off to provide segregation from the higher skilled skiers on *Schoolmarm* and *Endeavor*, both trails on Ranger are frequented by skiers/riders in much higher skill classes (going to *Diamond Back* and North Peak).

Finally, a sizeable (roughly 3.5 acres) beginner area is located at the Mountain House base. The Discovery double chairlift and four teaching conveyors service this teaching terrain.

2. North Peak

The summit of North Peak is 11,645 feet. This mountain offers skiers and riders long runs (some with moguls) with a variety of intermediate, advanced intermediate, and expert trails. North Peak is not directly accessible from the base areas and skiers and riders must descend the south side of Dercum Mountain to access both this area and The Outback (unless they take the Outpost Gondola from Dercum Mountain). The reader is referred to Figure 4.3.

Skiing and riding in this area is currently served by the Santiago Express and Wayback lifts. The Santiago Express terrain faces primarily north and northwest and consists of trails and gladed areas with skill classes ranging from intermediate to expert. The Wayback lift's primary purpose is to provide egress from the Outback. Although there is return skiing/riding on *Fox Trot*, *Anticipation* and *Spillway*, many of the users of these trails use them only for access to the Outback.

3. The Outback

The Outback Express top terminal is at 11,940 feet and offers skiers and riders intermediate through expert terrain. The Outback is home to excellent tree skiing and riding, as well as the North and South Bowls, which are accessible via hiking or the Outback Cat Shuttle (described in more detail below). The reader is referred to Figure 4.3.

The Outback lift services four traditional trails (including two with snowmaking), and gladed areas (on north, west and south aspects) which are used on a regular basis when snow conditions are suitable. Trail offerings fall into the intermediate to expert skill classes, with the developed trails in the intermediate to advanced intermediate skill classes.

Skiers and riders in the Outback are mostly concentrated on *Elk Run* due to its visibility and accessibility. Guests unload directly onto this trail and it is positioned under the lift line. The entrances to the other trails are less obvious due to topography and remaining tree islands at the beginning of the trails. These trails do not attract significant numbers of skiers/riders from the

intermediate and advanced intermediate skill classes because their entrances are hidden the skiers/riders assume that the trails are more difficult. This impression is exacerbated as these trails get bumped out.

4. Glades, Hike-To and Snowcat Served Terrain

In addition to the 891 acres of lift served, developed terrain on Dercum Mountain, North Peak, and the Outback, Keystone offers approximately 1,700 acres of hike-to and snowcat served terrain in the eastern portion of the SUP area. In addition, approximately 440 acres of glades are offered through The Windows, The Outback, and in forested areas between the developed trail network.

Hike-to and snowcat-served terrain is located in Bergman, Erickson, and Independence Bowls. Historically, Bergman, Erickson, and Independence Bowls were used by backcountry skiers, who accessed terrain by hiking from developed portions of the ski area. The terrain offers a unique, in-bounds "backcountry-light" skiing and riding experience.

Keystone has provided snowcat access to these areas via Keystone Adventure Tours (KAT) since gaining Forest Service approval in 2003.[17] Existing KAT terrain is depicted on Figures 4.1 and 4.3. Powder skis are provided to KAT guests and are included in the cost. Poles and boots are not provided. A lift ticket to get up to the top of Dercum Mountain is included in the tour package. KAT's highly skilled guides are members of Keystone's ski patrol, and are not ski instructors. These tours are for intermediate to expert skiers and riders who are accustomed to, and adept in, powder and trees. The KAT program is highly successful (i.e., the two snowcats are typically full), however, the terrain is highly underutilized compared to lift-served trails throughout the SUP area.

All of these areas are maintained by Keystone and patrolled and swept at the end of the day by the Ski Patrol. A summary of each of these bowls follows.

a. Bergman and Erickson Bowls

Bergman Bowl, located directly east of The Outpost on North Peak, has gentle slopes compared to Erickson Bowl, with primarily west-facing aspects. The upper bowl has extremely gentle slopes suitable for low intermediates, while the lower slopes are somewhat steeper and suitable for intermediate/advanced intermediate skiers. Only the lower half of the bowl is treed and just a small portion of it is skied. KAT primarily uses the upper half of Bergman Bowl to assess and initiate the snowcat program for guests prior to engaging them in more difficult terrain in Erickson and Independence bowls. The KAT pickup point is located along treeline near the center of the bowl.

Compared to Bergman Bowl, Erickson Bowl has quite steep slopes with primarily south and southwest facing aspects which have a noticeable effect on snow quality and quantity. Once at the bottom of the bowl, skiers and riders that hiked into Erickson Bowl take *Coyote Caper* back to the Outback or Wayback lifts. Wind and slope aspect have a significant effect on snow in this zone, stripping some areas of all snow and depositing snow in other areas (with the exposures encouraging burn-off of areas with shallow snowpack).

[17] Cat skiing in Bergman and Erickson bowls was approved in 2003, with Independence Bowl approved in 2006.

b. Independence Bowl

Independence Bowl provides roughly 470 acres of expert-only hiking and snowcat-served terrain located on the north side of Keystone Peak, east of the Dercum Mountain summit. A Decision Notice signed in 2006 by WRNF Supervisor Maribeth Gustafson authorized Keystone to offer guided snowcat and hike-to skiing/riding in the Upper Independence area. It has widely varied slopes suitable for intermediate to expert skiers and riders, with the best terrain found on the north facing aspects. This area is very popular for higher skill levels due to the unique terrain and exceptional snow quality. Based on conditions, KAT runs two guided tours daily through Independence Bowl, picking skiers and riders up at the valley bottom and then transporting them up the center of the bowl towards Keystone Peak. In 2007, Keystone installed a yurt near the snowcat pick-up point. Lunch at the Independence Bowl yurt is catered by the *Alpenglow Stube*.

Boundary management is addressed in the project design criteria included in the 2006 Proposed Upper Independence Cat Skiing Environmental Assessment (2006 EA). The project design criteria restrict access into the mid- to lower- areas of Jones Gulch, thus protecting the Forest Landscape Linkage (for Canada lynx) of Jones Gulch designated in the 2002 WRNF Forest Plan. Additionally, the project design criteria function to prohibit unwanted trespass onto adjacent private properties. Project design criteria and boundary management polices related to the Independence Mountain portion of the SUP area include:

- Inform ski patrol and snowcat operators that the public and all Keystone employees are prohibited from crossing the ski area boundary rope to enter Jones Gulch (except for emergencies).
- Develop appropriate penalties for violations.
- Post signs along the ski area operational boundary paralleling Jones Gulch (e.g., "Closed. Wildlife Habitat Beyond. No Skiing/Riding in Jones Gulch") to educate skiers and discourage backcountry use in this area.
- Establish physical barriers (a double rope along the ski area operational boundary paralleling Jones Gulch) to further identify and discourage potential backcountry users from entering Jones Gulch.
- Develop other access control measures (e.g., barriers, signage, enforcement, monitoring).
- Identify the closure, its purpose, and penalties for non-compliance on tail maps.
- Encourage Keystone and the Summit County Sheriff's Department to develop a memorandum of understanding to enforce wildlife closures.
- Provide signs at the information portals accessing the Upper Independence area and at strategic locations along the top of the terrain that will be visible to all hike-to skiers/riders entering the area.

- Provide signs at hike-to collection points at the bottom of the bowl that will direct them to the compacted hike-back track.
- Monitor unauthorized backcountry use in Jones Gulch
- Implement adaptive management, as needed, to further discourage backcountry use in Jones Gulch.

c. North Bowl and South Bowl

From the top of the Outback Express, guests may hike up approximately 350 vertical feet to access terrain in North Bowl or South Bowl. For a small fee, a snowcat will transport guests who do not wish to hike.[18] The snow in North Bowl is typically very good quality due to its northerly aspect and elevation. *Coyote Caper* serves as an egress route in the bottom of North Bowl.

South Bowl is less used than North Bowl, partly due to the fact that it is less developed and because it has southwestern aspects. South Bowl has some of the steepest skiable terrain at Keystone and has long, consistently steep slopes off the west face of Wapiti Peak.

5. Out-of-Bounds Terrain

One backcountry access point, located above Bergman and Erickson Bowls, enables access to out-of-bounds terrain east of Keystone's SUP area.[19] Although used on an infrequent basis, this point enables access to backcountry terrain immediately adjacent to the developed and undeveloped portions of the ski area.

6. Terrain Parks

Current trends in park and pipe design are focused on quality and creating progression, so that less experienced riders have the means and ability to learn how to use the more difficult features. Parks are typically made up of pipes and constructed features. Pipes include superpipes, regular half pipes, mini or beginner half pipes, and quarter pipes. Features include both snow features, like rollers, step up hits, tabletops, and hips; as well as constructed features like rails, fun boxes, C boxes, spines, rainbows rails, and trapezoid rails, to name just a few. Beginner parks typically have features that are lower in height, softer, and rounder; typically with rollers and wide rails. The next step usually has small tabletops and more difficult rails. From there, parks will progress rapidly in technical ability, showcasing significantly larger jumps and technical features. Another way resorts are increasingly

[18] The Outback snowcat is typically full.

[19] Note: Pursuant to the Colorado Ski Safety Act, the ski area assumes no responsibility for skiers going beyond the ski area boundary. To access the backcountry, guests are informed to use designated gates only. Areas beyond the ski area boundary are not patrolled or maintained. Avalanches, unmarked obstacles, and other natural hazards exist. Rescue in the backcountry, if available, is the responsibility of the Summit County Sheriff.

catering to these ability levels is by offering lessons on how to use parks, from beginner up to expert. Quality in-park construction and design is achieved by positioning various features in such a way that riders can link them together, by making individual features have multiple uses to provide variety between runs, by providing multiple take off points on features, and basically by keeping all the features of the park well built, interesting, and dynamic.

Keystone maintains three terrain parks– each catering to different guests' ability levels – located on approximately 52 acres on the western portion of Dercum Mountain (Figure 4.1). The *Smart Park* is a progression park with one small jump, two boxes and two rails. *Freda's* is a beginner park, and is a step above the *Smart Park*. It consists of four jumps, a small hip, and approximately fifteen rails features. The *A-51 Terrain Park* is Keystone's premier park, offering medium and large features. It has six jumps, two quarter pipes, one Super pipe, one mini-pipe and over sixty jibs. As of 2008, the *A-51 Terrain Park* was ranked as one of Transworld Snowboarding's Top 10 Parks for the second year running.

7. Race Areas

There are two developed race centers at Keystone. The NASTAR Race Center is located next to the upper portion of the Summit Express/River Run gondola lift corridor on *Flying Dutchman*. The race center uses approximately half of the width of *Flying Dutchman* for roughly 2,000 feet of length. The Go Devil Race Area is located on *Go Devil*, stretching from the A-51 Terrain Park to the bottom of the Peru Express, extending roughly 5,000 horizontal feet and dropping approximately 1,350 vertical feet.

Lower River Run on Dercum Mountain and *Starfire* on North Peak have been used for training by the US Ski Team.

E. Circulation and Density Analysis

An important aspect of ski area design is balancing uphill lift capacity with downhill trail capacity. Trail densities are derived by contrasting the uphill, at-one-time capacity of each lift system (CCC) with the trail acreage associated with each lift pod. At any one time, guests are dispersed throughout the resort, while using guest facilities and milling areas, waiting in lift mazes, riding lifts, or enjoying descents. For the trail density analysis, 25 percent of each lift's capacity is presumed to be inactive – using guest service facilities or milling areas.

The active skier/rider population can be found in lift lines, on lifts, or on trails. The number of people waiting in line at each lift is a function of the uphill hourly capacity of the lift and the assumed length of wait time at each lift. The number of guests on each lift is the product of the number of uphill carriers and the capacity of the lift's carriers. The remainder of the skier/rider population (the CCC minus the number of guests using guest facilities, milling in areas near the resort portals, waiting in lift mazes, and actually riding lifts) is assumed to be on the trail network.

Trail density is calculated for each lift pod by dividing the number of guests on the trails by the amount of trail area that is available within each lift pod. The trail density analysis compares the calculated trail density for each lift pod to the desired trail density for that pod (i.e., the product of the ideal trail density for each ability level and the lift's trail distribution by ability level).

It is noteworthy that the trail density analysis that has been performed for this MDP does not effectively demonstrate the unique, site specific skier density conditions that exist at Keystone. By design, a trail density analysis assumes that a resort's CCC is distributed evenly across the developed trail network. However, due to the Keystone's particular skier/rider demographic (composed primarily of low intermediates and intermediates), certain lift/terrain pods are more popular than others, resulting in a disproportionate concentration of use across the mountain.

Due to the abundance of low intermediate terrain located on the front side of Dercum Mountain, this portion of the ski area experiences the highest skier/rider densities, which are particularly evident on busy weekends and holidays. Because North Peak and the Outback lack low intermediate terrain, the skier/rider densities at these portions of the ski area are considerably lower than on the front side of Dercum Mountain. Therefore, dispersing low-intermediate skiers more evenly across a larger portion of the ski area would reduce front-side trail congestion and lift line wait times.

Keystone staff and guest survey data confirms that high trail densities are becoming more common throughout the year, especially during peak periods. However, this also occurs on average days during key egress periods and on new snow days in areas of off-piste lift-served terrain. In addition, some areas experience higher densities due to the merging of trails, or the closure of trails for races, grooming, etc. Consequently, the actual densities of pods are expected to be uneven at most times, resulting in high densities in some areas of the resort.

Upper and *Lower Schoolmarm*, *Spring Dipper* along "Burro Alley," *Lower River Run*, *Paymaster/Silverspoon* junction, and *Mozart* are trails that have been identified by guest surveys and Keystone staff as trails with issues related to density. Trail widening in strategic locations and bypasses of steep sections of trails will reduce densities and improve skier circulation throughout the resort, but especially on the aforementioned trails and along the entire front side of Dercum Mountain.

In addition to being able to round trip the upper two-thirds of Dercum Mountain, the installation of the mid-station on the River Run Gondola is intended to allow skiers and riders to efficiently use the underutilized trails to the east of the Gondola alignment. Increased utilization of these trails will help reduce the density related issues on *Upper* and *Lower Schoolmarm*, *Lower River Run*, and the *Paymaster/Silverspoon* junction.

F. Night Skiing and Riding

Keystone offers night skiing and riding several days a week and during the busiest periods. Several lifts and most of the trails on the front-side of Dercum Mountain operate until 8:30 p.m., including the River Run Gondola, A-51, Kokomo conveyor lift and sometimes the Summit Express. Approximately 284 acres of terrain are illuminated. During the evening hours, a portion of the Summit House is made available to night skiers and riders, as well as tubing guests.

The nighttime lift CCC at Keystone has been calculated at approximately 3,130 skiers. The trails have a combined capacity of approximately 8,420 skiers at one time at the ideal densities. This trail capacity is substantially higher than the nighttime CCC, and actual skier densities are lower than the desired densities associated with each ability level.

The balance of the trails available for night skiing and riding is skewed towards the lower ability levels, which is quite typical of night skiing operations, and also reflects that guests tend to use trails with skill levels lower than their actual ability at night.

Currently, there is not a need to reconfigure the trails that are lit. The trail acreage that is available is adequate for existing demand. Keystone does not foresee an increase in demand for the night skiing product. Minor upgrades to the lights and associated infrastructure will be needed as the system ages.

G. Additional Winter Activities

1. Adventure Point

Keystone offers snowtubing on top of Dercum Mountain at Adventure Point, immediately east of the Summit House (Figure 4.1). For the 2007/08 season, new tubing lanes and a state-of-the-art tubing specific lift were added. This elevated, enclosed conveyer lift has benefits from both operational/logistical and recreational perspectives – it is easy to use for guests of all ages and is easy to maintain. On the snowtubing hill, guests can choose from five lanes, each offering different speeds and experiences. Check-in for Adventure Point is at the Mountain Services Center at the south end of the River Run Village. A small yurt, serving as a warming hut, provides drinks and snacks for guests at Adventure Point. Ticket sales and locker space for the adjacent Adventure Point tubing operation are provided.

Snowbiking at Keystone is an additional activity available at Adventure Point. Guests can rent snowbikes and take lessons from Keystone's coaches and become qualified to use snowbikes or slopecycles.

2. Keystone Nordic Center

The Keystone Nordic Center is located on private lands at the River Course (Elk Run neighborhood/East Keystone). The Nordic Center offers over 9 miles (16 kilometers) of groomed trails and provides access to more than 35 miles (57 kilometers) of nearby trails through the White River National Forest (access to trails on the WRNF requires a 3- to 5-mile drive to reach the trailheads).

Daily programs include classic skiing, ski-skating, and telemark skiing lessons, snowshoeing, and family tubing (not lift-served). Rentals include: touring/skate/telemark skis and snowshoes.

3. Ice Skating

At 5 full acres, Keystone is home to the largest Zamboni-maintained outdoor skating rink (on Keystone Lake) in North America. The ice skating rink is open daily from 10 a.m. to 10 p.m., early December through February (weather permitting).

H. SNOWMAKING

1. Snowmaking System and Coverage

Keystone's existing snowmaking system is capable of providing coverage across approximately 560 acres of terrain (Figure 4.4). On Dercum Mountain, snowmaking infrastructure on six existing trails (totaling approximately 63 acres, not included in the existing 560 acres of coverage) needs to be replaced or supplemented to efficiently provide coverage. These trails include: *Jack Straw*; *Last Hoot*; *Ballhooter*; *Wild Irishman, Mineshaft,* and *Lower Mozart.*

- *Jack Straw* below "Zuma Highway" has no snowmaking (pipes or hydrants). The location of the nearest air/water hydrant makes for a long push for snowcats. Therefore, natural snow is relied upon for the most part. This accounts for approximately 1.6 of the previously-referenced acreage that does not have snowmaking infrastructure.

- The lower face of *Last Hoot* has new snowmaking, but the upper half (above that pipeline) is abandoned. Keystone relies on natural snow in this area. This accounts for approximately 8.5 of the previously-referenced acreage that does not have snowmaking infrastructure.

- The snowmaking line on *Ballhooter* is abandoned and was capped off. This line was tied in with *Last Hoot.* Keystone makes snow at the top of this trail with a fan gun from Schoolmaster trail hydrants. Snowcats are also used to push snow onto this trail, which requires a great deal of time and energy. This accounts for approximately 5.8 of the previously-referenced acreage that does not have snowmaking infrastructure.

- Keystone historically makes snow on *Wild Irishman* by using air/water hydrants from Frenchman, dragging numerous lengths of hose through the trees to this trail. This accounts for approximately 21.9 of the previously-referenced acreage that does not have snowmaking infrastructure.

- Currently, *Mineshaft* has shelters/vaults, air/water pipelines that were installed in 1991, but the hydrants were removed due to poor gun locations. This accounts for approximately 12.4 of the previously-referenced acreage that does not have snowmaking infrastructure that is operational.

- The piplines along *Lower Mozart Flats* are in need of replacement due to high concentration of electrolysis. This accounts for approximately 13.3 of the previously-referenced acreage that does not have snowmaking infrastructure.

Both *Ambush* and *Geronimo* trails on North Peak are in need of upgrades to their existing snowmaking infrastructure in order to provide consistent coverage. Snowmaking has not been blown on their combined 29 acres in many years due to the age of the air/water pipelines. These pipelines need to be replaced before Keystone can continue their snowmaking operations on these trails.

Snowmaking operations typically begin during the middle of October and finish in early January, with the goal of making all the snow required for the season in the period between October 16 and

January 16. Keystone produces machine-made snow at an average depth of 18 inches of snowmaking coverage over approximately 92 days during the season.

The existing capacity of the snowmaking system is 4,200 gallons per minute (gpm) of water and 24,728 cubic feet per minute (scfm) of compressed air. The snowmaking system is a mixture of automatic and manual air/water and water only fan gun systems. The distribution system consists of 734 Rogers hydrants, installed starting in 1984, and 393 York hydrants, installed starting in 1989. The York system is fully automated and covers approximately 115 acres.

Four buildings house pumps, compressors and valves. The primary pump station is located just north of the Pika parking lot near the Mountain House base area. Control Building (CB) 1 is located approximately 350 feet west of the top Argentine chair and contains a compressor and pumps. CB 2 is located near the bottom of the Ruby Express and is primarily a valve station. CB 3 is located approximately 700 feet east of the bottom of the Outback Express and contains both compressors and pumps.

Keystone's existing snowmaking system diverts water directly from the Snake River. Per state and federal regulations, Keystone must maintain minimum in-stream water flows (as decreed by the Colorado Water Conservation Board's 6 cubic feet per second [cfs] winter instream flow water right) consistently throughout its diversion period (approximately mid-November through late December). In conjunction with the construction of the Roberts Tunnel in the late 1950s, a "vent shaft" was installed approximately 3.8 miles east of Keystone Resort just south of Montezuma Road. Under agreement with Denver Water, since 1999, Keystone has pumped water from the Roberts Tunnel via the "Montezuma Vent Shaft" into the Snake River during periods of the snowmaking season (late fall and early winter). Keystone's current operational practice is to pump water from the Montezuma Shaft into the Snake River, where it is conveyed in-stream to Keystone's existing snowmaking intake structure located on the south side of the Snake River near Mountain House, where the water is re-diverted.

However, during optimal snowmaking periods, minimum stream flow considerations can sometimes cause Keystone to curtail its peak snowmaking diversion rate in order to satisfy the 6 cubic foot per second minimum stream flow requirement.

Furthermore, constraints imposed by Denver Water's operation of the Roberts Tunnel in recent years have limited Keystone's ability to utilize water pumped from the Tunnel via the Montezuma Shaft. Denver Water's historic operation (since construction in the 1960s, extending through the 1990s) of the Roberts Tunnel up through roughly 2003 included fewer than 3-4 instances when the tunnel was de-watered or otherwise unavailable for maintenance during times that Keystone's snowmaking diversion was active. However, recent operational practice (since approximately 2003) has included several occasions during which Denver Water's maintenance activities precluded water availability for Keystone during snowmaking season.

The combination of these two factors can limit Keystone's abilities to maximize snowmaking production during periods of early-season cold temperatures, causing difficulty in opening sufficient

snowmaking terrain coverage of suitable quality to provide an adequate guest experience for the critical Thanksgiving and Christmas holiday visitation peaks.

Keystone's snowmaking operations are detailed in Table 4-3. Improving the reliability of Keystone's snowmaking water supply via leveraging storage, seeking additional supplies, or some combination of these measures, would enable Keystone to more efficiently utilize water and power during optimal temperature conditions. Further, such improvements would enhance Keystone's ability to provide adequate early season skiing terrain to meet visitation demands during critical holiday time periods.

Table 4-3:
Snowmaking Operational Statistics

Season	Operation (hours)	Water Consumption (gallons)	Acre-Feet Produced
2002/03		185,432,028	569.07
2003/04	1,680	204,976,000	629.05
2004/05	1,695	221,000,000	680.2
2005/06		175,799,873	539.51
2006/07	1,518	150,579,005	462.11
2007/08	1,928	194,458,100	596.77

Source: Keystone Resort

2. Section 7 Consultation for Water Depletions

In 1985 and 1987, Keystone completed formal Section 7 consultation with the USFWS for a total of 1,485.2 AF of water diversions and 342.8 acre-feet of water use (depletions). Keystone's maximum annual diversions for snowmaking on record, during the 2004/05 (Table 4-3) ski season totaled approximately 680.2 acre-feet of water. Assuming the biologically conservative snowmaking depletion rate of 25 percent, the diversion total results in approximately 170.05 acre-feet of depletions. Thus, at peak total current annual depletions of approximately 170.05 acre-feet, Keystone remains within the total volume of 342.8 acre-feet of depletions that have been consulted-upon with USFWS.

I. Guest Services Space and Food Service Seating

1. Guest Services

Base area staging locations, or portals, are 'gateway' facilities that have three main functions:

- Receiving arriving guests (from a parked car, a bus, or from adjacent accommodations)
- Distributing skiers and riders onto the mountain's lift and trail systems
- Providing the necessary services for the guest's day at the resort (e.g., tickets, rentals)

Staging-related guest services (e.g., tickets, rentals, retail, and lockers) are currently offered in two base area staging locations (on private lands) at Keystone: River Run and Mountain House. The River

Run and Mountain House base areas also offer commercial skier services that are utilized throughout the day including food services, restrooms, and retail:

- River Run – Jackpine Lodge, Black Bear Lodge, Arapahoe Lodge, Buffalo Lodge, Silver Mill, Dakota Lodge, Expedition St., The Springs, Red Hawk

- The Mountain House – Mountain House

Additional services are provided on-mountain in three locations: Summit House, La Bonte's Cabin and the Outpost Lodge. A complete inventory of existing guest services can be found in tables 7-9 and 14 of Appendix A. Facility conditions are addressed below in the "On-Mountain Facilities" discussion.

Sufficient guest service space should be provided to accommodate the existing resort CCC of 12,110 guests per day. The distribution of the CCC is utilized to determine guest service capacities and space requirements for skier services at base area portals and on-mountain facilities. The CCC should be distributed between each guest service facility location according to the number of guests that would be utilizing the lifts and terrain associated with each facility. Table 16 in Appendix A illustrates the distribution of Keystone's existing CCC amongst the base area and on-mountain facilities. Following the table is an explanation of the distribution categories.

In addition to distributing the CCC amongst the base area and on-mountain facilities, guest service capacity needs and the resulting spatial recommendations are determined through a process of reviewing and analyzing the current operations to determine specific guest service requirements that are unique to the resort. The complexity of Keystone, in terms of its physical layout, operations and programming, requires additional staffing which in turn results in the need for additional administration and employee locker/lounge space.

Based upon a CCC of 12,110 skiers, the distribution described in Table 16 in Appendix A, and the unique operational factors described above, Table 4-4 below compares the current space use allocations of the visitor service functions to industry norms for a resort of similar market orientation and regional context at Keystone. Square foot figures contained in this table are calculated to illustrate how the ski area compares to industry averages, and should not be considered absolute requirements.

Service functions include:

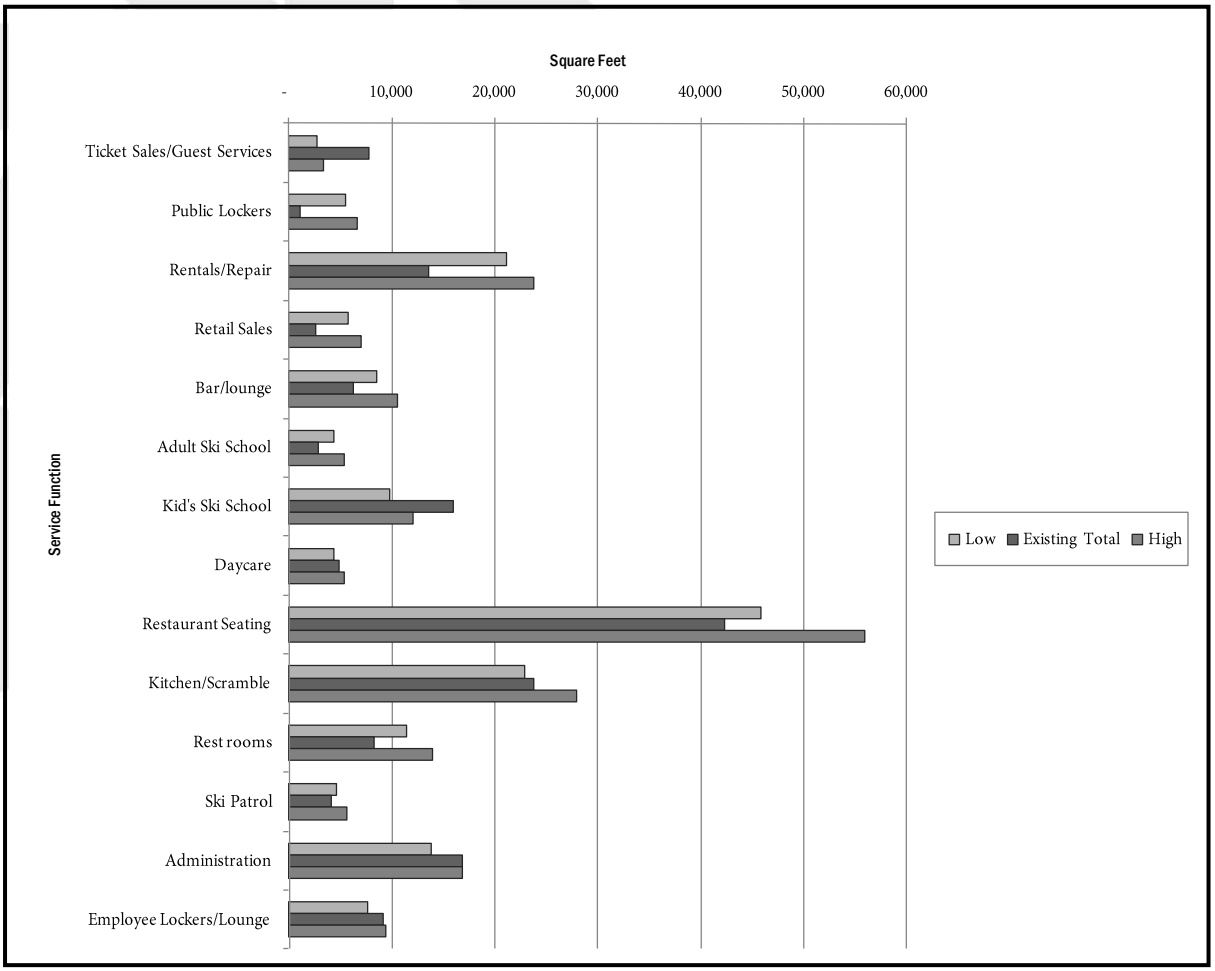
- Restaurant Seating: All areas designated for food service seating, including: restaurants, cafeterias, and brown bag areas. Major circulation aisles through seating areas are not designated as circulation/waste, not seating space.
- Kitchen/Scramble: Includes all food preparation, food service, and food storage.
- Bar/Lounge: All serving and seating areas designated as restricted use for the serving and consumption of alcoholic beverages. If used for food service, seats are included in seat counts.
- Restrooms: All space associated with restroom facilities (separate women, men, and employees).
- Guest Services: Services including resort information desks, kiosks, and lost and found.
- Adult Ski School: Includes ski school booking area and any indoor staging areas. Storage and employee lockers directly associated with ski school are included in this total.
- Kid's Ski School: Includes all daycare/nursery facilities, including booking areas and lunch rooms associated with ski school functions. Storage and employee lockers directly associated with ski school are included.
- Rentals/Repair: All rental shop, repair services, and associated storage areas.
- Retail Sales: All retail shops and associated storage areas.
- Ticket Sales: All ticketing and season pass sales areas and associated office space.
- Public Lockers: All public locker rooms. Any public lockers located along the walls of circulation space are included, as well as the 2 feet directly in front of the locker doors.
- Ski Patrol/First Aid: All first aid facilities, including clinic space. Storage and employee lockers directly associated with ski patrol are included in this total.
- Administration/Employee Lockers & Lounge/Storage: All administration/ employee/storage space not included in any of the above functions.

Table 4-4:
Industry Average Space Use – Existing Conditions: Resort Total

Service Function	Existing Total	Recommended Range	
		Low	High
Ticket Sales/Guest Services	7,740	2,730	3,330
Public Lockers	1,073	5,440	6,660
Rentals/Repair	13,560	21,120	23,760
Retail Sales	2,608	5,730	7,000
Bar/lounge	6,275	8,570	10,490
Adult Ski School	2,878	4,360	5,330
Kid's Ski School	15,900	9,810	11,990
Daycare	4,800	4,360	5,330
Restaurant Seating	42,320	45,780	55,950
Kitchen/Scramble	23,794	22,880	27,980
Rest rooms	8,235	11,450	13,980
Ski Patrol	4,082	4,580	5,600
Administration	16,867	13,740	16,790
Employee Lockers/Lounge	9,119	7,660	9,370
TOTAL SQUARE FEET	**159,251**	**168,210**	**203,560**

Source: SE GROUP

Chart 4-2:
Total Space Use And Recommendations – Existing Conditions



As shown in the above table and chart, from a resort wide perspective Keystone does not have adequate space overall to accommodate the needs of the resort's capacity with significant deficits in space for lockers, rental, restaurant seating, and restrooms.

The tables do not indicate whether the overall deficiency is typical at each base area and on-mountain facility location, nor do they speak to the location or quality of the guest services. Further analysis of the individual guest service locations is required to determine specific locations and amount of surplus or deficit space throughout the resort. This level of analysis is necessary in order to determine opportunities for future expansion or improvements to the guest experience.

The following tables and text address the existing space use at each guest service facility. The space recommendations in the following tables are directly related to the distribution of the resort's capacity to the various guest service facilities located in the base areas and on-mountain, as illustrated in Table 16 found in Appendix A. This distribution responds to the ideal movement of guests onto and around the mountain throughout the day. As such, it is important to provide adequately sized facilities at each location to respond to this guest circulation.

a. Base Area Portals

As stated in Chapter 2 (Design Criteria), base area facilities/portals play a vital role in the operation of Keystone and in the overall guest experience.

River Run

Skier service facilities at the River Run base area are provided in a collection of small, stand-alone buildings in the commercial level of some of the buildings throughout the River Run village, including: Ski School, Rental Sprung, Mountain Services Center, Tickets, Ski Check, Jackpine Lodge, Black Bear Lodge, Arapahoe Lodge, Buffalo Lodge, Silver Mill, and Dakota Lodge. Each of these facilities is well maintained. A complete inventory of existing guest services can be found in Tables 7, 8, 9 and 14 in Appendix A. The River Run portal accommodates approximately 70 percent (or 8,477 guests) of Keystone's total CCC.

The River Run base area is located on the eastern end of Keystone's base area lands, and provides staging services for day skiers and riders who park in the adjacent day skier lots or arrive via the local shuttle/bus service. River Run also provides services for overnight guests staying in adjacent accommodations that either walk to the facilities from their units or arrive at the base area via the local shuttle/bus service. Total space currently used for guest services (not including walls, waste, storage and mechanical) provided at the River Run base is approximately 55,000 square feet, including the space offered by third parties in the village.

Table 4-5:
Industry Average Space Use – Existing Conditions: River Run

Service Function	Existing Total	Recommended Range	
		Low	High
Ticket Sales/Guest Services	2,660	1,910	2,330
Public Lockers	365	3,810	4,660
Rentals/Repair	5,650	9,490	10,680
Retail Sales	808	4,010	4,900
Bar/lounge	-	1,040	1,280
Adult Ski School	1,025	2,400	2,930
Kid's Ski School	4,400	5,400	6,590
Daycare	4,800	2,400	2,930
Restaurant Seating	15,166	5,570	6,800
Kitchen/Scramble	6,944	2,780	3,400
Rest rooms	2,384	1,390	1,700
Ski Patrol	-	560	680
Administration	6,960	2,750	3,360
Employee Lockers/Lounge	2,454	1,530	1,870
TOTAL SQUARE FEET	**53,616**	**45,040**	**54,110**

Source: SE GROUP

As shown in Table 4-5, the River Run base area facilities fall just above the recommended range, largely due to the amount of administrative space in this location. Despite the overall surplus, there are significant deficits of space in rentals and retail. While the retail deficit is likely not an issue due to the existence of third party vendors within the River Run base area, the rental deficit directly impacts the guest experience, primarily for entry-level guests who are attempting to learn a new sport. There is a significant surplus of restaurant seating space in this location, offsetting the deficit of on-mountain restaurant space (see Summit House discussion).

Mountain House

The Mountain House base area is located on the western end of Keystone's base area lands, and provides staging services for skiers and riders who park in the adjacent day lots or who arrive via the local shuttle/bus service. Mountain House also provides services for overnight guests staying in adjacent accommodations, which either walk to the facilities from their units or arrive at the base area via the local shuttle/bus service.

Mountain House accommodates 30 percent (or approximately 3,633 guests) of Keystone's guests. The base area facilities provide staging services in nine stand-alone buildings: Mountain House, Children's Center, Ski Rental Building, Administration, former Snowboard Rental, Guest Services, Ticket Office, Mountain Operations, and Winterset.[20]

Table 4-6:
Industry Average Space Use – Existing Conditions: Mountain House

Service Function	Existing Total	Recommended Range	
		Low	High
Ticket Sales/Guest Services	5,080	820	1,000
Public Lockers	208	1,630	2,000
Rentals/Repair	7,910	11,630	13,080
Retail Sales	1,700	1,720	2,100
Bar/lounge	3,600	1,610	1,970
Adult Ski School	1,853	1,960	2,400
Kid's Ski School	10,000	4,410	5,400
Daycare	-	1,960	2,400
Restaurant Seating	13,434	8,580	10,490
Kitchen/Scramble	5,890	4,290	5,240
Rest rooms	1,906	2,150	2,620
Ski Patrol	1,382	860	1,050
Administration	9,307	10,990	13,430
Employee Lockers/Lounge	5,965	6,130	7,500
TOTAL SQUARE FEET	**68,235**	**58,740**	**70,680**

Source: SE GROUP

[20] All of these buildings will be removed if the proposed Mountain House base area redevelopment occurs.

As shown in Table 4-6, the Mountain House base area facilities do have adequate space overall to accommodate the current capacity needs, although there are significant deficits in space for lockers, rentals, and restrooms. Aggravations associated with long lines for rentals can set the tone for a guest's enjoyment for the day.

There is a significant surplus of restaurant seating space in this location, offsetting the deficit of on-mountain restaurant space (see Summit House discussion below).

b. On-Mountain Facilities

In addition to the skier service space provided in the two base areas, there are a number of skier service buildings located on the mountain. An inventory of these is provided in Table 14. Currently, there are over 37,000 square feet of skier service space provided in three different on-mountain buildings. The on-mountain buildings contain food service facilities, restrooms, accessory retail, ski patrol and space dedicated to mountain operations.

Summit House

The Summit House, located at the top of Dercum Mountain, was one of Keystone's original buildings. It was there when Keystone opened on November 21, 1970, and was originally known as "Key Top." At the time, the Mountain House was the only base area building and was known as "Key Base."

Summit House is located adjacent to the top terminals of the Montezuma Express, River Run Gondola and Summit Express front side lifts, as well as the backside Outpost Gondola, Ruby Express and Ranger lifts (Figure 4.1). Due to the ease of lift access, the general location of Summit House could facilitate a substantial amount of the resort's mid-day capacity. However, current limitations in seating capacity and efficient use of space prevent the Summit House from maximizing the service opportunities presented by its central location

The Summit House provides food service including bar/lounge, retail and restrooms, as well as ski patrol facilities. Two small yurts, serving as a warming hut, provide drinks and snacks for guests using the tubing facility.

The Summit House is an older facility, and has been expanded and retrofitted several times, resulting in a series of disconnected and inefficient spaces. In addition, it is situated in an illogical location – at the center of skier/rider routes and blocking the entrance to one of the most popular trails on the upper mountain – *Frenchman.* Because it obstructs the logical entrance to *Frenchman* and makes it more difficult to see other entrances to trails under the Montezuma Express, its presence also directs more people onto *Schoolmarm*, which is one of the busiest trails on the mountain.

Finally, the existing on-site wastewater treatment system for the Summit House is antiquated and requires the maintenance of a septic system, leach fields, and sewage lagoon on public lands.

Table 4-7:
Industry Average Space Use – Existing Conditions: On-Mountain – Summit House

Service Function	Existing Total	Recommended Range	
		Low	High
Ticket Sales/Guest Services	-	-	-
Public Lockers	500	-	-
Rentals/Repair	-	-	-
Retail Sales	50	-	-
Bar/lounge	1,675	4,120	5,040
Adult Ski School	-	-	-
Kid's Ski School	1,500	-	-
Daycare	-	-	-
Restaurant Seating	5,500	21,990	26,880
Kitchen/Scramble	4,000	10,990	13,440
Rest rooms	1,745	5,500	6,720
Ski Patrol	1,500	2,200	2,690
Administration	100	-	-
Employee Lockers/Lounge	200	-	-
TOTAL SQUARE FEET	**16,770**	**44,800**	**54,770**

Source: SE GROUP

As illustrated in the table above, there is a significant deficit of space at the Summit House, given the ideal distribution of skiers and riders. With restaurant seating almost a quarter of the recommended range, guests can become frustrated with long wait times for available seating and be forced to descend to the base area facilities for lunch. On-mountain facilities are popular lunchtime destinations, as guests typically prefer to take advantage of convenience and enjoy the panoramic views.

La Bonte's Cabin

La Bonte's Cabin is a small food service facility located at the bottom terminals of the Ruby Express and Santiago Express lifts (Figure 4.3). La Bonte's is undersized even though it serves a limited amount of terrain. A limited amount of indoor seating is available, but the majority of the seating is outdoors. The restrooms are connected to the Keystone Gulch Road sewer line.

Table 4-8:
Industry Average Space Use – Existing Conditions: On-Mountain – La Bonte's Cabin

Service Function	Existing Total	Recommended Range	
		Low	High
Ticket Sales/Guest Services	-	-	-
Public Lockers	-	-	-
Rentals/Repair	-	-	-
Retail Sales	-	-	-
Bar/lounge	-	410	500
Adult Ski School	-	-	-
Kid's Ski School	-	-	-
Daycare	-	-	-
Restaurant Seating	720	2,200	2,690
Kitchen/Scramble	960	1,100	1,350
Rest rooms	600	550	670
Ski Patrol	-	220	270
Administration	-	-	-
Employee Lockers/Lounge	-	-	-
TOTAL SQUARE FEET	**2,280**	**4,480**	**5,480**

Source: SE GROUP

The Outpost Lodge

The Outpost Lodge (elevation 11,444 feet) is located near the summit of North Peak, adjacent to the terminal of the Outpost Gondola, slightly downhill from the top terminals of the Santiago Express and Wayback lift (Figure 4.3). Two gondola rides lasting a total of 45 minutes transport guests to and from this facility, which is in excellent condition and consistently meets guests' expectations from a quality standpoint.

There are two food service venues within the lodge – the Alpenglow Stube, which offers sit-down dining, and Timber Ridge, which serves as the main cafeteria during the day. At night it is transformed into a fondue restaurant, Der Fondue Chessel. The River Run Gondola and the Outpost Gondola are operated at night to provide access to The Outpost Lodge.

Timber Ridge is a spacious mountain lodge atmosphere with cathedral ceilings and a two-story stone fireplace. Alpenglow Stube is the highest gourmet restaurant in North America (ranked by ZagatSurvey and AAA Four Diamond rated). This is an elegant dining and reception location with a unique show kitchen and award winning service. This facility accommodates 85 people during the winter and summer seasons.

Although the Outpost facility is quite stunning architecturally, some inefficiencies are recognized in its layout from an operational perspective. This facility currently has 449 indoor seats and 350 outdoor seats, but has potential to be reconfigured and expanded to contain a total of over 700 indoor seats with little impact on the amount of kitchen floor space. Management has indicated that the existing kitchen space could likely include many more seats than are currently in place if new seating space were attached to the existing building and existing space was reorganized to ensure a more efficient layout.

Table 4-9:
Industry Average Space Use – Existing Conditions: On-Mountain – The Outpost Lodge

Service Function	Existing Total	Recommended Range	
		Low	High
Ticket Sales/Guest Services	-	-	-
Public Lockers	-	-	-
Rentals/Repair	-	-	-
Retail Sales	50	-	-
Bar/lounge	1,000	1,390	1,700
Adult Ski School	-	-	-
Kid's Ski School	-	-	-
Daycare	-	-	-
Restaurant Seating	7,500	7,440	9,090
Kitchen/Scramble	6,000	3,720	4,550
Rest rooms	1,600	1,860	2,270
Ski Patrol	1,200	740	910
Administration	500	-	-
Employee Lockers/Lounge	500	-	-
TOTAL SQUARE FEET	**18,350**	**15,150**	**18,520**

Source: SE GROUP

As shown in the space use table, the food service facilities and restrooms available at the Outpost Lodge are currently sized adequately given the existing capacity needs. Any future increases in capacity will require subsequent increases in space within the lodge.

2. Food Service Seating

Food service seating at Keystone is provided at the following locations:

- River Run Base Area – Jackpine Lodge, Black Bear Lodge, Arapahoe Lodge, and Silver Mill
- Mountain House Base Area – Mountain House
- On-mountain – Summit House, La Bonte's, Outpost

A key factor in evaluating restaurant capacity is the turnover rate of the seats. A turnover rate of two to five times is the standard range utilized in determining restaurant capacity. Sit-down dining at ski areas typically results in a turnover rate of between two and three, while "fast food" cafeteria style dining is characterized by a higher turnover rate. Furthermore, weather has an influence on turnover rates at ski areas, as on snowy days guests will spend more time indoors than on sunny days. Due to the mix of restaurant types and the typically good weather, a variety of turnover rates were used for Keystone – ranging from 2 to 4.

The following table summarizes the seating requirements at Keystone, based on a logical distribution of the CCC to each service building/location.

Table 4-10:
Recommended Restaurant Seating

	BASE AREA		ON-MOUNTAIN			Total Resort
	River Run	Mountain House	Summit House	La Bonte's Cabin	Outpost Lodge	
Lunchtime Capacity (CCC)	1,546	2,384	6,108	612	2,066	12,716
Average Seat Turnover (Indoor)	2.9	2.8	3.5	4	3.5	-
Existing Seats (Indoor)	438	802	529	50	449	2,268
Average Seat Turnover (Outdoor)	2	1	1	4	1	-
Existing Seats (Outdoor)	335	304	162	150	350	1,301
Required Seats	533	866	1,731	153	590	3,873
Difference (indoor seats - required)	-95	-64	-1,202	-103	-141	-1,605
Existing seating capacity (indoor only)	1,270	2,207	1,867	200	1,572	7,116
Existing seating capacity (indoor and outdoor)	1,940	2,511	2,029	800	1,922	9,202

Notes:
River Run = Kickapoo Tavern-133, Spoon-30, Inxpot-40, Paisanos-110, Starbucks-20, Pizza on the Run-25, Parrot's Eyes-80, and Jay's Patio Café-20
Turnover rates taken from 11/07 Ecosign Master Plan
River Run turnover based on weighted average of seven restaurants (based on turnover rates from 11/07 Ecosign Master Plan)
Outpost: there are 96 fine dining seats in the Alpenglow Stube
Mountain House = Last Lift-106, Silverthorne Room-116, Dillon Room-136, Frisco Room-136, Ernie's Day Room-88, Loft-72, Bite Me-148, Outdoor-304
Summit House = Killian's Pub-104, Lower Hoedown-164, Fire Place-30, 4th fl-123, 5th fl-60, 6th fl-24, 7th fl-24, Outdoor-162, includes seating for Ski School
La Bonte's outdoor seating includes 100 seats that are "on snow"

As shown in the above table, there is a deficit of indoor seating capacity at all locations with the exception of La Bonte's. However, except for the Summit House facility, outdoor seating makes up for the deficit of indoor seats. This is particularly relevant, given the fact that most busy days occur when the weather is clear and guests may utilize the outdoor seating.

Seating and restaurant space recommendations are directly related to the lunchtime capacity. The lunchtime capacity is determined by the distribution of each lift's CCC. It is assumed that guests will prefer to dine at the facility closest to the area where they are skiing or riding. To allow for this

convenience, it is important to provide restaurant seating to accommodate the lunchtime capacity requirement of the area.

J. Inventory of Accommodations

For properties managed by Keystone, the ratio of public beds (those rented out by the resort's central booking agency) to private beds (those not available for nightly rental) was analyzed. A number of other rental management companies and private individuals offer nightly rentals within the Keystone valley. For the purpose of this analysis, it was assumed that 40 percent of the units in the other condominium properties are available for short term rentals. Table 4-11 summarizes the Keystone valley accommodation inventory.

Table 4-11:
Accommodation Inventory

	Public		Private		Employee		Total	
	Units	Beds	Units	Beds	Units	Beds	Units	Beds
East Keystone/Ski Tip	41	225	162	1,317	-	-	203	1,542
River Run/North Fork	454	1,899	384	1,918	-	-	838	3,817
Mountain House[a]	510	2,041	511	2,703	144	288	1,165	5,032
Lakeside Village/N. Keystone	455	1,677	172	810	339	848	966	3,335
West Keystone/Wintergreen	214	1,020	388	2,718	-	-	602	3,738
TOTAL	**1,674**	**6,862**	**1,617**	**9,466**	**483**	**1, 136**	**3,774**	**17,464**

[a] Includes Mountain House, Base II and Aspen Ridge.
Note: Based on 2 beds/studio, 3 beds/1 bedroom, 5 beds/2 bedroom, 7 beds/3 bedroom, 8 beds/4 bedroom, and 10 beds for large single family.
Source: Ecosign and updated 11/08 by Keystone

The theoretical Skier Walking Distance (SWD) is an analysis tool to evaluate the layout of ski resort base areas. SWD is defined as the distance someone walking in boots and carrying equipment can comfortably walk in ten minutes. A walking speed of 1.7 miles per hour is assumed, which translates to a skier walking distance of 1,500 feet over level ground. For the River Run Gondola, the skier walking distance has been measured from the approved new bottom terminal location on the north side of the river. As summarized in Table 4-12, there is currently a total of 3,768 beds within SWD of the River Run base and 2,874 beds within SWD of the Mountain House base. Therefore 10,480 of the 17,122 beds within Keystone valley (61 percent) are beyond SWD of a staging lift and guests staying in this area must either drive or use transit to get to and from the mountain.

Table 4-12:
Location of Beds in respect to Out-of-Base Lifts

	Beds
Within Skier Walking Distance (SWD)	
River Run Base	3,768
Mountain House Base	2,874
Sub-total within SWD	*6,642*
Beyond SWD	10,822
TOTAL Keystone Valley Beds	**17,464**

Source: Ecosign and updated 11/08 by Keystone

1. Skiers from Beds

By making assumptions of bed occupancy and skier participation rates, the number of skiers generated by the accommodations in Keystone on a typical busy day can be obtained.

Even though a hotel room or chalet is rented, not every bed in it may be occupied. For example, a house capable of sleeping ten may be rented by a group of seven, or one couple may occupy a hotel room with four pillows. Further, not all of the guests staying at the resort may elect to ski or snowboard on any given day. Some of the guests may be non-skiers along with the family, some may be pursuing another of the many alternative winter activities around the resort and some may not ski because it is the day they are arriving at, or leaving, the resort.

Data pertaining to the number of rooms rented, and the number of guests staying at each of the properties in Keystone's rental management system, for the 20 busiest days during the 2004/05 season was analyzed. Thus, it was possible to calculate that the bed yield (unit occupancy x bed occupancy) for the average of the ten busiest days was 88 percent. This yield was applied to the entire public bed base to estimate the number of guests generated from public beds within the valley. For private beds, a unit occupancy rate of 70 percent, and a bed occupancy rate of 75 percent, was assumed for a bed yield of 53 percent. A bed yield of 90 percent was assumed for employee housing. The bed yields were multiplied by an estimated skier participation rate to determine the skier yield from each type of accommodation, as shown in Table 4-13.

Table 4-13:
Peak Period Occupancy and Skier Participation Assumptions

Type of Unit	Unit Occupancy Rate	Bed Occupancy Rate	Bed Yield	Skier Participation Rate	Skier Yield
Hotels & Public Beds	100%	88%	88%	80%	70%
Private Condos & Homes	70%	75%	53%	80%	42%
Employee	100%	90%	90%	25%	23%

Source: Ecosign

Based on the skier yield rates determined in Table 4-14 the existing accommodations within the study area in Keystone Valley are capable of generating just under 9,000 guests on a typical peak winter day. Since Keystone experienced a peak day in excess of 18,000 guests during the 2006/07 season, it can safely be assumed that there are approximately 9,000 guests arriving from areas outside the Keystone study area during peak periods.

Table 4-14:
Skiers Generated from Resort Area Accommodations During Peak Occupancies

	Public		Private		Employee		Total	
	Beds	Skiers	Beds	Skiers	Beds	Skiers	Beds	Skiers
East Keystone/Ski Tip	225	158	1,317	553	-	-	1,542	711
River Run/North Fork	1,899	1,337	1,918	806	-	-	3,817	2,143
Mountain House[a]	2,041	1,437	2,703	1,135	288	66	5,032	2,638
Lakeside Village/N. Keystone	1,677	1,181	810	340	848	195	3,335	1,716
West Keystone/Wintergreen	1,020	718	2,718	1,142	-	-	3,738	1,860
TOTAL	**6,862**	**4,831**	**9,466**	**3,976**	**1,136**	**261**	**17,464**	**9,068**

[a] Includes Mountain House, Base II and Aspen Ridge
Note: Based on 2 beds/studio, 3 beds/1 bedroom, 5 beds/2 bedroom, 7 beds/3 bedroom, 8 beds/4 bedroom, and 10 beds for large single family.
Source: Ecosign and updated 11/08 by Keystone

Of the 9,068 guests generated from accommodations within the study area, 2,514 are within SWD of the River Run base and 1,747 are within SWD of the Mountain House base. Therefore, 4,800 guests need to drive or use the shuttle bus system to get to and from the lifts. If they choose to drive, this reduces the amount of parking available for day skiers from outside the valley area.

Table 4-15:
Guests From Beds

Guests from Beds	
Within Skier Walking Distance (SWD)	
River Run Portal	2,514
Mountain House Portal	1,747
Sub-Total Within SWD	*4,261*
Beyond Skier Walking Distance	4,807
Total Keystone Valley Accommodations	**9,068**

Source: Ecosign and updated 11/08 by Keystone

K. Parking Capacity

There are currently eight parking lots available for use by Keystone's guests; these lots can be used by either day skiers from outside the resort, or guests from within the resort staying in accommodations beyond walking distance of an out-of-base lift. The lots can also be used by resort employees and day visitors who are not skiing and riding.

Table 4-16:
Parking Inventory

Lot #	Name	Parking Spaces	Average Vehicle Occupancy	Parking Capacity (People)
River Run				
P1 - Pay	Hunki Dori	270	2.8	756
P2 - Free	Montezuma	2,000	2.4	4,800
P3 - Pay	Gold Bug	140	2.8	392
P4 - Free	Brown's Cabin	250	2.4	600
Total River Run		*2,660*		*6,548*
Mountain House				
P5 - Pay	East (Porcupine)	850	2.8	2,380
P6 - Pay	East (Pika)			
P7 - Pay	West (Marmot)	400	2.8	1,120
Total Mountain House		*1,250*		*3,500*
P8 - Free	Tenderfoot	970	2.4	2,328
Total Resort		**4,880**		**12,376**

Note: AVO based on car occupancy counts carried out on Presidents Day weekend in 2006
Source: VRDC and Ecosign

Vehicle occupancy counts carried out in the skier parking lots over the 2006 President's Day weekend indicated that the average number of vehicle occupants was 2.8 for the pay lots and 2.4 for the free lots. Based on these vehicle occupancy rates the existing parking lots can provide parking for approximately 12,375 skiers. The 2,325 skiers that can be parked in the Tenderfoot lot need bus transportation to get to one of the out-of-base lifts.

Parking lot capacities were calculated by Keystone staff; there is a total of 4,880 parking spaces available. This parking density can be achieved when parking lots are staffed and actively managed to achieve efficient parking configurations. Counts carried out over eight days in 2006 showed somewhat lower numbers of cars in each of the lots. Keystone management has indicated that the pay parking lots are not currently managed by attendants, therefore the theoretical parking densities are not being achieved. The eight lots have a theoretical capacity of 4,880 cars, while the highest of the eight days of counts in 2006 had just over 3,500 cars parked in all the lots. The 2006 counts were not carried out during the busiest period between Christmas and New Year's Day.

1. Skiers from Mass Transit

There are three bus systems that can be utilized by skiers and riders to get from their accommodations to the River Run and Mountain House bases. The first is a free shuttle bus service provided by Keystone. The second is a free county-wide system that transports people throughout the various communities within Summit County. The third is a contracted shuttle service. Keystone management provided estimates of the number of skiers and riders that arrived by mass transit at each of the two mountain bases during the busiest 15 days of the 2006/07 season. These estimates are presented in Table 4-17. On the peak day in 2007, it is estimated that over 5,200 guests arrived by mass transit.

Table 4-17:
Skiers and Riders by Mass Transit 2006/07

Date	Day of the Week	Visitation	Skiers by Mass Transit		
			River Run Base	Mountain House Base	Total
02/18/2007	Sunday	18,213	1,695	3,536	5,230
12/27/2006	Wednesday	15,359	1,231	2,737	3,967
02/17/2007	Saturday	15,333	1,227	2,729	3,956
01/06/2007	Saturday	14,666	1,118	2,542	3,661
12/02/2007	Saturday	13,935	999	2,388	3,337
01/27/2007	Saturday	13,881	991	2,323	3,313
12/28/2006	Thursday	13,826	982	2,307	3,289
12/31/2006	Sunday	13,361	906	2,177	3,083
01/20/2007	Saturday	13,024	851	2,083	2,934
02/10/2007	Saturday	12,982	845	2,071	2,916
12/29/2006	Friday	12,856	824	2,036	2,860
02/24/2007	Saturday	12,283	731	1,875	2,606
01/05/2007	Friday	11,723	640	1,718	2,358
02/03/2007	Saturday	11,495	603	1,655	2,258
Average of Top 10 Days			*1,115*	*2,538*	*3,653*
Average of Top 15 Days			*986*	*2,315*	*3,301*

Source: Ecosign