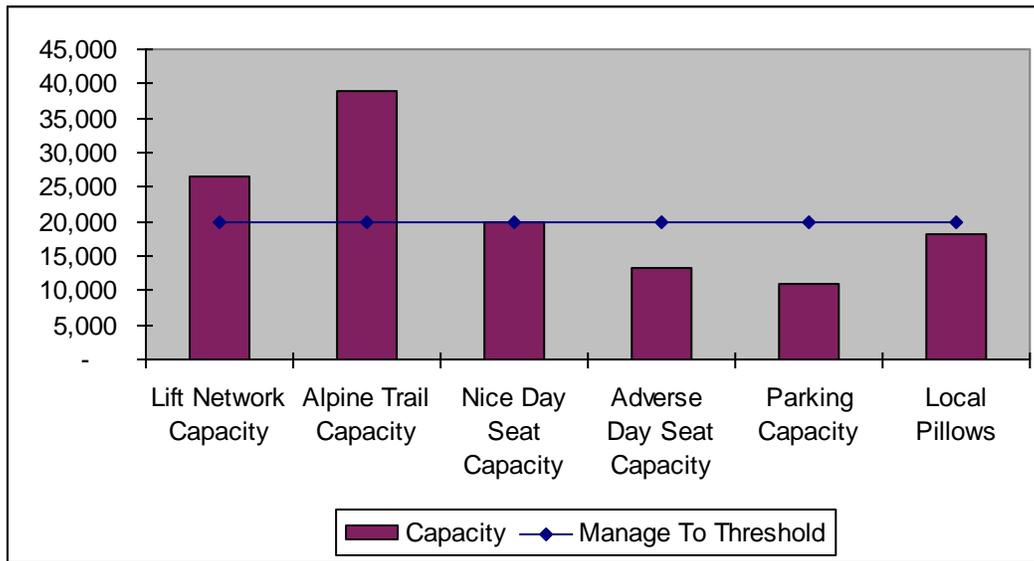


**CHART 6-3:
RESORT BALANCE – UPGRADING PLAN**



As Chart 6-2 illustrates, the implementation of this proposed upgrade plan will increase the capacities of Vail’s facilities, thereby improving guest service and increasing the quality of the guest experience. This is consistent with the resort’s goal of remaining the industry leader in quality.

M. VEGETATION MANAGEMENT

As noted, the mountain pine beetle infestation will affect Vail’s future operations within its 12,590-acre SUP area. Dialogue will continue between the stakeholders (including the Forest Service, Town of Vail, Eagle County, Vail Associates, and the general public) in hopes of identifying and implementing both preventative and prescriptive treatment methods to effectively combat this serious problem.

From both fiscal and logistical perspectives, Vail has no plans to implement widespread removal of beetle trees within its SUP area in the near future. In the near-term, Vail plans to focus its beetle kill tree removal efforts on dead trees that pose safety concerns for guests and operational staff members. This will be achieved through on-going coordination with the Forest Service and private contractors. However, Vail will act upon opportunities as they present themselves (e.g., patch cutting) for working with various stakeholders to remove beetle kill trees.

7. BOUNDARY MANAGEMENT

A. SOUTH GAME CREEK BOWL

Accessed from the top of Ptarmigan Ridge or the Lost boy Trail, South Game Creek is routinely skied by up to 200 people per day. Users ski the bowl to an old logging road that leads to Minturn. On average, two search and rescue operations are conducted annually for skiers who venture into this area.

This lift served backcountry area is within the Vail SUP, but outside of the administrative boundary. Vail has not initiated nor completed any planning for the South Game Creek Bowl area, and has no immediate plans to pursue lift-served skiing in this area.

The South Game Creek Bowl area is extremely suitable for the development of lift served skiing, and would provide excellent east to west facing intermediate to expert terrain. The area is not patrolled and no avalanche control work is currently performed there.

Further study of the South Game Creek Bowl area would be necessary prior to meaningful inclusion in a future MDP.

B. WEST EARL'S BOWL

Accessed by skiing west down the ridge from the top of the Skyline Express lift at Belle's Camp, West Earl's Bowl is within the SUP area, but is outside of the administrative boundary. The access route is currently a narrow track connecting a series of meadows. The track is not wide enough for mechanized travel and is un-maintainable.

West Earl's is a combination of chutes and glades that are routinely round trip skied from the Earl's Express. Its proximity to lift service is what drives its heavy use. West Earls Bowl does not currently have adequate access to be included within Vail's administrative boundary, due to the difficulty in getting rescue equipment across the ridge. If the access route could accommodate mechanized travel, the administrative boundary would be relocated to include West Earl's. Lift access in this area would facilitate normal ski area management to this currently heavily skied area.

C. EAST VAIL CHUTES/MUSHROOM BOWL

As with South Game Creek and West Earl's Bowls, the East Vail Chutes and Mushroom Bowl outside of the SUP area. Currently, up to 400 skiers per day use the two areas.⁴ Vail estimates that 75 percent of skiers accessing these areas are skiing the East Vail Chutes, with the remainder skiing Mushroom Bowl.

The East Vail Chutes is an extremely steep, avalanche prone bowl that drains down to Interstate 70 or to East Vail. In using this area, skiers hike from the top of Chair 22, ski the Chutes, and then

⁴ At the request of the Forest Service, Vail has been counting skiers as they begin their hike up from the top of Lift 22.

return to the ski area via the Town of Vail bus system. It is assumed that this area has become very popular due to the lack of extreme terrain within the SUP area.⁵

Mushroom Bowl is an intermediate to advanced bowl that drains back to the ski area at the bottom of Chair 10. Most users take a warm up run in Mushroom Bowl before skiing down the East Vail Chutes.

Ski area personnel do not maintain, patrol, or perform avalanche control work in either of these bowls.

⁵ The Mill Creek Road is maintained under an agreement with the Eagle County Sheriff's Department to facilitate emergency access for search and rescue.

8. GLOSSARY

Ability Level: The relative rank of a skier or snowboarder, or the relative rank given to alpine terrain. The ten ability levels relied upon by SE GROUP are as follows: first-time beginner, beginner, advanced beginner, novice, low intermediate, intermediate, advanced intermediate, expert, advanced expert, and extreme.

Acceptable Trail Density: The maximum number of skiers and snowboarders that can slide on an acre of trail at any given time without causing uncomfortable crowding on the trail. Acceptable trail density is measured in skiers and snowboarders per acre. *As a general rule, the difficulty of the trail and acceptable trail density share an inverse relationship.*

Acre-Foot: The amount of water, or snow, necessary to cover one acre to a depth of one foot. In general terms, one acre-foot of water yields two feet of snow, but depends on variables such as temperature and relative humidity.

Active Skiers and Snowboarders: Skiers and snowboarders are considered active if they are: (1) waiting in a lift line, (2) riding a lift, or (3) enjoying a downhill descent. Depending primarily upon weather and snow conditions, 70 to 85 percent of a resort's skiers and snowboarders are active. The remaining 15 to 30 percent of a resort's skiers and snowboarders are either using a resort's support facilities and amenities or are circulating in a resort's various staging and milling areas. These guests are considered non-active.

Alpine Skiers at One Time (Alpine SAOT): Alpine SAOT is the comfortable, daily capacity of a resort's skiing/snowboarding lifts. In short, Alpine SAOT is derived from the supply of vertical transport (i.e., the combined uphill hourly capacities of the lifts) and the demand for vertical transport (i.e., the aggregate number of runs demanded multiplied by the vertical rise associated with those runs). In some instances, Alpine SAOT is also called skiers-at-one-time (SAOT) capacity.

Best Management Practices (BMPs): Methods, measures, and practices specifically adopted for local conditions that deal effectively and practically with a given problem. BMPs include, but are not limited to, construction practices, structural and nonstructural controls, operations protocol, and maintenance procedures.

Bowl Skiing/Snowboarding: Skiing and snowboarding in open and broad expanses, generally above timberline. Bowl skiing and snowboarding usually features terrain appropriate for advanced intermediate and expert ability levels.

Cabin: An enclosed or semi-enclosed compartment used for transporting skiers and snowboarders. The term *cabin* is commonly used in aerial tramway discussions, whereas the term *chair* is used to reference the carrier relied upon by fixed-grip and detachable grip chairlifts.

Comfortable Carrying Capacity: Comfortable Carrying Capacity (CCC) is a planning tool used to determine the optimum level of utilization that facilitates a pleasant recreational experience. This is a planning figure only and does not represent a regulatory cap on visitation. SAOT is used to ensure that different aspects of a resort's facilities are designed to work in harmony, that capacities are

equivalent across facilities, and sufficient to meet anticipated demand. SAOT is based on factors such as vertical transport and trail capacities.

Cubic Foot per Second (cfs): The unit used to measure stream flow or similar discharge. One cfs is equivalent to 449 gallons per minute, or approximately two acre-feet per day.

Day-Use Skier/Snowboarder: Generally speaking, a skier or snowboarder that lives within the resort's day-use skier/snowboarder market. Given normal road and weather conditions, the day skier/snowboarder market is defined as the geographic area found within a 100-mile radius, or two-hour drive, of the resort. Day-use skiers and snowboarders drive to the resort and park in day-use lots.

Destination Skier/Snowboarder: Generally speaking, a skier or snowboarder that resides beyond a 250-mile, or five-hour, drive from the resort. On average, destination skiers and snowboarders stay at a resort for longer periods of time (i.e., ranging from three to seven days) and commonly comprise a majority of a resort's mid-week visitation. Destination skiers/snowboarders typically rely upon air travel and shuttle service for transport to the resort, and obligate overnight lodging and numerous other resort amenities.

Detachable Grip Chairlift: An aerial tramway system on which chairs circulate around the system – alternately attaching and detaching from a moving haul rope. Chairlift detachment occurs at the lower and upper terminals for ease of lift loading and unloading.

Fall-Line: The path an object would naturally take as it descends a slope under the influence of gravity. Fall-line paths indicate the natural flow of potential trails, from the top of ridges to the elevations below. Fall-line terrain allows skiers and snowboarders to make equally weighted, left and right turns.

Fixed-Grip Chairlift: An aerial tramway system on which chairs remain attached to a haul rope.

Food Service Seat Turnover Rate: The turnover rate is used to evaluate a resort's aggregate food service seating capacity. The turnover rate is the estimated number of times a food service seat is used during a resort's peak food service operations. Sit-down dining at a resort lodge typically has a turnover rate of 3, while cafeteria-style dining is characterized by a turnover rate in the range of 4 to 5. In addition to the type of food service, a resort's climate also impacts turnover rate (i.e., cold and snowy climates have lower turnover rates).

Formal Trail Network: The trails and other named terrain delineated on a resort's trail map. In addition to traditional trail corridors, the network might include named and patrolled bowls, glades, chutes, couloirs, hike-to areas, and tree skiing/snowboarding areas.

Glading: The removal of a pre-determined percentage of a slope's trees, which enables the area to be skied or ridden by a larger percentage of a resort's guests.

Gradient: The vertical distance divided by the horizontal distance (i.e., commonly known as "rise over run"), which is measured as a percent, or a degree. Slope gradient is used to determine the ability level distribution of a resort's alpine terrain.

Guest Services Facilities or Guest Services: Facilities or services that are supplied by a resort to accommodate guests and enhance the quality of the recreational experience. Examples of guest services facilities include: restaurants, warming huts, general information desks, resort lost and found departments, restrooms and lounges, ski school, daycare, public lockers and ski-check facilities, ski patrol, first aid clinics, etc.

Halfpipe: A channel constructed in the snow, up to 500 feet long, with consistent six- to 22-foot walls on both sides. The walls of the channel are contoured from horizontal to vertical and the bottom of the channel is generally flat.

Maze: A waiting area used to line up skiers and snowboarders just prior to lift loading (i.e., the corral area immediately adjacent to the loading point of the lift).

Mitigation: Actions taken to avoid, minimize, or compensate for adverse environmental impacts.

Mountain Work Roads: On-mountain primary and secondary roads that provide summertime access (for rubber tire vehicles) to all mountain buildings and lift terminal locations.

National Environmental Policy Act of 1970 (NEPA): The federal act which requires federal agencies to prepare detailed reports on the environmental effects of proposed actions on public lands.

Off Fall-Line: The path an object takes as it crosses the fall-line slope. Off fall-line terrain compels skiers and snowboarders to make alternating long and short turns (turns that are not equally weighted) in order to accommodate the off fall-line condition. In some instances, and if properly designed, off fall-line terrain can be enjoyable to snowboarders.

Ollie Roll: A mound of snow, either naturally occurring or manmade, in the middle of a snowboard park that provides a jump or a hit. An ollie ranges from three to six feet in height and typically ten feet in diameter.

Off-Piste: Alpine terrain not associated with a named and maintained ski trail.

Pod: A delineated parcel of land that, due to its favorable terrain characteristics, is suitable for lift and trail development. Pods are areas of relatively consistent terrain (both slope gradient and fall-line) that may be serviced by one or more lifts and may be easily integrated into the existing skier and snowboarder circulation patterns.

Prominent Ridge: The line of separation (i.e., a divide) between drainage basins.

Quad: A common abbreviation for a four-passenger chairlift.

Quarterpipe: A channel constructed in the snow the same as a halfpipe, but consisting of one wall instead of two. It may be shorter in length than a halfpipe and may face downhill or across the fall-line.

Rider: A commonly used term for a snowboarding guest.

Round-Trip Interval (RTI): The round-trip interval represents the aggregate time spent waiting in the lift line, riding the lift, and skiing or riding a particular trail of the lift. The RTI is used to calculate the number of runs an average skier/snowboarder is expected to take on a particular lift over the course of a day. Ultimately, the RTI is used to calculate the daily vertical demand of an average skier/snowboarder.

Shoulder Seasons: Generally speaking, the spring and fall seasons.

Six-Pack: A common abbreviation for a six-passenger chairlift.

Ski-In/Ski-Out Lodging: Overnight accommodations that are so close to the slopes that guests can conveniently ski, ride, or walk to the resort. Also referred to as slopeside lodging, the prevalence of this type of lodging is considered when a resort's parking and guest drop-off areas are sized.

Skier/Snowboarder Circulation Analysis: An on-slope survey in which skier and snowboarder circulation characteristics are recorded for the full spectrum of ability levels. The on-slope survey is performed for each lift, yielding an accurate determination of the lift's average RTI and Alpine SAOT.

Skiway: A trail that allows skiers and snowboarders to traverse the mountain and avoid additional chairlift rides. Skiways, or traverses, are also used in pods of intermediate, advanced intermediate, and expert terrain to provide an appropriate descent for guests of beginner and novice ability levels. A skiway is typically designed to maintain an average slope gradient of ten percent.

Space Use Definitions:

- **Administration** All resort operations office space not already incorporated in the square footage totals for the service functions listed below.
- **Bar/Lounge** All serving and seating areas designated as restricted use for the serving and consumption of alcoholic beverages. If bar/lounge space is used for restaurant seating, these restricted seats should be included in the overall restaurant seat count.
- **Circulation/Waste** All circulation space and associated spaces, including hallways, stairwells, lobbies, elevators, etc.
- **Daycare/Nursery** Includes all daycare/nursery facilities, registration area, and lunch rooms associated with this function. Storage, employee lockers, restrooms, and administrative space directly associated with daycare/nursery should be included in this total. Areas associated with rental equipment should be included in the Rentals/Repair square footage total.
- **Employee Lockers/Lounge** All employee space not previously allocated to the other service functions listed under the space use definition section.
- **Guest Services** including general resort information desks and lost and found departments. The milling area beyond the information desks should be included in the guest services square footage total.

- **Kitchen/Scramble** The area where food preparation, food service, and food storage occurs. Employee lockers, employee restrooms, and administrative space directly associated with food services should be included in the kitchen/scramble square footage total.
- **Mechanical** All space designated to mechanical functions, including telephone rooms, furnace rooms, and space occupied by water heaters.
- **Outdoor Deck Seats** Included in restaurant seat count in some clement areas (e.g., resorts with a significant number of sunny, warm days), but not in areas of inclement weather.
- **Public Lockers** All public locker and changing rooms. Any public lockers located along the walls of circulation space should be included (add an additional 2 sq. ft. of space per locker to account for space associated with locker use).
- **Rentals/Repair** All rental shops, repair services, and associated storage areas.
- **Restaurant Seating** All areas designated for food service seating, including restaurants, cafeterias, brown bag areas, and bar/lounge space dedicated to food service. Major circulation aisles through food service seating areas should be categorized as circulation space.
- **Retail** All retail shops and associated storage areas. Base area retail operations, as well as on-mountain outlets (selling sunscreen, sunglasses, goggles, hats, gloves, etc.), should be included in the retail square footage total.
- **Ski Patrol Space** associated with all first aid facilities and clinics. Storage, ski patrol lockers and restrooms, and administrative space directly associated with ski patrol should be included in the square footage total.
- **Ski School** Includes ski school registration area and any indoor staging areas. Storage, employee lockers, restrooms, and administrative space directly associated with ski school should be included in the ski school square footage total.
- **Storage** All storage space not previously allocated to the other service functions listed under the space use definition section.
- **Ticket Sales** The space associated with ticketing and season pass sales and associated administrative space. Exterior milling areas associated with ticket sales should not be included in this total. Interior milling areas should be categorized as circulation space.

Staging: An area, or zone, where guests assemble and are prepared for a particular recreational pursuit. Examples of staging areas include milling and maze areas, check-in and guest drop-off areas, plazas, etc.

Surface Lift: A lift on which passengers are propelled by means of a circulating overhead wire rope while remaining in contact with the snow surface. Connection between the overhead wire and the passenger is by means of a towing device (e.g., T-bar, J-bar, platter, etc.) attached and circulating

with the lift's haul rope. (Note: For definitional purposes, conveyor and belt lifts are considered surface lifts.)

Table Top: A mound of snow on the slope that is cut flat on the top providing a place for snowboarders to land on top or jump over.

Terrain Park: An area dedicated to the development and maintenance of a collection of alternative terrain features, which may include, but is not limited to, elements like half-pipes, quarter-pipes, big air hits, ollies, spines, jibbing elements, barrel bonks, table tops, etc.

Trail Density Per Acre: The number of skiers and snowboarders that occupy an acre of trail at any one given time. Trail density is reported in a persons-per-acre ratio.

Uphill Hourly Capacity: A calculation of the number of skiers and snowboarders transported – per hour – from the lower to the upper terminal of the lift. A resort's combined uphill hourly capacity is the aggregation of the resort's individual lift capacities.

Vertical Demand: The vertical demand of a lift is the by-product of the lift's vertical rise, the average round-trip interval (i.e., number of runs per hour), and the number of hours the lift is used by an average skier or snowboarder. In short, vertical demand is the product of the lift's vertical rise and the number of runs skied/rode in a day of typical operation.

Vertical Transport Feet per Hour (VTF/hr.) (000): The number of persons a lift is able to transport 1,000 vertical feet in one hour. VTF/hour is derived by multiplying a lift's uphill capacity (measured in persons per hour) by the lift's vertical rise (measured in feet) and dividing by 1,000.

