Appendix A: FIGURES

Appendix B: FACTS, NUMBERS, TABLES & CHARTS

1. FOREST MANAGEMENT DIRECTION

1.1 National Forests

Wolf Creek's existing 1,581-acre ski area boundary area is presently administered under a Special Use Permit (SUP) by the Rio Grande National Forest (RGNF), which occupies roughly 1,852,000 acres in south-central Colorado and includes forests within the San Juan and Sangre de Cristo Mountains surrounding the San Luis Valley. As part of this Master Development Plan (MDP), Wolf Creek Ski Area is proposing to expand onto the San Juan National Forest (SJNF), which spans nearly 2.2 million acres west of the RGNF in the San Juan Mountains of southwest Colorado. The RGNF and the SJNF are located adjacent to each other and managed under separate Land and Resource Management Plans (Forest Plans), which provide guidance for all resource management activities on the Forests. Forest Plans establish management Standards and Guidelines (both Forest-wide and Management Area-specific) for resource management practices, levels of resource production, carrying capacities, and the availability and suitability of lands for resource management.

The following discussion of forest management direction relevant to NFS lands at Wolf Creek is focused primarily on the RGNF's Revised Forest Plan (1996)[1]. This is intended to supplement Wolf Creek's current and planned activities within its existing SUP area, which is presently entirely within the RGNF. Planned future operations and activities on the SJNF are subject to that Forest's management direction, as outlined in its current Amended Forest Plan (1992)[2]. However, as of the date of this MDP, the SJNF's Forest Plan was in the midst of the final revision process. The final Environmental Impact Statement (EIS) and Record of Decision (ROD) for the SJNF Forest Plan are expected in late 2012 or early 2013.

Upon acceptance of Wolf Creek's MDP by the RGNF and SJNF, a proposal for site-specific analysis under the National Environmental Policy Act (NEPA) will be submitted. At that time, a detailed Forest Plan consistency analysis will be performed to identify any potential planning inconsistencies between proposed activities and Forest-wide and Management Area direction on the RGNF and SJNF, as appropriate.

1.2 Relationship to the Forest Plan

This MDP is consistent with the general direction of the Revised Land and Resource Management Plan for the RGNF (commonly referred to as the RGNF Forest Plan)[3], as well as the San Juan Public Lands

[1] USDA Forest Service. 1996. Revised Rio Grande National Forest Land and Resource Management Plan.

[2] USDA Forest Service. 1992. Amended Land and Resource Management Plan. San Juan National Forest. April

[3] USDA Forest Service. 1996. Revised Rio Grande National Forest Land and Resource Management Plan.

Draft Land Management Plan[4], with the hope that it will be considered during the finalization of the SJNF's Land and Resource Management Plan (SJNF Forest Plan).

"Acceptance" of this MDP by the U.S. Forest Service (USFS) does not convey approval of any projects contained herein. Implementation of any projects on National Forest System (NFS) lands within Wolf Creek's Special Use Permit (SUP) area is contingent upon site-specific environmental review and approval via the National Environmental Policy Act (NEPA).

1.2.1 Revised RGNF Forest Plan

Under the existing SUP, Wolf Creek's operations must comply with the management direction provided in the 1996 RGNF Revised Forest Plan. Management direction on the RGNF is defined at the Forest-wide and Management Area level.

Forest-wide direction consists of Standards and Guidelines and Regional Objectives, which define management requirements on a resource-by-resource basis. Forest-wide Standards and Guidelines are identified by resource in Chapter 3 of the Revised Forest Plan. Eight Regional Objectives are identified in the Revised RGNF Forest Plan. Developed recreational opportunities—including alpine skiing—are included in Regional Objective 4: "Provide for Scenic Quality and a Range of Recreational Opportunities that Respond to the Needs of Forest Customers and Local Communities."

Management Areas (MAs) are defined as parts of the Forest that are managed for a particular emphasis or theme. Each MA has a Prescription that outlines the setting, the Desired Conditions, and the Standards and Guidelines that apply to it (in addition to the Forest-wide Standards and Guidelines), identified in Chapter. MAs across the RGNF have been grouped into eight Categories. The Wolf Creek SUP is in Category 8, defined as: "the ecological condition, including processes, is likely to be permanently altered by human activities, beyond the level needed to maintain natural-appearing landscapes and ecological processes. These areas are generally small. Ecological values are protected where they affect the health and welfare of humans. Human activities are generally commercial in nature, directly or indirectly providing jobs and income. Motorized transportation is common."[5]

Under Category 8, the Wolf Creek SUP area falls within Management Area Prescription 8.22 – Ski-Based Resorts: Existing/Potential. These areas are managed for their existing or potential use as ski-based resort sites. Per MA 8.22: "This Prescription is applied to the mountainous area comprising the existing Wolf Creek Ski Area, and those lands identified for potential expansion. Associated facilities such as

[4] USDA Forest Service. 2007. San Juan Public Lands Draft Land Management-Draft Environmental Impact Statement. Volume 2: Draft Land Management Plan.

[5] USDA Forest Service. 1996. Revised Rio Grande National Forest Land and Resource Management Plan. p. IV-21.

trails, lifts, and lodges are included. This is an area of concentrated use. Visitors can expect to see facilities associated with the ski area."[6]

Desired Future Conditions within MA 8.22 include:

- Four-season recreation resort use, and other winter sports activities such as snowmobile centers and Nordic ski centers, are encouraged and integrated with other Management Objectives.
- Insects and disease will be managed to protect the recreation resource and to ensure public safety.
- Implementation of this Prescription will maintain the possibility of winter-sports expansion. Any resource management activities within this area will be designed and implemented to maintain or enhance the existing resources.
- Development within this area will not occur until a master development plan has been submitted, alternatives and resource impacts have been analyzed, and a decision has been issued.

The Upgrade Plan included in Chapter 4 of this MDP identifies one area of proposed ski area expansion onto the RGNF. This proposed expansion area is currently categorized as 5.13-Forest Products. These areas are managed to allow a full range of activities, with an emphasis on the production of commercial wood products. Development within this area will require review and approval by the RGNF.

1.2.2 SJNF Forest Plan

As mentioned previously, the SJNF's Forest Plan is in the midst of the revision process with the final EIS and Forest Plan for the SJNF expected to be completed in late 2012 or early 2013. Under the current operational Amended Forest Plan (1992), the SJNF has been divided into twenty Management Areas. Two of these MAs border the existing ski area boundary: MA 2A defined as, "semi—primitive motorized recreation opportunities", and MA 3A, "semi-primitive, non-motorized recreation opportunities".

As outlined in Chapter 4 of this document, two areas of proposed ski area expansion onto the SJNF are proposed under the Upgrade Plan: the Matchless Pod and the Pass Pod. The proposed Wolf Creek Pass Pod ski area boundary expansion falls within MA 2A, and the proposed Matchless Pod expansion area falls within MA 3A.

Based on the SJNF's Draft Forest Plan published in 2007,[7] the number of Management Area categories will likely be reduced and their boundaries shifted under the final Forest Plan. As a result, the Management Area prescriptions for the two proposed ski area expansion areas will likely be redefined.

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[6] Ibid. p. IV-39.

[7] USDA Forest Service. 2007. San Juan Public Lands Draft Land Management-Draft Environmental Impact Statement. Volume 2: Draft Land Management Plan.

Future expansion of the ski area onto SJNF lands will require review and approval by the SJNF and a new SUP, none of which are expected to occur until after the final revised Forest Plan becomes active.

1.3 Scenic Resources

1.3.1 Scenery Management System

The Scenery Management System (SMS) was adopted in 1995 as the primary scenery management direction by the Forest Service. In brief, the SMS is a systematic approach for assessing scenic resources in a project area and then using the assessment findings to help make management decisions on the project. The system is founded on an ecological aesthetic, which recognizes that management which preserves the integrity, stability, and beauty of the biotic community, preserves the scenery as well.

The aesthetic goals of scenic resources in a particular area (e.g., Management Area) are documented according to established Scenic Integrity Objectives (SIO). SIOs provide a measure of visible disruption of landscape character, and range from *Very High* (unaltered environment) to *Unacceptably Low* (extremely altered environment).

Site-specific analysis of visual impacts of proposed ski area improvements will be done during the NEPA process, using visual quality standards set out by both the RGNF Revised Forest Plan and the new SJNF Forest Plan (in-process).

1.3.2 RGNF Standards for Scenery Management

MA 8.22 in the RGF Revised Forest Plan directs that "activities meet the adopted Scenic Integrity Objective." Per the Revised Forest Plan, the following Forest-wide standards apply to scenic resources:

- The Scenic Integrity Level(s), based on current landscape character, are usually accepted as the Scenic Integrity Objective(s) unless highly unusual or special circumstances identify a need to change.
- Variations in the Scenic Integrity Objectives may dominate the valued landscape character, but must borrow from the valued attributes such as size, shape, edge effect, and pattern of natural openings, and still meet the minimum requirements of the next lower Objective chosen.
- Management activities which are inconsistent with the Scenic Integrity Objective will be avoided unless a decision is made to change the Scenic Integrity Level. A decision to change the Scenic Integrity Objective will be documented in a project-level NEPA decision document.
- If field analysis identifies a need to correct the inventory of Scenic Condition Objectives, the correction will be recorded in an environmental analysis document, approved, and the Forest inventory will be updated. Conditions that could warrant a change in Scenic Condition Levels are:
    - Discrepancies in "inherent scenic attractiveness" classification.
    - Changes in "viewer location" and "sensitivity level."

- Discrepancies in “seen area” mapping.

1.3.3 SJNF Standards for Scenery Management

Since Management Areas are yet to be finalized under the new, pending SJNF Forest Plan, guidelines and standards cannot be discussed for the proposed Matchless and Pass Pod expansion areas. However, scenic resource standards for the SJNF will be met based on the new Management Area determinations pending under the new SJNF Forest Plan.

1.3.4 Built Environment Image Guide

In 2001, the Forest Service adopted the Built Environment Image Guide (BEIG) as a way of incorporating “thoughtful design and management” of the built environment across National Forests and Grasslands.[8] The Forest Service defines the built environment as “the administrative and recreation buildings, landscape structures, site furnishings, structures on roads and trails, and signs installed or operated by the Forest Service, its cooperators, and permittees".[9] It focuses on the image, appearance, and structural character of the facilities, and environmental context, cultural context, and economic context are emphasized throughout.

The BEIG provides guidance for improving the image, aesthetics, sustainability, and overall quality of recreational and administrative structures on NFS lands, but it does not contain enforceable "standards" pertaining to the aesthetic quality as would be found in a typical Forest Plan. Specific direction for the design of administrative and recreational facilities is found in the Forest Service Manual (FSM) and Forest Service Handbooks (FSH).[10]

The environmental, cultural, and economic contexts with which the BEIG is based are important considerations in development of structural facilities (not including lift terminals) within the Wolf Creek SUP area. To ensure sensitive responses to the contexts of ecology and culture, the BEIG addresses eight geographic areas known as provinces; both the RGNF and the SJNF are within the Rocky Mountain Province. Designs should synthesize rustic precedents with contemporary needs and realities. Rocky Mountain structures may not always use natural materials, yet they can still complement their settings, be more durable, consume less energy, and lay more lightly within the landscape than structures from previous eras. Additional elements of the "Rocky Mountain Province" should be taken into account when designing and constructing facilities on NFS lands; these are described in detail in the BEIG.[11]

The architectural design of planned structures on NFS lands would be subject to Forest Service review and approval during future project proposal.

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[8] USDA Forest Service. 2001. The Built Environment Image Guide for the National Forests and Grasslands. FS-710. September.

[9] Ibid. p. ii.

[10] Ibid. pp. 250-252.

[11] Ibid. pp. 159-178.

1.4 Public Lands Accessibility

Ski areas operating under a Special Use Permit from the Forest Service are required to comply with both the Americans with Disabilities Act of 1990 (ADA)[12] and Section 504 of the Rehabilitation Act of 1973 (Section 504).[13] Wolf Creek must comply with these Acts because: 1). Wolf Creek is a business open to the public and operates as a "public accommodation" (ADA), and 2). Wolf Creek operates under a SUP from the Forest Service, and as such, agrees to abide by these and all other laws, regulations, and policies of the federal government (Section 504). Wolf Creek currently complies with both legislative acts through their active involvement in assisting disabled guests with skiing and other recreation activities.

In June 2005, the Forest Service released the Accessibility Guidebook for Ski Areas Operating on Public Lands, 2005 Update (Accessibility Guidebook).[14] This guidebook provides information for ski areas authorized under a SUP to work with the Forest Service in providing equal opportunities for all people, including those with disabilities. Through future site-specific NEPA and design development reviews, Wolf Creek will work closely with the RGNF and the SJNF to ensure continued accessibility measures are taken to provide equal opportunity to all users of public lands as directed by the ADA and Section 504, and through the recommendations provided in the Accessibility Guidebook.

[12] Americans with Disabilities Act of 1990, Pub. L. No. 101-336, § 2, 104 Stat. 328 (1991).

[13] Section 504 of the *Rehabilitation Act of 1973*, as amended, 29 U.S.C. 794.

[14] USDA Forest Service. 2005. Accessibility Guidebook for Ski Areas Operating on Public Lands: 2005 Update. FS-703. June.

2. RELATIONSHIP TO COLORADO ROADLESS RULE

The Final Colorado Roadless Rule was published in July 2012[15]. This Rule differs from the Federal Roadless Rule, enacted in 2001[16], by dividing roadless areas into a two-tiered protection system – "upper tier" and "non-upper tier". Of the 4.2 million acres of protected roadless area in Colorado, only 1.2 million acres are considered upper tier; the remaining 3 million acres are considered non-upper tier. The 2001 Federal Roadless Rule gave all roadless areas the same protection. The 2012 Colorado Roadless Rule provides a higher level of protection for the upper tier-designated lands than even the 2001 Federal Rule, but the non-upper tier receive a lower level of protection than the federal rule, and allow certain types of activities, including ski area expansion.

The existing Wolf Creek Ski Area SUP boundary does not overlay any designated Colorado roadless areas; however, proposed expansion onto the San Juan National Forest - specifically the Matchless Pod area - does. The majority of the Matchless Pod area overlays the non-upper tier roadless area, while the far eastern edge of the Matchless Pod, on the west-facing slopes above Silver Creek, overlays with an upper-tier roadless area (Figure 3). Wolf Creek believes that construction and maintenance of the Matchless Low-Capacity Tram and Wolf Creek's winter recreational use of the Matchless Pod can be accomplished within the rules set forth for the non-upper tier roadless areas. In addition, Wolf Creek is willing to enter into restrictions for use within the Matchless Pod area that align with the Colorado Roadless Rule and run with the permit rather than the permit holder. Wolf Creek is also willing to support the Forest Service should they decide to designate this area as "upper tier" protection. Wolf Creek is willing to take this step in order to set a precedent for other ski areas, for working within - and not against - the new Colorado Roadless Rule.

[15] 36 CFR Part 294,"Special Areas; Roadless Area Conservation; Applicability to the National Forests in Colorado; Final Rule and Record of Decision," 77 Federal Register 128 (03 July 2012), pp. 39576-39612.

[16] 36 CFR Part 294, "Special Areas; Roadless Area Conservation; Final Rule," 66 Federal Register 9 (12 January 2001), pp. 3244-3273.

3. RELATIONSHIP TO THE VILLAGE AT WOLF CREEK

Wolf Creek's MDP was developed independently from the proposed development plans and current proposed USFS land exchange proposal put forth by the adjacent private landowners, the Village at Wolf Creek. Wolf Creek's Upgrade Plan presented herein does not rely on any portion of the Village's plans or proposal to accomplish the goals that Wolf Creek seeks, and will be successful with or without any adjacent land development. However, proximity to the proposed development inevitably raises questions, as reflected during Wolf Creek's public scoping and input process.

As of the date of this MDP, the USFS has released the Draft Environmental Impact Statement (DEIS)[17] for the Village at Wolf Creek, a third party real estate proposal, that considers three alternatives:

1. no action;
2. a land exchange; and
3. an ANILCA road easement. (The ANILCA road easement option would grant road access to the current private land in-holding under the Federal statute known as the Alaska National Interest Land Conservation Act (ANILCA).)

Wolf Creek Ski Area supports the land exchange alternative in the current DEIS for the following three reasons:

1. The realigned property boundaries will protect the ski heritage of Wolf Creek Ski Area;
2. Wolf Creek believes that moving the current boundary away from the Alberta Park wetlands complex will be beneficial to water users of the San Luis Valley and the ecosystem as a whole; and,
3. Wolf Creek respects the property rights of the developers. If the USFS proceeds with the land exchange alternative, the private land will become contiguous with the state highway system (U.S. Highway 160), which would relieve the Forest Service from administrating road development. The private development could also benefit Mineral County, which is currently composed of 96% federal land, and only 4% private land.

[17] USDA Forest Service. 2012. Village at Wolf Creek Access Project Draft Environmental Impact Statement (DEIS). August.

Appendix C: SKI AREA PLANNING PROCESS

1. DESIGN CRITERIA FOR SKI AREA PLANNING

Design criteria are an important concept in ski area master planning. This chapter provides an overview of the design criteria used at Wolf Creek, and upon which Chapter 2 (Existing Ski Area Facilities) and Chapter 4 (Upgrade Plan) of the main document are based. By design, the information provided in this Chapter 1 of Appendix C is general in nature and related to the concept of resort master planning, rather than to Wolf Creek specifically. Other Appendices present information that is specific to Wolf Creek.

2. REGIONAL DESTINATION SKI AREAS

Regional destination ski areas such as Wolf Creek depend on and largely cater to a visitor market willing to drive to the ski area. While day-use guests play a large role, many patrons are vacationers from out of the regional area. Regional destination ski areas typically have evolved near existing communities but may not have resort lodging at the ski area. Lodging and other services are provided by proprietors in the surrounding communities. In the case of Wolf Creek, lodging is not available at the ski area, thus lodging and other services are primarily supplied by the closest towns (Pagosa Springs and South Fork), with other nearby communities providing additional services.

3. BASE AREA DESIGN CRITERIA

The relationship between the base area and the on-mountain facilities is an important design criterion for a ski area. Walking distance (including distance from parking areas to ticketing and rentals, and then to the base of the lifts) and vertical distance between the base area facilities and bottom lift terminals should be minimized in order to facilitate efficient movement of skiers from the point of arrival onto the mountain. Thoughtful design of vehicle, pedestrian, and skier circulation patterns creates an organized and pleasant base area environment.

4. ON-MOUNTAIN DESIGN CRITERIA

4.1 Trail Design

Slope Gradients and Terrain Breakdown

Terrain ability level designations are based on slope gradients and terrain features associated with the varying terrain unique to each mountain. In essence, ability level designations are based on the maximum sustained gradient calculated for each trail. While short sections of a trail can be more or less steep without affecting the overall run designation, a sustained steeper pitch may cause the trail to be classified with a higher difficulty rating. Additionally, the overall length of a trail and the frequency of snow grooming can affect the ability rating of a given trail, with more frequent grooming providing the opportunity for lower skilled skiers to negotiate a given trail.

The following general gradients are used to classify the skier difficulty level of the mountain terrain.

Table C-1. Terrain Gradients

Skier Ability		Slope Gradient
●	Beginner	8 to 12%
●	Novice	to 25%
■	Low Intermediate	to 35%
■	Intermediate	to 45%
◆	Advanced Intermediate	to 55%
◆	Expert	over 55%

The distribution of terrain by skier ability level and slope gradient is compared with the market demand for each ability level. It is desirable for the available ski terrain to be capable of accommodating the full range of ability levels reasonably consistent with market demand. The market breakdown for the Rocky Mountain skier market is shown in Table C-2.

Table C-2. Rocky Mountain Skier Ability Breakdown

Skier Ability		Percent of Skier Market
●	Beginner	5%
●	Novice	15%
■	Low Intermediate	25%
■	Intermediate	35%
◆	Advanced	15%
◆	Expert	5%

Trail Density

The calculation of capacity for a ski area is based in part on the target number of skiers and riders that can be accommodated, on average, on a typical acre of terrain at any one given time. The criteria for the range of trail densities typically used for North American ski areas are listed below in Table C 3.

Table C-3. Skier Density per Acre

Skier Ability		Trail Density
●	Beginner	25 to 40 skiers/acre

●	Novice	12 to 30 skiers/acre
■	Low Intermediate	8 to 25 skiers/acre
■	Intermediate	6 to 20 skiers/acre
◆	Advanced Intermediate	4 to 15 skiers/acre
◆	Expert	2 to 10 skiers/acre
◆	Alpine Bowls	0.5 skier/acre

These density figures account for the skiers that are actually populating the trails and do not account for other guests who are waiting in lift lines, riding the lifts, using the milling areas or in other support facilities. Empirical observations and calculations indicate that, on an average day, approximately 40% of the total number of skiers or riders at a typical ski area are on the trails at any given time. Additionally, areas on the mountain, such as merge zones, convergence areas, lift milling areas, major circulation routes, and egress routes, experience higher densities periodically during the day.

Recent trends in trail density design criteria tend to provide for a less crowded skiing experience. As witnessed at many ski areas around the world, there is a segment of the market that has a preference for more natural, unstructured, in-bounds "backcountry" types of terrain commonly referred to as "off-piste."[18] Demand is increasing for alpine open bowls, glades, and other similar types of terrain, spurred by advances in ski and snowboard technology. Skier density per acre factors are not necessarily applicable to these types of terrain, particularly as there often is not a defined edge to these areas as there is with a traditional ski run. However, skiers of all abilities are attracted to these areas for the un-crowded feel, and the experience, adventure and challenge that it affords. Planning and design should provide these types of areas if possible. Examples range from skiing between existing runs, to providing lift access to undeveloped terrain. This is the style of skiing for which Wolf Creek is best known and the style that attracts the skier demographic that Wolf Creek is catering to.

Wolf Creek is renowned for its dispersed, low-density skiing. In order to maintain these qualities, target densities used in the Wolf Creek MDP are on the low end of the range shown in Table C-3.

Trail System/Terrain

A primary goal for trail system design is to provide a wide variety of ski terrain which caters to the ski area's guest demographic. Each skier ability level should have designed trails that provide an interesting and challenging experience for that ability level skier. Optimum trail widths should vary depending upon topographic conditions and the caliber of the skier being served. The trail network should provide the full range of ability levels consistent with their market demand.

[18] "Piste" is a term commonly borrowed from French vernacular which refers to a groomed, maintained, defined ski trail. "Off-piste" therefore refers to the ungroomed, less defined natural style of skiing commonly found in high alpine areas and bowls.

In terms of a ski area's ability to retain guests at that ski area, both for longer durations of visitation and for repeat business, one of the more important factors has proven to be variation in terrain. This means having developed runs for all ability levels: some groomed on a regular basis and some not, bowl skiing, tree skiing, gladed skiing, and possibly terrain parks and pipes. Because of their reputation for having exceptional off-piste terrain offerings, Wolf Creek specifically aims to maintain and enhance this type of terrain.

In summary, a broad range of skiing terrain satisfies skiers from Beginner through Expert ability levels within the natural topographic characteristics of the ski area.

4.2 Lift Design

In general, lift design has to take into consideration such factors as wind, round-trip utilization of the terrain pod, access needs, interconnectability between other lift pods, the need for circulation space at the lower and upper terminal sites, and the presence of natural resources (e.g., visual impacts, wetlands, and riparian areas). The vertical rise, length and ride time of lifts across a mountain are important measures of overall attractiveness and marketability of any ski area. As previously discussed, Wolf Creek has a very different lift design philosophy, and is willing to intentionally invest in providing lift service in areas where very few people will ski/ride. Of the five new lifts included within this Master Development Plan, three are deliberately planned to serve low density and gladed terrain areas, with the Matchless Low-Capacity Tram requiring a hike for guests to even access the pod.

4.3 On-Mountain Guest Support Facilities

On-mountain guest support facilities are generally used to provide food service (cafeteria-style or table service), restrooms, and limited retail, as well as ski patrol and first aid services, in closer proximity to upper-mountain terrain. This eliminates the need for skiers and riders to descend to the base area for similar amenities. It has also become common for ski areas to offer ski/board demo locations on-mountain, so skiers and riders can conveniently test different equipment throughout the day.

At ski areas where the on-mountain lifts (i.e., those not starting at the base area) are quite dispersed, like Wolf Creek, more on-mountain guest service locations are required to ensure that these services are located within reasonable proximity to the lift systems they serve.

4.4 Capacity Analysis and Design

Comfortable Carrying Capacity (CCC) is defined as a level of utilization for a given ski area that provides a pleasant recreational experience, without overburdening the mountain's infrastructure. CCC is a planning figure and does not indicate a maximum level of visitation, but rather the number of visitors that can be "comfortably" accommodated on a typical day. The accurate estimation of the CCC for a mountain is a complex issue and is a critical planning criterion for the ski area. Related skier support facilities, including base lodge seating, mountain restaurant requirements, restrooms, parking, and other guest functions are planned around the proper identification of the mountain's capacity.

CCC is derived from the ski area's supply of vertical transport (the vertical feet served combined with the uphill hourly capacities of the lifts) and demand for vertical transport (the aggregate number of runs demanded multiplied by the vertical rise associated with those runs). CCC is calculated by dividing vertical supply (vertical transport feet (VTF)/day) by vertical demand, and factors in the total amount of time spent in the lift waiting line, on the lift itself, and in the downhill descent.

Note: It is not uncommon for ski areas to experience peak days during which visitation exceeds the CCC by as much as 25%.

5. BALANCE OF FACILITIES

The mountain master planning process emphasizes the importance of balancing recreational facility development. The sizes of the various guest service functions are designed to match the CCC of the mountain. The future development of a ski area should be designed and coordinated to maintain a balance between accommodating guest needs, ski area capacity (lifts, trails, and other amenities), and the supporting equipment and facilities (e.g., grooming machines, day lodge services and facilities, utility infrastructure, access, and parking). Note that it is also important to ensure that the ski area's CCC balances with these other components, facilities, and services at the ski area. Since CCC is primarily derived from the ski area's lift network, it is possible to have a CCC that is effectively lower than the other components.

Appendix D: EXISTING SKI AREA CONDITIONS AND ANALYSIS

1. SITE INVENTORY

This section provides a brief overview of the some of the unique characteristics of the Wolf Creek Ski Area environs, including private and National Forest Service (NFS) lands that were taken into consideration when assembling this MDP.

1.1 Topography

Wolf Creek is located on the Continental Divide. The ski area occupies the east- and north-facing slopes of a ridge that represents the Continental Divide south of U.S. Highway 160. This ridge has several high points, most notably Alberta Peak and Spooner Hill, with a summit elevation (on Alberta Peak) of just over 11,900 feet above sea level. The upper reaches are located on the ridge, with the ski area occupying a large bowl that is created by the ridge curving from south to east and eventually back north to Spooner Hill. Since the ski area is located on a ridge, flat sections at the top restrict circulation around the resort. Subsequently, circulation requires traversing between lift systems as well as optional hiking to gain access to certain terrain areas ("hike-to" terrain).

The base area sits in the western portion of the flat area at the bottom of the bowl, at an elevation of approximately 10,700 feet above sea level. The highest lift serviced point at the ski area is around 11,770 feet above sea level. The average slope gradient from the base area to this high point is around 25%. The trails at Wolf Creek are located off this ridge, extending from the ridge down to either a remote lift base (Alberta) or the base area.

1.2 Fall Line

The Fall Line Analysis evaluates the natural fall lines of mountainous terrain, with the fall line representing the path an object would take as it descends a slope under the influence of gravity. Fall line paths indicate the natural flow of potential ski trail routes, from the top of mountain ridges to the valleys and base areas below. Consistency of fall line provides for the best recreational skiing experience and results in the least amount of environmental disruption due to the minimal amount of terrain modification required for trail construction.

Figure 4 depicts the existing topography, with differing color lines indicating ridge lines, drainages, and fall-lines.

1.3 Slope Gradients

As discussed in Appendix C, terrain ability level designations are based on slope gradients and terrain features associated with the varying terrain unique to each mountain. Regardless of the slope gradient for a particular trail, if it feeds into a trail that is rated higher in difficulty, its ability level must be rated accordingly. Conversely, if a trail is fed only by trails of a higher ability level than the maximum slope of the trail would dictate, it also must be rated accordingly. Examples of this are abundant at Wolf Creek,

as most of the access traverses (*Navajo Trail, Coyote Park Trail, Lagerfest*, etc.) have grades that could be skied by novice level skiers, but they either access or egress higher ability level terrain.

Slope gradients at Wolf Creek are depicted on Figure 5.

- **0 to 8% (0 to 5 degrees):** too flat for skiing and riding, but ideal for base area accommodations and other support facility development.
- **8 to 25% (5 to 15 degrees):** ideal for Beginners and Novices, and typically can support some types of development.
- **25 to 45% (15 to 25 degrees):** ideal for Intermediates, and typically are too steep for development.
- **45 to 70% (25 to 35 degrees):** ideal for Advanced and Expert skiers/riders, and pose intermittent avalanche hazards.
- **>70% (>35 degrees):** too steep for all but the highest level of skiing/riding. These areas are typically allocated as Expert only and are closely managed by the ski area operator for avalanche control.

1.4 Slope (Solar) Aspects

Wolf Creek is located on a distinct ridge, with exposures predominantly east and north. The ski trails off Raven and Bonanza face more easterly while the trails off Treasure and Alberta are more northerly. There are, in essence, no westerly or southerly facing ski trails.

Slope aspect plays an important role in snow quality and retention. The variety of exposures present opportunities to provide a range of slope aspects that can respond to the changes in sun angle, temperature, wind direction, and shadows. Typical constraints in relation to the various angles of exposure are discussed in the following text.

Slope aspects at Wolf Creek are depicted on Figure 6.

- **North-facing**: ideal for snow retention, minimal wind scour, minimal sun exposure. In most cases, north-facing slopes offer the best skiing opportunities from a solar aspect standpoint. Fresh snow will retain its quantity and quality for the longest duration on these aspects. However, on very cold days with icy, frozen, or other low quality snow conditions, north-facing slopes offer a poor ski experience.
- **Northeast-facing**: ideal for snow retention, minimal wind scour, minimal sun exposure.
- **East-facing**: good for snow retention, some wind scour, morning sun exposure. Often provides the best ski experience on cold, sunny days with hard snow—particularly in the morning when the sun warms these areas and softens the snow.
- **Southeast-facing**: fair for snow retention, moderate wind scour, morning and early afternoon sun exposure. Due to typically poor snow quality, south-facing slopes are usually considered to be the least favorable aspect for skiing. However, on very cold (but sunny)

days with very hard or icy snow conditions, these are likely to provide the best ski experience.

- **South-facing**: at lower elevations, poor for snow retention, moderate wind scour, full sun exposure.
- **Southwest-facing:** poor for snow retention, high wind scour, full sun exposure.
- **West-facing:** fair for snow retention, high wind scour, late morning and afternoon sun exposure. As many skiers (consciously or otherwise) like to follow the sun around the mountain, west-facing slopes are often popular for afternoon skiing.
- **Northwest-facing:** good for snow retention, moderate wind scour, some afternoon sun.

Wolf Creek's north and east facing slopes are ideal for snow retention and quality, and represent the best ski experience on most days. However, the lack of variety in aspect may constrain guest options under certain weather conditions and restricts opportunities for "following the sun."

2. EXISTING FACILITIES

The following section contains an examination and analysis of existing facilities (Figure 3) at Wolf Creek. Completion of a thorough ski area inventory is the first step in the master planning process and involves the collection of data pertaining to the ski area's existing facilities. This inventory includes ski lifts, ski trails, base area structures, guest services, other ski area functions/activities, day-use parking, operations, and utilities/infrastructure. The analysis of the inventoried data involves the application of current industry standards to Wolf Creek's existing facilities. This process allows for a comparison of the ski area's existing facilities to those facilities commonly found today at ski areas of similar size, style, and target demographic.

The overall balance of the existing ski area is evaluated by calculating the capacities of various facility components and then comparing these capacities to the ski area's CCC (defined in Appendix C, Section 4.4). This examination of capacities helps to identify surpluses, deficiencies, opportunities, and constraints at the ski area. The next step is the identification of improvements which would bring the existing facilities into better equilibrium, and will assist the ski area in meeting the ever-changing expectations of their marketplace. Accomplishing these objectives will result in a well-balanced ski area which provides an adequate array of services and experiences to satisfy guest expectations for a quality recreational experience.

2.1 Existing Guest Experience

Determining the ski area CCC is an important first step in evaluating the overall guest experience because it enables planners to understand the overall balance of the facility. Empirical observations and a close examination of Wolf Creek's primary components reveal some key surpluses and deficiencies.

Wolf Creek's CCC is computed by analyzing the ski area's supply of, and demand for, vertical transport, the uphill capacity of the lift system, and the downhill capabilities of the available terrain. The comfortable capacity of the existing lift and alpine terrain network has been determined to be approximately 3,590 guests daily.

Wolf Creek takes great pride in offering a laid-back, friendly atmosphere that supports, and is complemented by, its diverse terrain and abundant snowfall. With large quantities of undeveloped and gladed ski terrain, Wolf Creek is attractive to skiers and riders who prefer a more natural style of terrain in an unpretentious atmosphere. The fact that virtually all of Wolf Creek's snow is natural further enhances its deservedly strong reputation for offering a unique brand of skiing/riding. Wolf Creek has positioned itself in the Rocky Mountain market to take advantage of this reputation, and to a significant degree, caters to higher-ability level skiers and riders. That being said, there is also a sufficient quantity of traditionally developed, groomed terrain available for lower ability level skiers and riders who prefer this style of skiing.

On most weekdays and non-peak weekends, actual daily visitation levels at the ski area are below the calculated CCC, meaning that long lift lines are uncommon, and most skier support facilities are not

over-burdened. However, similar to patterns of use at most day use ski areas, Wolf Creek witnesses very busy days on key weekends and holiday periods (occasionally in excess of the current CCC). Wolf Creek typically receives the most snow in Colorado, averaging over 465 inches annually. Because of the abundant natural snowfall, Wolf Creek has only a limited snowmaking system augmented, as necessary, with manual shoveling of snow from within the inter-trail tree islands. While this historically has not been a significant problem, it can constrain early season operations.

Despite its strong attributes, there are a number of deficiencies at Wolf Creek that detract from the guest experience and may contribute to the ski area's inability to capture and retain market share. The primary restriction is with the lift system. As mentioned above, peak days are well above the ski area's CCC, meaning that lift lines can get quite long. Also, it is difficult to circulate around the ski area, particularly when skiing the Alberta area and in returning to the base. The existing base area buildings, while well-maintained and functional, are insufficiently sized to meet the needs of existing high visitation level days. Lunch lines can be long and it can be difficult to find a seat on those days. While Wolf Creek has a good variety of terrain for all abilities, continuing to provide the desired low terrain densities is critical to maintaining "The Wolf Creek Experience" and will require additional terrain and lifts in the future. Additional lifts are also necessary to improve and facilitate the ability for guests to return to the base area and the Alberta Lift without enduring long traverses or being required to pole/walk.

2.2 Existing Lift Network Analysis

Wolf Creek Ski Area currently operates five chairlifts (Alberta, Bonanza, Nova, Raven, and Treasure), one surface lift (D. Boyce), and one beginner conveyor lift (Magic Carpet). The layout of the existing lift system is illustrated in Figure 3. A summary of technical specifications for each lift is provided in Chapter 2.1 of the document; full technical specifications for the lifts are listed in Table D-1, below.

The existing lift network has a total operational "lift capacity" of 9,680 passengers per hour (pph)[19] (Table D-1) and generates 47.2 million Vertical Transport Feet (VTF) per day (calculated in Table D-5).

[19] Note: lift capacity, expressed in passengers per hour, is one factor of computing the CCC, but is a per-hour metric rather than a daily assessment.

Table D-1. Lift Specifications (Full) – Existing Conditions

Lift Ref.	Lift Name	Lift Type	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Average Grade (%)	Actual Design Capacity (pers./hr.)	Carrier Spacing (ft.)	Lift Maker/Year Installed
1	Raven	DC-4	11,351	10,647	704	2,590	2,700	27	2,400	100	Doppelmayr-CTEC/2006
2	Bonanza	C-3	11,608	10,681	927	3,533	3,687	26	1,800	50	CTEC/1988
3	Nova	C-2	10,800	10,683	117	614	627	19	1,200	50	Riblet/1991
4	Magic Carpet	C	10,701	10,690	11	84	85	13	480	31	RMCE/1994
5	D. Boyce	S	11,727	10,793	934	3,549	3,707	26	500	36	Poma/1980
6	Treasure	C-3	11,771	10,689	1,082	4,283	4,467	25	1,500	60	CTEC/1982
7	Alberta	C-4	11,465	10,397	1,068	5,019	5,179	21	1,800	67	Garaventa-CTEC/1999
	TOTALS				**4,843**				**9,680**		

S = Surface lift
C-2 = fixed-grip double chairlift
C-3 = fixed-grip triple chairlift
C-4 = fixed-grip quad chairlift
DC-4 = detachable, high-speed, quad chairlift
Source: SE Group

2.3 Existing Terrain Analysis

Terrain variety is the key factor in evaluating the quality of the actual guest experience, as opposed to lift quality, restaurant quality, or any other factor. The implication of the importance of terrain variety is that a mountain must have a diverse, interesting, and well-designed developed trail system, but also have a wide variety of alternate style terrain, such as mogul runs, trees, glades, open bowls, and terrain parks and pipes.

At ski areas across the nation there is a growing trend favoring these more natural, unstructured types of terrain, since availability of alternate terrain has become an important factor in terms of a ski area's ability to retain guests, both for longer durations of visitation and for repeat business. Wolf Creek has a high percentage of alternate terrain; in fact, this aspect is one of the ski area's strongest features as discussed in detail in Chapter 1.

In summary, to provide the highest quality guest experience, ski areas should strive to offer some level of all these terrain types.

2.3.1 Developed Terrain

Typically, the developed (formalized) terrain network at a ski area consists of the named, defined, lift-serviced, and maintained trails. Developed runs represent the baseline of the terrain at any ski area. They are typically where the majority of guests ski and ride, and they are usually the only place to ski/ride during the early season, periods of poor or undesirable snow conditions, avalanche closures, and certain weather conditions. As such, the developed trail network represents a true reflection of acreage used by the average skier/rider on a consistent basis, as well as that used by virtually all guests during the aforementioned conditions. Therefore, the total acreage of the terrain and the ability level breakdown must be sufficient to accommodate the full capacity of the ski area.

In the case of Wolf Creek, the definition of "developed terrain" has been expanded slightly to include some of the more developed glades. This is testament to the large portion of Wolf Creek's skiers/riders who come specifically for this style of terrain. Therefore, it is reasonable to include some of the more developed glades in the analysis for developed alpine trails at Wolf Creek. A good example of this is the *Serendipity* trail—it is a glade, and trees are found all the way down, but it has relatively gentle grades and the tree spacing is wider than in many other areas on the mountain. As a result, it is navigable by a larger percentage of skiers/riders and in more variable conditions.

With that being said, for analysis purposes, a broader definition is applied to Wolf Creek's developed alpine terrain than is typically applied for in calculating trail acreages, skier/rider classification breakdown, trail capacity, and densities.

The existing developed trail network is shown in Figure 3. The ski area is served by a network of approximately 90 developed trail segments accommodating a variety of ability levels, as depicted in Table D-2, which lists the specifications for all the developed trails at Wolf Creek. As discussed above,

this category is more broadly defined at Wolf Creek than at other ski areas, and as such, the total skiable acreage is higher than what might be expected for a ski area this size.

As a general rule, all areas that are named and directly lift-served (no hiking required to access or return to a lift) are included in Table D-2 and analyzed as conventional ski trails. Areas that require hiking, in addition to un-named (and usually not thinned) tree stands located between developed runs, are discussed separately in the following section. Although included in the table, Advanced glades and Expert glades are identified as separate categories.

Of the total 717 acres of developed terrain, about 430 are located off the Alberta Lift, virtually all of which are minimally developed. The remainder, or about 285 acres, are located off other lifts and represents an accurate reflection of the more traditional, fully developed ski terrain at Wolf Creek. However, as previously discussed, a large portion of the ski area's guests prefer to ski this type of terrain, so it is included in the analyzed area.

Table D-2. Terrain Specifications – Existing Conditions

Ref	Trail Area/Name	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Avg. Width (ft.)	Slope Area (acres)	Average Grade (%)	Max Grade (%)	Ability Level
1-01 l	Kelly Boyce Trail – Lower	10,773	10,698	75	539	544	73	0.9	14	16	Novice
1-01 u	Kelly Boyce Trail – Upper	11,201	10,884	316	2,219	2,245	113	5.8	14	18	Novice
1-02 l	Bunny Hop – Lower	10,884	10,686	198	1,585	1,603	115	4.2	13	24	Novice
1-02 m	Bunny Hop – Middle	11,194	10,884	310	1,566	1,602	201	7.4	20	38	Intermediate
1-02 u	Bunny Hop – Upper	11,353	11,201	152	1,047	1,058	179	4.3	14	18	Novice
1-03	Easy Out	11,028	10,830	198	1,635	1,651	63	2.4	12	18	Novice
1-04 l	Snow Shoe – Lower	10,924	10,838	86	288	303	169	1.2	30	41	Intermediate
1-04 u	Snow Shoe – Upper	11,054	10,937	117	378	397	93	0.9	31	40	Intermediate
1-05	Thumper	11,351	10,801	550	2,337	2,410	142	7.8	24	39	Intermediate
1-06	4x4	10,791	10,681	110	707	718	48	0.8	16	24	Novice
1-07 l	Gun Barrel – Lower	11,074	10,737	336	1,192	1,242	126	3.6	28	40	Intermediate
1-07 u	Gun Barrel – Upper	11,361	11,090	272	845	898	186	3.8	32	56	Expert
1-08	Charisma	11,287	10,693	595	2,646	2,722	113	7.1	22	36	Intermediate
1-09 l	Turnpike – Lower	11,142	10,952	190	1,620	1,634	54	2.0	12	19	Intermediate
1-09 u	Turnpike – Upper	11,364	11,142	223	2,035	2,053	56	2.7	11	16	Low Intermediate
2-01	Divide Trail	11,609	11,353	257	1,887	1,906	130	5.7	14	18	Novice
2-02	Solar Slide	11,447	11,303	144	243	282	143	0.9	59	61	Expert
2-03 l	Blueberry Hill – Left	11,498	11,329	170	320	368	138	1.2	53	65	Expert
2-03 c	Blueberry Hill – Center	11,529	11,342	187	319	372	162	1.4	58	67	Expert
2-03 r	Blueberry Hill – Right	11,559	11,366	193	433	479	147	1.6	44	52	Adv. Intermediate

Ref	Trail Area/Name	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Avg. Width (ft.)	Slope Area (acres)	Average Grade (%)	Max Grade (%)	Ability Level
2-04	Star Wars	11,542	11,012	530	1,648	1,745	128	5.1	32	50	Adv. Intermediate
2-05	Charisma Crossover	11,457	11,296	160	1,284	1,297	58	1.7	12	21	Low Intermediate
2-06	Bonanza Crossover – Upper	11,562	11,276	286	2,161	2,186	91	4.6	13	25	Low Intermediate
2-07	Quick Silver	11,274	11,053	221	927	956	150	3.3	24	29	Intermediate
2-08 l	Powder Puff – Lower	11,136	10,751	385	2,175	2,213	115	5.8	18	27	Low Intermediate
2-08 u	Powder Puff – Upper	11,436	11,151	285	1,207	1,245	183	5.2	24	36	Low Intermediate
2-09	Kaa	11,043	10,877	167	863	883	91	1.9	19	28	Intermediate
2-10 l	Windjammer – Lower	10,998	10,728	270	1,439	1,472	97	3.3	19	38	Intermediate
2-10u	Windjammer – Upper	11,378	11,114	264	1,019	1,058	150	3.6	26	46	Intermediate
2-11 l	Treasure – Lower	11,087	10,674	413	2,057	2,109	166	8.0	20	40	Intermediate
2-11 u	Treasure – Upper	11,352	11,071	281	1,282	1,315	167	5.1	22	33	Intermediate
2-12	Susan's Headwall	10,917	10,801	116	388	406	112	1.0	30	37	Intermediate
3-01	Susan's	10,807	10,669	138	828	840	172	3.3	14	23	Novice
3-02	Nova	10,807	10,673	134	1,045	1,055	121	2.9	13	14	Beginner
4-01	Magic Carpet	10,701	10,688	13	107	108	112	0.3	12	12	Beginner
5-01	D Boyce Lift Line	11,171	10,796	375	1,678	1,728	66	2.6	22	50	Adv. Intermediate
6-01	Bonanza Trail	11,761	11,401	360	2,534	2,571	44	2.6	14	26	Low Intermediate
6-02	Crowes Nest	11,559	11,389	170	894	918	152	3.2	19	42	Adv. Intermediate
6-03	Treasure Falls	11,666	11,361	304	1,220	1,269	369	10.8	25	56	Expert
6-04	Criss Cross	11,282	11,181	102	621	630	237	3.4	16	18	Intermediate
6-05 g	Holy Moses – Glade	11,744	11,357	387	846	935	278	6.0	46	68	Gladed Expert
6-05 l	Holy Moses – Lower	11,034	10,806	228	919	954	131	2.9	25	50	Adv. Intermediate

Ref	Trail Area/Name	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Avg. Width (ft.)	Slope Area (acres)	Average Grade (%)	Max Grade (%)	Ability Level
6-05 m	Holy Moses – Middle	11,322	11,033	289	1,791	1,816	94	3.9	16	25	Intermediate
6-05 u	Holy Moses – Upper	11,627	11,304	322	780	850	170	3.3	41	65	Expert
6-06	Alberta Face	11,748	11,318	430	1,002	1,101	400	10.1	43	70	Expert
6-07	Alberta's Trail	11,318	10,992	326	1,963	1,992	154	7.0	17	23	Intermediate
6-08	Rock'n Robin	10,989	10,780	209	811	846	112	2.2	26	49	Adv. Intermediate
6-09	The Nose	11,689	11,491	198	581	620	202	2.9	34	50	Adv. Intermediate
6-10	Muskrat Ramble	11,258	11,046	212	1,320	1,338	129	4.0	16	24	Intermediate
6-11 l	Silver Streak – Lower	10,978	10,735	243	1,164	1,195	90	2.5	21	38	Intermediate
6-11 m	Silver Streak – Middle	11,224	10,989	235	1,591	1,610	158	5.8	15	18	Low Intermediate
6-11 u	Silver Streak – Upper	11,760	11,224	536	2,328	2,402	117	6.5	23	45	Adv. Intermediate
6-12 l	Tranquility – Lower	10,928	10,692	235	1,438	1,464	117	3.9	16	32	Low Intermediate
6-12 u	Tranquility – Upper	11,501	10,984	517	2,635	2,693	187	11.6	20	40	Intermediate
6-13 l	Navajo Trail – Lower	11,133	10,708	425	4,011	4,044	87	8.1	11	24	Low Intermediate
6-13u	Navajo Trail – Upper	11,626	11,132	494	3,179	3,229	114	8.5	16	30	Intermediate
6-14	Snuffy's Hollow	11,493	11,361	132	263	297	311	2.1	50	61	Expert
6-15	Scat	11,614	11,483	131	291	319	422	3.1	45	50	Adv. Intermediate
6-16	Summer Day	11,413	11,010	403	2,594	2,630	174	10.5	16	28	Intermediate
6-17	Glory Hole	11,443	11,097	345	2,004	2,040	150	7.0	17	27	Intermediate
6-18 g	Patina Glade	11,348	11,011	337	1,878	1,911	337	14.8	18	24	Gladed Adv Inter
6-19	Legs	10,982	10,696	286	1,519	1,550	103	3.6	19	36	Intermediate
6-20	Bonanza Crossover – Lower	10,984	10,864	121	689	703	241	3.9	18	26	Low Intermediate
6-21	Upper Pitch's Gate	11,267	11,160	108	708	717	509	8.4	15	23	Gladed Adv Inter

Ref	Trail Area/Name	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Avg. Width (ft.)	Slope Area (acres)	Average Grade (%)	Max Grade (%)	Ability Level
7-01	A-way	10,680	10,399	281	4,066	4,090	52	4.8	7	18	Low Intermediate
7-02	Okey Dokey	10,699	10,519	180	1,904	1,917	38	1.7	9	20	Low Intermediate
7-03	Flim Flam	10,822	10,469	354	1,537	1,582	151	5.5	23	36	Intermediate
7-04	Flim Flam to S'Wonderful	10,689	10,479	210	910	935	159	3.4	23	29	Intermediate
7-05	S'Wonderful	10,535	10,414	121	1,476	1,484	111	3.8	8	16	Intermediate
7-06	Park Avenue	11,486	11,133	353	3,554	3,590	33	2.7	10	24	Low Intermediate
7-07	Pitch's Gate	11,170	10,510	660	2,989	3,082	362	25.6	22	59	Gladed Expert
7-08	Serendipity	11,210	10,481	729	3,552	3,638	551	46.0	21	54	Gladed Adv Inter
7-09 l	Lower Bankshot	10,835	10,478	357	1,505	1,559	702	25.1	24	52	Gladed Adv Inter
7-09 u	Upper Bankshot	11,249	10,919	330	1,530	1,571	559	20.2	22	40	Gladed Adv Inter
7-10	Gyro (Alberta Lift Line)	11,442	10,397	1,045	5,079	5,230	289	34.7	21	59	Gladed Expert
7-11	Shazam and Posey	11,324	10,460	865	3,108	3,247	654	48.7	28	59	Gladed Expert
7-12 l	Simpatico – Lower	10,559	10,408	151	3,682	3,689	40	3.4	4	8	Low Intermediate
7-12 m	Simpatico – Middle	11,061	10,662	399	1,300	1,366	611	19.2	31	49	Gladed Adv Inter
7-12 u	Simpatico – Upper	11,379	11,161	218	1,908	1,930	39	1.7	11	19	Low Intermediate
7-13	Tsunami	11,238	10,487	751	2,955	3,069	475	33.4	25	69	Gladed Expert
7-14	Abracadabra	11,179	10,507	673	2,673	2,777	449	28.6	25	61	Gladed Expert
7-15	Area 54	11,121	10,586	535	2,174	2,250	666	34.4	25	45	Gladed Adv Inter
7-16	Coyote Park Trail	11,161	10,896	266	2,832	2,855	36	2.4	9	24	Low Intermediate
7-17	Lower Sleeping Beauty	10,896	10,559	336	2,529	2,562	215	12.7	13	32	Low Intermediate
W-01	Navajo Trail To Waterfall Gully	11,128	10,958	171	1,339	1,352	732	22.7	13	21	Expert

Ref	Trail Area/Name	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Avg. Width (ft.)	Slope Area (acres)	Average Grade (%)	Max Grade (%)	Ability Level
W-02	Sun Rocks	11,007	10,535	472	1,186	1,298	895	26.7	40	78	Gladed Expert
W-03	Big Drop	11,008	10,534	474	1,248	1,357	239	7.4	38	73	Expert
W-04	Waterfall Gully	10,963	10,519	445	1,139	1,258	131	3.8	39	92	Expert
W-05	Snake Rim	10,961	10,634	327	550	643	97	1.4	59	72	Expert
W-06	52° Trees	10,952	10,668	284	459	543	179	2.2	62	79	Expert
W-07	Jaybird	10,940	10,521	419	1,045	1,134	348	9.1	40	61	Expert
TOTAL						**147,755**		**717.3**			

Source: SE Group

2.3.2 Alternate Terrain

Wolf Creek is well known for its alternate terrain and it represents a significant portion of the ski area's market niche. Alternate terrain is primarily used by Advanced and Expert level skiers/riders during desirable conditions (e.g., periods of fresh snow, spring corn etc.). Even though some of these types of terrain only provide skiing/riding opportunities when conditions warrant, they typically represent the most intriguing terrain, and are the areas that skiers/riders strive to access. In Wolf Creek's case, this type of terrain is found in abundance and also frequented by guests with lower skill levels seeking to experience undeveloped terrain conditions.

In addition to a large quantity of gladed areas, there are open bowls, chutes, cliff bands, natural meadows, and natural openings which have been connected by developed and undeveloped trails. In short, Wolf Creek provides access to virtually every different type of alternate style terrain that exists. Most of this terrain is accessed by hiking out east from the top of the Alberta Lift along the Knife Ridge. Hikers can also continue past Horseshoe Bowl and Casa del Sol all the way out to Spooner Hill and still return to the Alberta Lift bottom terminal; however, in order to reach the traverse back to the Alberta Lift, skiers must descend due west from the top of Spooner Hill. Descending further beyond this traverse will require a hike back to the bottom terminal of the Alberta Lift.

Alternate terrain specifications for the existing undeveloped and unnamed gladed areas at Wolf Creek are provided in Table D-3.

Table D-3. Alternate Terrain Specifications – Existing Conditions

Trail Area/Name	Vert. Rise (ft.)	Slope Length (ft.)	Avg. Width (ft.)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
Bonanza Bowl	174	349	786	6.3	59	79	Expert
Exhibition	105	293	757	5.1	39	58	Expert
Prospector Ridge	180	397	624	5.7	51	60	Expert
Glory Hole	316	817	329	6.2	42	59	Expert
Boundary Bowl	322	957	683	15.0	36	55	Advanced Intermediate
Montezuma Bowl	386	1,243	378	10.8	33	60	Expert
Alberta Peak	342	742	755	12.9	53	69	Expert
Peak Chutes	228	415	653	6.2	67	85	Expert
Step Bowl	185	408	685	6.4	51	61	Expert
Alberta Peak Glades	348	813	1,591	29.7	48	70	Expert

Knife Ridge Chutes	301	597	1,103	15.1	60	94	Expert
Dog Chutes	288	680	1,966	30.7	48	72	Expert
Coyote Park	98	517	268	3.2	20	39	Intermediate
Keith's Glade	457	1,352	518	16.1	36	65	Expert
Horseshoe Bowl	555	1,770	318	12.9	33	70	Expert
Sleeping Beauty I	561	1,699	946	36.9	35	53	Adv. Intermediate
Sleeping Beauty II	532	1,801	366	15.1	31	50	Adv. Intermediate
Spooner Hill	523	2,401	1,365	75.2	23	41	Intermediate
Un-named Advanced Level Glades	174	17,742		140			Gladed Adv Inter
Un-named Expert Level Glades	105	3,168		25			Gladed Expert
TOTAL				**474.5**			

Source: SE Group

2.3.3 Terrain Distribution by Ability Level

The potential demand for terrain through the full range of skill levels is close to the ideal breakdown for the regional (Rocky Mountain) destination skier market, with one notable exception—Advanced Intermediate. Wolf Creek's terrain classification breakdown is set forth in Table D-4 and Chart D-1. The last column in this table represents what can be considered the ideal skill level distribution in the Rocky Mountain skier market and provides a comparison with the existing breakdown at Wolf Creek.

Table D-4. Terrain Distribution by Ability Level – Existing Conditions

Skier/Rider Ability Level		Trail Area (acres)	Skier/Rider Capacity (guests)	Existing Wolf Creek Skier/Rider Distribution (%)	Rocky Mountain Skier/Rider Market (%)
●	Beginner	3.2	80.5	3	5
●	Novice	27.5	385.0	13	15
■	Low Intermediate	73.7	884.5	31	25
■	Intermediate	130.7	1045.7	37	35
◆	Adv. Intermediate	30.1	120.4	7	15
◆	Adv. Int. Glades	168.1	84.0		
◆	Expert	80.3	160.6	9	5

Skier/Rider Ability Level		Trail Area (acres)	Skier/Rider Capacity (guests)	Existing Wolf Creek Skier/Rider Distribution (%)	Rocky Mountain Skier/Rider Market (%)
	Expert Glades	203.7	101.8		
TOTAL		**717.3**	**2,863**	**100**	**100**

Source: SE Group

Chart D-1: Terrain Distribution by Ability Level – Existing Conditions

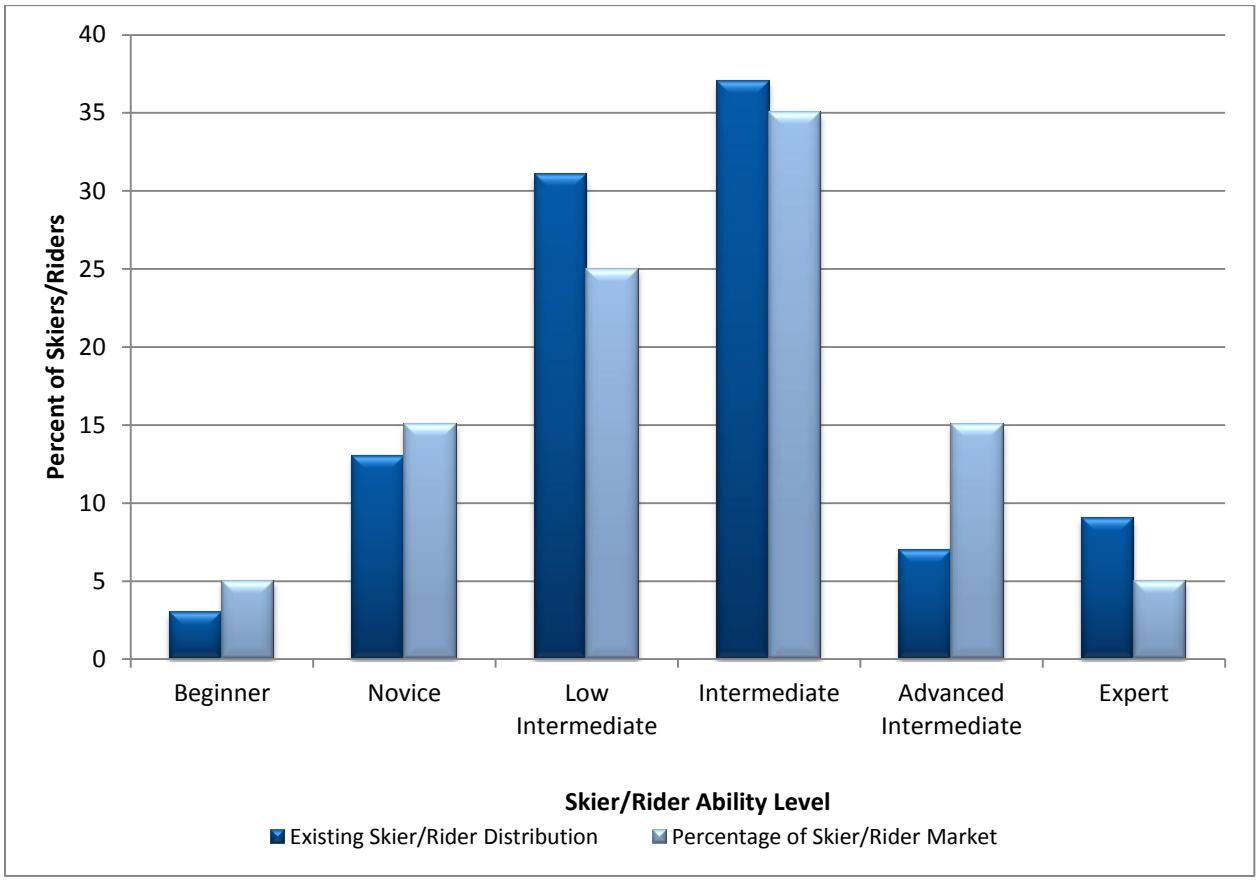


Table D-4 and Chart D-1 clearly illustrate a generally close match between Wolf Creek's existing terrain distribution and the market demand for all ability levels. The slightly low Beginner category reflects the fact that only the terrain off the Magic Carpet Lift and one trail off the Nova Lift constitute true Beginner terrain. Both Novice and Intermediate offerings are very close to the ideal market skill level distribution. There is a slight surplus of Low Intermediate terrain, although that is mostly due to the circulation

skiways (*Bonanza Crossover, Park Avenue, Navajo Trail, Lower Sleeping Beauty*, etc.) being rated as Low Intermediate. The notable deficit of Advanced Intermediate terrain reflects the fact there are few developed Advanced level trails. As Table D-4 shows, most of that acreage is Advanced level glades. Similarly, there is also a relatively low quantity of developed Expert terrain. However, since there is such a high quantity of named, lift-accessed, Expert level glades, the overall category shows a slight surplus. Due to the nature of the terrain at Wolf Creek, with the exception of Advanced Intermediate terrain, none of these small deficits or surpluses represents something that needs to be addressed.

2.4 Existing Capacity Analysis

2.4.1 Comfortable Carrying Capacity

As stated earlier, the accurate calculation of a ski area's CCC is an important, complex analysis and is a critical planning criterion for the ski area. Related skier service facilities can be evaluated and planned based on the proper identification of the mountain's capacity. The detailed calculation of Wolf Creek's current CCC is described in Table D-5 and is calculated at 3,590 guests per day.

It is not uncommon for ski areas to experience peak days during which visitation exceeds the CCC by as much as 25%. A quick calculation shows that this would relate to peak days of around 4,500 skiers. However, Wolf Creek's peak days have averaged over 5,500 for the past ten seasons. This means that Wolf Creek's peak days are exceeding CCC by around 60%—a situation that can lead to a significantly overburdened lift system, potentially very long lift lines, and overcrowded skier services.

No CCC computation has been assigned to the D. Boyce platter lift since it is seldom operated and functions as a backup to the Treasure Lift—operating at most a few times per year. Accordingly, it does not typically contribute any uphill capacity to the ski area.

Table D-5. Comfortable Carrying Capacity – Existing Conditions

Lift Ref.	Lift Name	Lift Type	Slope Length (ft.)	Vertical Rise (ft.)	Actual Design Capacity (guests/hr.)	Oper. Hours (hrs.)	Up-Mtn. Access Role (%)	Misloading /Lift Stoppages (%)	Adjusted Hourly Cap. (guests/hr.)	VTF/Day (000)	Vertical Demand (ft./day)	CCC (guests)
1	Raven	DC-4	2,700	704	2,400	7.50	0	5	2,280	12,040	14,417	840
2	Bonanza	C-3	3,687	927	1,800	7.50	0	15	1,530	10,637	12,352	860
3	Nova	C-2	627	117	1,200	7.50	0	15	1,020	897	3,291	270
4	Magic Carpet	C	85	11	480	5.00	0	5	456	25	536	50
5	D. Boyce	S	3,707	934	500	7.50	0	15	425	2,977	13,746	-
6	Treasure	C-3	4,467	1,082	1,500	7.50	20	10	1,050	8,521	12,380	690
7	Alberta	C-4	5,179	1,068	1,800	7.00	0	10	1,620	12,110	13,684	880
TOTAL			**20,452**		**9,680**				**8,381**	**47,207**		**3,590**

Source: SE Group

2.4.2 Density

An important aspect of ski area design is the balancing of 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, skiers are dispersed throughout the ski area, while using guest facilities and milling areas, waiting in lift mazes, riding lifts, or enjoying descents. For the trail density analysis, 25% of each lift's capacity is presumed to be inactive—using guest support facilities or milling areas.

The active skier population can be found in lift lines, on lifts, or on trails. The number of skiers 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 population (the CCC minus the number of guests using guest facilities, milling in areas near the ski area's portals, waiting in lift mazes, and actually riding lifts) is assumed to be descending trails.

Other than the Nova Lift (which will have higher densities since it is a beginner lift), the lift system with the highest densities is the Raven Lift. This is not surprising as this chairlift serves the majority of the ski area's developed Intermediate and lower level terrain, where higher densities are expected. Both the Treasure and Alberta Lifts have average densities of one skier/rider per acre—desirably low to achieve "The Wolf Creek Experience." When compared with typical industry criteria, the actual average skier/rider densities experienced at Wolf Creek are approximately 65% of the typical standard. This analysis is conducted as a relative comparison in assessing the balance between the capacities of lifts and trails and purposefully, but unrealistically, assumes that skiers are spread ubiquitously and evenly across each acre of available skiing terrain. Specific trails, such as egress trails towards the end of the day, can consistently have high densities. However, low density also indicates that there may be more skiers/riders than necessary waiting in lift lines or on slow lifts.

2.4.3 Lift and Terrain Network Efficiency

Overall ski area efficiency is becoming an increasingly important factor in the industry. This relates not only to energy efficiency and operational efficiency, but also to efficiency of the design and layout of the ski area. The idea behind ski area design efficiency is to have a well-balanced lift and trail network (i.e., the uphill lift capacity balances with the downhill trail capacity that it serves) that is efficiently served by its lifts, while maintaining desired CCC rates, circulation routes, and service to the full spectrum of skier/rider ability levels and types.

Within the context of ski area design, the term "Lift and Terrain Network Efficiency" refers to the amount of effort and cost required to operate and maintain the lift and developed terrain network, as compared to the number of guests served (i.e., the daily capacity or CCC). The energy and costs related to the ski area efficiency include, but are not limited to: power use, operational labor, maintenance costs and labor, increased indirect administrative costs, and various direct and indirect costs associated with higher staff levels to perform these tasks. From this standpoint, the most efficient scenario is to have the fewest number of lifts possible that can comfortably and effectively serve the capacity and circulation requirements of the ski area, while creating a balance of capacity with the available terrain.

One way to analyze Lift and Terrain Network Efficiency is to calculate the average CCC per lift at a given ski area. While this calculation does not relate to the overall capacity of the ski area, it can indicate if: 1) the ski area is not getting maximum utilization out of its lifts, or 2) there are more lifts than necessary for the capacity levels of the ski area. When calculating this average, conveyors and surface tows are not included, as the CCC calculations for them are so low that it would skew the overall average. Optimally, as a planning goal, the average CCC per lift would likely be close to 1,000. Industry-wide, the average CCC per lift is approximately 650. The average CCC per lift at Wolf Creek is about 720. This calculation puts Wolf Creek well above the industry average, and indicates that there is likely a lower lift cost, in terms of both energy use and financial/operational cost, per skier/rider than the average. This commendable position is the result a combination of Wolf Creek being in a location that is well suited for ski area development and of efficient lift design. For example, other than the Treasure Lift and the D. Boyce platter lift (which is not regularly operated), there are no redundant lifts.

Terrain Network Efficiency refers to the amount of effort required to properly maintain the terrain (snowmaking costs, grooming costs, energy costs, ski patrol costs, summer trail maintenance costs, increased administrative costs, costs associated with higher staff levels to perform these tasks, etc). From this standpoint, the most efficient scenario is to have a quantity of terrain that closely meets the target density requirements. From this standpoint, Wolf Creek is not close to meeting that target acreage, being two times over the target. However, as much of Wolf Creek's terrain is only minimally developed, the operational and maintenance costs associated with this style of terrain are far lower. In fact, having a large quantity of the terrain that is largely undeveloped significantly increases the terrain network's overall efficiency.

2.5 Existing Guest Service Analysis

2.5.1 Space Use Analysis

Sufficient guest support space should be provided to accommodate the existing ski area CCC of 3,590 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 support facility location according to the number of guests that would be utilizing the lifts and terrain associated with each facility.

In addition to distributing the CCC amongst the base area and on-mountain facilities, guest support capacity needs and the resulting spatial recommendations are determined through a process of reviewing and analyzing the current operations to determine specific guest support requirements that are unique to the ski area.

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 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 Support:** Services including ski area 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.

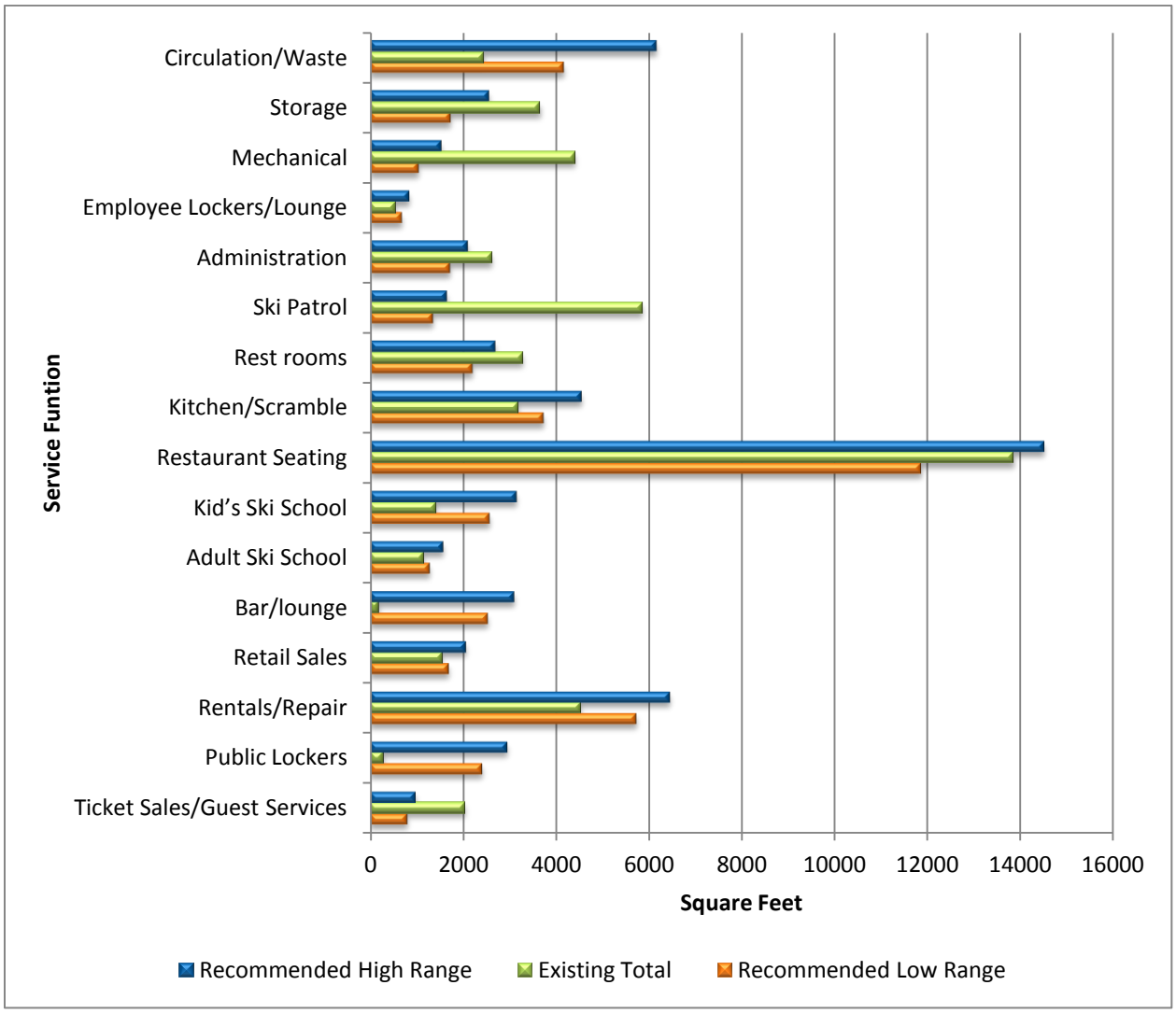
Based upon a CCC of 3,590 skiers, Chart D-2, below, and Table D-7 compares the current space use allocations of the visitor service functions to industry norms for a ski area of similar market orientation and regional context as Wolf Creek. Square footage contained in this table is calculated to illustrate how the ski area compares to industry averages, and should not be considered an absolute requirement.

Table D-7. Industry Average Space Use
Ski Area Total – Existing Conditions

Service Function	Existing Total	Recommended Range	
		Low	High
Ticket Sales/Guest Services	2,030	810	990
Public Lockers	277	2,420	2,960
Rentals/Repair	4,514	5,740	6,460
Retail Sales	1,533	1,700	2,070
Bar/lounge	174	2,540	3,110
Adult Ski School	1,130	1,290	1,580
Kid's Ski School	1,412	2,580	3,160
Restaurant Seating	13,862	11,870	14,510
Kitchen/Scramble	3,182	3,740	4,560
Rest rooms	3,286	2,210	2,700
Ski Patrol	5,844	1,360	1,660
Administration	2,600	1,730	2,110
Employee Lockers/Lounge	525	690	850
Mechanical	4,399	1,050	1,540
Storage	3,656	1,740	2,570
Circulation/Waste	2,424	4,180	6,170
TOTAL SQUARE FEET	**50,848**	**45,650**	**57,000**

Source: SE Group

Chart D-2. Total Space Use and Recommendations – Existing Conditions



As shown in Table D-7 and Chart D-2, Wolf Creek has sufficient overall skier service space to accommodate a visitation level that is close to the CCC of 3,590. The ski area is short of space in a few categories, including: public lockers, bar/lounge space, ski school, and employee space. Space for ticket sales, restrooms, ski patrol, and administration are all somewhat higher than recommended averages.

Tables D-8 and D-9 and the following text address the existing space use at each guest service facility. The space recommendations are directly related to the distribution of the ski area's capacity to the various guest service facilities located in the base area and on-mountain.

Base Area

Wolf Creek's base area facilities provide guest services in a series of buildings: the Upper/Main Lodge, the Prospector Lodge, the Wolf Pup building, the Boarder Dome, the Sports Center, the Ticket Office, and a few other small buildings.

As shown in Table D-8, a number of Wolf Creek's base area facilities fall at the low end of the recommended range in total square footage while a greater number of facilities fall below the high end of the range. As discussed above, there are deficits of space in lockers, rentals, bar/lounge, ski school, and in employee space. This indicates that the existing base area space is sufficient to accommodate skier levels of around the CCC of 3,590, but likely is not sufficient to accommodate peak day crowds, which can reach over 5,000 guests.

Table D-8. Industry Average Space Use
Base Area - Existing Conditions

Service Function	Existing Total	Recommended Range		Difference from Recommendation	
		Recommended Low Range	Recommended High Range	Low	High
Ticket Sales/Guest Services	2,030	810	990	1,220	1,040
Public Lockers	277	2,420	2,960	(2,143)	(2,683)
Rentals/Repair	4,514	5,740	6,460	(1,226)	(1,946)
Retail Sales	1,533	1,700	2,070	(167)	(537)
Bar/lounge	174	2,540	3,110	(2,366)	(2,936)
Adult Ski School	1,130	1,290	1,580	(160)	(450)
Kid's Ski School	1,412	2,580	3,160	(1,168)	(1,748)
Restaurant Seating	9,904	8,480	10,370	1,424	(466)
Kitchen/Scramble	2,982	2,670	3,260	312	(278)
Rest rooms	2,686	1,580	1,930	1,106	756
Ski Patrol	2,370	970	1,190	1,400	1,180
Administration	2,600	1,730	2,110	870	490
Employee Lockers/Lounge	525	690	850	(165)	(325)
Mechanical	1,972	900	1,320	1,072	652
Storage	2,232	1,490	2,200	742	32
Circulation/Waste	2,424	3,590	5,290	(1,166)	(2,866)
TOTAL SQUARE FEET	**38,765**	**39,180**	**48,850**	**(415)**	**(10,085)**

Source: SE Group and Wolf Creek management

On-Mountain Facilities

Wolf Creek currently has a total of over 12,000 square feet of on-mountain facilities (Table D-9). Over 3,000 square feet of existing space is dedicated to ski patrol facilities. Wolf Creek's has two on-mountain guest services facilities, the new Raven's Nest and the Continental bathroom facility.

The Raven's Nest facility alone provides 7,410 square feet of space. This suggests that space available at the Raven's Nest is in-line with demand, as shown by comparing the individual categories. Also note that there is certainly more demand for on-mountain facilities, particularly in the area served by the Alberta Lift. Since it is not practical for Alberta skiers/riders to use the Raven's Nest facility, there is no demand shown for Alberta skiers/riders to use the Raven's Nest on-mountain facility. However, if an on-mountain facility were accessible by skiers/riders in the Alberta area, there would certainly be demand.

Table D-9. Industry Average Space Use
On-Mountain Facilities –Existing Conditions

Service Function	Existing Total	Recommended Range		Difference from Recommendation	
		Recommended Low Range	Recommended High Range	Low	High
Ticket Sales/Guest Services	-	-	-	-	-
Public Lockers	-	-	-	-	-
Rentals/Repair	-	-	-	-	-
Retail Sales	-	-	-	-	-
Bar/Lounge	-	-	-	-	-
Adult Ski School	-	-	-	-	-
Kid's Ski School	-	-	-	-	-
Restaurant Seating	3,958	3,390	4,140	568	(182)
Kitchen/Scramble	200	1,070	1,300	(870)	(1,100)
Restrooms	600	630	770	(30)	(170)
Ski Patrol	3,474	390	470	3,084	3,004
Administration	-	-	-	-	-
Employee Lockers/Lounge	-	-	-	-	-
Mechanical	2,427	150	220	2,277	2,207
Storage	1,424	250	370	1,174	1,054

Service Function	Existing Total	Recommended Range		Difference from Recommendation	
		Recommended Low Range	Recommended High Range	Low	High
Circulation/Waste	-	590	880	(590)	(880)
TOTAL SQUARE FEET	**12,083**	**6,470**	**8,150**	**5,613**	**3,933**

Source: SE Group

2.5.2 Food Service Seating

Food service seating at Wolf Creek is provided in the base area at the Upper/Main Lodge, the Prospector Grill, and Base Camp, and on-mountain at the Raven's Nest and the Continental. A key factor in evaluating restaurant capacity is the turnover rate of the seats. A turnover rate of 2 to 5 times is the standard range utilized in determining restaurant capacity. Sit-down dining at ski areas typically results in a lower turnover rate, while "fast food" cafeteria style dining is characterized by a higher turnover rate. Furthermore, weather has an influence on turnover rates at ski areas; on snowy or bad weather days guests will spend more time indoors than on sunny days, reducing the turnover rate. As a result of input from Wolf Creek management, an average seating turnover rate of four times was used for this analysis. Note that this turnover rate applies specifically to indoor seating, while a lower turnover rate is used for outdoor seating, due to its lower average utilization.

Table D-10 summarizes the existing seating capacity at Wolf Creek, based on a logical distribution of the CCC to each service building/location.

Table D-10. Restaurant Seating – Existing Conditions

	Base Area	On-Mountain	Ski Area Total
Lunchtime Capacity (CCC + Non-Skiing Guests*)	2,694	1,076	3,770*
Average Indoor Seat Turnover	4	4	--
Existing Indoor Seats	936	300	1,236
Required Seats	673	269	942
Difference	263	31	294
Existing Indoor Seating Capacity	**3,744**	**1,200**	**4,944**
Existing Outdoor Seats	498	--	498
Average Outdoor Seat Turnover	2	2	--
Total Seating Capacity – Including Outdoor Seats	**4,740**	**1,200**	**5,940**

* Includes the CCC + 5% for non-skiing guest occupying seats.
Source: SE Group and Wolf Creek Management

Although Table D-10 depicts a slight surplus of indoor seating capacity both in the base area and on-mountain, this surplus is not present on busy days, when visitation can reach over 4,000 guests. Additionally, Wolf Creek's family-friendly orientation, and distance from other surrounding lodging/food service opportunities, creates a relatively high demand for seating capacity by non-skiing group members who tend to occupy a seat (or entire table) throughout the day.

2.6 Existing Parking Analysis

All parking at Wolf Creek is located in the base area, with the exception of the Snowshed lot, which is down the hill from the base area along Highway 160. There are approximately 1,985 parking spaces in ten separate parking areas, totaling 14.2 acres:

- the 4x4 lot and road;
- Base Camp;
- the Upper lot;
- the Lower lot;
- the Alberta lot;
- the Snowshed lot;
- Tranquility road; and
- the upper and lower Tranquility lots.

Vehicle occupancy counts confirm that average car occupancy at Wolf Creek is 3.5 people per car. Employees use an estimated 150 of the total parking spaces. Table D-11 reflects Wolf Creek's existing parking capacity.

Table D-11. Daily Parking – Existing Conditions

	Assumptions	Total
CCC + other guests*	--	3,770 people
Number of guests arriving by car	94%	3,543 people
Number of guests arriving by charter bus	6%	226 people
Required car parking spaces	3.5 people/car	1,012 spaces
Equivalent car spaces for bus parking	1 bus = 4.5 cars	25 spaces
Required employee car parking spaces	--	153 spaces
Total required spaces	--	1,191 spaces
Existing parking spaces	--	1,985 spaces
Surplus	--	794 spaces

Existing parking capacity	--	6,638 people

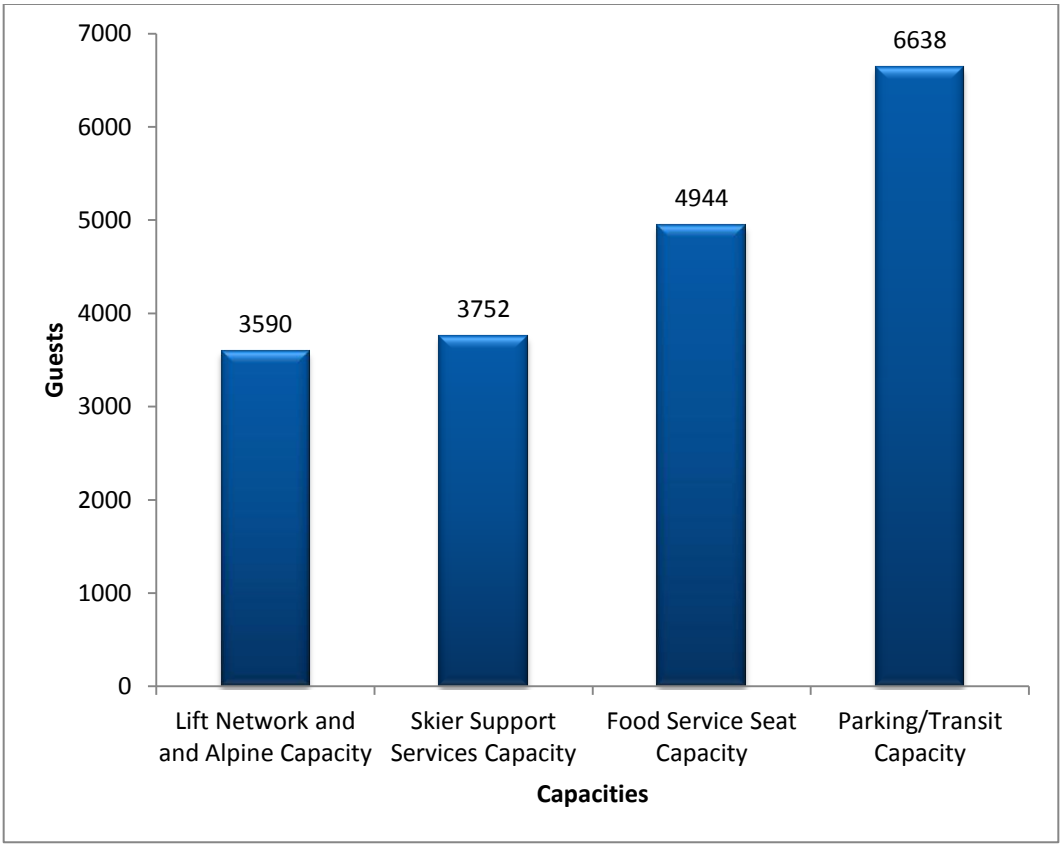
* "other guests" include non-skiing guests—an additional 5% of Wolf Creek's CCC
Source: SE Group

The existing skier parking lots have sufficient capacity to park just fewer than 2,000 cars, which is more cars than typically required on days when skier numbers are close to the CCC of 3,590. It should be noted that the line item "Surplus" shown in Table D-11 represents the number of parking spaces theoretically available on a day when the number representing the CCC plus other guests (3,770 people) is reached. However, the entire parking layout has been used on peak days when visitation can exceed 5,000 skiers, and has historically exceeded 6,000. This peak day capacity can accommodate a theoretical total of 6,638 skiers at 3.5 people-per-car.

3. EXISTING BALANCE OF FACILITIES

The overall balance of the existing ski area is evaluated by calculating the capacities of the ski area's various facilities and comparing those facilities to the ski area's CCC. The above discussed capacities are shown in Chart D-3.

Chart D-3. Ski Area Balance – Existing Conditions



As Chart D-3 indicates, the CCC for the Lift Network-and Alpine Capacity is lower than other capacities of the ski area. The existing Parking/Transit Capacity of 6,638 guests is around twice the CCC of 3,590 guests for the Lift Network and Alpine Capacity, allowing for adequate parking on peak days. It is a standard assumption throughout the industry that peak day visitation will generally exceed the CCC level by up to 25%. However, Wolf Creek peak days have averaged over 5,500—with a single day seeing 6,340 visitors during the 2005/2006 season and during the 2010 holiday period. This means that Wolf Creek's peak days are averaging around 60% over the CCC. This occurs as a result of other capacities of the ski area beingestablished at a higher level, as shown in Chart D-3 above. This situation indicates that there are opportunities to better balance the ski area by upgrading the Lift Network without any degradation of skiing quality. As Chart D-3 indicates, however, Guest Support and Food Service space will also need to be built if the CCC is increased.

Appendix E: PROPOSED FACILITIES ANALYSIS

1. PROPOSED LIFT NETWORK ANALYSIS

The primary focus of the Upgrade Plan is addressing deficiencies in Wolf Creek's existing lift network. The Upgrade Plan addresses the lift network by upgrading two existing lifts (Treasure and Bonanza), adding one re-engineered lift (Elma) and two new lifts (Meadow and Sunset) within the existing SUP area, and increasing opportunities for lift-served "backcountry" terrain to the east and west of the existing SUP boundary through the addition of the new Matchless Low-Capacity Tram and the re-engineered Pass Lift in two new SUP expansion areas. These seven planned lifts will primarily offer improved access to undeveloped terrain throughout the SUP area.

Locations of the new ski lifts are illustrated in Figure 7. A summary of technical specifications for all lifts (existing and planned) is provided in Chapter 4.1 of the document. Full technical specifications for the lifts are listed in Table E-1, below.

At full build-out the proposed new lift network has a total operational "lift capacity" of 16,165 pph (Table E-1) and generates 78.9 million Vertical Transport Feet (VTF) per day (calculated in Table E-5).

Table E-1. Lift Specifications (Full) – Upgrade Plan

Lift Reference	Lift Name	Lift Type	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Average Grade (%)	Actual Design Capacity (pers./hr.)	Carrier Spacing (ft.)	Lift Maker/ Year Installed
1	Raven	DC-4	11,351	10,647	704	2,590	2,700	27%	2,400	100	Doppelmayr-CTEC/2006
2	*Bonanza*	*DC-4*	*11,775*	*10,681*	*1190*	*5,283*	*5,450*	*26%*	*1,800*	*100*	*Proposed New*
3	Nova	C-2	10,800	10,683	117	614	627	19%	1,200	50	Riblet/1991
4	Magic Carpet	C	10,701	10,690	11	84	85	13%	480	31	RMCE/1994
5	D. Boyce	S	11,727	10,793	934	3,549	3,707	26%	500	36	Poma/1980
6	*Treasure Express*	*DC-4*	*11,771*	*10,689*	*1,082*	*4,283*	*4,467*	*25%*	*1,600*	*100*	*Proposed New*
7	Alberta	C-4	11,465	10,397	1,068	5,019	5,179	21%	1,800	67	Garaventa-CTEC/1999
W	*Elma*	*C-3*	*10,834*	*10,406*	*428*	*2,321*	*2,375*	*18%*	*1,500*	*60*	*Proposed Reengineered CTEC*
M	*Meadow*	*C-2*	*10,532*	*10,303*	*229*	*1,705*	*1,720*	*12%*	*1,200*	*50*	*Proposed*
P	*Pass*	*C-3*	*11,550*	*10,811*	*739*	*3,641*	*3,740*	*20%*	*1,800*	*50*	*Proposed Reengineered CTEC*
S	*Sunset*	*C-2*	*11,077*	*10,258*	*819*	*3,603*	*3,742*	*23%*	*1,200*	*50*	*Proposed*
MT	*Matchless Low-Capacity Tram*	*Tram*	*11,497*	*9,536*	*1,961*	*5,200*	*5,778*	*38%*	*685*	*1,314*	*Proposed*
	TOTALS				**9,282**				**16,165**		

Italicized text identifies planned lifts.
S = Surface lift
C2 = fixed-grip double chairlift
C3 = fixed-grip triple chairlift
C4 = fixed-grip quad chairlift
DC-3 = detachable, high-speed triple chairlift
DC-4 = detachable, high-speed quad chairlift
Source: SE Group

2. PROPOSED TERRAIN ANALYSIS

2.1 Developed Terrain

The Upgrade Plan proposes 154 acres of new terrain additions to the developed terrain network. Approximately 131 acres would be added through shifting existing undeveloped terrain into lift-served, minimally developed terrain in the new Sunset Lift area. Twenty-three acres of new terrain would be developed in the new Pass Pod. With these additions, Wolf Creek's developed trail network would increase from approximately 717 acres to 872 acres.

Table E-2 provides details on the specifications of the upgraded developed trail network.

Table E-2. Terrain Specifications – Upgrade Plan

Lift Ref	Trail Area/Name	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Avg. Width (ft.)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
1-01 l	Kelly Boyce Trail – Lower	10,773	10,698	75	539	544	73	0.9	14%	16%	Novice
1-01 u	Kelly Boyce Trail – Upper	11,201	10,884	316	2,219	2,245	113	5.8	14%	18%	Novice
1-02 l	Bunny Hop – Lower	10,884	10,686	198	1,585	1,603	115	4.2	13%	24%	Novice
1-02 m	Bunny Hop – Middle	11,194	10,884	310	1,566	1,602	201	7.4	20%	38%	Intermediate
1-02 u	Bunny Hop – Upper	11,353	11,201	152	1,047	1,058	179	4.3	14%	18%	Novice
1-03	Easy Out	11,028	10,830	198	1,635	1,651	63	2.4	12%	18%	Novice
1-04 l	Snow Shoe – Lower	10,924	10,838	86	288	303	169	1.2	30%	41%	Intermediate
1-04 u	Snow Shoe – Upper	11,054	10,937	117	378	397	93	0.9	31%	40%	Intermediate
1-05	Thumper	11,351	10,801	550	2,337	2,410	142	7.8	24%	39%	Intermediate
1-06	4x4	10,791	10,681	110	707	718	48	0.8	16%	24%	Novice
1-07 l	Gun Barrel – Lower	11,074	10,737	336	1,192	1,242	126	3.6	28%	40%	Intermediate
1-07 u	Gun Barrel – Upper	11,361	11,090	272	845	898	186	3.8	32%	56%	Expert
1-08	Charisma	11,287	10,693	595	2,646	2,722	113	7.1	22%	36%	Intermediate
1-09 l	Turnpike – Lower	11,142	10,952	190	1,620	1,634	54	2.0	12%	19%	Intermediate
1-09 u	Turnpike – Upper	11,364	11,142	223	2,035	2,053	56	2.7	11%	16%	Low Intermediate
2-01	Divide Trail	11,770	11,353	332	2,600	2,502	130	6.7	14%	18%	Novice
2-02	Solar Slide	11,447	11,303	144	243	282	143	0.9	59%	61%	Expert
2-03 l	Blueberry Hill – Left	11,498	11,329	170	320	368	138	1.2	53%	65%	Expert

Lift Ref	Trail Area/Name	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Avg. Width (ft.)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
2-03 c	Blueberry Hill – Center	11,529	11,342	187	319	372	162	1.4	58%	67%	Expert
2-03 r	Blueberry Hill – Right	11,559	11,366	193	433	479	147	1.6	44%	52%	Adv. Intermediate
2-04	Star Wars	11,542	11,012	530	1,648	1,745	128	5.1	32%	50%	Adv. Intermediate
2-05	Charisma Crossover	11,457	11,296	160	1,284	1,297	58	1.7	12%	21%	Low Intermediate
2-06	Bonanza Crossover – Upper	11,562	11,276	286	2,161	2,186	91	4.6	13%	25%	Low Intermediate
2-07	Quick Silver	11,274	11,053	221	927	956	150	3.3	24%	29%	Intermediate
2-08 l	Powder Puff – Lower	11,136	10,751	385	2,175	2,213	115	5.8	18%	27%	Low Intermediate
2-08 u	Powder Puff – Upper	11,436	11,151	285	1,207	1,245	183	5.2	24%	36%	Low Intermediate
2-09	Kaa	11,043	10,877	167	863	883	91	1.9	19%	28%	Intermediate
2-10 l	Windjammer – Lower	10,998	10,728	270	1,439	1,472	97	3.3	19%	38%	Intermediate
2-10u	Windjammer – Upper	11,378	11,114	264	1,019	1,058	150	3.6	26%	46%	Intermediate
2-11 l	Treasure – Lower	11,087	10,674	413	2,057	2,109	166	8.0	20%	40%	Intermediate
2-11 u	Treasure – Upper	11,352	11,071	281	1,282	1,315	167	5.1	22%	33%	Intermediate
2-12	Susan's Headwall	10,917	10,801	116	388	406	112	1.0	30%	37%	Intermediate
3-01	Susan's	10,807	10,669	138	828	840	172	3.3	14%	23%	Novice
3-02	Nova	10,807	10,673	134	1,045	1,055	121	2.9	13%	14%	Beginner
4-01	Magic Carpet	10,701	10,688	13	107	108	112	0.3	12%	12%	Beginner

Lift Ref	Trail Area/Name	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Avg. Width (ft.)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
5-01	D Boyce Lift Line	11,171	10,796	375	1,678	1,728	66	2.6	22%	50%	Adv. Intermediate
6-01	Bonanza Trail	11,761	11,401	360	2,534	2,571	44	2.6	14%	26%	Low Intermediate
6-02	Crowes Nest	11,559	11,389	170	894	918	152	3.2	19%	42%	Adv. Intermediate
6-03	Treasure Falls	11,666	11,361	304	1,220	1,269	369	10.8	25%	56%	Expert
6-04	Criss Cross	11,282	11,181	102	621	630	237	3.4	16%	18%	Intermediate
6-05 g	Holy Moses – Glade	11,744	11,357	387	846	935	278	6.0	46%	68%	Gladed Expert
6-05 l	Holy Moses – Lower	11,034	10,806	228	919	954	131	2.9	25%	50%	Adv. Intermediate
6-05 m	Holy Moses – Middle	11,322	11,033	289	1,791	1,816	94	3.9	16%	25%	Intermediate
6-05 u	Holy Moses – Upper	11,627	11,304	322	780	850	170	3.3	41%	65%	Expert
6-06	Alberta Face	11,748	11,318	430	1,002	1,101	400	10.1	43%	70%	Expert
6-07	Alberta's Trail	11,318	10,992	326	1,963	1,992	154	7.0	17%	23%	Intermediate
6-08	Rock'n Robin	10,989	10,780	209	811	846	112	2.2	26%	49%	Adv. Intermediate
6-09	The Nose	11,689	11,491	198	581	620	202	2.9	34%	50%	Adv. Intermediate
6-10	Muskrat Ramble	11,258	11,046	212	1,320	1,338	129	4.0	16%	24%	Intermediate
6-11 l	Silver Streak – Lower	10,978	10,735	243	1,164	1,195	90	2.5	21%	38%	Intermediate
6-11	Silver Streak – Middle	11,224	10,989	235	1,591	1,610	158	5.8	15%	18%	Low

Lift Ref	Trail Area/Name	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Avg. Width (ft.)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
m											Intermediate
6-11 u	Silver Streak – Upper	11,760	11,224	536	2,328	2,402	117	6.5	23%	45%	Adv. Intermediate
6-12 l	Tranquility – Lower	10,928	10,692	235	1,438	1,464	117	3.9	16%	32%	Low Intermediate
6-12 u	Tranquility – Upper	11,501	10,984	517	2,635	2,693	187	11.6	20%	40%	Intermediate
6-13 l	Navajo Trail – Lower	11,133	10,708	425	4,011	4,044	87	8.1	11%	24%	Low Intermediate
6-13u	Navajo Trail – Upper	11,626	11,132	494	3,179	3,229	114	8.5	16%	30%	Intermediate
6-14	Snuffy's Hollow	11,493	11,361	132	263	297	311	2.1	50%	61%	Expert
6-15	Scat	11,614	11,483	131	291	319	422	3.1	45%	50%	Adv. Intermediate
6-16	Summer Day	11,413	11,010	403	2,594	2,630	174	10.5	16%	28%	Intermediate
6-17	Glory Hole	11,443	11,097	345	2,004	2,040	150	7.0	17%	27%	Intermediate
6-18 g	Patina Glade	11,348	11,011	337	1,878	1,911	337	14.8	18%	24%	Gladed Adv Inter
6-19	Legs	10,982	10,696	286	1,519	1,550	103	3.6	19%	36%	Intermediate
6-20	Bonanza Crossover – Lower	10,984	10,864	121	689	703	241	3.9	18%	26%	Low Intermediate
6-21	Upper Pitch's Gate	11,267	11,160	108	708	717	509	8.4	15%	23%	Gladed Adv Inter
7-01	A-way	10,680	10,399	281	4,066	4,090	52	4.8	7%	18%	Novice
7-02	Okey Dokey	10,699	10,519	180	1,904	1,917	38	1.7	9%	20%	Novice

Lift Ref	Trail Area/Name	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Avg. Width (ft.)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
7-03	Flim Flam	10,822	10,469	354	1,537	1,582	151	5.5	23%	36%	Intermediate
7-04	Flim Flam to S'Wonderful	10,689	10,479	210	910	935	142	3.0	23%	29%	Intermediate
7-05	S'Wonderful	10,535	10,414	121	1,476	1,484	111	3.8	8%	16%	Intermediate
7-06	Park Avenue	11,486	11,133	353	3,554	3,590	33	2.7	10%	24%	Low Intermediate
7-07	Pitch's Gate	11,170	10,510	660	2,989	3,082	362	25.6	22%	59%	Gladed Expert
7-08	Serendipity	11,210	10,481	729	3,552	3,638	551	46.0	21%	54%	Gladed Adv Inter
7-09 l	Lower Bankshot	10,835	10,478	357	1,505	1,559	674	24.1	24%	52%	Gladed Adv Inter
7-09 u	Upper Bankshot	11,249	10,919	330	1,530	1,571	559	20.2	22%	40%	Gladed Adv Inter
7-10	Gyro *(Alberta Lift Line)*	11,442	10,397	1,045	5,079	5,230	283	33.9	21%	59%	Gladed Expert
7-11	Shazam and Posey	11,324	10,460	865	3,108	3,247	654	48.7	28%	59%	Gladed Expert
7-12 l	Simpatico – Lower	10,559	10,408	151	3,682	3,689	37	3.1	4%	8%	Low Intermediate
7-12 m	Simpatico – Middle	11,061	10,662	399	1,300	1,366	568	17.8	31%	49%	Gladed Adv Inter
7-12 u	Simpatico – Upper	11,379	11,161	218	1,908	1,930	39	1.7	11%	19%	Low Intermediate
7-13	Tsunami	11,238	10,487	751	2,955	3,069	475	33.4	25%	69%	Gladed Expert
7-14	Abracadabra	11,179	10,507	673	2,673	2,777	449	28.6	25%	61%	Gladed Expert
7-15	Area 54	11,121	10,586	535	2,174	2,250	543	28.1	25%	45%	Gladed Adv

Lift Ref	Trail Area/Name	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Avg. Width (ft.)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
											Inter
7-16	Coyote Park Trail	11,161	10,896	266	2,832	2,855	36	2.4	9%	24%	Low Intermediate
7-17	Lower Sleeping Beauty	10,896	10,559	336	2,529	2,562	141	8.3	13%	32%	Low Intermediate
W-01	Navajo Trail To Waterfall Gully	11,128	10,958	171	1,339	1,352	732	22.7	13%	21%	Expert
W-02	Sun Rocks	11,007	10,535	472	1,186	1,298	884	26.3	40%	78%	Gladed Expert
W-03	Big Drop	11,008	10,534	474	1,248	1,357	239	7.4	38%	73%	Expert
W-04	Waterfall Gully	10,963	10,519	445	1,139	1,258	131	3.8	39%	92%	Expert
W-05	Snake Rim	10,961	10,634	327	550	643	97	1.4	59%	72%	Expert
W-06	52° Trees	10,952	10,668	284	459	543	179	2.2	62%	79%	Expert
W-07	Jaybird	10,940	10,521	419	1,045	1,134	348	9.1	40%	61%	Expert
E-1	Elma 1	10,724	10,446	278	1,184	1,217	147	4.1	23%	31%	Low Intermediate
M-AT	Meadow Lift Access Trail	10,495	10,309	187	1,264	1,283	88	2.6	15%	31%	Low Intermediate
M-1	Meadow Trail 1	10,487	10,313	173	1,427	1,440	138	4.5	12%	19%	Low Intermediate
M-2	Meadow Trail 2	10,486	10,350	136	1,194	1,202	113	3.1	11%	15%	Low Intermediate
M-3	Meadow Trail 3	10,401	10,323	77	693	697	152	2.4	11%	14%	Low Intermediate

Lift Ref	Trail Area/Name	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Avg. Width (ft.)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
P-LL	Pass Lift Line	11,291	10,820	472	2,441	2,503	55	3.1	19%	38%	Intermediate
P-1	Pass Trail 1	11,128	10,805	322	1,818	1,853	117	5.0	18%	32%	Low Intermediate
P-2	Pass Trail 2	11,333	10,810	523	2,517	2,590	111	6.6	21%	47%	Adv. Intermediate
P-3	Pass Trail 3	11,419	10,813	606	3,117	3,189	108	7.9	19%	36%	Intermediate
P-4	Pass Trail 4	10,970	10,934	37	474	476	81	0.9	8%	11%	Adv. Intermediate
S-1	Sunset Trail 1	10,348	10,258	90	989	994	48	1.1	9%	13%	Adv. Intermediate
S-2	Sunset Trail 2	11,079	10,257	821	3,798	3,926	205	18.5	22%	62%	Expert
S-3	Sunset Trail 3	11,077	10,554	523	2,322	2,400	316	17.4	23%	50%	Adv. Intermediate
S-4	Sunset Trail 4	10,985	10,566	419	1,762	1,825	244	10.2	24%	45%	Adv. Intermediate
S-5	Sunset Trail 5	10,991	10,596	396	1,472	1,531	154	5.4	27%	40%	Adv. Intermediate
S-6	Sunset Trail 6	11,079	10,645	434	1,834	1,900	190	8.3	24%	46%	Adv. Intermediate
SG-1	Spooner Glade 1	10,943	10,630	312	1,059	1,116	456	11.7	29%	55%	Gladed Expert
SG-2	Spooner Glade 2	10,663	10,433	230	2,116	2,134	348	17.0	11%	18%	Gladed Adv Inter
SG-3	Spooner Glade 3	11,031	10,881	150	315	350	130	1.0	48%	56%	Gladed Expert
SG-4	Spooner Glade 4	11,063	10,876	187	522	555	211	2.7	36%	39%	Gladed Adv

Lift Ref	Trail Area/Name	Top Elev. (ft.)	Bottom Elev. (ft.)	Vertical Rise (ft.)	Plan Length (ft.)	Slope Length (ft.)	Avg. Width (ft.)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
											Inter
SG-5	Spooner Glade 5	10,843	10,570	272	1,325	1,359	206	6.4	21%	34%	Gladed Adv Inter
SG-6	Spooner Glade 6	10,773	10,618	155	748	766	174	3.1	21%	29%	Gladed Adv Inter
SG-7	Spooner Glade 7	10,953	10,672	280	1,017	1,057	374	9.1	28%	37%	Gladed Adv Inter
TOTAL						**184,714**		**855**			

Source: SE Group

2.2 Alternate Terrain

The Upgrade Plan calls for an additional 562 acres of alternate terrain style to be added in addition to the existing alternate terrain at Wolf Creek. These additions are primarily in the Matchless Pod, the Sunset hike-to terrain above Alberta Lake, and minimally, in the Pass Pod.

Table E-3 details the specifications of the upgraded developed terrain network at Wolf Creek.

Table E-3 Alternate Terrain Specifications – Proposed Upgrades

Trail Area/Name	Vert. Rise	Slope Length	Avg. Width	Slope Area	Avg. Grade	Max Grade	Ability Level
	(ft.)	(ft.)	(ft.)	(acres)	(%)	(%)	
Bonanza Bowl	174	349	786	6.3	59%	79%	Expert
Exhibition	105	293	757	5.1	39%	58%	Expert
Prospector Ridge	180	397	624	5.7	51%	60%	Expert
Glory Hole	316	817	329	6.2	42%	59%	Expert
Boundary Bowl	322	957	683	15.0	36%	55%	Adv. Intermediate
Montezuma Bowl	386	1,243	378	10.8	33%	60%	Expert
Alberta Peak	342	742	755	12.9	53%	69%	Expert
Peak Chutes	228	415	653	6.2	67%	85%	Expert
Step Bowl	185	408	685	6.4	51%	61%	Expert
Alberta Peak Glades	348	813	1,591	29.7	48%	70%	Expert
Knife Ridge Chutes	301	597	1,103	15.1	60%	94%	Expert
Dog Chutes	288	680	1,966	30.7	48%	72%	Expert
Coyote Park	98	517	268	3.2	20%	39%	Intermediate
Keith's Glade	457	1,352	457	14.2	36%	65%	Expert
Horseshoe Bowl	555	1,770	318	12.9	33%	70%	Expert
Sleeping Beauty I	561	1,699	946	36.9	35%	53%	Adv. Intermediate
Sleeping Beauty II	532	1,801	366	15.1	31%	50%	Adv. Intermediate
Spooner Hill	523	2,401	45	2.5	23%	41%	Intermediate
Un-Named Advanced Level Glades – within Existing Boundary		18,070		141			*Gladed Adv. Inter.*
Un-Named Expert Level Glades –		*2,840*		*22*			*Gladed Expert*

within Existing Boundary							
Undeveloped Terrain off Pass Lift		*3,800*		*110*			*Gladed Inter.*
Matchless Low-Capacity Tram Terrain		*6,000*		*450*			*Gladed Expert*
Hike-to Terrain above Alberta Lake		*1,500*		*80*			*Gladed Adv. Inter.*
TOTAL				**1,036.9**			

Italicized text identifies changes to existing terrain or planned enhancements.
Source: SE Group

2.3 Terrain Distribution by Ability Level

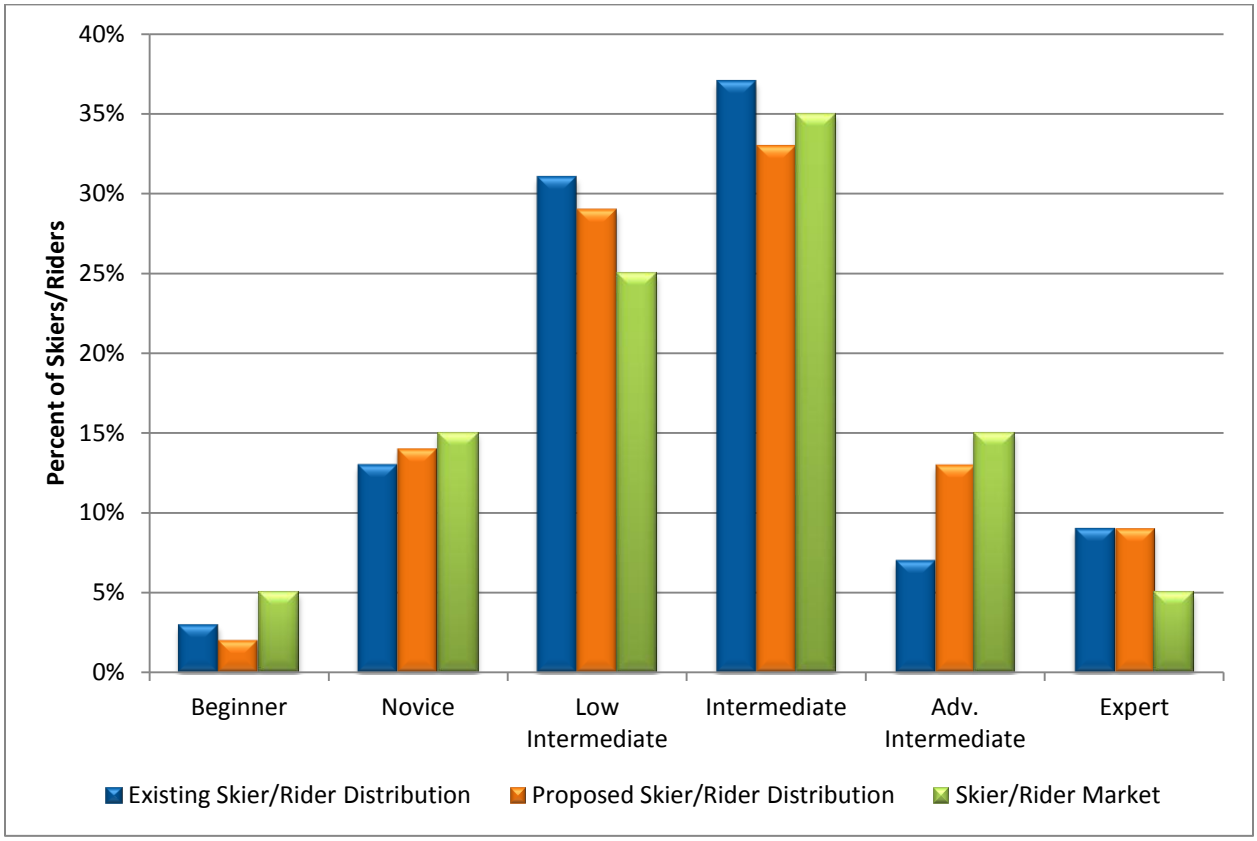
Demand exists at Wolf Creek for terrain through the full range of ability levels, in line with the breakdown for the skier market. The terrain classification breakdown of the Upgrade Plan is set forth in Table E-4 and Chart E-1. The last column in the table represents what can be considered the ideal overall skill level distribution and provides a comparison with the Upgrade Plan.

Table E-4. Terrain Distribution by Ability Level – Upgrade Plan

Skier/Rider Ability Level		Trail Area	Skier/Rider Capacity	Proposed Wolf Creek Skier/Rider Distribution	Rocky Mountain Skier/Rider Market
		(acres)	(guests)	(%)	(%)
●	Beginner	3.2	80.5	2%	5%
●	Novice	34.0	476.2	14%	15%
■	Low Intermediate	84.3	1011.9	29%	25%
■	Intermediate	141.4	1131.3	33%	35%
◆	Adv. Intermediate	86.1	344.3	13%	15%
	Adv. Int. Glades	197.6	98.8		
◆	Expert	109.8	219.7	9%	5%
	Expert Glades	215.3	107.7		
TOTAL		**871.7**	**3,470.4**	**100%**	**100%**

Source: SE Group

Chart E-1. Terrain Distribution by Ability Level – Upgrade Plan



As Table E-4 and Chart E-1 illustrate, the proposed upgrades will bring Wolf Creek closer to the market demand. No new Novice terrain is planned, but terrain of every other category would be added to more closely match the demands of the Rocky Mountain area skier/rider market.

3. PROPOSED CAPACITY ANALYSIS

3.1 Comfortable Carrying Capacity

As discussed previously in Chapter 4 of Appendix C, the accurate calculation of a ski area's Comfortable Carrying Capacity (CCC) is the single most important planning criteria for a ski area. All other related guest support facilities can be evaluated and planned based on the proper identification of the mountain's CCC, which is derived from the mountain's supply of vertical transport (the combined uphill hourly capacities of the lifts) and demand for vertical transport (the aggregate number of runs demanded multiplied by the vertical rise associated with those runs).

Wolf Creek's existing CCC has been calculated at 3,590. Under the Upgrade Plan, CCC will increase, as detailed in Table E-5, and is calculated at 5,298 guests per day. This represents a 48% increase.

Note that the upgraded CCC level will bring Wolf Creek's CCC up to around the average current peak day visitor level, with historic peak days still being a few hundred people more than this planned CCC level. The improvements planned within this document are intended to bring the infrastructural capacity of the mountain into balance with existing visitation levels, thereby balancing use with facility capacity to provide a more comfortable experience. This will dramatically improve the overall guest experience, and will serve to even out visitation over the course of the season, rather than have the large "peaks and valleys" that have historically been associated with visitation levels.

Table E-5. Comfortable Carrying Capacity – Upgrade Plan

Map Ref.	Lift Name	Lift Type	Slope Length	Vertical Rise	Actual Design Capacity	Oper. Hours	Up-Mtn. Access Role	Misloading /Lift Stoppages	Adjusted Hourly Capacity	VTF/Day	Vertical Demand	CCC
			(ft)	(ft)	(guests/hr)	(hrs)	(%)	(%)	(guests/hr)	(000)	(ft/day)	(guests)
1	Raven	DC-4	2,700	704	2,400	7.50	0	5	2,280	12,040	14,417	840
2	*Bonanza*	*DC-4*	*4,195*	*1,037*	*1,800*	*7.50*	*0*	*5*	*1,710*	*13,300*	*12,352*	*998*
3	Nova	C-2	627	117	1,200	7.50	0	15	1,020	897	3,291	270
4	Magic Carpet	C	85	11	480	5.00	0	5	456	25	536	50
5	D. Boyce	S	3,707	934	500	7.50	0	15	425	2,977	13,746	-
6	*Treasure Express*	*DC-4*	*4,467*	*1,082*	*1,600*	*7.50*	*20*	*10*	*1,440*	*8,521*	*12,380*	*690*
7	Alberta	C-4	5,179	1,068	1,800	7.00	10	10	1,440	10,764	13,684	790
8	*Elma*	*C-3*	*2,375*	*428*	*1,500*	*7.00*	*75*	*10*	*225*	*674*	*7,591*	*90*
10	*Meadow*	*C-2*	*1,720*	*229*	*1,200*	*7.00*	*75*	*10*	*180*	*288*	*4,597*	*50*
11	*Pass*	*C-3*	*3,740*	*739*	*1,800*	*7.50*	*0*	*10*	*1,620*	*8,979*	*10,676*	*840*
12	*Sunset*	*C-2*	*3,742*	*819*	*1,200*	*6.50*	*0*	*10*	*1,080*	*5,752*	*14,447*	*400*
13	*Matchless Low-Capacity Tram*	*Tram*	*5,778*	*1,961*	*685*	*6.50*	*0*	*5*	*651*	*8,297*	*30,118*	*280*
TOTAL		**42,325**		**17,365**				**13,547**	**78,853**		**5,298**	

Italicized text identifies proposed or upgraded lifts.
Source: SE Group

3.2 Density

As discussed in Appendix C, an important aspect of ski area design is the balancing of 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. The trail density analysis considers only the acreage associated with the developed trail network. The density analysis for the Upgrade Plan is illustrated in Table E-6.

Table E-6 shows that with the upgrades to the lift system, a closer balance will be achieved between uphill and downhill capacities. The density analysis shows a 23% improvement, but that overall densities, while increasing, will still remain desirably below that of traditional ski areas, thereby maintaining "The Wolf Creek Experience." Despite this overall balance, specific areas on the mountain, such as merge zones, convergence areas, lift milling areas, major circulation routes, and egress routes, may experience higher densities periodically.

Additionally, the Pass Lift system has a calculated density that is over the target. The calculated density is 11 skiers per acre, which is over the target of 9 skiers per acre, but is well within the Intermediate level range of 6 to 15 skiers per acre, as detailed in Appendix C. Also, a significant quantity of glade skiing would be available in conjunction with this lift, as discussed above, which would effectively reduce the developed terrain densities on days with favorable snow conditions.

Also note that no density is calculated for the Matchless Low-Capacity Tram. This is because no developed terrain is planned for this area. With 450 acres of accessible primitive terrain from this lift, and just over 100 skiers within the pod on average (see guest dispersal in Table E-6), the average density would be less than one skier per every 4 acres.

Table E-6. Density Analysis – Upgrade Plan

Lift Name	Lift Type	CCC	Guest Dispersal				Density Analysis				Density Index
			Support Fac./Milling	Lift Lines	On Lift	On Terrain	Terrain Area	Terrain Density	Target Trail Density	Diff.	
			(guests)	(guests)	(guests)	(guests)	(acres)	(guests/ac.)	(guests/ac.)	(+/-)	(%)
Raven	DC-4	840	210	76	103	451	52.2	9	9	0	100%
Bonanza	*DC-4*	*860*	*215*	*128*	*188*	*329*	*60.6*	*5*	*9*	*-4*	*56%*
Nova	C-2	270	68	85	21	96	4.9	19	21	-2	90%
Magic Carpet	C	50	13	30	3	4	0.5	7	15	-8	47%
Treasure Express	*DC-4*	*690*	*173*	*88*	*156*	*273*	*188.9*	*1*	*5*	*-4*	*20%*
Alberta	C-4	790	198	96	249	247	340.0	1	1	0	100%
Elma	*C-3*	*90*	*28*	*14*	*21*	*47*	*12.2*	*4*	*11*	*-7*	*36%*
Meadow	*C-2*	*50*	*13*	*9*	*9*	*19*	*12.3*	*2*	*12*	*-10*	*17%*
Pass	*C-3*	*840*	*210*	*81*	*202*	*347*	*30.3*	*11*	*9*	*2*	*122%*
Sunset	*C-2*	*400*	*100*	*54*	*135*	*111*	*112.6*	*1*	*2*	*-1*	*50%*
Matchless Low-Capacity Tram	*Tram*	*280*	*70*	*33*	*63*	*114*	-	-	-	-	-
TOTAL		**5,560**	**1,398**	**745**	**1,286**	**2,151**	**872**	**6**	**7**	**-1**	**88%**

Italicized text identifies proposed or upgraded lifts.
Source: SE Group

3.3 Lift and Terrain Network Efficiency

As discussed in Chapter 2 of Appendix D, overall ski area efficiency is becoming an increasingly important factor in the industry, relating not only to energy/operational efficiency, but also to efficiency of the design and layout of the ski area. The idea behind ski area design efficiency is to have a well balanced lift and trail network (i.e., the uphill lift capacity balances with the downhill trail capacity that it serves) that is efficiently served by the lifts, while maintaining desired CCC rates, circulation routes, and service to the full spectrum of ability levels and types.

As discussed in Chapter 2 of Appendix D, this Update Plan analyzes Lift and Terrain Network Efficiency by calculating the average CCC per lift. Optimally, as a planning goal, the average CCC per lift will likely be close to 1,000. Industry-wide, the average CCC per lift is approximately 650. The existing average CCC per lift at Wolf Creek is 720—significantly better than the average. With the planned addition of six lifts, Wolf Creek is planning to more roughly double the number of aerial lifts, but with only a 55% increase in CCC. As a result, the average CCC per lift in the Upgrade Plan will be about 510, representing a 30% decrease. The primary factor in this is the addition of the two lifts that will be used largely for circulation (Meadow and Elma) and that the three lifts dedicated to undeveloped terrain would have low hourly capacities.

As discussed in the above density analysis, there would be a 23% improvement in densities, meaning there would be a corresponding 23% improvement in Terrain Efficiency. With a rating of 88%, Wolf Creek would have a very high Terrain Network Efficiency rating. This is because CCC is planned to be increased but there are few planned increases in developed terrain. As discussed in Appendix D, adding undeveloped terrain is a very effective way to improve overall terrain efficiency. This not only matches current market and industry trends, but will result in Wolf Creek having a very efficient terrain network.

4. PROPOSED GUEST SERVICES ANALYSIS

4.1 Space Use Analysis

As discussed, the distribution of CCC is utilized to determine guest support capacities and space requirements for guest services at base area portals and on-mountain facilities. The CCC should be distributed between each guest support facility location according to the number of guests that will be utilizing the lifts and terrain associated with each facility. Sufficient guest service space should be provided to accommodate Wolf Creek's planned CCC of 5,298 guests per day.

Based on that planned CCC level, Table E-7 and Chart E-2 compare planned space use allocations of the guest service functions to recommended ranges, for the entire ski area. As shown, planned totals are right in line with the recommended ranges. Categories that were previously showing deficiencies, such as public lockers, are now planned as part of the upgrade process.

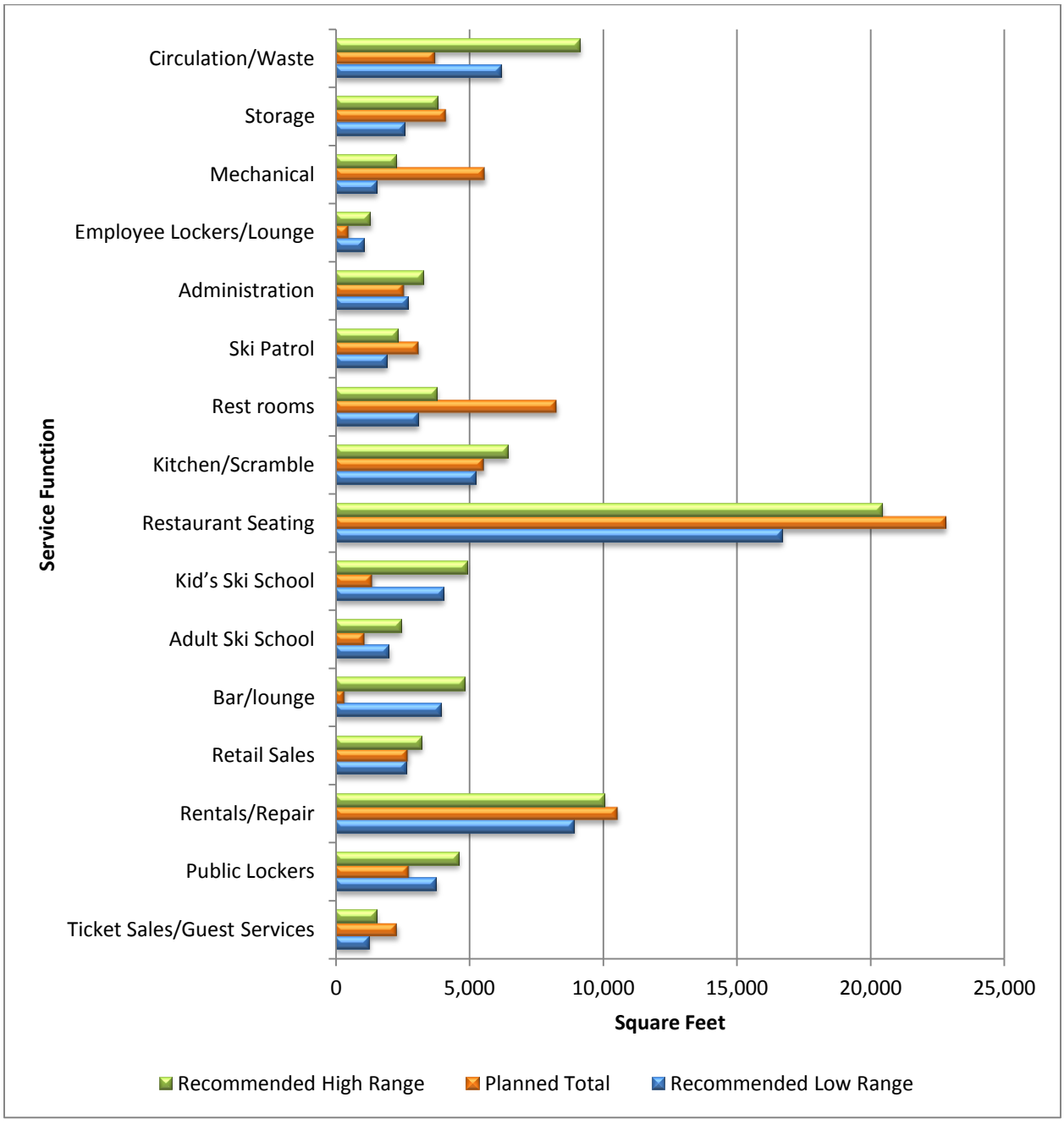
Table E-7. Industry Average Space Use
Ski Area Total – Upgrade Plan

Service Function	Existing sq. ft. of space	Planned sq. ft. of space	Planned Total	Recommended Range		Difference from Recommended	
				Low	High	Low	High
Ticket Sales/Guest Services	2,030	300	2,330	1,260	1,530	1,070	800
Public Lockers	277	2,500	2,777	3,770	4,600	(993)	(1,823)
Rentals/Repair	2,514	8,058	10,572	8,930	10,040	1,642	532
Retail Sales	1,533	1,200	2,733	2,640	3,220	93	(487)
Bar/lounge	174	200	374	3,950	4,830	(3,576)	(4,456)
Adult Ski School	1,130	-	1,130	2,010	2,460	(880)	(1,330)
Kid's Ski School	1,412	-	1,412	4,020	4,910	(2,608)	(3,498)
Restaurant Seating	13,862	8,965	22,827	16,720	20,440	6,107	2,387
Kitchen/Scramble	3,182	2,389	5,571	5,250	6,430	321	(859)
Rest rooms	6,760	1,525	8,285	3,100	3,800	5,185	4,485
Ski Patrol	2,370	770	3,140	1,910	2,340	1,230	800
Administration	2,600	-	2,600	2,690	3,280	(90)	(680)
Employee Lockers/Lounge	525	-	525	1,070	1,310	(545)	(785)
Mechanical	4,399	1,205	5,604	1,550	2,280	4,054	3,324
Storage	3,656	510	4,166	2,580	3,810	1,586	356
Circulation/Waste	2,424	1,340	3,764	6,190	9,130	(2,426)	(5,366)

TOTAL SQUARE FEET	**48,848**	**28,962**	**77,810**	**67,640**	**84,410**	**10,170**	**(6,600)**

* Existing square footage for Rental/Repair reflects the removal of the Boarder Dome (650 sq. ft.)
Note: Square footages contained in this chart illustrate recommended ranges based on industry averages, and should not be considered absolute requirements.
Source: SE Group

Chart E-2. Total Space Use and Recommendations – Upgrade Plan



Tables E-8 through E-11 and the following text address the Upgrade Plan space use at Wolf Creek's base area and on-mountain facilities. The space recommendations are directly related to the distribution of the ski area's capacity to the various guest support facilities located in the base area and on-mountain.

4.1.1 Base Area

This Master Development Plan also contemplates a renovation of the existing Sports Center building and the proposed addition of a multi-use building called the Den. Table E-8 shows the combined recommended total space of the base area buildings.

Table E-8. Industry Average Space Use
Base Area – Upgrade Plan

Service Function	Existing Total	Recommended Range		Planned		Difference from Recommended	
		Low	High	Sports Center Expansion	"The Den"	Low	High
Ticket Sales/Guest Services	2,030	1,260	1,530		300	1,070	800
Public Lockers	277	3,770	4,600		2,500	(993)	(1,823)
Rentals/Repair	2,514	8,930	10,040	2,000	6,058	(358)	(1,468)
Retail Sales	1,533	2,640	3,220		1,200	93	(487)
Bar/lounge	174	3,950	4,830		200	(3,576)	(4,456)
Adult Ski School	1,130	2,010	2,460			(880)	(1,330)
Kid's Ski School	1,412	4,020	4,910			(2,608)	(3,498)
Restaurant Seating	9,904	9,140	11,170		2,500	3,264	1,234
Kitchen/Scramble	2,982	2,870	3,510		384	496	(144)
Rest rooms	2,686	1,700	2,080		650	1,636	1,256
Ski Patrol	2,370	1,040	1,280			1,330	1,090
Administration	2,600	2,690	3,280			(90)	(680)
Employee Lockers/Lounge	525	1,070	1,310			(545)	(785)
Mechanical	1,972	1,220	1,790		900	1,652	1,082
Storage	2,232	2,030	2,980			202	(748)
Circulation/Waste	2,424	4,870	7,160			(2,446)	(4,736)
TOTAL SQUARE FEET	**36,765**	**53,210**	**66,150**	**16,692**		**247**	**(12,693)**

Source: SE Group

4.1.2 On-Mountain Facilities

As discussed above, three new on-mountain facilities are planned: the Alberta building, the Matchless Low-Capacity Tram facility, and the Sunset Lift facility. These facilities are addressed separately below.

As shown in Table E-9, the size of the Alberta Building will be 8,500 square feet to accommodate a lunch facility, ski patrol duty station, restrooms, and an equipment demo center.

Table E-9. Industry Average Space Use
Alberta Building – Upgrade Plan

Service Function	Planned Alberta Building	Recommended Range		Difference from Recommended	
		Low	High	Low	High
Ticket Sales/Guest Services	-	-	-	-	-
Public Lockers	-	-	-	-	-
Rentals/Repair	-	-	-	-	-
Retail Sales	-	-	-	-	-
Bar/lounge	-	-	-	-	-
Adult Ski School	-	-	-	-	-
Kid's Ski School	-	-	-	-	-
Restaurant Seating	4,540	3,840	4,700	700	(160)
Kitchen/Scramble	1,400	1,210	1,480	190	(80)
Rest rooms	520	710	870	(190)	(350)
Ski Patrol	550	440	540	110	10
Administration	-	-	-	-	-
Employee Lockers/Lounge	-	-	-	-	-
Mechanical	210	170	250	40	(40)
Storage	350	280	420	70	(70)
Circulation/Waste	965	670	1,000	295	(35)
TOTAL SQUARE FEET	**8,535**	**7,320**	**9,260**	**1,215**	**(725)**

Source: SE Group

As shown on Figure 7 and in Table E-10 and the upgrade plan calls for a proposed lunch service restaurant facility, restrooms, and a ski patrol duty station at the top of the Matchless Low-Capacity Tram sized between 1,500 to 3,000 square feet. Also shown on the Upgrade Plan is the location of another warming hut, restroom and ski patrol/guest services building at the top of the Sunset Lift, with potential future use as a lunch facility (Table E-11).

Table E-10. Industry Average Space Use
Proposed Matchless Low-Capacity Tram Facility – Upgrade Plan

Service Function	Recommended Range	
	Low	High
Ticket Sales/Guest Services	-	-
Public Lockers	-	-
Rentals/Repair	-	-
Retail Sales	-	-
Bar/lounge	-	-
Adult Ski School	-	-
Kid's Ski School	-	-
Restaurant Seating	1,730	2,120
Kitchen/Scramble	540	670
Restrooms	320	390
Ski Patrol	200	240
Administration	-	-
Employee Lockers/Lounge	-	-
Mechanical	80	110
Storage	130	190
Circulation/Waste	300	450
TOTAL SQUARE FEET	**3,300**	**4,170**

Source: SE Group

Table E-11. Industry Average Space Use
Proposed Sunset Lift Facility – Upgrade Plan

Service Function	Recommended Range	
	Low	High
Ticket Sales/Guest Services	-	-
Public Lockers	-	-
Rentals/Repair	-	-
Retail Sales	-	-

Service Function	Recommended Range	
	Low	High
Bar/lounge	-	-
Adult Ski School	-	-
Kid's Ski School	-	-
Restaurant Seating	1,730	2,120
Kitchen/Scramble	540	670
Restrooms	320	390
Ski Patrol	200	240
Administration	-	-
Employee Lockers/Lounge	-	-
Mechanical	80	110
Storage	130	190
Circulation/Waste	300	450
TOTAL SQUARE FEET	**1,500**	**3,000**

Source: SE Group

4.2 Food Service Seating

Food service seating will continue to be provided, and will be increased, at all existing restaurants.

Table E-12 summarizes the seating requirements at Wolf Creek, based on a logical distribution of the CCC to each service building/location.

Table E-12. Recommended Restaurant Seating – Upgrade Plan

	Base Area	On Mtn Raven	On Mtn Alberta	On Mtn Matchless Low-Capacity Tram	Ski Area Total
Lunchtime Capacity (CCC + Non-Skiing Guests*)	2,903	1,186	1,221	550	5,860*
Average Indoor Seat Turnover	4	4	4	4	
Planned Indoor Seats (includes existing)	936	284	322	130	1,672
Required Seats	726	297	305	138	1,465
Difference	210	-13	17	-8	207

	Base Area	On Mtn Raven	On Mtn Alberta	On Mtn Matchless Low-Capacity Tram	Ski Area Total
Upgraded Indoor Seating Capacity	**3,744**	**1,136**	**1,288**	**520**	**6,688**
Existing Outdoor Seats	498				498
Average Outdoor Seat Turnover	2				
Total Seating Capacity – Including Outdoor Seats	**4,740**	**1,136**	**1,288**	**520**	**7,684**

* Includes the CCC + 5% for non-skiing guest occupying seats.
Source: SE Group

Seating and restaurant space recommendations are directly related to the lunchtime capacity. The lunchtime capacity is determined by the distribution of each lift system's CCC. It is assumed that guests will prefer to dine at the facility closest to the area they are using. To allow for this convenience, it is important to provide restaurant seating to accommodate the lunchtime capacity requirement of the area. Additional seating will be supplied per the "planned indoor seats" in Table E-12.

5. PROPOSED PARKING ANALYSIS

As shown in Table E-13, under the fully implemented Upgrade Plan, the total daily required parking spaces would rise from existing conditions (Table D-11) by 695 spaces to a total of 1,886 spaces. The existing surplus of parking spaces (794) shown in Table D-11 would be sufficient to account for an increased CCC and associated visitation, with a continuing surplus of 99 spaces under the fully implemented Upgrade Plan. As a part of this study, Wolf Creek is not relying on any additional parking from any development of adjacent private lands that may or may not occur.

By initiating these efforts, Wolf Creek would not need to increase its disturbance footprint and impervious surfaces for parking lots under the Upgrade Plan.

Table E-13. Recommended Daily Parking – Upgrade Plan

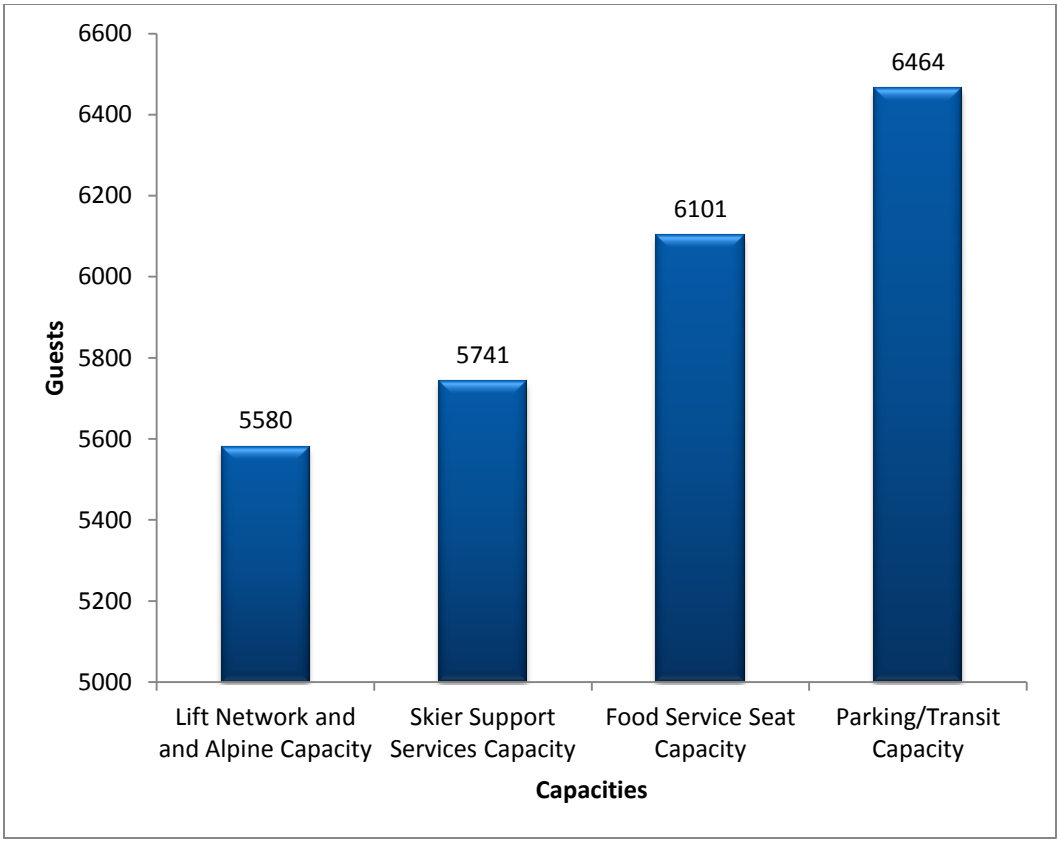
	Assumptions	Total
CCC + other guests*	--	5,983 people
Number of guests arriving by car	94%	5,624 people
Number of guests arriving by charter bus	6%	359 people
Required car parking spaces	3.5 people/car	1,607 spaces
Equivalent car spaces for bus parking	1 bus = 4.5 cars	40 spaces
Required employee car parking spaces	--	239 spaces
Total required spaces	--	1,886 spaces
Existing parking spaces	--	1,985 spaces
Surplus	--	99 spaces

Notes:
* "other guests" include non-skiing guests—an additional 5% of Wolf Creek's CCC
Required employee spaces are assumed based on CCC increase.
Source: SE Group

6. PROPOSED BALANCE OF FACILITIES

The overall balance of the planned upgrades at Wolf Creek is evaluated by calculating the capacities of the ski area's various facilities and comparing those facilities to the ski area's new CCC, as noted in Chart E-3.

Chart E-3. Ski Area Balance – Upgrade Plan



The mountain master planning process emphasizes the importance of balancing recreational facility development. The sizes of the various skier support functions are designed to match the CCC of the mountain. Proposals described in this Upgrade Plan for improvements to Wolf Creek have been configured to match the capacities of key ski area operations, including lifts, terrain, guest services, food service seating, and parking with the ski area Lift Network and Alpine Capacity of 5,298 skiers.

Increases in CCC are designed to bring the ski area's infrastructural capacity up to current and historic visitation levels. As Chart E-3 above indicates, this will bring all components of the ski area into balance, with other capacities (particularly Guest Support space) raised to a higher level. These other capacities are brought slightly higher than the new CCC to account for peak days. Capacity of all skier service functions will be increased through the construction of the new base area facility and the new on-mountain facilities, and brought in line with the Lift Network and Alpine Capacity. Capacity for parking and transit is shown slightly higher than the existing capacity, due to anticipated increases in shuttles

and charter busses. However, it should be noted that the entire CCC can be accommodated in the existing parking areas, and that Wolf Creek has no current or future plans to expand the parking capacities.

Appendix F: PUBLIC INPUT / SURVEY SUMMARY

RIO GRANDE NATIONAL FOREST ENHANCEMENT IDEAS

- WCSA conducted a public outreach campaign in March 2012 that consisted of 6 public meetings, over 12,000 e-mail blasts, two videos, and a survey in on-line and hard copy format.
- 2,300 individuals completed the survey which allowed for an expression of level of enthusiasm for each enhancement idea and provided an opportunity for individuals to submit written comments.

Bonanza Lift - The Bonanza Lift would be realigned 800 feet to the east and replaced with a detachable lift. The detachable lift would provide easier loading/unloading for the beginner/intermediate skier.

- Realign top of terminal 800 feet to the east and replace with detachable lift
- Easier loading/unloading for the beginner/intermediate skiers

Of the survey participants, 1,823 individuals rated the Bonanza Lift Enhancement Idea as follows:

Level of Enthusiasm	Number of "votes " per Level of Enthusiasm
1 - lowest	120
2	118
3	295
4	419
5 - highest	871

Of the 329 comments received in the survey, 273 were positive comments, 31 were categorized as negative and 25 provided operational suggestions for the idea. The recurring themes from the 31 individuals who were not enthusiastic about the development of the Bonanza Lift included:

- Belief that there are enough lifts in that area; no change (9)
- Enough beginner/intermediate terrain as is (8)
- Prefers that area be left to those that hike to it (7)
- Safety (2)
- Decrease terrain for snowmobilers (1)
- Change will allow for powder to get skied out sooner (1)
- Environmental (tree removal concern) (1)

Elma Lift - The Elma Lift would provide skiers a way to get back to the base area from the top of the Alberta lift and eliminate the long traverse across the mountain from Park Avenue to the base area. It would also open up additional intermediate terrain and provide more terrain near the base area for the ski school. The Elma Lift would provide skiers a way to get back to the base area from the top of the Alberta lift and eliminate the long traverse across the mountain from Park Avenue to the base area. It would also open up additional beginner/intermediate terrain and provide more terrain near the base area for the ski school.

- Provides access to the top of Alberta back to the base area
- Eliminates current requirement for skiers to make long traverse across the mountain
- Provides access to additional intermediate terrain

Of the survey participants, 1,814 individuals rated the Elma Lift Enhancement Idea as follows:

Level of Enthusiasm	Number of "votes " per Level of Enthusiasm
1 - lowest	155
2	96
3	246
4	409
5 - highest	908

Of the 419 comments received in the survey, 341 were positive comments, 54 were categorized as negative and 24 provided operational suggestions for the idea.

The gist of the negative comments had several themes including a perception that by developing the Elma Lift, beginner/intermediate skiers would congest the Waterfall/Alberta lift area and "end up in trouble" and the long flat traverse through the area is "not that bad" and by keeping the traverse it eliminates lower level skiers from entering the area and tracking up the powder.

Operational suggestions include better signage in the area to direct skiers away from advanced terrain, minimal tree removal, put in a rope tow instead of a lift, and requests for terrain park development in this area.

Positive comments generally cite the long traverse back to the base area as problematic and a lift service would be greatly appreciated, excitement about opening up additional terrain, understanding that this lift would disperse skiers in the area, and understanding that this lift would keep beginners out of the more advanced Waterfall/Alberta lift area (which is a more accurate assessment of what this lift would accomplish contrary to the negative comments noted above indicating the lift would draw beginners into the area) . In addition many survey participants indicated that this enhancement idea should be the first project that is completed.

Meadow Lift - The Meadow Lift would allow skiers in the eastern portion of the Alberta Lift, from the bottom of Horseshoe Bowl and the Knife Ridge area, to return to the lift without enduring the long, almost flat, traverse back to the base of the Alberta Lift. It also provides access to new beginner terrain. This area would also be used by the ski school.

- Provides additional beginner terrain
- Allows skiers in the eastern portion of the Alberta lift terrain to return to the lift without enduring the long, almost flat, traverse back to the base of the Alberta lift.
- Lift/terrain will provide repeat-skiable terrain on beginner terrain

Of the survey participants, 1,797 individuals rated the Meadow Lift Enhancement Idea as follows:

Level of Enthusiasm	Number of "votes " per Level of Enthusiasm
1 - lowest	155
2	124
3	225
4	383
5 - highest	910

Of the 340 comments received in the survey, 230 were positive comments, 87 were categorized as negative and 23 provided operational suggestions for the idea. The recurring themes from the 87 individuals who were not enthusiastic about the development of the Meadow Lift included:

- Not a good idea/Already too many lifts/no change (39)
- Safety/Beginners would mix in with advanced (28)
- Enough beginner/intermediate terrain on mountain (9)
- More traffic means less powder (6)
- Environmental impacts (2)

Sunset Lift - The Sunset Lift would provide access to skiable areas on the far eastern boundary of Wolf Creek Ski Area that are currently only available via hiking (for example, Spooner Hill). This lift would support groomed skiing and a possible terrain park for beginner and intermediate skiers/boarders. Moderate tree clearing would be required for the trails and terrain park. There would also be a new multi-use, guest service and ski patrol duty station constructed at the top of the Sunset Lift.

- Provides access to skiable areas are currently are only available via hiking
- Requires moderate tree clearing to allow for trail grooming and possible terrain park
- Construct new multi-use building for guest services and ski patrol duty station at the summit of the Sunset Lift

Of the survey participants, 1,793 individuals rated the Sunset Lift Enhancement Idea as follows:

Level of Enthusiasm	Number of "votes " per Level of Enthusiasm
1 - lowest	166
2	111
3	250
4	403
5 - highest	863

Of the 365 comments received in the survey, 277 were positive comments, 44 were categorized as negative and 44 provided operational suggestions for the idea. The recurring themes from the 44 individuals who were not enthusiastic about the development of the Sunset Lift included:

- Not a good idea/like to hike/no change (41)
- Environmental impacts (3)
- Terrain park not a good idea in this area (2)
- More traffic means less powder (1)

Alberta Lift - The current structure at the top of the Alberta Lift would be replaced with a restaurant/restroom facility- this would allow for skiers to spend the entire day in the Alberta Lift area without having to return to the base area for services. The proposed Elma and Meadow Lifts would provide increased access to the Alberta Lift.

- Current structure will be replaced with new restaurant/restroom facility
- What this means for skiers – you can spend the whole day in Alberta area – no need to go to base area for services

Of the survey participants, 1,790 individuals rated the Alberta Lift Enhancement Idea as follows:

Level of Enthusiasm	Number of "votes " per Level of Enthusiasm
1 - lowest	148
2	118
3	255
4	355
5 - highest	914

Of the 392 comments received in the survey, 279 were positive comments, 63 were categorized as negative and 50 provided operational suggestions for the idea. The recurring themes from the 87 individuals who were not enthusiastic about the development of the Alberta Lift included:

- Not a good idea/no change (28)
- No new facilities needed (21)
- Safety/if developed, beginners may come into area (4)
- More traffic means less powder (3)
- Environmental impacts (1)

Other Ski Area Enhancement Ideas - In addition to the ski area enhancements described earlier in the survey, Wolf Creek Ski Area is also considering constructing a new full-service base area support facility, remodeling and renovating the Sport Center, and a new vehicle maintenance building within the base area, and improving their current snowmaking system.

- Possible new full-service base area support facility – ticketing, food service
- Remodel/renovate existing Sport Center
- Relocate/construct new vehicle maintenance building within the base area
- Improve infrastructure of current snowmaking system

Of the survey participants, 1,776 individuals rated the Other Ski Area Enhancement Ideas as follows:

Level of Enthusiasm	Number of "votes " per Level of Enthusiasm
1 - lowest	101
2	116
3	350
4	397
5 - highest	812

Of the 383 comments received in the survey, 236 were positive comments, 67 were categorized as negative and 80 provided operational suggestions for the idea.

The gist of the negative comments focused primarily on the concept of snowmaking. In general commenters were supportive of upgrading the base facilities and vehicle maintenance building in the base area; however, they were opposed to snow making. A few comments cited environmental concerns as well. Many suggested that the ski area remain small and simply and "not too fancy".

Transportation/Parking - The long-term goal of Wolf Creek Ski Area is not to create additional parking at the ski area; however, Wolf Creek Ski Area is anticipating coordinating off-site parking and shuttle service on both the east (South Fork) and west (Pagosa Springs) sides of the ski area. Off-site parking and shuttle service benefits skiers by savings in fuel costs, less traffic on the highway, and the opportunity to buy lift tickets at off-site hubs prior to arriving at the ski area.

- No intention to develop additional parking
- Off-site parking and shuttle service will be dictated by skier driven needs, instead of over-building parking lots in anticipation of peak-day highest skier volume
- Off-site parking and shuttle service would benefit skier by savings in fuel costs, less traffic on highway, and opportunity to buy lift ticket at off-site hub
- Due to environmental impacts and expense to construct and maintain additional parking lots, Wolf Creek prefers an off-site and shuttle parking program, when needed
- Expanded employee shuttle service – rewards program in place for using shuttle
- Discussion has occurred with county governments on east and west sides of pass for additional shuttle service opportunities

Of the survey participants, 1,787 individuals rated the Transportation and Parking Ideas as follows:

Level of Enthusiasm	Number of "votes " per Level of Enthusiasm
1 - lowest	330
2	225
3	394
4	334
5 - highest	504

Of the 495 comments received in the survey, 236 were positive comments, 67 were categorized as negative and 83 provided operational suggestions for the idea.

The gist of the negative comments focused primarily on the concept of the proposed shuttle service on either side of the pass. Most commenters indicated that they would not want to wait for a shuttle, they use their vehicle to store extra gear during the day; therefore, would not use the shuttle, and lack of flexibility coming and going to the ski area.

SAN JUAN NATIONAL FOREST ENHANCEMENT IDEAS

- There are two enhancement ideas proposed for the San Juan National Forest: Matchless Pod (east) and Pass Pod (west) – they are summarized below.
- WCSA conducted a public outreach campaign in March 2012 that consisted of 6 public meetings, over 12,000 e-mail blasts, two videos, and a survey in on-line and hard copy format.
- 2,300 individuals completed the survey which allowed for an expression of level of enthusiasm for each enhancement idea and provided an opportunity for individuals to submit written comments.
- The Matchless Pod and Pass Pod Enhancement Ideas garnered the most interest during the public outreach effort as measured by comments during public meetings and survey response numbers.

Matchless Pod - The Matchless Pod in Silver Creek would provide Wolf Creek skiers a lift-assisted backcountry experience in primitive gladed terrain to the east of Horseshoe Bowl. It has east, northeast, north and northwest aspects for skiing. A low-capacity tram would be installed with minimal ground impact. No roads would be built to install the four tram towers and minimal trees would be cleared for the towers. There would be a guest support facility build at the top of the tram. This ski area would require an extension of the ski area boundary into the San Juan National Forest.

- Provides access to existing natural terrain on the backside of the mountain
- Minimal if any tree clearing
- Lift-assisted backcountry ski experience
- Matchless low-capacity tram – minimal on the ground impact
- Requires SUP boundary into San Juan National Forest
- Guest Support Facility – multi-use (include ski patrol use) at the top of the tram

Of the survey participants, 1,870 individuals rated the Matchless Pod Enhancement Idea as follows:

Level of Enthusiasm	Number of "votes " per Level of Enthusiasm
1 - lowest	118
2	67
3	172
4	356
5 - highest	1,157

Of the 741 comments received in the survey, 599 were positive comments, 76 were categorized as negative and 68 provided operational suggestions for the idea. The recurring themes from the 76 individuals who were not enthusiastic about the development of the Matchless Pod included:

- Environmental impacts (20)
- Not in favor of ski area development outside current boundaries (19)

- Prefer no additional development at the ski area/no change (15)
- Concerns over snowmobile conflicts (9)
- Do not like the addition of a tram (5)
- Impacts to hunters (5)
- Concern ski area would lost the "small town feel" (5)
- Powder would get skied up too quickly in the area (4)
- Concern regarding general user impacts in the area (3)
- Visual impacts of development (3)
- Safety (2)

Pass Pod - The Pass Pod encompasses land at the top of Wolf Creek Pass in the San Juan National Forest. With a lift installed in this area, Wolf Creek skiers would have access to additional intermediate and beginner level terrain. This area has a north-facing aspect which would receive and retain snow earlier in the season. A multi-use guest support facility/warming hut would be built at the bottom of the lift area for use by skiers and other recreational users in the Wolf Creek Pass area such as snow mobile users. The building would also be used to store safety equipment for use by Ski Patrol.

- Provides developed and undeveloped terrain for intermediate and lower level skiers
- Northern aspect receives and retains snow earlier in season
- Construct guest support/warming hut with restrooms at bottom of Pass Lift – also provides support for snow mobile users in adjacent area – safety equipment storage
- Requires SUP boundary into San Juan National Forest
- Continued assistance from Wolf Creek Ski Area ski patrol help with snow mobile accidents occurring near the Pass
- Will re-use lift from Bonanza
- There is no connection to the highway as part of this enhancement. Access via current base area. Snow machine parking area intact.

Of the survey participants, 1,826 individuals rated the Pass Pod Enhancement Idea as follows:

Level of Enthusiasm	Number of "votes " per Level of Enthusiasm
1 - lowest	103
2	108
3	221
4	430
5 - highest	964

Of the 436 comments received, 373 were positive comments, 41 were categorized as negative and 22 provided operational suggestions for the idea. The recurring themes from the 41 individuals who were not enthusiastic about the development of the Pass Pod included:

- Concerns over snowmobile conflicts (14)

- Prefer no additional development at the ski area/no change (9)
- Not in favor of ski area development outside current boundaries (8)
- Environmental impacts (5)
- Prefer to minimize development in that area (3)
- Concern regarding general user impacts in the area (2)
- Prefer advanced terrain development (2)
- Visual impacts of development (2)
- Safety (2)
- Concern that the development will attract an increased number of skiers who are less experienced and cause congestion (2)

Appendix G: SUPPORT EXHIBIT

WOLF CREEK
THE MOST SNOW IN COLORADO®

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Web Site: www.wolfcreekski.com Email: wolfcreekski@wolfcreekski.com

WOLF CREEK SKI AREA & THIRD GENERATION OUTFITTERS
San Juan National Forest Special Use Permits

THE PROCESS

At a public outreach meeting on March 7th, 2012, Wolf Ski Area (WCSA) was made aware that Third Generation Outfitters (3GO) has operated hunting camps in the proposed Matchless Pod expansion for many years. Following this discovery, Wolf Creek and Third Generation began discussions. In the ensuing meetings with Forest and Jackie Bramwell, 3GO's owner-operators, and Davey Pitcher, President & CEO of WCSA, it was determined that 3GO's primary concern was that the presence of the Matchless Pod life could make these hunting camps less desirable, and possibly hurt 3GO's business.

WCSA and 3GO began meaningful discussions in order to craft a mutually acceptable groundwork for abating the concerns. Wolf Creek agreed to the following covenants should the Matchless Pod expansion be approved: 1) The Matchless Pod Tramway will begin operations only after 42 inches of snow can be measured at the Wolf Creek midway stake, and 2) WCSA will show good faith efforts to complete all maintenance prior to July 15th.

Kevin Khung, Pagosa District Ranger of the San Juan National Forest, brought it to Wolf Creek's attention that there is potential for additional hunting permits to be issued in the West Fork, and that 3GO has other hunting permits that would not be affected by the ski area expansion. Davey Pitcher and the Bramwells spent an afternoon in the helicopter considering the West Fork drainage as an option for procuring additional campsites. After scrutinizing the West Fork as possible mitigation for the possible revenue loss in the Matchless Pod, the Bramwells decided that this was not in their best interest.

THE SOLUTION

Wolf Creek Ski Area began discussions with Larry Melton, owner operator of Snow Country Adventure Tours, LLC, who was interested in selling his snowmobile outfitting business. Melton's Special Use Permit has seven compartments: Wolf Creek, Jackson Mountain, Windy Pass, Weminuche, Upper Piedra, and Devil Creek. The Wolf Creek compartment is the crown jewel of the Permit, accounting for a

majority of Snow Country's business, particularly during low snow years. WCSA paid Larry Melton fair market value for his business, with the intent to finance 3GO in a favorable business sale. This agreed upon price offsets the Bramwells' economic concerns about the Matchless Pod. This was seen by both WCSA and 3GO as a mutually beneficial opportunity.

Wolf Creek purchased brand new, four-stroke snowmobiles that are more environmentally friendly than the current fleet of machines being used on the Pass. WCSA has also offered parking for 3GO's snowmobile trailers at the Wolf Creek Ski Area parking lot throughout the winter. Wolf Creek recognizes the value in having a local outfitter with a known track record of working with the Forest Service as its neighbor, and has no desire to further stress mixed-use on the Pass by selling to a more aggressive outfitter.

THE OUTCOME

In sum, Wolf Creek Ski Area has or will take two actions to protect 3GO from any possible economic loss from the Matchless Pod expansion: the imposition of particular operational covenants should the Matchless Pod be approved, and a favorable sale of the Melton snowmobile outfitting business to 3GO.

3GO for its part agrees to support Wolf Creek in its San Juan expansion plans, as described below.

> **THE MATCHLESS POD:** 3GO whole-heartedly supports WCSA's attempt to permit the Matchless expansion in consideration of our agreed upon covenants, and acknowledges its opportunity to offset anticipated economic burdens as a snowmobile outfitter permitted on Wolf Creek Pass. 3GO is not certain how the potential development may affect its hunting camps, but should it be adverse, Third Generation has been fairly indemnified.
>
> **THE PASS POD:** As a business operating at the top of the Pass, 3GO does not see a conflict between its snowmobile outfitting and Wolf Creek Ski Area's proposed expansion into the Pass Pod.

Both Wolf Creek Ski Area and 3GO understand that this is federal land, and public use is a good thing for the community. Ski area use and hunting permits and non-exclusive, and both entities appreciate mixed recreational opportunities. This conspectus is part of an ongoing discussion between the permit holders and the San Juan National Forest.