provided for Fire Agency(s).
- Ensure affected departments account for all employees.
- Ensure Communications has been notified and has a statement and communication strategy.

- Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

ALL EMPLOYEE CHECKLIST:

- ***ONLY IF TRAINED*** Attempt to extinguish fire if small or smoldering, using authorized fire suppression techniques.
- Account for all employees.

- Coordinate and deliver resources and manpower as requested by Fire Agency(s).
- Evacuate area as instructed in consultation with IC.

Reference San Juan County Community Wildfire Protection Plan:
https://drive.google.com/file/d/0B1XZpk_jg2vvcGUxVGZyM3BCYUU/view?resourcekey=0-yb1tVMYG6oSbpAtjNFWhNQ

Flood

An abnormal amount of water that can impact operations, cause property damage and can potentially cause injury to guests and/or employees.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- Track incident progress and occurrences.
- Restrict radio traffic to emergency communication as necessary.
- Initiate notification calls via the Incident Notification Chart.
- Monitor weather forecast.
- Maintain communication with managers of affected facilities.
- Coordinate evacuations as necessary in consultation with IC.
- Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMAND CHECKLIST:

- Confirm if there are affected and/or injured guests and employees.
- Initiate evacuation of guests and employees as needed based on actual and forecasted severity.
- Ensure affected area is secured.
- Coordinate gathering of flood mitigation supplies such as pumps, sandbags, and wattles.
- Update dispatch with pertinent information and additional requests.
- Activate Incident Command Center and positions as needed.
- Ensure Servpro and other necessary agencies are notified as appropriate.

- ☐ Ensure building maintenance is contacted if flood affects any company owned/operated buildings.
- ☐ Coordinate relocation of guests and employees in affected or uninhabitable accommodations.
- ☐ Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

LODGE MANAGER CHECKLIST:

- ☐ Evaluate extent and source of flood.
- ☐ Monitor internal waterways for sediment content and output flow.
- ☐ Identify possible progressive hazards such as erosion, electrical issues, contamination, and mold.
- ☐ Determine damage to resort infrastructure, mountain road system, etc.

BUILDING MAINTENANCE MANAGER CHECKLIST:

- ☐ Identify possible progressive hazards such as erosion, electrical issues, and mold.
- ☐ Determine damage to resort infrastructure, mountain road system, etc.
- ☐ Contact Servpro for remediation if necessary.

Foodborne Illness

A foodborne illness is defined as any sickness resulting from the consumption of contaminated food or water, or the bacteria, viruses, toxin, or parasites therein.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- Refer to Foodborne Illness Crisis Communication Diagram found on page 49.
- Track incident progress and occurrences.
- Contact Lodge Chef.
- Ensure that Lodge Manager has been notified.
- Initiate notification calls via the Incident Notification Chart.
- Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMAND CHECKLIST:

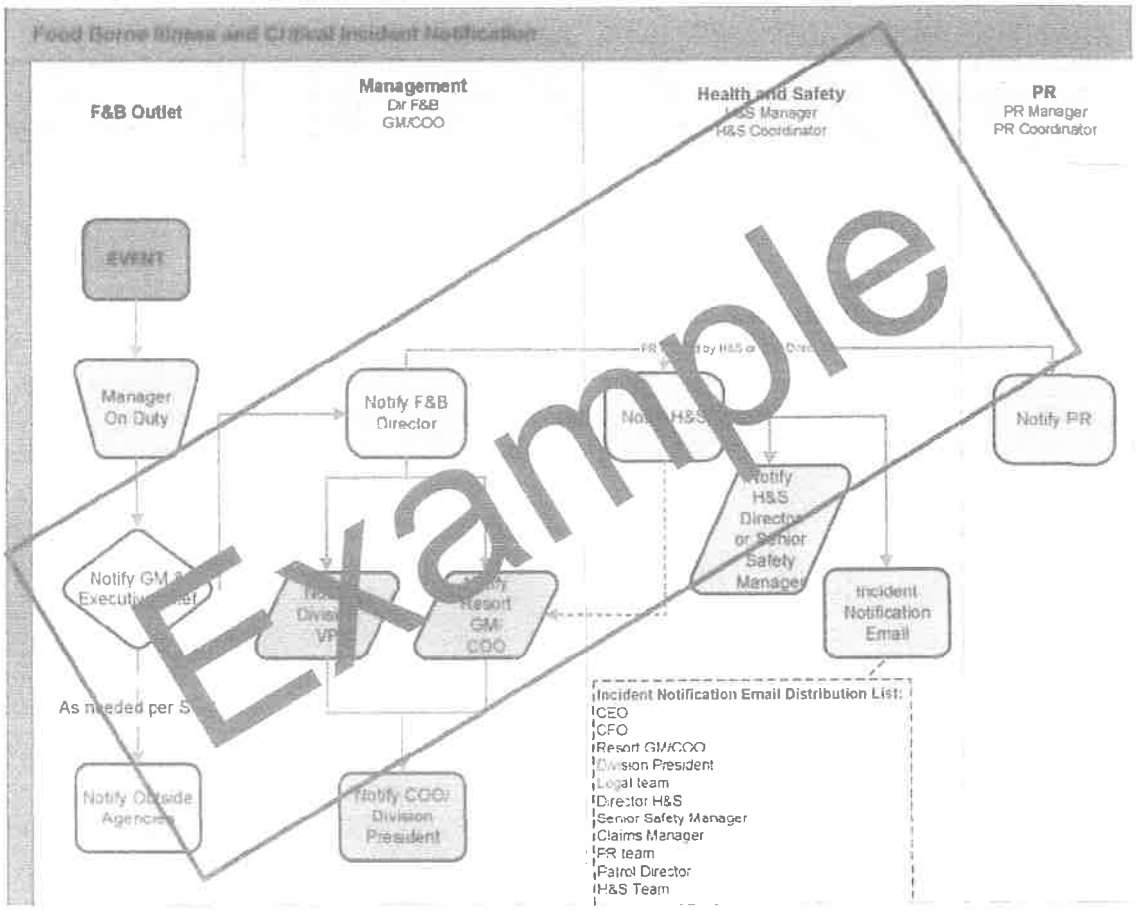
- Update dispatch with pertinent information and additional requests.
- Activate Incident Command Center and positions as needed.
- Ensure Health Department and Epidemiologist are notified as appropriate.
- Confirm if there are affected and/or injured guests and employees.
- Ensure that Outbreak Recovery process steps are being followed.
- Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

LODGE CHEF CHECKLIST:

- Take the complaint seriously and express concern but do not admit fault.
- Contact 911 if reporting guest needs medical attention.
- Complete the Foodborne Illness incident report form.

- Identify and isolate suspect food or ill staff member and exclude from sales or operation.
- Determine how many servings of the item were sold/provided.
- Contact CDPHE and Epidemiologist if numerous complaints are reported and identify any common food items to determine additional sources.
- Cooperate with responding regulatory authority for investigation and appropriate actions.
- Refer to "Water Supply Contamination" section if outbreak is suspected to be waterborne.
- Follow Outbreak Recovery process steps.
  - Clean and sanitize all areas of the operation
  - Throw out all suspect food and document how it was disposed
  - Investigate cause of the outbreak
  - Establish new procedures or revise existing ones based on the investigation results so as to prevent the incident from happening again
  - Develop a plan to reassure guests that establishment's food service is safe

Foodborne Illness Crisis Communication Diagram



Foodborne Illness Incident Report Form

Date/Time of Reporting _____ _____AM/PM
Name of Person Reporting Incident _____

GUEST INFORMATION:
Name_____
_____
Address_
_____
_____
_____
Phone (____)_____ Email _____

INCIDENT DESCRIPTION:
Indicate when the guest first showed signs of illness _
_____
_____
_____

FOOD HISTORY:
What did the guest eat and drink? Include what the guest consumed at home and other operations before, during, and after the incident.

At our restaurant
_____
_____
_____
_____

Home
_____
_____
_____
_____

Other Operations
_____
_____
_____
_____

Does the guest have a sample of the food? Yes____No _____
Will the guest bring the sample to the restaurant? Yes_____No ____

MEDICAL:
Did the guest seek medical attention? Yes_____No_____ Date of treatment _
Location_____

Gas Leak

A gas leak is the release of natural gas from a pipe or other containment into a living area or other area where the gas should not be. Natural gas/propane may explode when exposed to flame or sparks.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- ☐ Report leak to Silverton San Juan Fire & Rescue.
- ☐ Notify Maintenance.
- ☐ Track incident progress and occurrences.
- ☐ Restrict radio traffic to emergency communication as necessary.
- ☐ Initiate notification calls via the Incident Notification Chart.
- ☐ Coordinate evacuations as necessary in consultation with IC.
- ☐ Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMAND CHECKLIST:

- ☐ Ensure all nearby sources of flame are extinguished (pilot lights, furnaces, boilers, etc.).
- ☐ Confirm if there are affected and/or injured guests and employees.
- ☐ Update dispatch with pertinent information and additional requests.
- ☐ Activate Incident Command Center and positions as needed.
- ☐ Ensure Silverton San Juan Fire & Rescue are notified as appropriate.
- ☐ Ensure scene security with use of caution tape and stationed employees.
- ☐ Consult Silver Cloud Lodge management for guest recovery procedures as needed.

BUILDING MAINTENANCE CHECKLIST:

- ☐ Ensure all nearby sources of flame are extinguished (pilot lights, furnaces, boilers, etc.).
- ☐ Locate and shut off gas to area
  - If determined to be safe, do so internally. May be at entry point to building,
  - at a piece of equipment, or along a primary gas line.
  - If determined not to be safe, communicate with Silverton San Juan Fire & Rescue and/or Propane Service Provider to shut off source.
- ☐ Allow re-occupation of space once gas has been cleared and
  - Silverton San Juan Fire & Rescue has approved re-occupation
  - Faulty equipment is locked out or repaired
- ☐ Resume gas-fired operations once San Juan County inspection has been completed and permit has been closed.

Isolation Event

An event, such as a pass or road closure, that may lead to a lack of food, water, shelter and/or supplies.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- ☐ Track incident progress and occurrences.
- ☐ Restrict radio traffic to emergency communications as necessary.
- ☐ Initiate notification calls via the Incident Notification Chart.
- ☐ Monitor weather and Department of Transportation/CDOT updates.
- ☐ Regularly communicate updates to IC.
- ☐ Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMAND CHECKLIST:

- ☐ Confirm if there are affected and/or injured guests and employees.
- ☐ Update dispatch with pertinent information and additional requests.
- ☐ Activate Incident Command Center and positions as needed.
- ☐ Establish resource needs such as food, water, and/or shelter.
- ☐ Contact San Juan County Sheriff and Silverton San Juan Fire & Rescue for additional resources based on the scope of event.
- ☐ Determine amounts of readily available resources and estimated time of complete loss.
- ☐ Plan for available resource distribution and timeline.

- Determine if the resort can assist local community with resources such as shelter, food, and personnel.
- Consult Silver Cloud Lodge management for guest recovery procedures as needed.

LODGE CHEF CHECKLIST:

- Provide food and water as needed to guests and employees.

Underground Room Evacuation

An incident where, due to mechanical failure, lack of power or adverse weather conditions, a the underground portion of the Lodge must be evacuated.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- Refer to Evacuation Procedures found on page 57.
- Track incident progress and occurrences.
- Restrict radio traffic to emergency communication only.
- Initiate notification calls via the Incident Notification Chart.
- If evacuation is recommended, confirm Lock Out/Tag Out Procedures have been completed.
- Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

Lock Out/Tag Out procedures for evacuation must be confirmed by the IC or their designee.

INCIDENT COMMANDER CHECKLIST:

- Confirm if there are affected and/or injured guests and employees.
- Determine whether evacuation should be conducted via elevator, internal stairway, or via emergency escapeway.

- ☐ Authorize and confirm Lock Out/Tag Out procedures.
- ☐ Coordinate with Lodge personnel on rescue and evacuation strategy, refer to Lodge Evacuation Plan.
- ☐ Facilitate any resource needs of rescue personnel.
- ☐ Update dispatch with pertinent information and additional requests.
- ☐ Activate Incident Command Center and positions as needed.
- ☐ Consult Silver Cloud Lodge management for guest recovery procedures as needed.

LODGE EMPLOYEE CHECKLIST:

- ☐ Coordinate evacuation once authorized by IC or their designee.
- ☐ Coordinate guest communication in conjunction with dispatch.
- ☐ Ensure affected guests are transported to a warm, dry place once evacuated from the underground rooms.
- ☐ Ensure collection of names of affected guests.
- ☐ Confirm Lock Out/Tag Out Procedures are completed and communicated with IC and Dispatch.
- ☐ Coordinate with Dispatch and IC for transit and personnel needs based on scope of evacuation.

Underground Room Evacuation Procedures

EMERGENCY RESPONSE PLAN

In the event of a major emergency or underground evacuation the following plan will be used to coordinate the rescue effort. This plan is meant to be an organizational and communications guideline to facilitate the rescue operation. Each situation will be different and require unique solutions. The ICS (Incident Command System) is defined as: "The combination of facilities, equipment, personnel, procedures, and communications operation within a common organizational structure with responsibility for the management of assigned resources to effectively accomplish stated objectives pertaining to an incident."

As a Silver Cloud Lodge employee, it is vital to our success in managing an incident with a strong understanding of the ICS flow chart and realizing that it is a "company-wide, team effort". Even though you work daily in your defined role, it is important to understand, while working under the Incident Command System structure; you may be assigned to work under, and with other departments, and report to a different supervisor. It is important, once assigned, for you to know whom you will report to, their role, and yours.

EVACUATION PRELIMINARY REQUIREMENTS

Silver Cloud Lodge includes five guest rooms that are built into the Silver Crown Mine, as well as numerous mechanical and storage rooms. The historic mine also includes approximately 3,200' of tunnel with various stopes and rooms. An attached supplement includes our underground evacuation procedures.

After the evacuation is complete and the public has been safely exited, employees will check their physical status, and advises them of the specific route to walk or be transported safely to the established meeting area.

Underground evacuation equipment locations, types and amounts:

Bottom of Elevator Shaft:
TBD

Top of Elevator Shaft:
TBD

Mine Entrance:
TBD

Tunnel @ 2,000':
TBD

Each Unit:
TBD (ropes/ladders)

All evacuation equipment will be inspected annually with records stored in the Dispatch office.

GENERAL OUTLINE FOR LIFT EVACUATION

Once a determination that rope evacuation is necessary, an IC will be appointed following the guidelines.

- Dispatch will continue to limit radio traffic to essential and evacuation-related traffic only.
- The IC will assign an employee to inform guests of the coming evacuation.
- The IC will assemble evacuation teams and the transport of rescue kits to the staging area.
- The IC will establish a meeting point for all evacuated guests.
- The IC will coordinate the informing of all relevant Silver Cloud Lodge personnel.
- The IC will coordinate with Transportation to evacuate guests from the Base Area/Employee Housing/Garage.

Mass Casualty

A mass casualty incident is any incident in which emergency medical services are overwhelmed by the number and severity of casualties.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- Notify 911.
- Track incident progress and occurrences.
- Restrict radio traffic to emergency communications only.
- Initiate incident notification calls via the Incident Notification Chart.
- Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMANDER CHECKLIST:

- Ensure San Juan County Sheriff and Silverton San Juan Fire & Rescue are notified.
- Confirm the extent of injuries to guests and employees.
- Secure a staging area in coordination with emergency responders.
- Facilitate needs of law enforcement and emergency responders.
- Activate Incident Command Center and positions as needed.
- Update dispatch with pertinent information and additional requests.
- Consult Silver Cloud Lodge management for guest recovery procedures as needed.

GUIDE/OTHER EMPLOYEE CHECKLIST:

- Control access to affected area.

- Facilitate needs of law enforcement.
- Assist medical responders as appropriate.
- Designate scene commander to triage and prioritize the severity of injuries.
- Allocate additional guides from other areas as needed.

Missing Person/Search and Rescue

An incident where a guest or employee believed to be at or adjacent to the resort cannot be located.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- ☐ Refer to Missing Person Protocol found on page 63.
- ☐ Refer to Search and Rescue Guidelines found on page 67.
- ☐ Contact IC to begin process of locating lost party.
- ☐ Track incident progress and occurrences.
- ☐ Restrict radio traffic to emergency communication as necessary.
- ☐ Initiate notification calls via the Incident Notification Chart.
- ☐ Do not discuss the incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMANDER CHECKLIST:

- ☐ Confirm if there are additional affected and/or injured guests and employees.
- ☐ Ensure a search within the Base Area/Employee Housing/Garage, parking lots, and Lodge Area.
- ☐ Notify San Juan County Sheriff.
- ☐ Facilitate the needs of rescue personnel.
- ☐ Update dispatch with pertinent information and additional requests.
- ☐ Communicate with Management via internal phone tree on rescue strategies and plan.
- ☐ Activate Incident Command Center and positions as needed.

- Consult Silver Cloud Lodge management for guest recovery procedures as needed.

GUIDE CHECKLIST:

- Ensure reporting party is escorted to Dispatch.
- Enact Search and Rescue and Missing Person protocols.
- Assist San Juan County Search & Rescue if possible and approved by the IC.

Missing Person Protocol

Once a missing person is reported to the Lodge Manager, an employee will escort the reporting party to the Lodge Dining Room. The Lodge Dining Room will act as the village hub and provide a warm, dry space where the reporting party can fill out a detailed missing person's report. Once the missing person information is obtained, Dispatch will notify appropriate staff. A Silver Cloud Lodge employee must stay with the Reporting Party until they are reunited with the missing person.

To expedite the search, the employee should notify Dispatch of the pertinent description and information while escorting the reporting party to the Lodge Dining Room. This information includes, but is not limited to; location last seen, backcountry ability and preferred terrain preference, age, name, sex, race, and physical description including clothing. If applicable, cell phone number, where they are staying, and location of their vehicle.

Our goal is to calm the reporting party and make them as comfortable as possible and involve as many people as possible in the search for the missing person. Our responsibility ends when the parties are united, all searchers have been notified and the appropriate information has been documented in the Lodge logs.

DISPATCH OFFICER'S RESPONSIBILITIES:

1. Broadcast a description of the missing person.
2. Have all employees/guides check the areas that they are currently assigned to.
3. Immediately deploy employees to monitor entrances/exits and systematically search all areas of the property.
4. Re-transmit information to all employees and guides.
5. Maintain communication.

IF THE LOST INDIVIDUAL IS NOT FOUND WITHIN 15 MINUTES:

Call the San Juan County Sheriff's Department's emergency number at 9-1-1 for assistance.

IF THE INDIVIDUAL IS FOUND AND APPEARS TO HAVE BEEN LOST SOMEWHERE ON THE PROPERTY AND UNHARMED:

- Reunite the individual with the reporting party.
- Over the radio, announce that the individual has been found.

IF THE MISSING PERSON IS A CHILD, AND IS FOUND AND IS ACCOMPANIED BY SOMEONE OTHER THAN THE PARENT OR LEGAL GUARDIAN, AND THAT PERSON IS LEAVING OR ATTEMPTING TO LEAVE THE PROPERTY OR VENUE WITH THE CHILD:

- Use reasonable efforts to delay the departure of the person believed to be accompanying the child. Do not let the child leave the building.
- Call the San Juan County Sheriff's Department's emergency number at 9-1-1 and identify the person(s) accompanying the child.

Note: For a missing person that has been reported as being physically or mentally challenged, an emergency search for the person regardless of their age should be conducted.

Silver Cloud Lodge Missing Person Report

Date_____ Time_____am/pm

Reporting Person's Name:_____Contact Number:_____
Relationship to Missing Person: _____
Address:_____City
_____ State_____Zip_____

Missing Person's Name:_____Contact Number:_____
Age:_____ Gender: M / F
Medical Conditions:_____

_____

_____

Location/Time Last Seen:_____

_____

_____

Possible Meeting Points and Trails: _____

_____

All Meeting Places Checked? Are People There? _____
Method of Transportation:_____Location:_____
Is Equipment There?_____Notes Left? _____

Local Address:_____
_____Room #:_____ Has room been called?_____Were people there?_____Note left? _____

PHYSICAL DESCRIPTION/CONDITION:
Height_____Weight_____Hair_____Age_____
Jacket_____Pants_____
Boots_____Hat_____
Other:_____
Physical Condition:_____Backcountry Experience:_____
Lighter (Smoker)?_____Previous Meal?_____Familiar w/Valley? _____
Extra Clothing/Food? _____

Skier / Snowboarder?_____Level of Experience: _____

LAST SEEN LOWER VALLEY:
Temperature:_____

Informed: Time:
San Juan County Sheriff _____
_____ _____
_____ _____ Hotel
(please list): _____ _____

LAST SEEN UPPER VALLEY:
Favorite place to ski/hike_____

Informed: Time:
_____ _____
_____ _____

PERTINENT AREAS:
Searched Buildings: _____ Time:_____
Trails: _____ Time: _____

Search and Rescue Guidelines

These guidelines outline what the Silver Cloud Lodge employees will do in the event of a skier/hiker missing at the resort. These guidelines are subject to change due to circumstances such as weather, staffing levels, availability of resources or other unforeseen circumstances.

The Reporting Party (RP) will be escorted to dispatch to ascertain as much information from them as possible.

The Lodge Manager will be notified that there is a lost person and a possible search in progress.

San Juan County Sheriff Office will be contact and informed that we have a possible search. They will send out an officer to determine the validity of the possible Search and Rescue (SAR).

The nearest available guide or employee will conduct a hasty search of the roads in likely areas on a snow mobile or ATV/UTV depending on season. Dispatch will be informed if any tracks or clues are discovered.

The Lodge Manager will organize a patrol search team in dispatch. Depending on season, each member of the search team will have ski/snowboard equipment, climbing skins or snowshoes, extra food and water, two headlamps/flashlights, radio with extra battery and appropriate clothing. Appropriate first aid equipment will also be carried. Search area assignment and route selection will be discussed prior to leaving the locker room.

Based on weather and snow conditions, additional resources will be organized, such as snowmobiles to transport searchers. Additionally, transportation will be arranged for outside resources. Support for the search party, i.e. food, water and additional clothing/equipment will be arranged as conditions warrant.

Silver Cloud Lodge searchers will report directly to Dispatch any pertinent information until an Incident Commander (IC) is assigned.

Upon arrival of outside SAR personnel, Silver Cloud Lodge personnel will assist search efforts as conditions and resources allow.

Mudslide/Debris Flow

A mudslide or mudflow is defined as a moving mass of soil made fluid by rain or melting snow. Often resulting from heavy precipitation in a short period of time, mudslides are capable of destroying buildings, washing out and/or obstructing roadways, and knocking down trees or large boulders.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- ☐ Track incident progress and occurrences.
- ☐ Restrict radio traffic to emergency communication only.
- ☐ Initiate notification calls via the Incident Notification Chart.
- ☐ Coordinate evacuations as necessary in consultation with IC.
- ☐ Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMAND CHECKLIST:

- ☐ Update dispatch with pertinent information and additional requests.
- ☐ Activate Incident Command Center and positions as needed.
- ☐ Ensure San Juan County Sheriff, Colorado Highway Patrol, CDOT, and Silverton San Juan Fire & Rescue are notified as appropriate.
- ☐ Confirm if there are affected and/or injured guests and employees.
- ☐ Ensure Communications has been notified and has a statement and communication strategy.
- ☐ Ensure accounting for all employees.
- ☐ Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

EMPLOYEE/GUIDE CHECKLIST:

- ☐ Facilitate closures to prevent guests or employees from entering affected areas.
- ☐ Authorize entry for remediation and assessment by San Juan County and/or geologists/geotechnical engineers.
- ☐ Account for all employees.
- ☐ Notify dispatch of any injuries or immediate health hazards caused by damage.
- ☐ In consultation with IC, facilitate evacuation of affected building(s) or base area when deemed safe using designated routes and procedures.
- ☐ Determine need for rescue procedures and communicate to IC and responding agencies.
- ☐ Determine any damage to utilities and associated potential hazards; report to responding agencies accordingly.
- ☐ Determine damage to lodge property.

Night Emergency

A Night Emergency is any occurrence which interrupts or prevents the execution of normal night operations including dining or events.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- Track incident progress and occurrences.
- Restrict radio traffic to emergency communication as necessary.
- Initiate notification calls via the Incident Notification Chart.
- Coordinate evacuations as necessary in consultation with IC; refer to Lodge Evacuation Plan.
- Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMAND CHECKLIST:

- Update dispatch with pertinent information and additional requests.
- Activate Incident Command Center and positions as needed
- Ensure San Juan Sheriff and Silverton San Juan Fire & Rescue are notified as appropriate.
- Confirm if there are affected and/or injured guests and employees.
- Ensure affected departments account for all employees.
- Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

ALL EMPLOYEE CHECKLIST:

- ☐ Determine incident type and refer to appropriate section if applicable (i.e. Power Outage, Structure Fire, Severe Weather, etc.).
- ☐ Initiate evacuation protocols in consultation with IC; refer to Evacuation Plan.
- ☐ Coordinate accommodations, utilities, and supplies as necessary for shelter in place.
- ☐ Upon final evacuation, confirm sweeps for all buildings.
- ☐ Account for all employees and guests.

Power Outage

A blackout of any period of time in which power to one or all facilities has ceased and is affecting operations.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- Track incident progress and occurrences.
- Restrict radio traffic to emergency communication as necessary.
- Initiate notification calls via the Incident Notification Chart.
- Arrange for auxiliary back-up of radio communications.
- Move to alternate communication if necessary.
- Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMANDER CHECKLIST:

- Update dispatch with pertinent information and additional requests.
- Approve auxiliary operations and/or generators as deemed appropriate.
- Ensure accounting for all employees.
- Confirm if there are affected and/or injured guests and employees.
- Determine extent of power outage and coordinate with management of affected buildings.

- Ensure mobile generators, backup heating, and emergency resources are acquired as needed based on length of power outage.
- Ensure uninterrupted fuel supply for equipment, vehicles, and generators.
- Activate Incident Command Center and positions as needed.
- Contact Silverton San Juan Fire & Rescue for additional resources if necessary.
- Ensure Communications has been notified and has a statement and communication strategy.
- Consult Silver Cloud Lodge management for guest recovery procedures as needed.

Severe Weather

Severe weather refers to any dangerous meteorological phenomena with the potential to cause damage, serious social disruption, or loss of human life. It may include thunder, lightning, heavy rain, hail, damaging winds, or tornados.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- ☐ Refer to Lightning Activity Level chart found on page 76.
- ☐ Track incident progress and occurrences.
- ☐ Obtain reports of weather type and estimated proximity.
- ☐ Establish continuous monitoring of weather radar for movement and changes.
- ☐ Alert on radio channel 1 of severe weather type and impending operations shutdown.
- ☐ Initiate notification calls via the Incident Notification Chart.
- ☐ Severe weather including lightning will be monitored by radar programs;
  - Lightning within 5 miles of property will trigger upper valley hiking suspension.
  - Lightning within 3 miles of property will trigger lodge operations suspension.
  - Lightning within 2 miles of property will trigger full valley operations suspension.
  - Lightning within 1 mile of property will trigger base area operations suspension.

  If within operating hours and safe to do so, consult with IC to resume operations once severe weather has improved and threat has passed.
  - 30 minutes after last lightning strike within designated miles
  - At discretion of individual guides

INCIDENT COMMAND CHECKLIST:

- ☐ Update dispatch with pertinent information and additional requests.
- ☐ Activate Incident Command Center and positions as needed.
- ☐ Ensure Silverton San Juan Fire & Rescue if a severe weather is expected to strand guests for longer than 2 hours or if injury occurs (i.e. lightning strike impacting an individual).
- ☐ Confirm if there are affected and/or injured guests and employees.
- ☐ Ensure affected departments account for all employees.

- ❑ Consult Silver Cloud Lodge Management for guest recovery procedures as needed.

Lightning Activity Level Chart

The lightning activity level is a common parameter that is part of fire weather forecasts nationwide. LAL is a measure of the amount of lightning activity using values 1 to 6 where:

LAL	Cloud & Storm Development	Lightning Strikes/15 min
1	No thunderstorms.	0
2	Cumulus clouds are common but only a few reach the towering cumulus stage. A single thunderstorm must be confirmed in the observation area. The clouds produce mainly vapor, but light rain will occasionally reach the ground. Lightning is very infrequent.	1-8
3	Towering cumulus covers less than two-tenths of the sky. Thunderstorms are few, but two to three must occur within the observation area. Light to moderate rain will reach the ground, and lighting is infrequent.	9-15
4	Towering cumulus covers two to three-tenths of the sky. Thunderstorms are scattered and more than three must occur within the observation area. Moderate rain is common and lightning is frequent.	16-25
5	Towering cumulus and thunderstorms are numerous. They cover more than three-tenths and occasionally obscure the sky. Rain is moderate to heavy and lightning is frequent and intense.	>25
6	Similar to LAL 3 except thunderstorms are dry.	

In the case of Lightning Activity Levels (LAL) of 3 or greater, all hiking guests will be notified via radio. Dispatch will monitor lighting in our area.

Violence and Threats

Violence and Threats refers to the stated or perceived intention to use physical force intended to hurt, damage, or kill someone or something, or the physical behavior resulting from such intention.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

- Track incident progress and occurrences.
- Restrict radio traffic to emergency communication as necessary.
- Initiate incident notification calls via the Incident Notification Chart.
- Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMANDER CHECKLIST:

- Facilitate needs of law enforcement.
- Ensure San Juan County Sheriff is notified if applicable.
- Update dispatch with pertinent information and additional requests.
- Activate Incident Command Center and positions as needed.
- Ensure accounting for all employees.
- Confirm if there are affected and or injured guests and employees.
- Consult Silver Cloud Lodge management for guest recovery procedures as needed.

ALL EMPLOYEE CHECKLIST:

- Determine nature of threat and required assistance.
- Control access to affected area.
- Facilitate needs of law enforcement.
- Only attempt to intervene in a manner consistent with Lodge policies.
- Remember that your personal safety is the first priority.

Water Line Break

A water line break usually results from a hole or crack that has developed in a water pipe. A break of any size can impact domestic water supply or any other water source that serves resort operations.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO				
2. Lodge Manager				
3. Assistant Lodge Manager				
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Lead Guide				
2. Assistant Guide				

DISPATCH CHECKLIST:

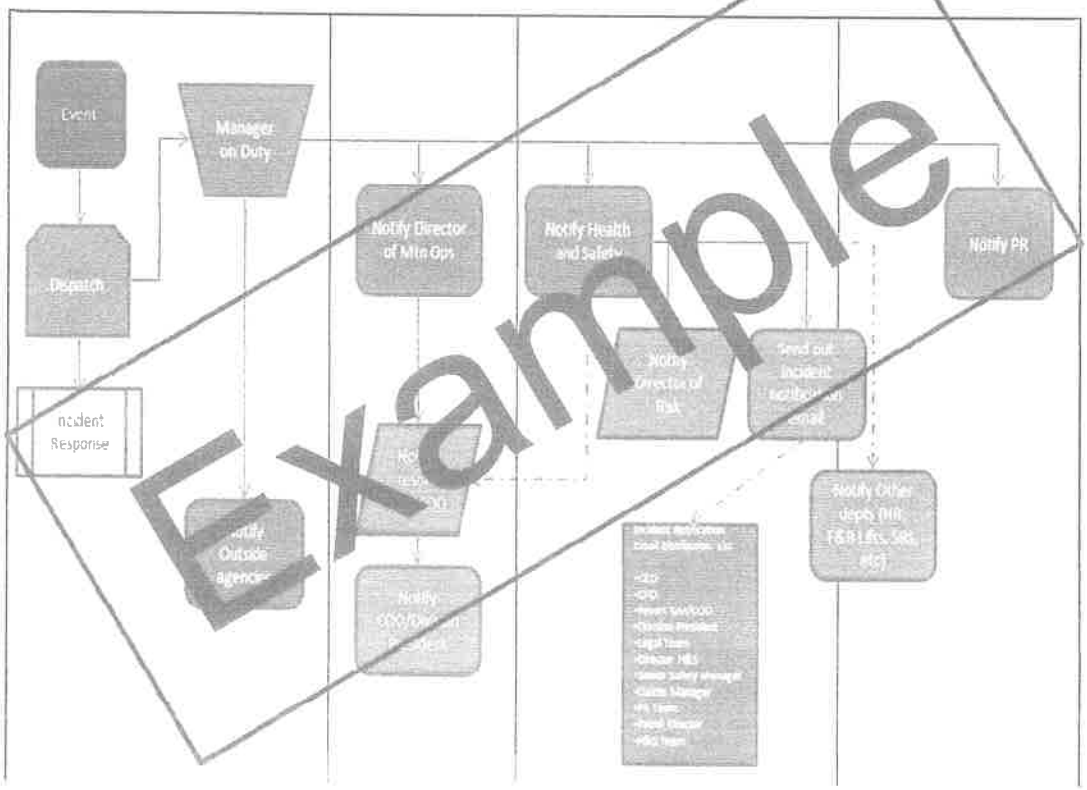
- ☐ Track incident progress and occurrences.
- ☐ Initiate notification calls via the Incident Notification Chart
- ☐ Do not discuss the incident with media or guests. Refer any questions to the Lodge Manager.

INCIDENT COMMANDER CHECKLIST:

- ☐ Confirm the shut-off of water supply above and below the break.
- ☐ Ensure that the area is closed off and/or secured.
- ☐ Confirm if there are affected and/or injured guests and employees.
- ☐ Update dispatch with pertinent information and additional requests.
- ☐ Identify progressive hazards; refer to Flood and/or Mudslide sections if needed.
- ☐ Communicate with all managers of any affected facilities.
- ☐ Activate Incident Command Center and positions as needed.
- ☐ Consult Silver Cloud Lodge management for guest recovery procedures as needed.

Silver Cloud Lodge Emergency Contacts

Incident Notification Chart



Incident Command Contacts

Individual	Call Sign	Radio Channel	Office Phone	Cell Phone
COO TBD	1	1	TBD	TBD
Lodge Manager TBD	2	1	TBD	TBD
Assistant Lodge Manager TBD	11	1/7	TBD	TBD
Lodge Chef TBD	10	1	TBD	TBD
Maintenance Manager TBD	4	1	TBD	TBD

Department Contacts

Individual	Office Phone	Cell Phone
Building Maintenance TBD	**TBD**	**TBD**
Fleet/Vehicle Maintenance TBD	TBD	TBD
Food and Beverage TBD	TBD	TBD
Grooming/Trails TBD	TBD	TBD
Lodging TBD	TBD	TBD
Transportation TBD	TBD	TBD

Outside Agency Contacts

Agency	Primary Phone	Secondary Phone
EMERGENCY	911	-
ALS/Ambulance		
San Juan County Coroner		-
San Juan County Sheriff		
X Propane		-
Silverton San Juan Fire & Rescue		
San Juan County Public Health & Human Services	970-387-0242	
San Juan Basin Public Health		-
Colorado Department of Public Health		
Colorado Highway Patrol		
CDOT Region 5		-
Mercy Hospital Durango	970-247-4311	-
Silverton Medical Clinic	(970) 387-5114	-
OSHA Regional Office		-
Federal Emergency Management Agency	(202)646-2500 General Operator	303-235-4800

Silverton Medical Rescue	(970) 387-5531	-
Servpro		-
National Weather Service		-
USDA Forest Service	(800)832-1355 National Headquarters	
CAIC		
Air Ambulance Service		
Poison Control Center	(800)222-1222 National Line	-
San Juan County Animal Services	(970)387-5531 San Juan County Sherrif	(303)297-1192 Colorado Parks and Wildlife, Denver

Incident Command Team Checklists

Checklists have been created to establish clear responsibilities of each ICT member. Each team member shall be trained on the responsibilities outlined on the checklist prior to an emergency response situation. Individuals may fill one or more positions.

Position Assignments

Position	Primary	Secondary	Alternate
Public Relations	TBD	TBD	TBD
Liaison	TBD	TBD	TBD
Safety	TBD	TBD	TBD
Operations	TBD	TBD	TBD
Logistics	TBD	TBD	TBD

Position Checklist: Incident Commander

Assigned to: Position may vary; refer to specific incident plan. Manager on Duty may also be responsible.

General Duties:

- Serve as Incident Commander in charge of the ICT.
- Manage and coordinate incident response by enacting and overseeing the ERP.
- Develop strategies and approve plans.

Activation Checklist

☐ Enact and oversee the ERP as related to the incident
☐ Identify and establish roles of personnel in the ICT using the incident command structure; ensure that ICT check-in procedure is established immediately
☐ Set up your workstation and review your position responsibilities
☐ Determine your resource needs such as a computer, phone, plan copies and other reference documents
☐ Have Dispatch establish and maintain a log that chronologically describes significant actions
☐ Obtain a briefing from all involved and responding parties on the extent of the emergency
☐ Activate full or partial ICT depending on the scope of the incident
☐ Ensure that the ICT is properly set up and ready for operations
☐ Brief staff and executives as required
☐ Direct activation of the incident notification tree to provide emergency instructions

Deactivation Checklist

☐ Contact involved agencies and/or individuals and notify them when deactivation of the ICT will take place
☐ Gather all reports and documents and review for thoroughness.
☐ Ensure that section personnel complete the following:
☐ Complete final reports as needed
☐ Conduct an incident review to evaluate success and opportunities
☐ Maintain appropriate reports, maps, and logs
☐ Deactivate each section as appropriate
☐ Proclaim termination of the incident response and proceed with recovery operations, if appropriate
☐ Schedule Incident Review

Position Checklist: Public Relations Officer

General Duties:

- Serve as the central operations point for all media releases and internal communication.
- Prepare and disseminate incident public information – both internal and external.
- Establish regular communication with ICT and with other agencies involved in the incident response (i.e. Police and Fire Departments, etc.).
- Keep the public informed on a timely basis during potential and actual incidents.
- Maintain a relationship with the media representatives and hold press conferences as required.
- Address all media inquiries and rumors.
- Manage social media.

Activation Checklist

- ☐ Check in upon arrival at the ICT
- ☐ Refer to the ERP
- ☐ Set up your workstation and determine your resource needs such as a computer, phone, and plan copies
- ☐ Establish and maintain a log that chronologically describes your actions taken during each operational period
- ☐ Determine staffing requirements and make required personnel assignments for the Public Information function as necessary

Operational Checklist

- ☐ Act as primary spokesperson for the incident. Be the liaison / coordinator between the media and resort management
- ☐ Implement and maintain an overall information release program ensuring internal contact locations have appropriate information for inquiring guests
- ☐ Establish necessary contacts with the media (newspaper, radio and television)
- ☐ Obtain COO approval for media releases
- ☐ Gather and disseminate public instruction, warnings and announcements, including warnings about unsafe areas, structures and/or facilities; coordinate with other communications systems to issue warnings
- ☐ Advise COO of all unusual requests for information and of all major critical or unfavorable media comments/rumors; recommend procedures or measures to improve media relations

- ☐ Coordinate press conferences as needed
- ☐ Publicize an official list of assistance centers and shelter sites
- ☐ Ensure that file copies are maintained of all the information released
- ☐ Set up briefing areas and sites for media and satellite vehicles

Deactivation Checklist

- ☐ Prepare final news releases and advise media representatives of points-of-contact for follow-up stories
- ☐ Ensure copies of all logs generated during the situation are submitted
- ☐ Provide input for the post-incident evaluation

Position Checklist: Liaison Officer

Act as the main point of contact for all outside agencies excluding media.

Activation Checklist

☐ Check in upon arrival at the ICT
☐ Refer to ERP
☐ Determine your resource needs such as a computer, phone, plan copies and other reference documents
☐ Establish a log to chronologically describe your significant actions during each operational period

Operational Checklist

☐ Coordinate liaison to outside agencies and resources per the communication checklist
☐ Be prepared to re-locate to outside agency ICT
☐ Contact agency representatives already on-site and coordinate their needs
☐ Brief Agency Representatives on current situation, priorities and plans; provide briefings as necessary
☐ Request Agency Representatives maintain contact with their agency and obtain situation information that may be useful
☐ Respond to requests from ICT Staff for agency information and direct those requesting information to appropriate Agency Representatives
☐ Assist the Incident Commander in conducting regular briefings for the Agency Representative group
☐ Maintain a log, noting messages received, decisions made, actions taken and personnel on duty

Deactivation Checklist

☐ Contact involved agencies and/or individuals and notify them:
- When deactivation will take place
- Whom they should contact (include contact number) for the completion of ongoing actions or new requirements

☐ Ensure copies of all logs generated during the operation are submitted
☐ Provide input during the incident review
☐ Release agency representatives who are no longer required in the ICT when authorized by the Incident Commander

Position Checklist: Safety Officer

Assigned to: Health & Safety Manager, Director Skier Services

General Duties:

- Monitor activities in the ICT and promote a work environment that is conducive to safe operations.
- Oversee incident site areas for safe operations, closures, evacuations, barricades, etc.
- Observe group interaction and individual performance to ensure that work related stress does not adversely affect the performance of the staff.

Activation Checklist

☐ Check in upon arrival at the ICT
☐ Set up your workstation and review your position responsibilities
☐ Determine your resource needs such as a computer, phone, plan copies and other reference documents
☐ Establish a log that chronologically describes your significant actions taken during each operational period
☐ Develop Safety Messages throughout the incident

Operational Checklist

☐ Obtain a briefing from the Incident Commander
☐ Determine the scope of on-going operations
☐ Evaluate conditions and advise the Incident Commander of any condition and actions which might result in injuries
☐ Coordinate with corporate legal to advise the Incident Commander on emergency rules and regulations and laws required for acquisition and/or control of critical resources
☐ Maintain a file of injuries and illness associated with guests and 90iresort personnel as well as witness statements on injuries
☐ Ensure copies of all logs generated during the operation are submitted
☐ Provide input for the incident review

Deactivation Checklist

☐ Ensure copies of all logs generated during the operation are submitted
☐ Provide input during the incident review

Position Checklist: Operations Officer

General Duties:

- Coordinate staff, resources, and response to incident per the ERP and direction of the Incident Commander.
- Evaluate and act on operational information.
- Prioritize response needs and resources.
- Determine needs and request more resources and coordinate with field operations when necessary.
- Coordinate with Safety Officer to manage and mitigate risk.

Activation Checklist

☐ Check in upon arrival at the at ICT
☐ Refer to the ERP
☐ Set up your workstation and review your position responsibilities
☐ Determine your resource needs such as a computer, phone, plan copies and other reference documents

Operational Checklist

☐ Establish communications with the affected areas. Activate appropriate departments to support operations
☐ Identify key issues currently affecting the Operations Section; meet with section personnel and determine appropriate section objectives for the operational period
☐ Monitor and track which resources are deployed, requested and denied; coordinate needs with the Logistics Officer

Deactivation Checklist

☐ Transfer ongoing missions and/or actions to appropriate full-time staff
☐ Ensure copies of all logs generated during the operation are submitted
☐ Provide input during the incident review

Position Checklist: Logistics Officer

General Duties:

- Manage the overall resource and supply requests for incidents.
- Request the procurement of personnel, materials, equipment and facilities.

Activation Checklist

☐ Check in upon arrival at the ICT
☐ Refer to the ERP
☐ Set up your workstation and review your position responsibilities
☐ Determine your resource needs such as a computer, phone, plan copies and other reference documents

Operational Checklist

☐ Request departments as needed to support logistics needs
- Transportation
- Purchasing and Supply
- Facilities
- Food and Beverage
- Communications / IT
- Medical

☐ Assist the Planning Section in the development of the ICT Plan
☐ Evaluate expenditures with Finance for logistical requirements
☐ Ensure that all requests for facilities and facility support are addressed
☐ Determine if requested types and quantities of supplies and material are available in inventory
☐ Provide food, utilities and shelter for all ICT staff and volunteers as required; assist field level with food services at camp locations as requested
☐ Prepare and process administrative paperwork associated with rental and supply contracts; forward the information to the Finance Section
☐ Ensure that utilities and restrooms are operating properly
☐ Share status information with other sections as appropriate

Deactivation Checklist

☐ Contact involved agencies and/or individuals and notify them:
- When deactivation will take place
- Whom they should contact (include contact number) for the completion of ongoing actions or new requirements

☐ Provide input during the incident review
☐ Ensure logs generated during the operation are submitted

Department Roles and Responsibilities

Roles have been selected for each department based upon their unique capability to fill those responsibilities. Some of the assigned functions may require cooperation with groups and agencies from outside Silver Cloud Lodge.

The primary function of the department is described in detail for specific departments identified in Incident Action Plans.

Upon activation of Incident Command, all employees should return to their department staging location (office, building, etc.) and await further instructions or mobilization from the Incident Commander.

Department: Building Maintenance

Emergency Responsibilities:

Building access Hazard evaluation Transport (pickups)
Domestic water systems operations Utility locations and shutoffs

Outside Agency Interface:

Silverton San Juan Fire & Rescue
Propane Service Provider

Equipment Mobilization:

Lodge Operations radios
Generators
Electric/gas portable heaters
Other tools & equipment

Job Descriptions/Function:

- The manager may be called upon to interpret building technical plans, stabilization strategies, and advising of outside agencies.
- Staff shall be available to assist in vehicle staging and most other capacities where more people are needed.

Action Plan:

- ☐ Locate and isolate secondary electric power/ natural gas
- ☐ Operate domestic water systems for fire truck filling, etc.
- ☐ Assess current status of daily routine within notification of major emergency
- ☐ Assess available personnel; if possible, minimize interruptions of daily routine
- ☐ Locate and recall personnel
- ☐ If authorized by Incident Commander, call in off duty operators
- ☐ Track names and destinations of personnel as they are dispatched to various locations

Department: Fleet/Vehicle Maintenance

Emergency Responsibilities:

Transportation of personnel and equipment Spill Response
Vehicle and equipment repair

Outside Agency Interface:

San Juan County Sheriff
CDOT
CO Highway Patrol
Outside vendors

Equipment Mobilization:

Radios
Traffic control barriers
Traffic control signs
Vehicles and Heavy Equipment

Job Description/Function:

- The Fleet Maintenance/ Vehicle Maintenance department will help in any way the Incident Commander needs as per the event.
- The department may be asked to alter or reduce their normal operations; the request will come from the Incident Commander.

Action Plan:

1. Assess current status of daily routine within notification of major emergency
2. Assess available personnel; if possible, minimize interruptions of daily routine
3. Gather available personnel in one location and record names
4. Track names and destinations of personnel as they are dispatched to various locations

Department: Food & Beverage

Emergency Responsibilities:

Food & beverage support to response crews and/or guests Shelter for response crews

Outside Agency Interface:

San Juan Basin Environmental Health
San Juan County Sheriff
Silverton San Juan Fire & Rescue
CDPHE

Equipment Mobilization:

Food service transport containers
Food service cooking and sanitizing equipment Restrooms

Job Description/Function:

The Incident Commander will assign Food & Beverage a given role as it relates to the event.

Action Plan:

- Assess current status of daily routine within notification of major emergency
- Assess available personnel; if possible, minimize interruptions of daily routine
- Assess available water and food resources
- If authorized by Incident Commander, call in off duty operators
- Gather available personnel in one location and record names
- Track names and destinations of personnel as they are dispatched to various locations

Department: Grooming/Trails

Emergency Responsibilities:

In-Valley transportation
Heavy equipment operations
Trail crew/ teams

Outside Agency Interface:

Silverton San Juan Fire & Rescue

Equipment Mobilization:

Snowcats
Heavy equipment
Radios
Pickups
Chainsaws/ hand tools
Forest fire tools

Job Description/Function:

- The primary function of the Grooming or Trails department is the transport of groups of people and equipment. The department's skill may also be needed to operate heavy equipment, chain saws, etc.
- If a vehicle is activated for operation, the operator will note the time of activation and deactivation.

Action Plan:

- Assess current status of daily routine within notification of major emergency
- Assess available personnel; if possible, minimize interruptions of daily routine
- Assess available equipment and potential needs of incident response
- If authorized by Incident Commander, call in off duty operators
- Gather available personnel in one location and record names
- Track names and destinations of personnel as they are dispatched to various locations

Department: Lodging

Emergency Responsibilities:

Shelter for response crews
Shelter for impacted guests
Supplemental transportation of guests or employees

Outside Agency Interface:

Silverton San Juan Fire & Rescue
San Juan County Sheriff

Equipment Mobilization:

Onsite lodging quarters
Courtesy shuttles to Silverton

Job Description/Function:

- The Incident Commander will assign Lodging a given role as it relates to the event.
- Provide lodging and shelter in place for emergency workers, employees, and stranded guests.

Action Plan:

- Unlock rooms and quarters as needed
- Inventory lodging supplies in preparation for use
- Stage courtesy shuttles for transport readiness
- Assess current status of daily routine within notification of major emergency
- Assess available personnel; if possible, minimize interruptions of daily routine
- If authorized by Incident Commander, call in off duty operators
- Gather available personnel in one location and record names
- Track names and destinations of personnel as they are dispatched to various locations

Department: Transportation

Emergency Responsibilities:

Roadway transportation
Shuttle operations
Shuttle crew/ teams

Outside Agency Interface:

Silverton San Juan Fire & Rescue
Colorado Department of Transportation

Equipment Mobilization:

Shuttles

Job Description/Function:

- The primary function of the Transportation department is the transport of groups of people and equipment.
- If a vehicle is activated for operation, the operator will note the time of activation and deactivation.

Action Plan:

- Assess current status of daily routine within notification of major emergency
- Assess available personnel; if possible, minimize interruptions of daily routine
- Assess available equipment and potential needs of incident response
- If authorized by Incident Commander, call in off duty operators
- Gather available personnel in one location and record names
- Track names and destinations of personnel as they are dispatched to various locations

Training and Review

This document outlines actions that Silver Cloud Lodge Leadership and employees may take in the event of an emergency. The ERP serves a guide for lodge management and staff to effectively manage the response to the event or incident. Actual circumstances may require actions that are varied from or not covered in the ERP.

Leadership and employees will be trained and review their Emergency Response Plan on a seasonal basis. Below are training and review requirements.

- Employees should be trained to their EAP for the facilities they work in
- Lodge Leadership will review the local ERP on a seasonal basis
- Before the start of the winter and summer operating seasons lodge leadership will conduct a Table Top Exercise to review and practice ERP protocols

Lodge personnel are encouraged to review ERP protocols with local Emergency Response Government agencies and participate in multi-agency Table Tops and Scenario based training.

Silver Cloud Lodge Emergency Response Plan Elements

Incident Action Plans

Incident Action Plans (IAP) are the heart of the ERP and provide clear, concise guidance for Response teams including an Incident Command team to help organize a potentially chaotic situation. Another key element of the ERP is the establishment of specific roles of individuals and departments during an emergency.

Key programs such as the IAPs are located in the beginning of this plan so that they may be quickly referenced in an emergency situation. Key supporting documentation is located in the various appendices at the end of this document.

Emergency Action Plans (EAP)

In addition to the ERP, occupied Silver Cloud Lodge facilities will have individual facility action plans per location. EAPs are designed to provide all employees guidance during the first few minutes of an emergency. If the situation is expected to escalate, ERP procedures shall be implemented by management. EAP include basic response guidance and should be well understood by all employees. EAP maps should be posted in areas that are readily accessible to employees such as break rooms and at time clocks. Employees will be trained to their facilities' emergency procedures annually and if a procedure or infrastructure changes.

General Employee Procedures for Emergency Response

All Silver Cloud Lodge Colorado employees should be trained to take the following steps if they witness or affected by an emergency event:

1. Ensure personal safety
2. Ensure guest safety
3. Contact Dispatch
4. Call 911 if unable to reach Dispatch
5. Follow incident-specific instructions
6. Do not discuss the incident with media or guests; refer questions to the Lodge Manager
7. Await further instructions from leadership

Employees should also be trained to relevant specific incident plans such as Bomb Threat and Employee Violence Procedures.

Incident Action Plans

Effective incident management is directly related to the organization's ability to execute an Incident Action Plan. Draft IAPs have been provided for many incidents, but must be further developed and specialized to the individual resort.

IAP development should include the following elements:

1. Situational Analysis including Impact Analysis, Damage Assessment, and Needs Assessment
2. Develop Incident Objectives* and Strategy
3. Conduct a Planning Meeting
4. Prepare IAP that takes advantage of internal and external resources
5. Brief leaders on incident objectives and operational tactics
6. Execute IAP tactics

*COO or Manager on Duty will define the objectives for the specific incident and delegate to the Incident Commander.

Completed IAPs are located in the beginning of this plan so that they may be quickly referenced in an emergency situation.

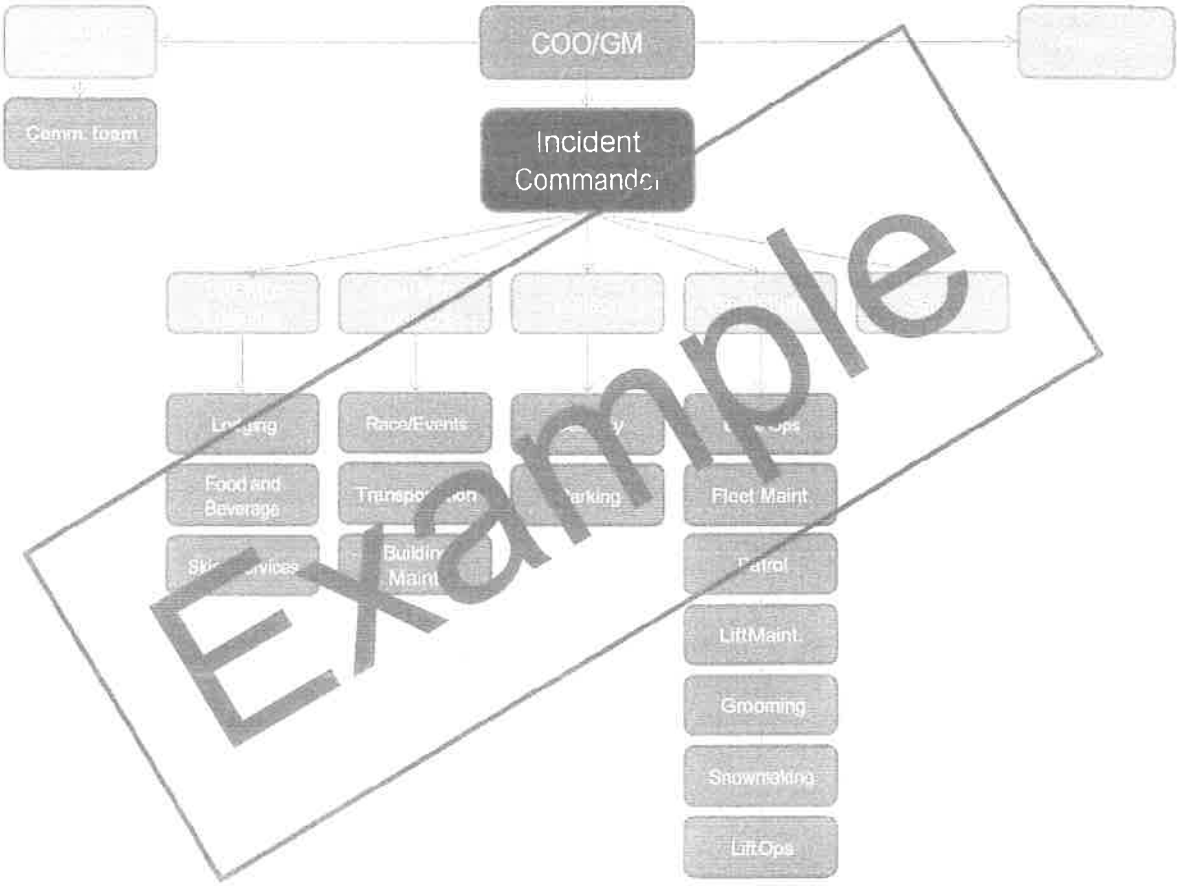
Incident Command Team

An Incident Command Team (ICT) is a systematic tool used for the command, control, and coordination of emergency response. The purpose of the incident command team is to create clear structure and organization so Silver Cloud Lodge can respond to emergencies effectively.

The Incident Commander determines if an event or incident merits the activation of an Incident Command Team. The Lodge COO can also initiate the ICT for an event or situation as needed. Each team member will be responsible for specific duties related to their functional areas. The team is expected to work together to ensure effective management of Silver Cloud Lodge's resources in response to emergencies.

Depending on the severity of the incident the size of the Incident Command Team may vary.

Incident Command Team Structure



Activating the ICT

Under the direction of the IC, Dispatch will notify staff of ICT activation. Upon activation, designated staff is to report to their respective ICT leader for further briefings and instructions. Circumstances where ICT activation may exist include:

- A Unified Command or Area Command is established for a large incident.
- The Incident Commander indicates an incident could expand rapidly or involve cascading events.
- When an incident occurs that is expected to build over time, such as wildfire.
- A similar incident in the past required ICT activation.
- The COO directs that the ICT should be activated.
- An emergency is anticipated e.g. wildfire, river flooding, hazardous weather, etc.
- In preparation for planned events.

Personnel on the ICT should allow for rest time in order to remain effective. As personnel change out, it is critical to brief the next person in the role regarding the incident and actions taken before leaving.

Incident Command Headquarters

Depending on the incident severity, Silver Cloud Lodge management may establish an Incident Command Headquarters (ICH). The primary function of an ICH is to coordinate activities above the field level, provide structure for business continuity, and to prioritize demands for competing resources.

Incident Command Headquarters Locations

Location 1	Silver Cloud Lodge Dispatch
Location 2	Employee Housing Building (Base Area)

Deactivating the ICT

Often the ICT must remain activated after an emergency or disaster occurs to work through the recovery process. The decision to deactivate the ICT will be made by the Incident Commander in conjunction with COO and other agencies. Deactivation may occur in phases.

After the ICT has been deactivated, an Incident Review will be conducted following incident resolution.

Incident Staging Area

Incident Staging Areas will be assigned and used at the discretion of the Emergency Command Team for the staging of media, medical responders, guests, etc.

Location 1	Base Area Parking Lot
Location 2	Lot at intersection of FSR 821/US 550

APPENDICES

Appendix A: Silver Cloud Lodge Avalanche Safety Plan

Appendix B: Draft Incident Action Plan

Incident Name

Brief definition and/or examples.

Incident Commander	Call Sign	Radio Channel	Primary Phone	Secondary Phone
1. COO	#	#	(###)###-####	(###)###-####
2. Alternate Senior Leader	#	#	(###)###-####	(###)###-####
3. Alternate Senior Leader	#	#	(###)###-####	(###)###-####
Site Leader	**Call Sign**	**Radio Channel**	**Primary Phone**	**Secondary Phone**
1. Applicable Department Leader	#	#	(###)###-####	(###)###-####
2. Applicable Department Leader	#	#	(###)###-####	(###)###-####

DISPATCH CHECKLIST:

- ☐ Track incident progress and occurrences.
- ☐ Restrict radio traffic to emergency communication as necessary.
- ☐ Initiate notification calls via the Incident Notification Chart.
- ☐ Do not discuss incident with media or guests. Refer any questions to the Lodge Manager.
- ☐ Additional steps as necessary to be listed here.

INCIDENT COMMAND CHECKLIST:

- ☐ Ensure (applicable outside agencies) are notified.
- ☐ Update dispatch with pertinent information and additional requests.
- ☐ Confirm if there are affected and/or injured guests and employees.
- ☐ Activate Incident Command Center and positions as needed.
- ☐ Ensure Communications has been notified and has a statement and communication strategy.
- ☐ Ensure affected departments account for all employees.
- ☐ Consult Silver Cloud Lodge Management for guest recovery procedures as needed.
- ☐ Additional steps as necessary to be listed here.

OTHER INVOLVED DEPARTMENTS CHECKLIST:

- ☐ Account for all employees.
- ☐ Additional steps as necessary to be listed here.

Appendix C : Air Ambulance Landing Zones

SILVER CLOUD LODGE AIR AMBULANCE LANDING ZONES

Dispatch-

LZ coordinator will be on. Silver Cloud Lodge channel 1 with repeater RX Freq=

153.230 RX Tone=179.9 TX Freq=158.370 TX Tone=179.9

MAIN LANDING ZONES

TBD

ALTERNATE LANDING ZONES

TBD

Proposed Silver Cloud Lodge/PUD, near Highway 550 at Chattanooga, San Juan County, CO.

Notes Prepared by LMA from July 30, 2024 Meeting with SILVERTON SAN JUAN VOLUNTEER FIRE DEPARTMENT.

Location: Fire Station in Silverton CO.
Present: Fire Chief Gilbert Archuleta, Fire Department Staff Jerry Chambers and Clark Damron, Project Applicant Colby Barrett, Project Consultant Lisa Adair.

Gilbert Archuleta (GA) has an abbreviated Preliminary Plan application binder and full set of plans.
GA asked about the water source and storage (water availability/capacity for fire-fighting).
We discussed an overview of the proposed improvements, the proposed buildings, the proposed underground improvements, and the proposed summer-only camping.
We discussed that the proposed improvements are going to be "fully sprinkled."
GA recommended carbon monoxide detectors, and he noted there was a (fire department emergency) call about that (carbon monoxide) last year on Red Mountain Pass.
GA recommended PPE and training for the (proposed on-site future lodge/backcountry) staff and a fire safety class.
GA suggested considering portable carbon monoxide detectors, with logs (written record) kept on the battery changes, as well as an evacuation plan if there's a carbon monoxide incident.
It was discussed that the Fire Department plans to take (one or more) fire truck(s) up to the (proposed lodge) site to try out Mill Creek Road.
There is a (temporary construction) gate (related to the Voluntary Clean Up VCUP construction at the existing mine/proposed lodge site in Mill Creek).
The three Fire Department staff persons present at the meeting were given the code number for the gate, which was written down for GA.
GA and Clark Damron (CD) asked about being able to tie into the sprinklers, and discussed "dry" sprinkler systems.
It was discussed that the campground will have a dugout (underground utility structure) with a fire hose system.
An annual training and site check was discussed.
Fire extinguishers were discussed.
Providing a "bladder bag" full of water for each camp fire was discussed.
It was discussed that the large project application is posted on the San Juan County website.
On-site capacity of water storage is currently being designed; the 30 gallons per minute existing mine adit flow rate was discussed, along with the on-site pond storage volume, and underground water storage.
The underground fire plan email and the wildfire mitigation plan in the binder were briefly discussed.
It was discussed that proposed propane tanks are included in the plans for this project.
It was discussed that this is the Preliminary Plan stage and that the next step is Final Plan.
The persons present discussed continuing to work together on this project, towards a goal that this development should be maximizing self-sufficiency in regards to on-site fire-fighting capability.

This document was prepared using the notes handwritten by LMA during the meeting 5:30 PM to 6:40 PM on July 30, 2024.

Proposed Silver Cloud Lodge/PUD, near Highway 550 at Chattanooga, San Juan County, CO.

Abbreviated Notes from July 30, 2024 Meeting with SILVERTON MEDICAL RESCUE (Ambulance, EMS, Search & Rescue).

Location: Carriage House in Silverton CO.
Present: Silverton Medical Rescue Director Tyler George, Project Applicant Colby Barrett, Project Consultant Lisa Adair.

Tyler George (TG) was shown where to locate the latest application for the project, posted online on the San Juan County Colorado website. He had already received a link to that and had reviewed it in part.
TG was shown the printed copies of the draft Emergency Operations Plan, and the April 2024 Avalanche Safety Plan, which we brought to the meeting.
TG noted that he has concerns about avalanches, ingress, and egress, and he reminded Colby Barrett (CB) and LA that there is no guarantee of emergency services, and that TG might need to have avalanche hazards mitigated before Search & Rescue (SAR)/Ambulance/EMS will enter the site.
CB mentioned that the plan is that the use of the site/structures would be shut down if hazards were too high or Highway is going to close due to avalanches (if hazard/closure is known in advance, as opposed to a plan to just continue occupying the site and sheltering in place).
CB and TG discussed the self-sufficiency measures planned for the site.
CB is expecting an estimated 6-12 Helitrax trips per year, and guest site occupancy was discussed.
CB and TG discussed the expected types/qualifications of on-site staff, and that the site will be "guided-only" in the winter, with guiding for some activities in the summer.
TG and CB discussed that the project needs to be envisioned as if Search and Rescue, Ambulance, and EMS do not exist.
TG noted that lightning is also a hazard that could possibly be a no-response for SAR/EMS.
The proposed Silver Cloud Lodge/PUD project was compared/contrasted to the existing Opus Hut, the access to the Opus Hut, and the avalanche hazards on the way to the Opus Hut.
It was discussed that guides reduce risks but using guides does not eliminate all risks, and that people are already out there unguided at present.
Discussion occurred regarding CDOT, coordination with CDOT, recent coordination with Julie Constan, of CDOT, and that CDOT might end up deciding at times to utilize Helitrax to mitigate the avalanche hazards along Highway 550.
CB and TG looked over the Appendix D (page 33) of the Avalanche Safety Plan dated April 2024.
CB's on-site staff might be prevented from helping with an emergency, in the event of a SAR/EMS arrival on-site (because the staff would not be pre-certified by SAR training, insurance, etc.).
TG and CB discussed the staff joining Search and Rescue in advance, then they can probably be utilized in the event of an emergency.
TG mentioned an MOU that was offered to another local group, and that an MOU in advance might be helpful for this site.
Test runs for EMS (personnel practicing how to handle possible emergencies on-site) and possibly developing an MOU for this site/project were discussed.
A discussion occurred regarding proposed camping and the proposed buildings.
TG reminded CB that it would be recommended that staff should follow good protocol like travel in pairs, and using beacons etc.
TG noted if someone has a stroke etc. on-site, no EMS response is guaranteed.
Discussion occurred regarding Helitrax and MBR and their protocol/variable risk tolerance levels for deciding when to fly or not fly in blizzard conditions.

Proposed Silver Cloud Lodge/PUD, Abbreviated Notes from July 30, 2024 Meeting with SILVERTON MEDICAL RESCUE (Continued).

CB suggested writing a protocol for/with TG for who calls which helicopter company, chain of command/phone tree of incident protocol, who gets called first, etc.
CB brought up that any ATV use at this site is only ATVs for employee/utility use (to note that guest ATV use/accidents/emergencies are not anticipated).
TG noted that 2 people injured is his agency's threshold/limit for their maximum (maxed-out agency resources). CB and TG discussed the option that if Lodge staff were SAR trained, that might be able to extend SAR capacity to respond.
TG mentioned the other local-area mutually-responding agencies (like La Plata County).
Lisa Adair (LA) asked TG about the details of EMS communication/limitations in that Chattanooga area.
TG mentioned what equipment/parts/systems are being used in that area.
Starlink, satellite phones, and landline phone were discussed and that those 3 would probably work well.
It was discussed to look into installing a landline at the Bonanza Boy Mill Site (BBMS), and that the nearby Artist Cabin probably has a landline.
TG and CB discussed various telecommunications equipment and parts, and how SAR could use the communication infrastructure installed by CB as part of their operations in the area if desired.
TG has a pre-plan binder, for high-traffic areas in the County (which specifies a plan, written in advance, to follow, if there is an emergency at that location).
A discussion occurred of what various emergency incidents might occur in summer and in winter, and doing test runs in advance between SAR and Lodge staff.
The proposed via ferrata was discussed and the construction/operation of that has well-regulated ASTM safety requirements. TG noted no major concerns for the via ferrata.
A discussion occurred regarding closing the lodge during a highway closure as opposed to shelter-in-place. CB noted that they'll usually know a little time in advance and evacuate the lodge beforehand versus having guests shelter-in-place.
The 4:15 PM meeting concluded at approximately 5:15 PM.

Proposed Silver Cloud Lodge/PUD, near Highway 550 at Chattanooga, San Juan County, CO

Abbreviated Notes from August 6, 2024 Meeting with SAN JUAN COUNTY SHERIFF and San Juan County Building Inspector.

Location: San Juan County Courthouse in Silverton, CO
Present: Sheriff Bruce Conrad, County Building Inspector Bevan Harris, Applicant Colby Barrett, Project Consultant Lisa Adair, Avalanche Consultant Dan Rohn (via zoom). County Administrator Willy Tookey also joined our meeting in person near the end of the meeting.

Sheriff Bruce Conrad (BC) received a copy of Rebecca Hodgett's report, which summarized a local peer review of the project Avalanche Safety Plan.
BC asked about why the avalanche experts are international, and CB noted that these experts were chosen based on their qualifications, and that they met and/or discussed the project with local experts as well as CDOT and CAIC and made multiple site visits over 2 years as part of their work.
BC mentioned he likes the project concept, and was previously part of the local Avalanche/Search and Rescue team, and the Silverton Avalanche School and his current concern is Public Safety.
Rebecca Hodgett's peer review of the project Avalanche Safety Plan was discussed, and BC appreciated a local expert familiar with the area providing feedback and review.
Sheriff (BC) asked about Bec's report mentioning avalanche (hazard level) ratings, if they are CAIC levels versus site-specific.
Dan Rohn (DR) clarified there will be a site forecaster on-site who will be rating certain parts of the site for certain uses whereas CAIC is more general and geared towards recreation.
BC asked about plowing versus grooming of the access road to the proposed lodge.
Colby Barrett (CB) explained about utilizing enclosed travel/snowcats, with safety gear.
Sheriff (BC) asked how many people (occupancy of site/lodge). CB estimated a maximum of 1 on-site resident forecaster + 11 rooms x up to 4 people per room = approximately 44 guests (max), but typically less.
Sheriff (BC) asked about how limited power might limit occupancy, and CB noted there will be hydro and solar with backup. The Sheriff (BC) noted that it can be quite windy in the Mill Creek area. BC and CB discussed relatively windy conditions in that Mill Creek "cirque."
DR compared and contrasted this project to the Camp Bird Mine Road that Helitrax monitors and the different purposes of mitigation (guests and recreation, versus a business mining operation).
Sheriff (BC) asked about any proposed security that may be planned for the on-site. CB says he'd like to talk to the Sheriff (BC) about that, and is aiming for self-sufficiency, including food and water stored on-site, and should self-sufficiency also extend to additional security measures and staff training.
CB says that the current Emergency Response Plan is a working draft. CB noted that the goal is self-sufficiency, in regards to medical, security, and fire, and that the Emergency Response Plan will continue to be developed in conjunction with input with local agencies like the Sheriff's Office.
Sheriff (BC) asked about any gate that might be proposed at/on Mill Creek Road.
CB explained possible future winter gating of Mill Creek Road, TBD by USFS, Sheriff (BC) and CB discussed the pros and cons, but it would need to go through USFS Travel Management Plan process which is scheduled for a couple of years from now.
CB described that for the meantime, transport of guests in the winter would primarily be via snowcats.

CB discussed with the Sheriff (BC) the land ownership boundaries and access.
CB showed the proposed wetlands enhancement area and that over the snow travel (like backcountry skiers that currently ski the area) would not present any problems to the wetland work, as the snow would protect the wetland work. CB described the project work of MSI, and BC reviewed the proposed stream restoration/wetlands enhancement plans.
BC expressed support for the project.
LA mentioned the proposed employee building, and the proposed emergency services station area at the employee housing/garage building, to be constructed close to the existing Artist Cabin.
BC mentioned he is a bit concerned about wildfire in general, and CB discussed the plans to utilize various fire-resistant building materials, and wildfire prevention defensible space guidelines.
Building Inspector Bevan Harris (BH) asked about the employees in the employee housing, potentially being cut off from the lodge by an avalanche on the Highway. CB noted that the forecaster staff has to be up at lodge in the winter (with guests 24-7 and overnight) at all times.
A brief discussion occurred regarding the potential of any mudslides in the Chattanooga area at/around near Highway 550.
Sheriff (BC) mentioned a nearby snow-bridge fatality, and to consider restricting access to that snow-bridge potential area during dangerous times of the year.
CB and DR said how the CDOT coordination (regarding the plans on how to coordinate avalanche mitigation) has been going well.
Willy Tookey (WT) arrived to sit in on the remainder of the meeting.
CB described how the mine site is being cleaned up, and it is capping (of the mine waste rock pile), not trucking it off-site (in response to Sheriff BC's question), and CB described that they (the project team) cannot build on any (environmental) "hot spots."
CB described that the VCUP (voluntary clean up of the existing Silver Crown Mine and mine waste rock pile at the site of the proposed future lodge) is ongoing.
Sheriff BC would like a site visit, but he's away during the Aug 14th BOCC site visit/meeting.
CB noted he could show the Sheriff the site and that the VCUP guys are typically on-site Monday through Thursday 8 to 4.
CB noted that the wall construction (the gabion walls which are capping the mine waste rock pile) is going well, and that those gabion walls are looking appropriate aesthetically.
BH asked about the (existing County/USFS/Mill Creek) road above (the proposed lodge area), and CB described that it is not going to be a part of the project. CB described the proposed road realignment (close to the lodge, providing an optional turn-around area for vehicles), that the USFS liked it, and that the public can decide to go up the (existing) steep County Road, or use the new turnaround (to return to Hwy 550 and the Muleshoe Curve).
It was discussed that the County Road and Bridge Department recently fixed the road at the Muleshoe Curve after a rainstorm, and the dual/shared jurisdiction of the road (County and/or USFS) was briefly discussed. LA asked the Sheriff (BC) about any history of crimes/law enforcement issues in that general area, such as speeding, etc. Sheriff (BC) noted some instances of vandalism (rocks thrown at windows of historic buildings), "smash and grab" (a laptop stolen from a parked vehicle), speeding, avalanche incidents (winter outdoor recreation persons in the Telescope avalanche area).
The upcoming tentative Board of County Commissioners (BOCC) meeting schedule was briefly discussed, primarily by LA and WT, as follows: there is a public hearing at 9:30 AM on 8/14/24, followed by a BOCC site visit to this (Proposed Silver Cloud Lodge/PUD) site at/around 10:30 AM

(and the Commissioners will probably carpool up to site, and will probably view the VCUP area as well).
The Building Inspector BH was asked if he has any additional questions, and he noted that the staff on-site is doing well, and BH (as part of the Fire Dept. in addition to the Building Dept.) is suggesting the use of fire-resistant cladding, fire mitigation, and that the project team should plan on fire (emergency/suppression) self-sufficiency.
CB noted that specific avalanche loads will dictate glass (window placement) versus concrete (wall construction) such as the lodge wall(s) which may be currently drawn as proposed glass on the Architects' plans.
The "dugout" proposed hydro house (to be built into the sloped ground between the lodge and the camping area) was discussed briefly, and its (design/construction will be somewhat) similar to a garage recently built on Ophir Pass, according to the Building Inspector (BH).
CB described the proposed avalanche mitigation/design at/around the lodge, the existing berms, avalanche fence, and coordinating the engineering design of those features versus aesthetics.
Building Inspector BH asked if the plan is to use only daytime avalanche explosives.
CB/BH briefly discussed related details including CDOT mitigation, the Howitzer, possible future CDOT Gazex, now versus the future, currently it'll be all helicopter, with a possible future avalauncher. The slide path across (the Mill Creek gulch) from the lodge was briefly discussed, as well as the proposed type of transport tracked vehicle (military-type snowcat).
The 3:30 PM meeting concluded at approximately 4:45 PM