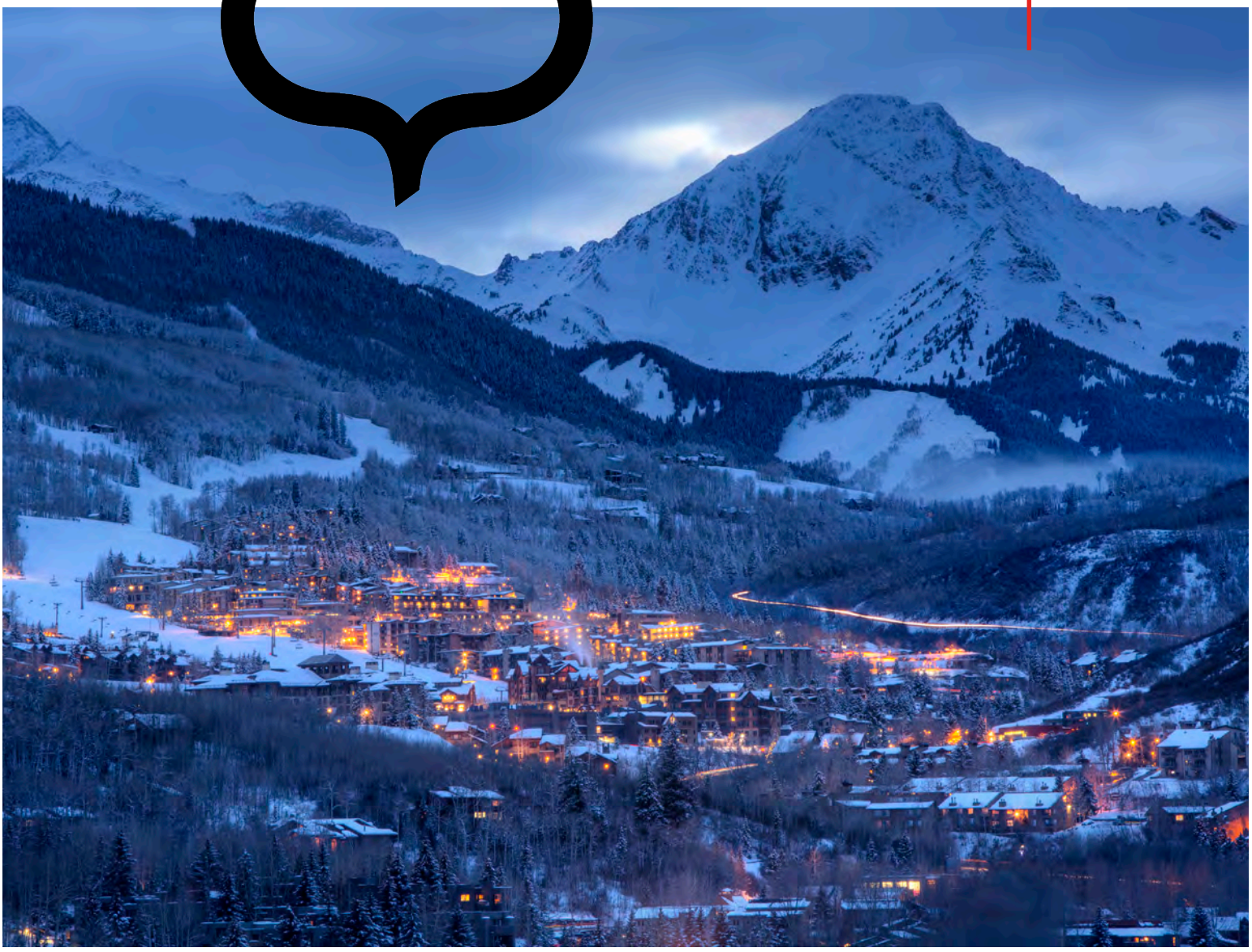
ASPEN SNOWMASS

2022 Master Development Plan

December 2022



ASPEN SNOWMASS

2022 Master Development Plan

DECEMBER 2022

ACCEPTED BY: _____

Scott Fitzwilliams
Forest Supervisor
White River National Forest

DATE: _____

PREPARED BY: SE GROUP

Contents

I. Introduction 1

A. LOCATION 3

B. CURRENT RESORT OPERATIONS SUMMARY 3

C. BACKGROUND 4

D. VISION AND DESIGN PHILOSOPHY 5

E. STATEMENT OF GOALS AND OBJECTIVES 6

1. Winter 6

2. Summer 7

F. ACCEPTANCE BY THE FOREST SERVICE 7

G. PUBLIC/MUNICIPAL REVIEW 8

H. ABSTRACT OF MASTER DEVELOPMENT PLAN 8

1. Winter 9

2. Summer 9

II. Design Criteria and Forest Service Direction 1

A. DESTINATION RESORTS 1

1. Regional Destination Resorts 1

2. National and International Destination Resorts 1

B. BASE AREA DESIGN 2

C. MOUNTAIN DESIGN 3

1. Trail Design 3

2. Lift Design 5

3. On-Mountain Guest Services 5

D. CAPACITY ANALYSIS AND DESIGN 5

E. BALANCE OF FACILITIES 5

F. MULTI-SEASON RECREATION ACTIVITIES 6

G. APPLICABLE FOREST SERVICE POLICY DIRECTION 7

1. 2002 Revised White River National Forest Land and Resource Management Plan 8
2. Ski Area Recreational Opportunity Enhancement Act of 2011 9
3. Recreation Opportunity Spectrum 10
4. Scenery Management and the Built Environment Image Guide 10
5. Accessibility to Public Lands 11
6. Winter Sports Guidebook 12
7. Forest Service Guidance on Climate Change 12

III. Site Inventory 1

A. TOPOGRAPHY AT SNOWMASS 1

B. SLOPE GRADIENTS AT SNOWMASS 1

C. SOLAR ASPECT AT SNOWMASS. 2

D. RESOURCE SURVEY INVENTORY 3

E. CLIMATE CHANGE 3

IV. Existing Facilities 1

A. SUMMARY OF THE EXISTING GUEST EXPERIENCE 1

B. EXISTING LIFT NETWORK 2

C. EXISTING TERRAIN NETWORK. 3

1. Terrain Variety 3
2. Developed Terrain Network 5
3. Undeveloped and Gladed Terrain 11
4. Terrain Parks 12
5. Snow Tubing 13

D. EXISTING CAPACITY ANALYSIS 13

1. Comfortable Carrying Capacity 13
2. Density Analysis 15
3. Lift and Terrain Network Efficiency 16

E. EXISTING GUEST SERVICES FACILITIES, FOOD SERVICE SEATING AND SPACE USE ANALYSIS 18

1. Guest Services 18
2. Space Use Analysis 18
3. Food Service Seating 20

F. EXISTING PARKING CAPACITY 21

G. EXISTING RESORT OPERATIONS 21

1. Ski Patrol/First Aid 21
2. Snowmaking Coverage 22
3. Grooming 23
4. Maintenance Facilities 23
5. Power and Other Utilities 24
6. Culinary Water and Sewer 24

H. RESORT CAPACITY BALANCE AND LIMITING FACTORS 25

I. SUMMER OPERATIONS 25

1. Summary of the Existing Summer and Multi-Season Guest Experience 25
2. Existing Summer and Multi-Season Facilities 26
3. Lifts 27
4. Mountain Biking 27
5. Hiking 30
6. Miscellaneous Activities 31
7. Summer and Multi-Season Guest Service Facilities Use 31
8. Existing Resort Summer Operations 31

V. Previously-Approved Projects, Not Yet Implemented 1

A. LIFTS 2

1. Burnt Mountain Lift 2

B. TERRAIN 3

1. Burnt Mountain Trails/Glading 3
2. 2015 Glading Projects 3

C. SNOWMAKING 3

1. Snowmaking 3

D. GUEST SERVICES 4

E. MOUNTAIN BIKING TRAILS 4

1. Meadows Skills Center 4
2. Trail 15 4

F. SUMMER ACTIVITIES 4

1. Zip Line 4

G. FOREST HEALTH PROJECTS 4

H. PREVIOUSLY-APPROVED PROJECTS MATRIX 5

VI. Upgrade Plan 1

A. SUMMARY 1

B. UPGRADED LIFT NETWORK 2
1. Village Express 2
2. Coneygame 2
3. Alpine Springs 3
4. Cirque Lift 3
5. Elk Camp Lift 3
6. Burnt Mountain Lift 3
7. Sky Cab Gondola 4
8. Bear Bottom Tubing Carpet 4
9. Dawdler Bowl Beginner Lifts 4
10. Sam's Access Surface Lift 4
11. General Lift Information 4

C. UPGRADED TERRAIN NETWORK 6
1. Terrain Variety 6
2. Developed Alpine Trails 6
3. Undeveloped and Gladed Expert Terrain 14
4. Terrain Parks 15
5. Snow Tubing 15
6. Uphill Travel 16

D. PLANNED CAPACITY ANALYSIS 16
1. Comfortable Carrying Capacity 16
2. Previous MDP Comparison 16
3. Density Analysis 18
4. Lift and Terrain Network Efficiency 18

E. UPGRADED GUEST SERVICES FACILITIES, FOOD SERVICE SEATING AND SPACE USE ANALYSIS 20
1. Guest Services 20
2. Space Use Analysis 22
3. Food Service Seating 22

F. PLANNED PARKING CAPACITY 24

G. PLANNED RESORT OPERATIONS 24
1. Ski Patrol/First Aid 24
2. Snowmaking Coverage 24
3. Grooming 24
4. Maintenance Facilities 24
5. Utilities 25
6. Communications 25
7. Culinary Water and Sewer 25

H. RESORT CAPACITY BALANCE AND LIMITING FACTORS 26

I. SUMMER OPERATIONS 27
1. Summer and Multi-Season Offerings – Zones Concept 27
2. Summer and Multi-Season Activities and Facilities 31

Appendices 1

Figures 1

LIST OF TABLES

Table I-1. Annual Skier Visits (2011-2021) I-3
Table II-1. Terrain Gradients II-3
Table II-2. Skier Ability Breakdown II-3
Table II-3. Skier Density per Acre II-4
Table IV-1. Lift Specifications – Existing Conditions IV-2
Table IV-2. Terrain Specifications – Existing Conditions IV-5
Table IV-3. Terrain Distribution by Ability Level – Existing Conditions IV-10
Table IV-4. Undeveloped Terrain – Existing Conditions IV-12
Table IV-5. Comfortable Carrying Capacity – Existing Conditions IV-14
Table IV-6. Density Analysis – Existing Conditions IV-17
Table IV-7. Industry Average Space Use – Existing Conditions IV-19
Table IV-8. Recommended Restaurant Seating IV-20
Table IV-9. Parking Capacity – Existing Conditions IV-21
Table IV-10. Snowmaking Operations – Existing Conditions IV-22
Table IV-11. Maintenance Facilities – Existing Conditions IV-23
Table IV-12. Domestic Water System – Existing Facilities IV-24
Table IV-13. Mountain Bike Trails by Ability Level - Existing Conditions IV-29
Table IV-14. Hiking Trails by Ability Level - Existing Conditions IV-30
Table V-1. Previously-Approved Projects, Not Yet Implemented V-5
Table VI-1. Lift Specifications – Upgrade Plan VI-5
Table VI-2. Terrain Specifications – Upgrade Plan VI-7
Table VI-3. Terrain Distribution by Ability Level – Upgrade Plan VI-13
Table VI-4. Undeveloped Expert Terrain – Upgrade Plan VI-15
Table VI-5. Terrain Summary – Upgrade Plan VI-15
Table VI-6. Comfortable Carrying Capacity – Upgrade Plan VI-17
Table VI-7. Density Analysis – Upgrade Plan VI-19
Table VI-8. Industry Average Space Use – Upgrade Plan VI-22
Table VI-9. Recommended Restaurant Seating VI-23
Table VI-10. Zone Characteristics VI-31
Table VI-11. Snowmass Summer Use Zones VI-32

LIST OF CHARTS

Chart IV-1. Terrain Distribution by Ability Level – Existing Conditions IV-11
Chart IV-2. Resort Balance – Existing Conditions IV-25
Chart VI-1. Terrain Distribution by Ability Level – Upgrade Plan VI-14
Chart VI-2. Resort Balance – Planned Conditions VI-26

LIST OF FIGURES

I-1 Vicinity Map
I-2 Property Boundaries Plan
III-1 Slope Analysis Plan
III-2 Aspect Analysis Plan
IV-1 Existing Winter Conditions Plan
IV-2 Existing Snowmaking Plan
IV-3 Existing Summer Conditions Plan
IV-4 Existing Summer Zones Plan
VI-1 Upgrade Plan
VI-2 Upgrade Elk Camp Zoom In
VI-3 Snowmaking Upgrade Plan
VI-4 Summer Upgrade Plan
VI-5 Proposed Summer Zoning Plan

I. Introduction

This 2022 Master Development Plan for Snowmass updates the existing 2015 Snowmass Mountain Master Plan, as amended, and provides a detailed assessment of existing facilities and operations at Snowmass, as well as a comprehensive overview of planned elements within the Snowmass special use permit (SUP) area. This Master Development Plan (MDP) discusses planned year-round activities, including both winter and summer components slated for implementation over the next ten to fifteen years. Forest Service acceptance of this MDP is consistent with the requirements of the Snowmass SUP but does not approve any projects contained within the document. The MDP is designed to be dynamic and may be amended periodically to reflect new developments in facilities and recreation.

The *White River National Forest Land and Resource Management Plan – 2002 Revision* (2002 Forest Plan) provides the following direction for the preparation and utilization of ski area MDPs:

> *"A Master Development Plan is part of each ski area's special use permit. MDPs are prepared by the permit holder and accepted by the Forest Service. They describe the improvements and facilities that are authorized at each resort and are the guiding document used to describe the expected future condition for the resort. These plans encompass all the area authorized for use by the special use permit including areas that are, at present, undeveloped. Areas allocated are managed to avoid deterioration of site conditions that may detract from planned uses."*[1]

The Snowmass experience remains one of the key reasons guests visit the Aspen/Snowmass area. With more than 3,000 skiable acres, Snowmass offers "something for everyone," from the very first-time beginner to the most adventurous extreme skiers and snowboarders. The children's ski school program is world-renowned and contributes to Snowmass' reputation as a perfect destination for families. The primary objective of the Snowmass experience is to bring all guests closer to nature by providing a unique, fulfilling, and invigorating recreational experience in an alpine setting. This MDP utilizes innovative mountain planning techniques that will enhance the guest experience while maintaining appropriate skier densities and respecting the uniqueness of Snowmass' natural environment.

Since 2015, Snowmass and the Town of Snowmass Village (TOSV) have continued to go through transformation in the base area and on the mountain. The mountain has seen the continued replacement of older lift infrastructure with state-of-the-art lift technology, the construction and renovation of restaurants, and the implementation of a suite of summer activities. In addition, a major transformation has taken

1 White River National Forest Land and Resource Management Plan, 2002 Revision, p. 3-81

place at the base of the mountain with the construction of the Base Village complex that includes new lodging, retail opportunities, and recreationist services for guests visiting Snowmass, and the White River National Forest (WRNF), for winter and summer recreation.

Nationally, there were over 59 million skier visits in the 2020/21 winter, which is an increase of nearly 15 percent over the previous season. Over the past decade, annual visitation has ranged from a low of 51 million in 2019/20 to a high of 60.5 million in 2010/11. The large variance in visitation can be attributed to variable weather and economic conditions, as well as the Covid-19 pandemic that impacted annual visitation during the winter and spring of the 2019/20 season. Despite these variances, the Rocky Mountain region had its second-best season ever in terms of snow sports visits in 2020/21. The Rocky Mountain region includes Colorado, Utah, New Mexico, Wyoming, Idaho, and Montana.[2] Given the growth in the national skier market, it is important for resorts to constantly evaluate their offerings to serve the demand for alpine skiing. This MDP seeks to proactively address future trends in both winter and summer recreation at

2 National Ski Areas Association. 2019. Kottke National End of Season Survey 2018/2019. July.

Snowmass. Understanding that guests' preferences are constantly changing, this MDP will address those trends in proactive and creative ways. In so doing, the plan will reinforce the natural resource and recreational goals of the WRNF, the values of the TOSV community and the business objectives of Aspen Skiing Company (ASC).

In addition to its conformance with the 2002 Forest Plan, this MDP is consistent with the Ski Area Recreational Opportunity Enhancement Act of 2011 (SAROEA) and subsequent Forest Service guidance, which permit additional seasonal and year-round activities and facilities on National Forest System (NFS) land that meet the setting and support snow sports as a primary driver for recreation and revenue at Snowmass.

A. LOCATION

Snowmass is located approximately 200 miles west of Denver, 40 miles southeast of Glenwood Springs, and 6 miles west of Aspen. The resort is accessed by Brush Creek Road or Owl Creek Road, both of which connect to Colorado State Highway 82. Refer to Figure I-1 for a map of the vicinity.

Snowmass encompasses a total of 5,606 acres—4,745 acres are within the Forest Service-administered SUP area within the Brush Creek and Spring Creek drainages and 861 acres are located on private land. Not all private lands within the ski area are ASC-owned, but ASC retains easements, where necessary, on those lands not under their ownership. All private lands, regardless of owner, are located within the TOSV boundary. All projects within the TOSV boundary would require conformance with the existing Mountain Planned Unit Development (PUD) Guide or review and approval pursuant to a PUD Amendment prior to implementation. Refer to Figure I-2 for a Property Ownership map.

The ski area is contained within Sections 1-3, 10-15, 22-24, and 26, Township 10S, Range 86W, and within Sections 6, 7, and 17-20, Township 10S, Range 85W. The elevation ranges from approximately 8,100 feet above mean sea level (amsl) at the base, to 12,550 feet amsl at the summit.

B. CURRENT RESORT OPERATIONS SUMMARY

The facilities and infrastructure at Snowmass are owned and operated by ASC, a privately held Colorado Limited Liability Company that also owns/operates Aspen Mountain, Aspen Highlands, and Buttermilk Mountain. As one of ASC's four resorts, Snowmass enjoys widespread renown as one of the world's premier destination resorts. It attracts a wide national and international destination market, but is also a regional destination, and thus sees significant visitation from local markets.

Snowmass is currently included on the Ikon Pass, which is administered by the Alterra Mountain Company (Alterra).

As shown in Table I-1, Snowmass' annual visitation over the past ten seasons has averaged 763,810 with fluctuations resulting from varying snowfall and economic conditions, and the Covid-19 pandemic. Snowmass averages 142 operational days per season.

Table I-1. Annual Skier Visits (2011-2021)

Season	Visitation
2020/21	693,636
2019/20	713,520
2018/19	877,720
2017/18	704,448
2016/17	788,813
2015/16	798,332
2014/15	775,412
2013/14	799,614
2012/13	754,819
2011/12	731,786
Ten-Year Average	**763,810**

C. BACKGROUND

The initial permit to prepare a proposal for development of Snowmass was issued to the Janss Corporation by the Forest Service in 1964. The ski area was purchased from the Janss Corporations by D.R.C Brown, and later by ASC. The Baldy Mountain and Burnt Mountain portions of the ski area were initially permitted for development in the 1960s, opening for the first time in 1967.

Since its inception, Snowmass has undergone several iterations of planning and numerous environmental analyses for site-specific project proposals. The following list provides a summary of these planning and analysis phases:

1964 Original MDP submitted by Janss Corporation and accepted by the Forest Service

1967 Snowmass Ski Area opens

1973 Burnt Mountain development proposal submitted and accepted

1974 SUP Boundary adjusted to include Burnt Mountain

1978 Revised Baldy and Burnt Mountain MDP submitted and accepted by the Forest Service

1984 Baldy and Burnt Mountain revised MDP proposed but not accepted by the Forest Service

1994 Forest Service completes Snowmass Ski Area Environmental Impact Statement and issues Record of Decision

1999 Snowmass Ski Area Natural Resource Management Plan accepted by the Forest Service

2000 Categorical Exclusion (CE) completed and Decision Memo (DM) issued for relocated Burnt Mountain lift bottom terminal

2003 Snowmass Mountain Master Plan Amendment submitted and accepted by the Forest Service

2005 Supplemental Information Report (SIR) authorizes Elk Camp gondola construction

2006 Environmental Assessment (EA) completed and Decision Notice/Finding of No Significant Impact (DN/FONSI) issued for Burnt Mountain Trails and Traverse

2006 EA completed and DN/FONSI issued authorizing Elk Camp Beginner Park, Elk Camp Guest Services and Multiple Use Summer Trails

2007 EA completed and DN/FONSI issued authorizing Snowmass Winter Terrain Park relocation

2010 Snowmass Mountain Summer MDP Amendment submitted and accepted by the Forest Service

2010 Snowmass Summer Activities DN/FONSI issued authorizing Disc Golf and Overnight Camping

2011 EA completed and DN/FONSI issued authorizing Aspen Skiing Company Forest Health Projects

2011 EA completed and DN/FONSI issued authorizing Snowmass Ski Area Summer Trails

2013 EA completed and DN/FONSI issued authorizing Burnt Mountain Egress Trail construction

2014 CE completed and DM issued authorizing new and realigned bike trails

2014 CE completed and DM issued authorizing Winter Evening Activities

2015 Snowmass Mountain Master Plan Amendment submitted and accepted by the Forest Service

2015 Snowmass Ski Trail Enhancements and High Alpine lift Replacement EA and DN/FONSI issued, authorizing High Alpine lift replacement, glading, snowmaking, and two new ski trails

2016 CE completed and DM issued authorizing modification of Sheer Bliss Pond

2017 Snowmass Multi-Season Recreation Projects Environmental Impact Statement and Record of Decision issued, authorizing mountain biking and hiking trails in Elk Camp and lower Alpine Springs areas, a zip line to begin under the Elk Camp gondola across the Funnel ski trail, a ropes challenge course in the vicinity of Elk Camp Meadows, a climbing wall adjacent to the Elk Camp Restaurant complex, and multi-purpose gathering sites around the Elk Camp area

2017 CE completed and DM issued authorizing the construction of the Sam's Knob Ski Patrol Facility and expansion of the Sam's Knob Smokehouse Restaurant

2019 CE completed and DM issued authorizing the reconstruction and minor realignment of the Big Burn lift

2019 EA completed and DN/FONSI issued authorizing snowmaking in the Alpine Springs area and the construction of two facilities in Elk Camp Meadows

2022 DM issued for Wapiti remodel/deck expansion and Elk Camp Deck expansion

D. VISION AND DESIGN PHILOSOPHY

Clarifying a vision and design philosophy is essential in the mountain planning process, as it helps to establish an overall theme and direction for all projects. ASC is a values-driven company, owned and operated by people who share a common passion for mountain lifestyles and an appreciation and respect for the pristine environment. Snowmass' vision and design philosophy is rooted in ASC's Guiding Principles

- live fully
- lead with action
- build connections
- honor place
- create new perspectives
- take the long view

Under this philosophy, Snowmass provides a high-quality experience for guests in a way that develops awareness of the mountain environment and the incredible natural resources that are found within and surrounding the resort.

Winter recreation at Snowmass is the primary reason the resort is a premier destination for guests not just from around the state, but from around the world. The Snowmass experience remains one of the key reasons guests visit the Aspen/Snowmass area. With more than 3,000 skiable acres, Snowmass offers "something for everyone," from the very first-time beginner to the most adventurous extreme skiers and snowboarders.

The primary objective of the Snowmass experience is to bring all guests closer to nature by providing the most unique, fulfilling and invigorating recreational experience in an alpine setting. The emphasis is on utilizing innovative mountain planning techniques that will enhance the guest experience while maintaining appropriate skier densities and respecting the uniqueness of the resort's natural environment.

An area where Aspen Skiing Company has been leading the industry is in their approach to sustainability and climate change. ASC strives to create a sustainable future by implementing green operations, and, in an industry first, installed an on-hill solar array at Aspen Highlands. ASC has instigated and collaborated on systemic changes in their energy generation and infrastructure – over 15 years ago, ASC, along with community partners and with Holy Cross Energy's participation, helped Holy Cross establish its goal of 100 percent clean energy by 2030. Because of these efforts, Snowmass's carbon footprint will be far lower in 2030 even as resort infrastructure and amenities in this MDP are implemented.

In addition to reducing their carbon footprint, ASC has constructed seven Leadership in Energy and Environmental Design (LEED) certified buildings over their four resorts, including both Gold and Platinum certified, one of which was one of the first in the world. ASC collaborated with Randy Udall at the Community Office for Resource Efficiency (CORE) to install the region's first utility-scale solar array at Colorado Rocky Mountain School. In addition, ASC has constructed one of the nation's only methane capture plant in Somerset, Colorado, and the industry's first snowmaking-to-hydroelectricity plant at Snowmass.

ASC's mission is to go one step further from just improving operations and cutting carbon emission to tackling climate change at a policy level. ASC is a longtime supporter of Protect Our Winters, an outdoor industry trade group for climate advocacy. The dedication to creating a more sustainable future and business is evident throughout the projects in this MDP and in the day-to-day choices ASC makes.

ASC recognizes the impacts climate change will bring to resort operations at Snowmass. In addition to reduced natural snowfall and snowpack, climate change will continue to introduce stressors such as insects and disease to the National Forests that will result in increased susceptibility to wildfire. Snowmass has already been shaped by wildfire, as evidenced by a large fire in the 1880s that formed The Big Burn area, and wildfire and forest health will continue to be a priority for ASC. Specifically, this MDP looks to address deadfall, allow for new growth, remove beetle kill, glade, and ensure species diversity for resilience in the upcoming decades.

This MDP also seeks to proactively address future trends in summer and winter recreation at Snowmass over the next ten to fifteen years. These trends include such things as the increased number of people participating in winter and summer outdoor recreation activities across the country. Understanding that guest's preferences are constantly changing, this MDP will address those trends in proactive and creative ways. In doing so, the plan will reinforce the natural resource and recreational goals of the WRNF, the values of the TOSV community and the business objectives of the Aspen Skiing Company (ASC).

E. STATEMENT OF GOALS AND OBJECTIVES

1. Winter

a. Winter Goals

- Capitalize and improve upon the family experience at Snowmass. The success of the children's program at Snowmass is evident as students of the ski school thirty years ago now bring their own children to ski and ride Snowmass. This alone speaks to the value of the existing experience.
- Continue to improve the physical and functional relationship between the mountain, on-mountain facilities and the community by enhancing visitor circulation, guest amenities, and lift planning.
- Enhance out-of-base lift capacity by increasing the hourly capacity of lifts emanating from the base areas in order to reduce morning crowding on peak-visitation days.
- Ensure the on-mountain facilities continue to compliment the Snowmass Base Village as the unfinished elements of the base area are completed.
- Respond to climate change by providing early/late season access and snowmaking at higher elevations.
- Continue to improve the natural character of the mountain terrain by improving skier flow, lift planning, and access to the varied and unique terrain the mountain offers.
- Continue to improve the learning experience for beginners to snow sports that will create life-long enthusiasts and eventual returning guests.
- Create a quality working environment for staff who will, in turn, seek to provide consistent outstanding service.
- Strive to place Snowmass in a position of leadership in the marketplace.
- Provide financial viability for capital improvement spending that is consistent with ASC's Guiding Principles.

b. Winter Objectives

- Enhance and improve the on-mountain dining experience by modernizing aging facilities and adding seats and capacity to meet guest demand and diminish overcrowding in existing facilities.
- Enhance the upper mountain terrain access and user flow by adding and/or modifying existing lift systems and trails.
- Using existing and proposed snow making resources and infrastructure to 1) ensure early season snow coverage and trail connectivity on

essential opening terrain and to ensure a broad commercial product for the high traffic holiday period, 2) provide improved early season snow conditions in key areas of the middle portions of the mountain, and 3) increase snowmaking coverage capacity where existing congestion occurs and where future congestion is anticipated to occur.

2. Summer

a. Summer Goals

- Enhance programs of natural resource-based recreational opportunities designed to introduce many new visiting families to the mountain environment.
- Promote educational and interpretive opportunities through the development and expansion of interactive and adventurous natural resource-based recreational opportunities.
- Establish Snowmass as a premier mountain biking destination.
- Provide a wide array of activities that encourage summer visitors to explore the National Forest in a more complete way.
- Develop and expand activities on NFS lands that introduce visitors to the mountain environment without requiring specialized skill or knowledge.
- Provide viewpoints and scenic destinations that are immediately or easily reached by short walks or hikes from lifts and other accessible locations for less active or physically able visitors.
- Successfully introduce new/young riders to downhill mountain biking.
- Strengthen the overall multi-season economy for individuals and the community.

b. Summer Objectives

- Expand beginner/novice level downhill mountain biking opportunities for overall enjoyment and skill improvement,
- Expand the offerings of advanced downhill trails to challenge the most accomplished riders.
- Enhance the mountain biking experience by connecting to the already popular network of cross-country trails on Snowmass, and the entire Roaring Fork Valley, both on public and private lands.
- Expand offerings for families and groups with children of all ages.
- Provide other gravity powered rides (Zip Rider/ Canopy Tour) to offer non-bike riding guests a similar sensation of traveling through the forest.
- Enhance the system of "Challenge Courses" to meet the demand for unique personal challenge and team building opportunities within the forest setting.
- Expand and enhance hiking trails and on-mountain opportunities by taking advantage of high alpine terrain and views.

F. ACCEPTANCE BY THE FOREST SERVICE

This MDP is the result of an iterative and collaborative process between Snowmass and Forest Service staff. Forest Service "acceptance" is consistent with the requirements of the Snowmass SUP and the 2002 Forest Plan. This MDP will also undergo analysis and review by TOSV to ensure that the goals and objectives presented herein are consistent with TOSV regulatory requirements.

Note that Forest Service acceptance of this MDP does not imply authorization to proceed with any of the projects identified herein. None of the projects identified in this MDP have been reviewed or approved under the requirements of the National Environmental Policy Act (NEPA), and all will require site-specific analyses before a decision can be made, or any projects are approved. Site-specific environmental analysis may result in a modification to planned projects. Furthermore, beyond NEPA analysis, implementation of projects identified in this MDP may be dependent upon approval of detailed plans contained in Snowmass' annual operations/ construction plans.

G. PUBLIC/MUNICIPAL REVIEW

Because the area included within the Snowmass SUP boundary has historically been annexed into TOSV's town limits, a Land Use Approval review process will be required by TOSV. This process will involve official notice of public meetings held by TOSV Town Council and will allow ample opportunity for public comments on all aspects of this MDP. This process, which includes a full presentation to the Snowmass community, will occur immediately after Forest Service "acceptance" of this MDP.

This review process by TOSV will comply with Forest Service requirements to publicly share the vision, goals, and objectives of the resort and to seek a mutual understanding of the MDP presented here.

H. ABSTRACT OF MASTER DEVELOPMENT PLAN

This MDP is divided into six chapters, with Chapter 1 providing an introduction to the document. Chapter II describes Forest Plan direction and the design criteria used for mountain planning specific to Snowmass. Chapter III provides a site inventory of the resort, including topography, slope analysis, and information relating to the SUP boundary and surrounding land ownership. Chapter IV describes existing resort facilities for both winter and summer, and evaluates the current balance of resort operations, facilities, and infrastructure. This includes lifts, terrain, guest services, snowmaking, and parking. This chapter also provides the baseline conditions which drive the upgrade plan. Chapter V discusses projects previously approved through Forest Service analysis, but not yet implemented. The final chapter (Chapter VI) details proposed upgrades and improvements to the experience at Snowmass.

This MDP focuses on the intentions of Snowmass to enhance the total guest experience through a series of improvements. This would be achieved by implementation of strategic enhancements across the existing SUP area. The newly proposed upgrades are in addition to previously approved projects (listed below,) which continue to be anticipated for implementation.

Previously approved projects that have not yet been implemented but continue to be anticipated for implementation as part of this MDP include the following:

- Burnt Mountain lift
- Burnt Mountain terrain

- Glading projects
- Two ski runs in the Elk Camp area
- Additional snowmaking coverage
- Vapor trail reroute and mountain biking skills park
- Wapiti wildlife center and ski patrol renovation/ replacement

Newly planned projects included in this MDP include the following:

1. Winter

- Construct the Coneygame lift
- Replace the Cirque lift/surface lift
- Upgrade the Village Express to a gondola
- Upgrade the Alpine Springs lift to a 6-person lift
- Upgrade the Elk Camp lift to a 6-person lift
- Replacement of the Sky Cab gondola
- Expanded snowmaking coverage
- Improve the Alpine Springs Pumphouse and new Elk Camp Pumphouse
- Two additional snowmaking storage ponds — Slider Pond and Lunkerville Pond
- Expand Lost Forest Headquarters building at the top of Elk Camp gondola
- Expand the Sam's Restaurant Deck
- Expand and redevelop the Ullrhoff Restaurant
- Improve Lynn Britt Cabin and Spider Sabich area
- New restaurants in the Alpine Springs and Elk Camp areas
- Remodel High Alpine Restaurant back of house
- Nighttime service and events at Sam's Restaurant and Elk Camp
- New ski trails and glades in the Alpine Springs terrain pod, lower Elk Camp, and other connection runs
- Construct lifts, terrain and limited guest services in the new Dawdler Bowl Beginner Teaching Area to the northwest of the Village Express Mid-Station
- Construct carpet and learning area in the new Assay Hill Beginner Teaching Area
- Glade lift accessed undeveloped terrain throughout the mountain
- Improvements to the snowtubing hill and beginner ski area near Elk Camp
- Additional cell tower and communication site infrastructure as technology evolvess

As a result of proposed and previously-approved changes, the Comfortable Carrying Capacity (CCC) for Snowmass will increase from 12,500 guests to 14,820 guests (an increase of 18%).

2. Summer

- Expand the existing ropes challenge course
- Zip rider tour from top of Elk Camp lift to Lost Forest Campus
- Additional nighttime events at Elk Camp and children's activities in Lost Forest
- Activate Sam's Pod for daytime operations
- Engage in nighttime service and events at Sam's Restaurant
- Expand the Lost Forest Headquarters to accommodate the additional Lost Forest activities
- Nature based interactive exhibit in the Elk Camp area
- Hiking, biking, and multi-use trails on the mountain

II. Design Criteria and Forest Service Direction

Establishing design criteria is an important component in mountain planning. Following is an overview of the basic design criteria upon which the Snowmass MDP is based.

A. DESTINATION RESORTS

One common characteristic of destination resorts is that they cater to a significant vacation market and thus offer the types of services and amenities vacationers expect. At the same time, some components of the destination resort are designed specifically with the day-use guest in mind (e.g., day-use parking). Additionally, the employment, housing, and community services for both full-time and second-home residents created by destination resorts all encourage the development of a vital and balanced community. This interrelationship is helpful to the long-term success of the destination resort.

Destination mountain resorts can be broadly defined by the visitation they attract, which is, in most instances, either regional or national/international. Within these categories are resorts that are purpose-built and others that are within, or adjacent to, existing communities. Snowmass and the incorporated resort community of TOSV is an example of such a resort that exists adjacent to an existing community (Aspen) that is rich in cultural history, and provides a destination guest with a sense of the Mountain West and the mining and ski history of Colorado. This combination of a desirable setting and history supplements the overall experience of a guest visiting Snowmass, which has become a regional, national, and international destination resort.

1. Regional Destination Resorts

Regional destination resorts largely cater to a "drive" market. While day-use guests play a large role, the regional destination resort also appeals to vacationers. At some regional destination resorts, lodging is a component. However, due to the average length of stay, and perhaps more importantly a regional guest's vacation budget, lodging and related services and amenities are usually less extensive than what is common for national/international destination guests. This is not the case at Snowmass where the regional destination resort has evolved to offer services in the surrounding communities of Aspen, Carbondale and Basalt that cater directly to guests of the resort or summer vacationers to Pitkin County. These same businesses also supply services to "locals," which helps maintain the balanced lifestyle that permanent residents and second homeowners enjoy.

2. National and International Destination Resorts

National and international destination resorts appeal and cater to a significant "fly-in" market. Snowmass' national/international guest expectations are higher than those of many of their regional destination guests. These guests expect abundant opportunities to participate in a variety of vacation experiences. This mindset stems from the

expectation that their destination vacation will likely represent the apex of their skiing season, and hence their appetite for varied experiences will be great. In addition to a weeklong visit, guests may also desire to involve themselves in the resort and community on a more regular or permanent basis e.g., through ownership of real estate and part-time residency.

There is a growing demand for mountain destination resorts to provide activities outside of snow sports. At some of the more mature mountain destinations, non-skiing wintertime guests account for a very substantial percentage of overall guest population. Furthermore, many of the guests who do ski will not use the mountain facilities every day of their visit. Thus, the ratio of total days skied to total room-nights can be as low as 1:2. Even for day-use guests at a destination resort, skiers are spending less of their day on the mountain. This is due to several factors, including: (1) shifting expectations of what a mountain vacation is about (participation in a variety of experiences, not just skiing); (2) the advent of high-speed lift technology (allows guests to satisfy their vertical demand in a shorter period of time); and (3) an aggregate population of guests, which is aging and requires lesser amounts of vertical demand. In the summer, the resort and community have very high summer utilization due to a dramatic increase in summer mountain vacations. All of these trends add up to a significant demand for attractions and amenities that complement a resort's skiing facilities.

National and international destination resorts, including Snowmass and Aspen, offer a wide variety of lodging types, including hostels, motels, hotels, inns, bed and breakfast inns, townhomes, condominiums, and single-family chalets. Visitor participation in the real estate market has diversified substantially in the last two decades and includes ownership—either whole or fractional—as well as "usage," which comes in forms like timeshare and club participation. Typically, where the mountain facility is a primary driver for visitation, lodging is clustered at or near the mountain's base area. Amenities usually include a wide variety of restaurants, lounges, shops, conference facilities, and perhaps theatres or concert venues, recreation centers (e.g., swimming, fitness equipment, and indoor courts), etc. Aside from alpine skiing, recreational activities may include snow tubing, Nordic skiing, snowshoeing, sleigh rides, snowmobiling, mountain and road biking, walking, golf, tennis, horseback riding, angling, swimming, spa treatments, etc.

B. BASE AREA DESIGN

The connectivity and relationship between a resort's base area developments and on-mountain lift and terrain network is critically important. This relationship affects the overall function and perception of a resort.

Design of the base lands at a mountain resort involves establishing appropriate sizes and locations for the various elements that make up the development program. The complexion and interrelationship of these elements varies considerably depending on the type of resort and its intended character. However, fundamental objectives of base area planning are to integrate the mountain with the base area for the creation of an attractive, cohesive, and functional recreational and social experience. This is essential to creating the feeling of a mountain community and can only be achieved by addressing base area components such as (but not limited to): guest service locations, skier/rider circulation, pedestrians, parking/access requirements, and mass-transit drop-offs.

Planners rely on resort layout as one tool to establish resort character. The manner in which resort elements are inter-organized, both inside the resort core and within the landscape setting, along with architectural style, help to create the desired character.

Skier service facilities are located at base area and on-mountain buildings. Base area staging locations, or portals, are "gateway" facilities that have three main functions:

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

C. MOUNTAIN DESIGN

1. Trail Design

a. 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.

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

Table II-1. Terrain Gradients

Skier Ability	Slope Gradient
Beginner	8 to 12% (5-7°)
Novice	to 25% (15°)
Low Intermediate	to 35% (20°)
Intermediate	to 45% (25°)
Advanced Intermediate	to 55% (30°)
Expert	over 55% (30°)

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 II-2.

Table II-2. Skier Ability Breakdown

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

There is a significant difference between the ski run ability level ranking approach used in this document and that used by all U.S ski areas on their trail map and on-mountain trail signs. The established approach used at all resorts in the country is to make the ranking be relative to that resort – i.e. the easiest runs at that resort at signed as green circles and the most difficult are signed as black diamonds, the intermediate runs being blue squares. SE Group uses a different approach in this document (and in all other Master Plan documents produced by this company). This approach is aimed at comparing the terrain available at a given resort to the overall skier market, to determine if there are opportunities to appeal to a broader range of skiers. SE Group also uses six categories of ability level, as opposed to the standard three used by mountain resorts. Using various criteria, including maximum sustained gradient, run width, sightlines, and others, SE Group makes an internal determination of which ability level each run falls into. From that data, calculations are then done to determine terrain capacity and ability level distribution by capacity. These calculations are accomplished by multiplying terrain acreage by an assigned density. These numbers are then compared to the skier market, to determine surpluses and deficiencies of terrain by ability level, as compared to the overall skier market.

b. 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 target range of trail densities for North American ski areas are listed below.

Table II-3. Skier Density per Acre

Skier Ability	Trail Density
Beginner	25–35 skiers/acre
Novice	12–25 skiers/acre
Low Intermediate	8–20 skiers/acre
Intermediate	6–15 skiers/acre
Advanced Intermediate	4–10 skiers/acre
Expert	2–5 skiers/acre
Bowls/Glades	0.5 skier/acre

ASC strategically maintains low trail densities across its resorts to ensure the high-quality experience expected by its destination guests. Therefore, this MDP will use the lower end of the ranges for planning purposes.

These density figures account for the skiers that are actually populating the trails and do not account for other guests who are either waiting in lift lines, riding the lifts, or using the milling areas or other support facilities. Empirical observations and calculations indicate that, on an average day, approximately 40% of the total number of skiers/riders at a typical resort 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.

c. Trail System

A resort's trail system should be designed to provide a wide variety of terrain to meet the needs of the entire spectrum of ability levels as well as the resort's particular market. Each trail should provide an interesting and challenging experience within the ability level for which the trail is designed. Optimum trail widths vary depending upon topographic conditions and the caliber of the skier/rider being served. The trail network should provide terrain for the full range of ability levels consistent with each level's respective market demand.

In terms of a resort's ability to retain guests, both for longer durations of visitation and for repeat business, one of the more important factors has proven to be terrain variety. This means providing developed runs for all ability levels: some groomed on a regular basis and some not—bowls, trees, and terrain parks and pipes.

In summary, a broad range of terrain satisfies skiers/riders from beginner through expert ability levels within the natural topographic characteristics of the ski area.

d. Terrain Parks

Terrain parks have become a vital part of most mountain resorts' operations, and are now considered an essential mountain amenity. The presence of terrain parks at mountain resorts has changed various operational and design elements. The demand for grooming can increase, as terrain parks often require specialized or dedicated operators, grooming machines, and equipment (such as half-pipe cutting tools). Terrain parks typically require significant quantities of snow, either natural or man-made, often increasing snowmaking demand. Terrain parks can affect circulation on the mountain, as the parks are often points of destination.

2. Lift Design

The goal for lift design is to serve the available terrain in an efficient manner, i.e., having the minimum number of lifts possible while fully accessing the terrain and providing sufficient uphill capacity to balance with the available downhill terrain capacity. In addition, the lift design has to take into consideration such factors as wind, round-trip utilization of the terrain pod, access needs, the ability to connect with other lift pods, the need for circulation space at the lower and upper terminal sites, access to residential development, 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 resort.

3. On-Mountain Guest Services

On-mountain guest service facilities are generally used to provide shelter, food service (cafeteria-style or table service), restrooms, and limited retail, as well as patrol/first aid and other guest 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 resorts to offer ski/board demo locations on-mountain, so skiers and riders can conveniently test different equipment throughout the day.

D. CAPACITY ANALYSIS AND DESIGN

In ski area planning, a "design capacity" is established, which represents a daily, at-one-time guest population to which all ski resort functions are balanced. The design capacity is a planning parameter that is used to establish the acceptable size of the primary facilities of a ski resort: ski lifts, ski terrain, guest services, restaurant seats, building space, utilities, parking, etc.

Design capacity is commonly expressed as "Comfortable Carrying Capacity," "Skier Carrying Capacity," "Skiers at One Time," and other ski industry-specific terms. These terms refer to a level of utilization that provides a pleasant recreational experience, without overburdening the resort infrastructure. Accordingly, the design capacity does not normally indicate a maximum level of visitation, but rather the number of visitors that can be "comfortably" accommodated on a daily basis. Design capacity is typically equated to a resort's 5th or 10th busiest day, and peak-day visitation at most resorts is at least 10% higher than the design capacity.

This MDP will use the term Comfortable Carrying Capacity (CCC) when referring to Snowmass' design capacity. The accurate estimation of the CCC of a mountain is a complex issue and is the single-most important planning criterion for the resort. Related skier service facilities, including base lodge seating, mountain restaurant requirements, restrooms, parking, and other guest services are planned around the proper identification of the mountain's true capacity.

CCC is derived from the resort'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 desired multiplied by the vertical rise associated with those runs). The CCC is calculated by dividing vertical supply (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 descent.

E. 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 resort should be designed and coordinated to maintain a balance between accommodating guest needs, resort capacity (lifts, trails, and other amenities such as tubing), 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 resort's CCC balances with these other components, facilities, and services at the resort. Since CCC is primarily derived from the resort's lift network, it is possible to have a CCC that is effectively lower or higher than the other resort components.

F. MULTI-SEASON RECREATION ACTIVITIES

In light of the increasing challenges of operating a sustainable ski resort in the face of climate change given the seasonal nature of the typical six-month operating season, there has recently been a great deal of interest within the industry in developing multi-season recreation facilities and activities for guests. Summer recreational activities tend to attract a more diverse range of new guests than does skiing. This comprehensive resort planning process assesses the best approach and program for adding multi-season activities and facilities in order to have the greatest potential for success given the unique characteristics that define Snowmass and its markets, and then will create a "road map" for their implementation.

A strategic approach must be taken to identify reasonable and realistic opportunities for multi-season recreational activities. This approach involves a case-by-case examination of several important criteria to determine the multi-season recreation elements that have the greatest potential for success. Criteria such as suitability of available land for recreation facilities and/or activities, operational compatibility with existing or proposed facilities, initial fiscal considerations, and visitation potential are all explored within this MDP. Undertaking such a comprehensive exercise leads to a multi-season recreation program comprised of recreation facilities and/or activities that are suitable for implementation and will align with operational goals and performance expectations.

Providing diverse opportunities to a spectrum of visitors is key to Snowmass' summer activity goals. Non-skiing and multi-season activities are, and will continue to be, important guest offerings at Snowmass because summer recreational activities tend to attract a more diverse range of new guests than do skiing and snowboarding (e.g., more balanced gender demographics, older median age, and more families), which is essential to the continued success of the resort.

As a four-season recreation destination, Snowmass has the opportunity to both provide and promote interactive, educational, natural resource-based recreation activities for all ages and demographics. Increasingly, there is potential to reach a wide range of ages and demographics, including those not currently being reached, through multi-season recreation activities. Activities such as mountain biking and hiking can appeal to the more fit and skilled user, while activities such as canopy tours and zip lines can appeal to less adventurous guests and persons with disabilities. Snowmass desires to facilitate exciting, challenging and appropriate use of NFS lands, and in the process, to introduce new user groups to the range of recreational opportunities that exist within their National Forests.

At a site-specific level, this MDP takes the existing setting, combined with the anticipated use of the area, to establish finer-grain prescriptions. The summer activity zones identified in this MDP are based on the existing setting and level of development.

Through the planning process, five distinct zones have been identified within the Snowmass SUP area. These zones consider several characteristics similar to the Recreation Opportunity Spectrum (ROS) setting, including:

- Access – the number and function of roads within the area
- Remoteness – how far removed an individual feels from human activity
- Naturalness – the extent and intensity of development and disturbance within the area
- Infrastructure – the amount of and proximity to the built environment

Each of these characteristics is to be considered within the context of Snowmass as a developed ski area. Existing summer recreation and maintenance occurs throughout developed portions of the ski area; therefore, no area within the developed ski area is off limits to administrative access and maintenance.

The Snowmass SUP area is characterized by diverse settings, from developed and modified areas to remote and more primitive areas. The settings that exist within the SUP mirror what a guest could see and experience in different locations across the WRNF, ranging from high alpine environments, to riparian and wetland ecosystems, to forested settings in remote locations.

To harmonize with the five distinct zones and their characteristics, planned activities within this MDP have been designed to correspond with the characteristics of the Scenery Management System (SMS) Scenic Integrity Objective (SIO) and the ROS setting of the SUP area, which is discussed in the following section. Throughout implementation of the projects discussed in this MDP, ASC will work with the Forest Service to meet or exceed this direction as practicable.

G. APPLICABLE FOREST SERVICE POLICY DIRECTION

The Forest Service nationally supports the recreational opportunities that private ski areas provide. The Forest Service and National Ski Areas Association work in partnership to achieve common goals of managing and promoting active participation in alpine recreation and sports by all people.

Snowmass operates under a SUP authorized under the National Forest Ski Area Permit Act of 1986, 16 U.S.C. § 497b. The Act authorizes the Forest Service to issue ski area permits:

> *"... for the use and occupancy of suitable lands within the National Forest System for Nordic and alpine skiing operations and purposes." The Act states that a permit "shall encompass such acreage as the Secretary [of Agriculture] determines sufficient and appropriate to accommodate the permittee's needs for ski operations and appropriate ancillary facilities."*

The basis for determining the types of activities and facilities appropriate for permitted winter sports resorts operating on NFS lands are expressed in federal laws and Forest Service policy directives, such as the Forest Plan.[3] The Forest Plan is a guiding document that provides the Forest Service with authority and direction pertaining to ski area management on NFS lands. Snowmass and the WRNF are connected through a committed long-term partnership to provide quality recreational opportunities on NFS lands. By satisfying its current and future visitors, Snowmass will grow as a healthy and competitive ski resort within its market niche. This, in turn, will help fulfill Forest Service policy, objectives, and direction for ski area management on the WRNF.

The following list consists of the formative federal legislations which guide Forest Service administration of NFS lands and, more specifically, at winter sports resorts (additional information on pivotal legislation is provided below):

- The Multi-Use Sustained-Yield Act of 1960 mandates that the Forest Service manage NFS lands for "**outdoor recreation**, range, timber, watershed, and wildlife and fish purposes." 16 U.S.C. § 528 (emphasis added)
- The National Forest Management Act (NFMA) requires the Forest Service to develop Forest Plans that provide for multiple uses of NFS lands, including "coordination of **outdoor recreation**, range, timber, watershed, wildlife and fish, and wilderness." 16 U.S.C. § 1604(e)(1) (emphasis added)
- The National Forest Ski Area Permit Act of 1986 specifically endorses developed winter recreation on NFS lands and authorizes the Forest Service to issue SUPs that encompass "such acreage" as the Forest Service "determines sufficient and appropriate to accommodate the permittee's needs for ski operations and appropriate ancillary facilities." 16 U.S.C. § 497b(b)(3)

3 USDA Forest Service. 2010. Revised Forest Plan, Boise National Forest.

- The service-wide Memorandum of Understanding between the National Ski Areas Association and the Forest Service (FS Agreement No. 07-SU-11132424-246), recognizes "that ski areas can help meet increased demand for recreational opportunities in a managed setting." The Forest Service stated its commitment to "evaluate four-season recreation at ski areas to improve economic stability and enhance outdoor recreation opportunities during policy formation, master development planning, and project plans."
- The 2011 Ski Area Recreational Opportunity Enhancement Act (SAROEA) amended the National Forest Ski Area Permit Act of 1986. The 2011 SAROEA enables snow sports (other than Nordic and alpine skiing) to be permitted on NFS lands subject to ski area permits issued by the Secretary of Agriculture. In addition, it clarifies the authority of the Secretary of Agriculture to permit appropriate additional seasonal or year-round recreational activities and facilities on NFS lands subject to ski area permits issued by the Secretary of Agriculture. Further information on SAROEA is provided below.

1. 2002 Revised White River National Forest Land and Resource Management Plan

Snowmass operations that are conducted on NFS lands within the SUP area must comply with the management directions provided in the 2002 Forest Plan. The 2002 Forest Plan includes 33 separate Management Areas for different portions of the Forest based on ecological conditions, historic development, and anticipated future conditions. Snowmass falls within the 8.25 Management Area, which directs:

> *"Facilities may be intensively used throughout the year to satisfy a variety of seasonal recreational demands. Base areas that serve as entrance portals are designed as gateways to public lands. Forested areas are managed as sustainable cover with a variety of species and age classes in patterns typical of the natural landscape character of the area. Protection of scenic values is emphasized through application of basic landscape aesthetics and design principles, integrated with forest management and development objectives."*[4]

The theme of Management Area 8.25 is:

> *"Ski areas are developed and operated by the private sector to provide opportunities for intensively managed outdoor recreation activities during all seasons of the year. This management area also includes areas with potential for future development."*[5]

Beyond the 2002 Forest Plan, the Final EIS that was prepared for it has an entire chapter devoted to analysis of ski areas that are permitted on the Forest. Regarding the role of ski area master development plans, the 2002 Forest Plan Final EIS states:

> *"New technology and changing skier preferences with regard to terrain and on mountain services motivate ski areas to adapt and change in order to remain competitive. Because of this, master development plans are dynamic. The Forest Service participates with ski areas in planning changes to meet public needs. Prior to approval for implementation, the master development plan and its component parts are subject to environmental analysis in accordance with the National Environmental Policy Act and other relevant laws and regulations."*[6]

4 USDA Forest Service. 2002. White River National Forest Land and Resource Management Plan 2002 revision. White River National Forest, Glenwood Springs, CO.

5 USDA Forest Service. 2002. White River National Forest Land and Resource Management Plan 2002 revision. White River National Forest, Glenwood Springs. CO. p. 3-80

6 USDA Forest Service. 2002. Final environmental impact statement, Volume 1, for the White River National Forest land and resource management plan 2002 revision. White River National Forest, Glenwood Springs. CO. p. 3 437

The Forest Service is authorized to approve certain uses of NFS lands under the terms of SUPs. Generally, SUPs[7] for recreational developments are issued and administered for uses that serve the public, promote public health and safety, and provide land stewardship. In accomplishing these objectives, the SUP held by Snowmass authorizes the following:

> *"Ski lifts and tows, ski trails, day lodge, restaurants, maintenance and snowmaking facilities, roads, utilities, parking, signs, radio base facilities, explosive cache, and other facilities and improvements needed in the operation and maintenance of a four-season resort."*

2. Ski Area Recreational Opportunity Enhancement Act of 2011

The 2011 SAROEA amended the National Forest Ski Area Permit Act of 1986. The 2011 SAROEA enables snow sports (other than Nordic and alpine skiing) to be permitted on NFS lands subject to ski area permits issued by the Secretary of Agriculture. In addition, it clarifies the authority of the Secretary of Agriculture to permit appropriate additional seasonal or year-round recreational activities and facilities on NFS lands subject to ski area permits issued by the Secretary of Agriculture. Activities and facilities that may, in appropriate circumstances, be authorized under the Act include but are not limited to, zip lines and ropes courses, mountain biking trails, and Frisbee golf.

In April 2014, the Forest Service provided a Final Directive for Additional Seasonal or Year-Round Recreation Activities at Ski Areas that includes guidance for implementing the 2011 SAROEA. Forest Service Manual (FSM) 2343.14 states that the Forest Service will apply the following screening criteria during review of site-specific proposals prior to the initiation of a NEPA review process. During this master planning stage, projects are conceptual and do not, nor should they, include the level of design that would be required to complete all of the screening criteria; that amount of site-specific detail would be provided during the project proposal stage to initiate the NEPA process. The screening criteria included in FSM 2343.14(1) guide the development of projects on NFS lands, and the activities and facilities associated with those projects must:

- (1)(a) Not change the primary purpose of the ski area to other than snow sports;
- (1)(b) Encourage outdoor recreation and enjoyment of nature and provide natural resource-based recreation opportunities;
- (1)(c) To the extent practicable, be located within the portions of the ski area that are developed or that will be developed pursuant to the MDP;
- (1)(d) Not exceed the level of development for snow sports and be consistent with the zoning established in the applicable MDP;
- (1)(e) To the extent practicable, harmonize with the natural environment of the site where they would be located by:
  - (1)(e)(1) Being visually consistent with or subordinate to the ski area's existing facilities, vegetation and landscape; and
  - (1)(e)(2) Not requiring significant modifications to topography to facilitate construction or operations.
- (1)(f) Not compromise snow sports operations or functions; and
- (1)(g) Increase utilization of snow sports facilities and not require extensive new support facilities, such as parking lots, restaurants, and lifts.

Again, the above screening criteria should be applied for the planned activities in this MDP during the NEPA process that would occur with project proposal. At that point, design plans more detailed than those generated within this master planning process would be made available.

7 16 USC 497. 1999. 64 FR 8681-8690. National Forest Ski Area Permit Act of 1986 – as adopted in 1999. February 22.

FSM 2343.14(8) provides guidance for elements to be included in the master planning process. Specifically, the master planning process should:

- (8)(a) Establish zones to guide placement and design of additional seasonal or year-round recreation facilities, basing the zones on the existing natural setting and level of development to support snow sports;
- (8)(b) Depict the general location of the facilities; and
- (8)(c) Establish an estimated timeframe for their construction.

3. Recreation Opportunity Spectrum

At a macro level, the Snowmass SUP area is designated within the 2002 WRNF Forest Plan to have a Recreation Opportunity Spectrum (ROS) setting of "Rural," which is described as:

> *"Predominantly a culturally modified setting where the natural environment has been substantially modified, i.e., structures are readily apparent, pastoral or agricultural or intensively managed, wildland landscapes predominate as viewed from visually sensitive roads and trails. Access is primarily via conventional motorized use on roads. Contact frequency with other users may be moderate to high in developed sites and moderate away from developed sites."*

As stated in the 2002 Forest Plan Final Environmental Impact Statement:

> *"Recreational benefits from ski areas include managed, convenient access to National Forest System lands for visitors participating in such activities as hiking, mountain biking, viewing scenery, skiing, and snowboarding. Ski areas provide year-round natural resource-based recreation. The number of recreation opportunities enhanced by lift served access generally is proportional to the number of acres allocated to the 8.25 management area."*

The assigned desired ROS condition class is the maximum level of use, impact, development, and management that an area should experience over the life of the Forest Plan. The ROS is not prescriptive; it serves as a tool for land managers to identify and mitigate change. Recreational carrying capacity is a consequence of adopting specific ROS classes for which a landscape will be managed.

4. Scenery Management and the Built Environment Image Guide

a. Scenery Management System

Human activities can cause changes to scenic resources that can be objectively measured. By assessing the existing scenic character of an area in terms of pattern elements (form, line, color and texture) and pattern character (dominance, scale diversity and continuity), it is possible to identify the extent to which the scenic character would exhibit scenic contrast with the surrounding landscape, or conversely—scenic compatibility.

The Forest Service adopted the Scenery Management System (SMS) in 1995 as the Agency's primary scenery management tool. In brief, the SMS is a systematic approach for assessing scenic resources in a project area to help make management decisions.

The acceptable limits of change for a particular area (e.g., Management Area, as defined in the 2002 Forest Plan) are the documented "Scenic Integrity Objectives" (SIO, as defined in the SMS), which serve as management goals for scenic resources.

As indicated in the 2002 Forest Plan, the SIOs for the Snowmass SUP area are Low and Very Low, which are defined as:

Low – The valued landscape character "appears moderately altered." Deviations begin to dominate the valued landscape character being viewed but they borrow valued attributes such as size, shape, edge effect, and pattern of natural openings, vegetative type changes or architectural styles outside the landscape being viewed. They should not only appear as valued character outside the landscape being viewed but compatible or complimentary to the character within.

Very Low – The valued landscape character "appears heavily altered." Deviations may strongly dominate the valued landscape character. They may not borrow from valued attributes such as size, shape, edge effect and pattern of natural opening, vegetative type changes or architectural styles within or outside the landscape being viewed. However, deviations must be shaped and blended with the natural terrain (landforms) so that elements such as unnatural edges, roads, landings, and structures do not dominate the composition.

However, the Forest Plan states that all National Forest System lands shall be managed to attain the highest possible visual quality commensurate with other appropriate public uses, costs, and benefits.[8]

b. Forest Service Built Environment Image Guide

The Built Environment Image Guide (BEIG) was prepared by the Forest Service for the "thoughtful design and management" of the built environment contained within the National Forests.[9] 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.[10] This document provides guidance for the Forest Service's built environment.

The BEIG divides the United States into eight provinces which combine common elements from the ecological and cultural contexts over large geographical areas; Snowmass's SUP area and adjacent NFS lands are within the Rocky Mountain Province. Site development, sustainability, and architectural character should conform to BEIG guidelines described for this Province.

5. Accessibility to Public Lands

In October 2012 the Forest Service released the Accessibility Guidebook for Ski Areas Operating on Public Lands, 2012 Update.[11] 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. Snowmass will maintain consistency with this guidebook for future development projects occurring on public lands.

Ski areas operating under special-use authorization from the Forest Service are required to comply with both the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973 (Section 504). The ADA applies because Snowmass operates as a "public accommodation;" moreover, Snowmass is a business open to the public. Section 504 applies because Snowmass operates under a SUP authorized by the Forest Service. Through the SUP, the ski area agrees to abide by these and all other laws, regulations, and policies of the federal, state, and local governments with legal jurisdictions on the ski area.

Significant legislation that preceded the ADA includes the Architectural Barriers Act (ABA) of 1968 and the Rehabilitation Act of 1973, as amended. ABA was the first measure passed by Congress to ensure access to facilities. The ABA requires that all facilities built, bought, or leased by or for a Federal agency be accessible. Section 504 of the Rehabilitation Act states: "No otherwise qualified individual with a disability in the United States shall, solely by reason of his disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by any Executive Agency."

8 USDA Forest Service. 2002. Final environmental impact statement, Volume 1, for the White River National Forest land and resource management plan 2002 revision. White River National Forest, Glenwood Springs. CO. p.AA-17

9 USDA Forest Service, 2001. The Built Environment Image Guide for the National Forests and Grasslands. FS-710.

10 Ibid.

11 USDA Forest Service. 2012. Accessibility Guidebook for Ski Areas Operating on Public Lands. Available at: https://www.fs.usda.gov/sites/default/files/legacy_files/Ski%20Access%20Guide.10.5.pdf.

Snowmass currently complies with this legislation through their active involvement in assisting disabled guests with skiing and other recreation activities. Through future site-specific NEPA and design development reviews, Snowmass will work closely with the Forest Service to ensure accessibility measures are taken to provide equal opportunity to all users of public lands.

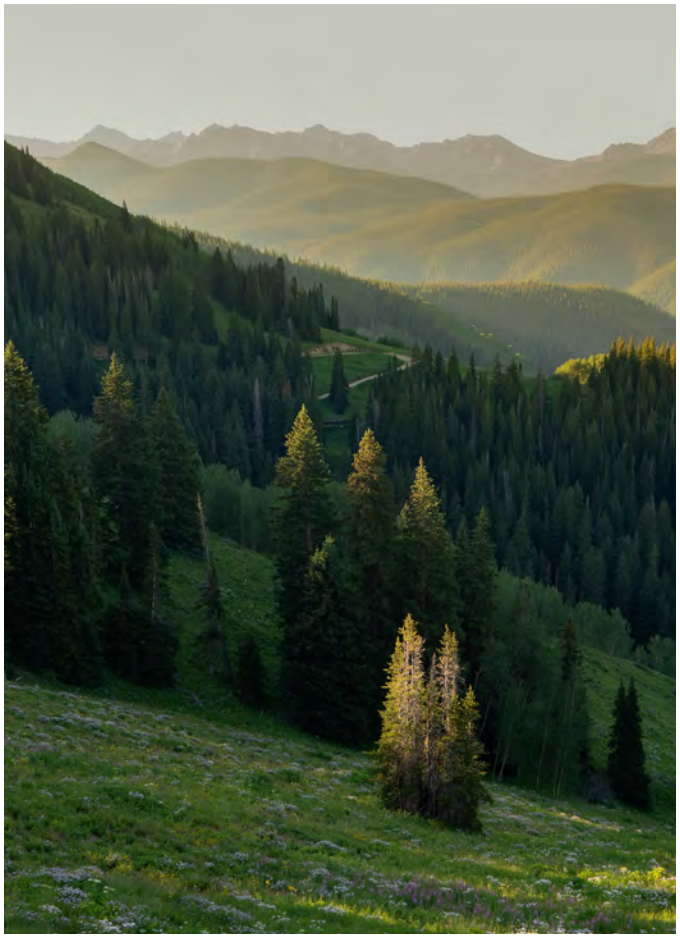
6. Winter Sports Guidebook

In 1992 the Forest Service published the Winter Sports Guidebook to establish master planning guidelines for ski resort on Forest Service lands operating under a SUP.[12] The Winter Sports Guidebook outlined details to include in the master planning process to inform the Forest Service and the public of potential changes that may result from development of public and private lands

7. Forest Service Guidance on Climate Change

Under Executive Order 14008, Part 2, Section 204, the Forest Service must manage public lands to support robust climate action.[13] The Forest Service Climate Change Resource Center (FSCCRC) serves as a reference for land managers who need information and tools to address climate change in planning and project implementation on national forests. According to the FSCCRC, natural resource management strategies for addressing climate change can be classified under two avenues: adaptation and mitigation.[14] Adaptation strategies include actions taken to assist natural resources (species, habitats, forest plantations, watersheds) in accommodating new conditions imposed by climate change. Mitigation strategies work to reduce the human influence on the climate system, primarily through removal of greenhouse gases (GHG) from the atmosphere and the reduction of GHG emissions. On public lands, this may include managing forests in a way that sequesters carbon dioxide.

In addition to these considerations, the Forest Service also has guidance for incorporating climate change into NEPA analysis. NEPA requires federal agencies to analyze the environmental effects of proposed projects before making decisions and climate change is one environmental effect that may be considered.[15] There are three ways that climate change can be considered in the NEPA process: 1) consideration of the effects of a proposed project on climate change through GHG emissions and sequestration; 2) analysis of the effects of climate change on a proposed project; and 3) implications of climate change for the environmental effects of a proposed action (i.e., will the project and climate change combine to create increased impacts on a resource?). This MDP considers this guidance throughout the document.



12 USDA Forest Service. 1992. Winter Sports Guidebook.

13 Executive Office of the President, "Executive Order on Tackling the Climate Crisis at Home and Abroad," 7619 86 FR § 204 (2021)

14 Forest Service Climate Change Resource Center (FSCCRC). 2021. Managing for Change. Accessed September 1. Available at: https://www.fs.usda.gov/ccrc/education/managing-change

15 FSCCRC. 2021. NEPA - Introduction to Incorporating Climate Change. Accessed September 1. Available at: https://www.fs.usda.gov/ccrc/topics/nepa-introduction-incorporating-climate-change

III. Site Inventory

Chapter III provides a brief overview of some of the unique physical characteristics of the SUP area that were taken into consideration in the preparation of this MDP.

A. TOPOGRAPHY AT SNOWMASS

The topography at Snowmass can be generally described as three separate peaks: Elk Camp, The Cirque, and Sam's Knob. The topography at Snowmass is typical of this portion of the Rocky Mountains, consisting of a series of ridges and glaciated bowls with relatively flat terrain in the valleys. The ski terrain lies in the mostly north-facing slopes of these peaks and bowls, with some terrain falling to the east and west off of the northward running ridges. This is an ideal topographic scenario for a ski area, as it provides a variety of aspects as well as efficient access and circulation to the terrain. Flatter areas in portions of the resort provide the most significant challenge to circulation within the ski area. Slopes range from near vertical in cliff zones to almost flat in the base area. This type of topography allows for a range of skiing opportunities.

The highest elevations at Snowmass are The Cirque at 12,510 feet amsl, and High Alpine at 11,775 feet amsl. The lowest elevation is at the bottom terminal of Two Creeks lift at 8,110 feet amsl. Thus, total vertical drop at Snowmass is approximately 4,400 feet. The base village is located at 8,606 feet amsl.

B. SLOPE GRADIENTS AT SNOWMASS

As discussed in Chapter II, 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.

Slope gradients at Snowmass are depicted in Figure III-1.

- **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 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 resort operator for avalanche control

As displayed in Figure III-1, slope gradients covering all ability levels are present, but the majority of the terrain is characterized by novice- to intermediate-level gradients. As described in the topography section above, the terrain at Snowmass is largely characterized by peaks and bowls, with some ridges and sub-ridges. The bottoms of the bowls and sub-bowls tend to be quite flat, in some cases even too flat for consistent skiing. The terrain dropping off the ridges and sub-ridges tends to be quite steep, in a few locations steeper than desired for skiing. In some cases, this presents challenges for consistent fall-line skiing, but the majority of the ski area has consistent grades. For example, consistently Intermediate-level slopes are found in the Elk Camp and Big Burn areas.

The most consistent novice-level terrain is found off the mid-station of the Village Express and in the Two Creeks area. Consistent advanced-level gradients are very limited, with a few locations found in the Sam's Knob and Campground areas.

C. SOLAR ASPECT AT SNOWMASS

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

- *North-facing:* ideal for snow retention, minimal wind scour, minimal sun exposure
- *Northeast-facing:* ideal for snow retention, minimal wind scour, minimal sun exposure

- *East-facing:* good for snow retention, some wind scour, morning sun exposure
- *Southeast-facing:* fair for snow retention, moderate wind scour, morning and early afternoon sun exposure
- *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:* good for snow retention, high wind scour, late morning and afternoon sun exposure
- *Northwest-facing:* good for snow retention, moderate wind scour, some afternoon sun

As described in the topography section above, the majority of the skiing terrain at Snowmass faces north, with some eastward and westward facing aspects. This range of exposures is ideal, allowing for good snow retention while providing a variety of sun exposures and snow conditions. East facing slopes, such as some of the runs off of the Village Express and Sheer Bliss lift, provide decent snow retention and also have good sun exposure, particularly in the mornings. North-facing slopes provide better snow retention, and are found throughout the resort, such as in the Elk Camp, High Alpine, Alpine Springs, and Sam's Knob areas. These areas have consistently good snow conditions. The west-facing slopes off of the Campground lift and in portions of Elk Camp, are protected from the sun in the mornings but get sun exposure in the afternoons. See Figure III-2 for a detailed inventory of solar aspect at Snowmass.

D. RESOURCE SURVEY INVENTORY

As a part of this master planning process, Snowmass completed an inventory of resource surveys conducted for the environmental analyses of ski area projects over the last 30 years. These surveys include, but are not limited to, archaeological surveys, rare plant surveys, wetland delineations, wildlife habitat characterization surveys, and hydrologic assessments. Surveys were completed on a project-by-project basis, meaning that only those areas that were proposed for ground disturbance were surveyed at the time. There are areas within the Snowmass SUP area that have not been surveyed. The purpose of the resource survey inventory was to identify the portions of SUP area where surveys have or have not been completed; whether surveys have 'aged out' and need re-survey; and where surveys need to be completed for those projects included in the upgrade plan. This information may be used to inform the planning and environmental analyses of future NEPA processes.

E. CLIMATE CHANGE

Climate change has impacted and will continue to impact the Rocky Mountain region.[16] Over the past century, most of the region has warmed by 1- or 2- degrees Fahrenheit. Warmer winters have reduced average snowpack in the West by 20 to 60 percent since 1950.[17] In addition, the snowpack is now melting earlier than during the 20th century, and, by 2050, it is likely to melt weeks earlier. The reduced snowpack and earlier melting result in reduced streamflow during the summer.

In the future, climate change is also likely to increase the frequency and severity of fires that burn forests, grasslands, and desert vegetation. Since 1985, the size and number of western forest fires have increased substantially. Higher temperatures and a lack of water can also make trees more susceptible to pests and disease, and trees that are damaged or killed burn more readily than living trees. The combination of more fires, increased pressure from pests and disease, and drier conditions could change the forest patterns in the Rocky Mountains.

This MDP has been drafted with consideration to the challenges and uncertainties that climate change presents.

16 U.S. Environmental Protection Agency. 2016. What Climate Change Means for Colorado. August. Available at: https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-co.pdf

17 Ibid.


SNOW
MASS

IV. Existing Facilities

The following section contains an examination and analysis of existing facilities at Snowmass. Completion of a thorough resort inventory is the first step in the master planning process and involves the collection of data pertaining to the resort's existing facilities. This inventory includes lifts, trails, the snowmaking system, base area and on-mountain structures, guest services, other resort functions/activities, day-use parking, operations, and utilities/infrastructure. The analysis of the inventoried data involves the application of industry standards to existing conditions at Snowmass. This process allows for the comparison of the resort's existing facilities to those facilities commonly found at resorts of similar size and composition.

The overall balance of the existing resort is evaluated by calculating the capacities of various facility components and then comparing these capacities to the resort's CCC. This examination of capacities helps to identify strengths, weaknesses, opportunities, and constraints as a resort. The next step is the identification of any improvements which would bring the existing facilities into better equilibrium and assist the resort in meeting the ever-changing expectations of its marketplace. Accomplishing these objectives will result in a well-balanced resort which provides an adequate array of services and experiences to satisfy guest expectations for a quality recreation experience.

The examination of existing facilities presented in this chapter correlates with Figures IV-1 through IV-4.

A. SUMMARY OF THE EXISTING GUEST EXPERIENCE

Snowmass is a premier destination for guests from around the world. The resort offers more than 3,000 skiable acres, with terrain choices for everyone from the first-time beginner to the most adventurous extreme skiers and snowboarders.

The overall infrastructure of lift installations, terrain offerings, snowmaking systems, on-mountain restaurants, and miscellaneous support buildings/facilities have been continually upgraded since 1967. Infrastructure improvements that have taken place in the past ten years have been significant. These improvements have allowed Snowmass to further improve the guest experience consistent with its stated goals.

B. EXISTING LIFT NETWORK

Snowmass currently operates 20 lifts: one 8-person detachable gondola, one 6-person pulse gondola, two 6-person detachable chairlifts, seven detachable quad chairlifts, two fixed-grip quad chairlifts, one fixed-grip double chairlift, one detachable platter lift, one fixed-grip platter lift, and four conveyor lifts. The resort's existing total uphill design lift capacity is 28,267 people per hour (pph). Table IV-1 summarizes the technical specifications for the existing lifts, and Figure IV-1 illustrates the location of existing lifts.

Table IV-1. Lift Specifications – Existing Conditions

Lift Name, Lift Type	Top Elev. (ft)	Bot. Elev. (ft)	Vert. Rise (ft)	Slope Length (ft)	Avg. Grade (%)	Actual Design Capacity (pers/hr)	Rope Speed (fpm)	Carrier Spacing (ft)	Year Installed
Two Creeks/DC4	9,810	8,110	1,700	9,874	18%	1,640	1,100	161	Poma/1995
Assay Hill/C4	8,523	8,325	197	1,438	14%	1,200	300	60	Poma/2007
Elk Camp Gondola Full/G8	9,803	8,432	1,371	8,659	16%	1,961	1,000	184	Poma/2006
Elk Camp Gondola Upper/G8	9,803	8,526	1,277	7,499	17%	654	1,000	184	Poma/2006
Elk Camp/DC4	11,320	9,779	1,540	7,559	21%	2,020	1,100	131	Poma/1995
Meadows/C4	9,927	9,815	112	1,304	9%	1,200	300	60	Poma/2007
Meadows Sunkid/C	9,837	9,816	21	235	9%	600	160	16	Sun Kid/2014
Bear Bottom Sunkid/C	9,997	9,947	50	440	12%	600	160	16	Sun Kid/2015
Alpine Springs/DC4	10,505	8,987	1,518	7,164	22%	2,400	1,100	110	Poma/1993
High Alpine/DC4	11,852	10,186	1,666	5,622	31%	1,800	1,000	133	LPOA/2015
Cirque Lift/S	12,527	11,741	786	3,981	20%	450	700	93	Poma/1998
Sheer Bliss/DC4	11,857	9,650	2,207	9,283	25%	2,000	1,100	132	Poma/2008
Big Burn/DC6	11,793	9,811	1,982	7,639	27%	2,200	1,100	180	LPOA/2020
Coney Glade/DC4	10,103	8,890	1,213	4,931	26%	2,000	1,000	120	Poma/1986
Village Express Full/DC6	10,614	8,461	2,154	10,041	22%	1,876	1,050	201	Poma/2005
Village Express Lower/DC6	9,661	8,461	1,200	6,234	20%	924	1,050	135	Poma/2005
SkyCab/G6	8,601	8,454	146	1,069	14%	530	1,000	135	Poma/2005
Burlingame Sunkid/C	8,581	8,574	7	116	6%	600	160	16	Sun Kid/2005
Treehouse Sunkid/C	8,601	8,606	5	80	6%	720	80	7	Sun Kid/1997
Scooper Lift/S	9,365	9,137	227	876	27%	428	350	49	Poma/2000
Sam's Knob/DC4	10,619	9,419	1,199	3,869	33%	1,800	1,000	133	Poma/2005
Campground/C2	9,659	8,224	1,435	4,730	32%	664	550	99	Poma/2003

Source: SE Group
C = carpet conveyor / S = surface lift / C2 = fixed-grip double chairlift / C4 = fixed-grip quad chairlift / DC4 = detachable quad chairlift / DC6 = detachable six-passenger chairlift / G6 = six-passenger gondola / G8 = eight passenger gondola

In general, the lift system is well organized and provides opportunities for good learning progression, but some lifts could be added, upgraded, and/or realigned to provide better circulation and skier distribution, and to make better use of the available terrain.

Some of the lifts might reach the end of their useful life during the span of this document. Coney Glade, Cirque, Alpine Springs, Elk Camp, Sam's Knob, and Two Creeks are five lifts with 20+ years in operation.

Note that the Bear Bottom Sunkid conveyor lift is used for both skiing and snow tubing. Refer to Section C for a description of the tubing operation. Both skiers and tubers ride the lift simultaneously, with skiing off the east side of the conveyor and tubing off the west. Also note that the Burlingame Overflow conveyor is used only intermittently by the children's ski school programs.

C. EXISTING TERRAIN NETWORK

The ski network at Snowmass spans a cross-section of terrain and accommodates the entire range of skier ability levels from beginner to expert. Table IV-2 lists the specifications for all the maintained terrain at Snowmass, including bowls, chutes, glades, and hike-to areas.

1. Terrain Variety

Terrain variety is the key factor in evaluating the quality of the actual skiing and riding guest experience (as opposed to lift quality, restaurant quality, or any other factor). In Ski Magazine's Reader Resort Ratings, "terrain variety" is consistently ranked as the second most important criterion in readers' choice of a ski destination, behind only snow quality, and ahead of such other considerations as lifts, value, accessibility, resort service, and others. This is a relatively recent industry trend, representing an evolution in skier/rider tastes and expectations. The implication of the importance of terrain variety is that a resort must have a diverse, interesting, and well-designed developed trail system, but also must have a wide variety of alternate-style terrain, such as mogul runs, bowls, trees, open parks, in-bounds "backcountry-style" (i.e., hike-to) terrain, and terrain parks and pipes. At resorts across the nation, there is a growing trend favoring these more natural, unstructured,

"semi-backcountry" types of terrain, since the availability of this style of terrain has become one of the more important factors in terms of a resort's ability to retain guests, both for longer durations of visitation and for repeat business.

To provide the highest quality guest experience, resorts should offer groomed runs of all ability levels and some level of each of the undeveloped terrain types. Undeveloped 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 represent the most intriguing terrain, and typically are the areas that skiers/riders strive to access. Terrain variety is increasingly becoming a crucial factor in guests' decisions on where to visit.

As such, this analysis accounts for three separate types of terrain at Snowmass, totaling 3,342 acres:

- Lift-accessed developed trails for beginner, intermediate, and expert skiers/riders—accounting for 1,490 acres.
- Lift-accessed and/or hike-to terrain that is controlled (gated) but minimally maintained—accounting for 1,144 acres (these areas include bowls, chutes, glades, and other natural terrain that exists above treeline in accessible high alpine areas).
- Undeveloped, densely-treed and/or inaccessible areas within the ski area boundary. This consists primarily of the natural (non-thinned or maintained) forested areas between the defined skiing areas and ski runs, and also accounts for some of the less-accessible open areas in the upper parts of the mountain—these areas total 735 acres of terrain.

The existing developed alpine terrain network at Snowmass is depicted on Figure IV-1. This developed, or formalized, terrain network consists of the resort's named, defined, lift-serviced, maintained trails. Despite the importance of undeveloped, alternate-style terrain, formalized runs represent the baseline of the terrain at any resort, as they are where the majority of guests ski/ride.[18] Additionally, developed terrain is usually the only place to ski/ride during the early season, periods of poor or undesirable snow conditions, avalanche closures, and in certain weather conditions. As such, the developed trail network represents an accurate picture of the acreage utilized by the average skier/rider on a consistent basis, as well as that used by virtually all guests during the aforementioned conditions. Therefore, the full capacity of the resort must be accommodated by the total acreage of the developed terrain network, rather than relying on undeveloped terrain (which is not always available).

If this analysis were to account for terrain outside of the developed trail network, it would have a misleading effect on those calculations, i.e., lower trail densities, higher capacities, and an incorrect skier/rider classification breakdown. Thus, for the purposes of this analysis, the developed trail network is calculated by accounting for defined trails within the Snowmass SUP area. It does not include open bowls, glades, chutes, densely-treed, inaccessible, or hike-to areas. This developed trail network is the basis for the trail acreage calculations, skier/rider classification breakdown, trail capacity, and density formulas. Nevertheless, it should be remembered that terrain outside of the developed network (in this case, open bowls, glades, chutes, and hike-to terrain) is crucial to terrain variety and the overall quality of the guest experience, and thus is addressed later in this section.

18 At Snowmass, it can be difficult to differentiate between the developed terrain and the undeveloped terrain, as much of Snowmass's operations are either above treeline or just generally open and skiable. Since there is not a distinct edge to many of the trails, it is difficult to define a fixed area for developed trails. This influences the actual usage patterns for the ski area; skiers are found skiing across the entire width of any given area. In quantifying the acreage of developed terrain, a distinct area can be used where trails are defined by tree edges. In open areas where the trails are not defined by tree edges, a judgment call must be made to determine the boundaries between developed and undeveloped and minimally maintained terrain.

Tables IV-2 and IV-3 provide details of all terrain on the mountain. For the purposes of this analysis any trail defined as beginner, novice, low intermediate, intermediate, advanced, or expert is considered a part of the developed alpine terrain network, as described below. In contrast, any trail defined as Chutes/Bowls (Gated), Bowls/Glades (Gated), Chutes/Glades (Gated), Advanced/Expert Glades (Gated), Intermediate Glades, or Hike-to is a part of the Undeveloped but Maintained terrain, as discussed later in this section. Undeveloped/ Inaccessible terrain is not addressed in this table.

2. *Developed Terrain Network*

The developed trail network accommodates beginner- through expert-level guests on 90 lift-served, named trails or trail segments spanning approximately 1,490 acres. Most beginner and intermediate runs are groomed on a regular basis.

Key aspects of terrain at Snowmass are explored in the following discussions.

a. Beginner and Teaching Terrain

Much of the teaching terrain and programming at Snowmass is in the Elk Camp area, at the top of the Elk Camp gondola. As such, guests ride the gondola up to Elk Camp and can purchase rentals and participate in ski school programs at that location. Additional beginner and teaching terrain is available in the Assay Hill area and associated with the Treehouse Kids' Adventure Center. The vast majority of novice-level terrain is accessed off the mid-unload station on the Village Express (*Lunchline*/*Dawdler*/*Fanny Hill*) and from the Elk Camp gondola (*Funnel Bypass*).

Table IV-2. Terrain Specifications – Existing Conditions

Trail Area/Name	Top Elev. (ft)	Bot. Elev. (ft)	Vert. Rise (ft)	Slope Length (ft)	Avg. Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
Eastbranch	8,862	8,627	235	2,115	25	1.2	11%	19%	Low Intermediate
Creekside	9,686	8,110	1,576	9,760	163	36.4	16%	47%	Intermediate
Cascade	9,609	8,861	748	3,523	127	10.3	22%	38%	Intermediate
West Fork	9,350	8,550	800	5,625	90	11.6	14%	32%	Low Intermediate
Assay Hill	8,514	8,324	190	1,499	194	6.7	13%	15%	Novice
Lone Star	9,810	9,623	187	1,235	131	3.7	15%	29%	Low Intermediate
Bottoms Up	9,639	9,364	275	1,017	178	4.2	28%	36%	Intermediate
Funnel Upper	9,766	9,363	403	2,781	273	17.4	15%	37%	Intermediate
Funnel Lower	9,363	8,460	903	6,359	326	47.6	15%	24%	Novice
Funnel Bypass	9,616	9,488	128	1,418	59	1.9	9%	15%	Novice
Funnel Bypass	9,370	9,320	51	537	51	0.6	9%	14%	Novice
No Name	9,236	9,001	235	1,452	86	2.9	17%	25%	Novice
Eddy Out	9,148	8,661	487	2,586	65	3.8	19%	41%	Intermediate
Slider	9,847	8,974	873	5,238	179	21.6	17%	33%	Intermediate
Bull Run	11,323	9,926	1,396	6,654	473	72.2	21%	35%	Low Intermediate
Grey Wolf	11,310	10,155	1,155	4,904	304	34.2	24%	37%	Intermediate
Bear Bottom	11,303	9,932	1,371	6,443	211	31.1	22%	38%	Intermediate

Trail Area/Name	Top Elev. (ft)	Bot. Elev. (ft)	Vert. Rise (ft)	Slope Length (ft)	Avg. Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
Gunner's View	10,987	10,070	917	4,611	180	19.1	20%	34%	Low Intermediate
Sandy Park	11,315	9,852	1,462	8,285	201	38.3	18%	44%	Intermediate
EC Meadows	9,928	9,804	124	1,517	405	14.1	8%	14%	Beginner
Naked Lady	10,438	8,996	1,442	7,155	310	50.9	21%	36%	Intermediate
Lodge Pole	10,221	9,720	501	2,126	155	7.6	24%	38%	Intermediate
Log Deck	10,471	9,741	729	3,405	182	14.2	22%	39%	Intermediate
Tom's Trace	9,789	9,353	435	1,829	269	11.3	25%	51%	Advanced Intermediate
Lunkerville	9,866	8,990	876	4,652	233	24.9	19%	36%	Intermediate
Adam's Avenue Lower	9,214	8,638	577	3,726	161	13.7	16%	28%	Low Intermediate
Adam's Avenue Middle Upper	9,396	9,330	65	371	48	0.4	18%	20%	Low Intermediate
Adam's Avenue Middle Lower	9,280	9,240	40	480	81	0.9	8%	13%	Low Intermediate
Adam's Avenue Upper	9,646	9,455	191	1,670	128	4.9	12%	18%	Low Intermediate
Coffee Pot	10,391	9,095	1,295	6,446	158	23.3	21%	38%	Intermediate
Granite	10,298	9,786	513	2,435	118	6.6	22%	43%	Intermediate
Green Cabin Lower	10,453	8,942	1,512	7,987	212	39.0	19%	38%	Intermediate
Green Cabin Upper	11,782	10,264	1,518	6,597	193	29.2	24%	44%	Intermediate
Reidar's	11,774	10,475	1,300	4,390	191	19.3	31%	57%	Expert
Reidar's Glade	11,769	10,450	1,319	4,215	299	29.0	38%	62%	Expert Glade-Gated
Showcase	11,791	10,527	1,264	4,129	221	20.9	32%	46%	Advanced Intermediate
The Edge	11,797	10,472	1,324	4,488	231	23.8	31%	45%	Advanced Intermediate
Roberto's	11,920	11,427	492	1,483	209	7.1	36%	73%	Chute/Bowl-Gated
Frog Pond Glade	11,448	10,380	1,068	3,472	990	78.9	33%	50%	Expert Glade-Gated
Baby Ruth	11,357	10,738	619	1,462	200	6.7	47%	77%	Chute/Bowl-Gated
Big Spruce	11,211	10,430	781	1,875	286	12.3	46%	74%	Chute/Bowl-Gated
Cassidy's	10,817	10,394	424	991	236	5.4	48%	66%	Expert Glade-Gated
Willy's	10,662	10,242	420	968	425	9.4	49%	75%	Bowl/Glade-Gated
Cookies	10,996	10,545	451	1,104	305	7.7	45%	58%	Expert Glade-Gated
Turkey Trot	10,592	9,802	790	4,928	160	18.1	16%	42%	Intermediate
Turkey Trot Upper	10,490	10,431	59	718	26	0.4	8%	12%	Intermediate
Rocky Mtn. High	12,497	11,795	702	3,860	360	31.9	19%	25%	Low Intermediate

Trail Area/Name	Top Elev. (ft)	Bot. Elev. (ft)	Vert. Rise (ft)	Slope Length (ft)	Avg. Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
AMF	11,945	11,369	576	1,720	355	14.0	36%	77%	Chute/Bowl-Gated
Cirque Headwall	12,344	11,677	667	2,119	922	44.8	33%	58%	Chute/Bowl-Gated
East Wall	12,192	11,683	509	1,910	356	15.6	28%	82%	Chute/Bowl-Gated
High Traverse	12,501	11,812	689	6,273	149	21.5	11%	55%	Chute/Bowl-Gated
Adios Ridge	11,644	11,209	435	1,085	460	11.5	44%	54%	Chute/Bowl-Gated
Ladder Lower	11,224	10,813	411	859	269	5.3	56%	89%	Chute/Bowl-Gated
Ladder Upper	11,441	11,241	201	414	99	0.9	56%	75%	Chute/Bowl-Gated
Dikes	11,669	10,241	1,428	5,923	949	129.1	25%	60%	Bowl/Glade-Gated
Gowdy's	11,842	11,267	575	1,827	308	12.9	34%	108%	Chute/Bowl-Gated
KT Gully	11,307	11,104	202	466	175	1.9	50%	77%	Chute/Bowl-Gated
Rock Island	11,137	10,675	462	988	493	11.2	54%	88%	Chute/Glade-Gated
Buck Skin	10,715	10,149	566	1,723	330	13.1	35%	73%	Expert Glade-Gated
Sheer Bliss	11,833	9,674	2,158	8,926	497	101.8	25%	44%	Intermediate
Camp 3	10,113	9,690	424	1,489	165	5.6	30%	47%	Advanced Intermediate
Garrett Gulch	10,775	9,852	923	3,460	116	9.2	28%	48%	Advanced Intermediate
West Face	10,928	10,679	249	677	667	10.4	40%	50%	Chute/Bowl-Gated
Free Fall	10,617	10,359	258	526	591	7.1	56%	64%	Expert Glade-Gated
Glissade	10,205	9,940	264	568	104	1.4	53%	60%	Expert
Whispering Jesse	10,901	9,900	1,001	3,390	191	14.9	31%	39%	Intermediate
Trestle	9,880	9,695	185	1,598	83	3.1	12%	38%	Intermediate
Timberline	11,725	9,918	1,807	6,721	204	31.4	28%	40%	Intermediate
Wineskin	11,837	9,972	1,865	6,875	162	25.5	28%	47%	Advanced Intermediate
Dallas Freeway	11,585	10,125	1,461	5,240	179	21.5	29%	42%	Intermediate
Micks' Gully	11,821	10,167	1,654	6,263	230	33.1	27%	42%	Intermediate
Powerline Glades	11,440	10,440	1,000	3,552	676	55.1	29%	43%	Intermediate Glade
Sneaky's	11,837	10,572	1,265	5,931	193	26.2	22%	29%	Low Intermediate
Sneaky's Glade	11,513	10,708	805	3,467	332	26.4	24%	31%	Intermediate Glade
Jack of Hearts	10,719	10,523	197	689	160	2.5	30%	30%	Intermediate
Powderhorn	10,565	8,253	2,312	9,081	146	30.4	27%	56%	Expert
Lower Banzai	9,820	8,895	926	3,865	217	19.2	25%	42%	Intermediate

Trail Area/Name	Top Elev. (ft)	Bot. Elev. (ft)	Vert. Rise (ft)	Slope Length (ft)	Avg. Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
Cabin	9,766	8,933	833	3,414	274	21.5	25%	45%	Intermediate
Coney Glade	10,096	9,748	348	1,288	466	13.8	28%	39%	Intermediate
Blue Grouse	9,667	8,855	812	3,650	299	25.0	23%	44%	Intermediate
Velvet Falls	9,614	8,857	757	3,348	225	17.3	23%	38%	Intermediate
Nor Way	9,201	9,073	127	756	63	1.1	17%	25%	Low Intermediate
Hal's Hollow	9,580	8,980	600	2,514	195	11.2	25%	40%	Intermediate
Scooper	9,507	9,008	499	2,333	214	11.5	22%	37%	Intermediate
Dawdler	9,638	8,714	924	6,685	194	29.7	14%	28%	Novice
Fanny Hill	8,899	8,462	437	3,175	251	18.3	14%	17%	Novice
Lunchline	10,117	9,428	689	4,784	144	15.9	15%	34%	Low Intermediate
Moonshine	10,191	9,416	775	3,436	205	16.2	23%	47%	Advanced Intermediate
Ute Chute	10,334	9,710	624	1,846	168	7.1	36%	45%	Advanced Intermediate
Fast Draw	10,435	10,036	399	1,103	120	3.0	39%	44%	Intermediate
Max Park	10,579	9,858	721	4,145	423	40.3	18%	43%	Intermediate
Sunnyside	10,609	9,943	666	2,600	122	7.3	27%	44%	Intermediate
Banzai Ridge	10,575	9,854	721	3,267	146	11.0	23%	32%	Low Intermediate
Monks Hood	9,895	9,544	351	2,002	84	3.8	18%	30%	Low Intermediate
Promenade	10,561	9,562	998	2,997	253	17.4	36%	46%	Advanced Intermediate
Zugspitze	10,552	9,420	1,133	3,694	181	15.4	32%	47%	Advanced Intermediate
Slot Upper	10,603	9,443	1,160	3,534	276	22.4	35%	45%	Advanced Intermediate
Slot Lower	9,437	8,228	1,209	5,390	285	35.2	23%	47%	Advanced Intermediate
Wildcat	10,484	9,124	1,360	4,959	145	16.5	29%	45%	Intermediate
Howler Upper	10,009	9,593	416	1,184	84	2.3	38%	47%	Advanced Intermediate
Howler Lower	9,488	9,450	38	367	52	0.4	10%	17%	Advanced Intermediate
Bearclaw	10,046	8,226	1,820	6,546	256	38.5	29%	51%	Advanced Intermediate
Campground	10,621	8,223	2,398	8,510	201	39.2	30%	53%	Advanced Intermediate
Split Tree	11,260	9,909	1,351	4,854	659	73.5	29%	58%	Hike-To
Rio	11,309	9,976	1,334	4,671	483	51.8	30%	51%	Hike-To
A-Line	11,281	9,105	2,176	10,736	302	74.4	21%	48%	Hike-To
Long Shot	11,325	8,121	3,204	16,529	282	107.1	20%	47%	Hike-To

Trail Area/Name	Top Elev. (ft)	Bot. Elev. (ft)	Vert. Rise (ft)	Slope Length (ft)	Avg. Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
Black Saturday Bowl	10,912	10,343	569	1,952	484	21.7	31%	66%	Chute/Bowl-Gated
Burns Cliffs	11,060	10,793	267	551	415	5.3	57%	83%	Chute/Glade-Gated
Buttermilk	10,953	10,484	469	1,484	490	16.7	34%	65%	Expert Glade-Gated
Cirque Cornice	12,219	11,836	383	1,422	570	18.6	28%	44%	Chute/Bowl-Gated
Coyote Hollow	11,716	10,850	866	3,461	497	39.5	26%	42%	Expert Glade-Gated
Coyote Knob	11,865	11,698	168	390	567	5.1	48%	54%	Chute/Bowl-Gated
East 1 & 2	11,765	11,299	466	1,515	461	16.0	33%	54%	Chute/Bowl-Gated
Glade 1	10,534	10,213	320	632	250	3.6	59%	65%	Expert Glade-Gated
Glade 2	10,482	10,197	285	569	190	2.5	58%	62%	Expert Glade-Gated
Glade 3	10,412	10,172	240	485	221	2.5	57%	61%	Expert Glade-Gated
Hanging Valley Headwall	11,888	11,520	368	1,088	217	5.4	37%	83%	Chute/Bowl-Gated
Hanging Valley Runout	10,273	10,094	179	1,213	308	8.6	15%	22%	Chute/Bowl-Gated
Little Headwall	12,027	11,863	164	543	564	7.0	32%	58%	Chute/Bowl-Gated
North Woods	10,914	10,619	295	975	999	22.4	32%	43%	Chute/Bowl-Gated
Old Man Basin	11,403	11,149	255	791	248	4.5	34%	50%	Chute/Bowl-Gated
Pitch in the Valley	11,129	10,806	323	1,012	317	7.4	34%	56%	Expert Glade-Gated
Possible	11,591	11,503	88	339	65	0.5	28%	40%	Chute/Bowl-Gated
Possible Basin	11,460	11,096	364	745	374	6.4	57%	86%	Chute/Bowl-Gated
Ptarmigan Draw	12,089	11,772	317	1,292	299	8.9	25%	33%	Chute/Bowl-Gated
Rayburn's Chute and Bowl	11,040	10,835	206	598	312	4.3	37%	45%	Chute/Bowl-Gated
Strawberry Patch	10,944	10,567	377	701	157	2.5	64%	75%	Chute/Bowl-Gated
Sun Kiss Glades	11,276	10,910	366	916	373	7.9	44%	66%	Chute/Glade-Gated
Sunspot	10,731	10,453	278	906	501	10.4	32%	41%	Chute/Glade-Gated
Union	10,756	10,295	461	1,211	324	9.0	42%	68%	Bowl/Glade-Gated
Valley Valley	11,173	10,801	372	910	284	5.9	45%	58%	Chute/Bowl-Gated
Wall 1	11,166	10,307	859	2,282	314	16.4	41%	83%	Chute/Bowl-Gated
Wall 2	11,058	10,649	409	736	132	2.2	67%	73%	Chute/Bowl-Gated
Waters	10,555	10,155	400	1,201	278	7.7	36%	66%	Expert Glade-Gated
West 1&2	11,896	11,527	369	968	165	3.7	42%	73%	Chute/Bowl-Gated
High Alpine/Free Fall/ Sneaky's Glades						27.0			Intermediate Glade
TOTAL				**418,749**		**2,634**			

b. Intermediate/ Cruiser Terrain

Snowmass is well known for its intermediate-level cruising terrain, as there is a large quantity and good variety of this type of terrain.[19] Significant amounts of this type of terrain are found off of the Elk Camp, Big Burn, top of the Village Express, and Alpine Springs lifts. These areas are well used and represent the majority of the intermediate terrain at Snowmass. Additionally intermediate-level terrain is found off the Two Creeks lift, but this tends to be underutilized due to the low angle of the lower portion of these trails.

c. Maintained Expert Trails

Most of the developed, maintained expert-level trails are found off of the Sam's Knob, Campground, and High Alpine lifts.

d. Terrain Distribution by Ability Level

This terrain distribution analysis considers the 1,490 acres within the developed terrain network at Snowmass (note that Table IV-2 also includes 1,144 acres of chutes, bowls, glades, and hike-to terrain not included in the developed terrain network but discussed in the Undeveloped and Gladed Terrain section). The terrain distribution through the full range of ability levels is relatively close to the ideal breakdown for the regional destination skier/rider market. The terrain classification breakdown of existing developed terrain at the resort is set forth in the following table. The last column in this table represents what can be considered the skill level distribution in the relevant skier/rider market and provides a comparison with the actual skier/rider distribution at Snowmass.

Chart IV-1 illustrates a relatively close match between existing terrain distribution at Snowmass and the market demand for beginner-, novice-, and low intermediate-ability levels. The excess intermediate terrain in comparison to the national market average reflects Snowmass' reputation for having a significant amount of intermediate-level terrain. The deficiency of developed advanced- and expert-level terrain is offset by the large amount of undeveloped terrain available, as shown on Figure IV-1.

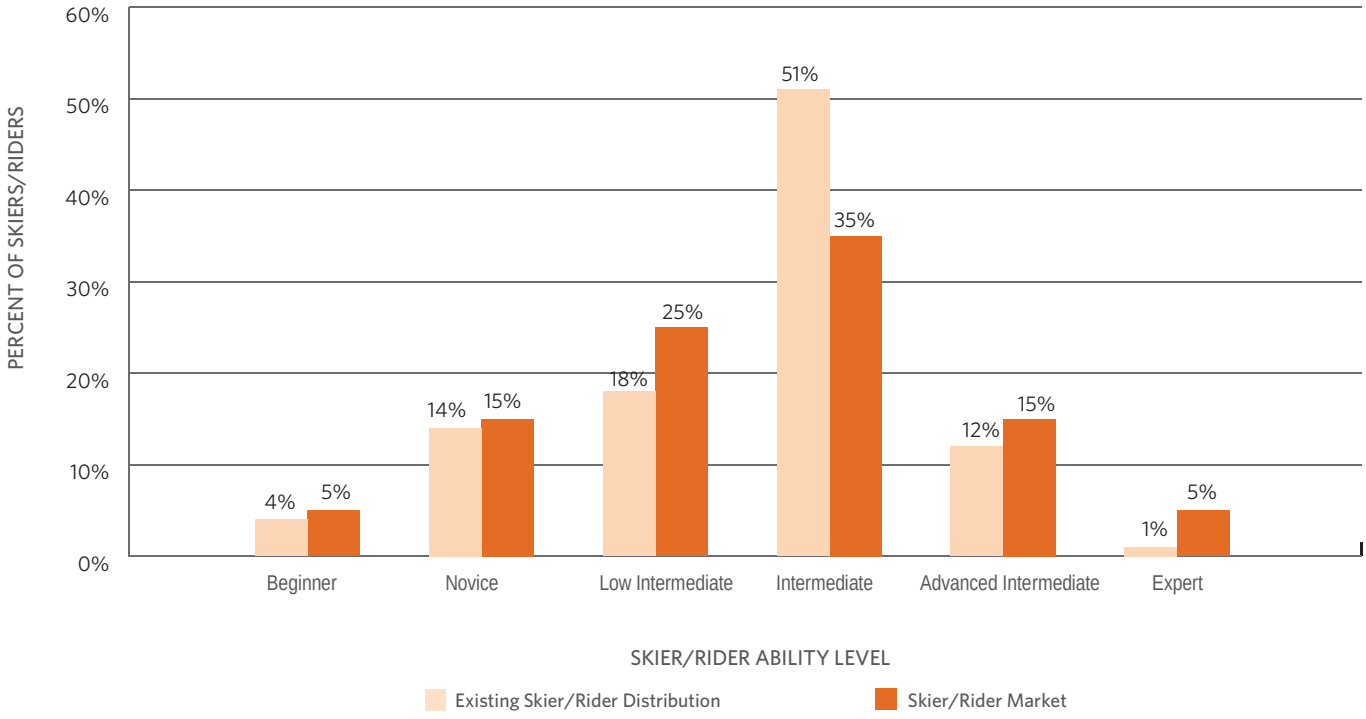
19 Cruiser terrain is described as relatively long ski trails with enough vertical drop that skiers/riders are able to continuously link varying radius turns with minimal interference from cross traffic or breaks in the fall-line. These trails are relatively wide with very good visibility and are groomed on a routine basis.

Table IV-3. Developed Terrain Distribution by Ability Level – Existing Conditions

Skier/Rider Ability Level	Trail Area (acres)	Skier/Rider Capacity (guests)	Actual Skier/Rider Distribution (%)	Relevant Skier/Rider Market (%)
Beginner	14	353	4%	5%
Novice	108	1,292	14%	15%
Low intermediate	220	1,763	18%	25%
Intermediate	806	4,839	51%	35%
Advanced	291	1,162	12%	15%
Expert	51	102	1%	5%
TOTAL	**1,490**	**9,511**	**100%**	**100%**

Source: SE Group

Chart IV-1. Developed and Undeveloped Terrain Distribution by Ability Level – Existing Conditions



Source: SE Group

3. *Undeveloped and Gladed Terrain*

In addition to its core developed terrain, Snowmass contains a significant amount of maintained undeveloped terrain; the topography within the SUP area includes steeps, chutes, bowls, and glades intermingled within, and outside of, the developed and maintained terrain network. The undeveloped terrain at Snowmass falls into two categories: lift accessed undeveloped, but maintained, terrain; and densely-treed, less accessible areas.

a. Undeveloped, but Maintained, Terrain

This type of terrain accounts for 1,144 acres. These areas include controlled open bowls, glades, chutes, and hike-to terrain. Much of this terrain is "gated," which allows Snowmass Ski Patrol to control access in the early season, periods of poor or undesirable snow conditions, avalanche closures, and in certain weather conditions. Each of the terrain pods at Snowmass include "gated" areas in addition to formalized trails. A significant area,

for instance, is served by the Cirque lift and exists above, but is part of, the Big Burn pod.

Most of the "gated" terrain (open bowls, chutes, and glades) are accessed off of the Cirque, Sheer Bliss, and High Alpine lifts. Accessing some of these areas either requires taking the *High Pass Traverse* from the top of Cirque lift, or a short walk. The Burnt Mountain area also offers intermediate gladed terrain that requires a hike from the Elk Camp lift.

As discussed previously, for the purposes of this analysis, the developed trail network does not include open bowls, glades, chutes, and hike-to terrain. Were this analysis to account for terrain outside of the developed trail network, it would have a misleading effect on all of the terrain distribution calculations discussed above. However, terrain outside of the developed network is very important to terrain variety and the overall quality of the guest experience.

Table IV-4 summarizes the maintained, undeveloped terrain at Snowmass. The following chart, meanwhile, shows the skill-level distribution of developed and undeveloped but maintained terrain, combined. Note that the chart shows a greater proportion of advanced and expert terrain than Table IV-3 due to the inclusion of undeveloped terrain.

Table IV-4. Undeveloped Terrain - Existing Conditions

Terrain Type	Trail Area (acres)
Chutes/Bowls (Gated)	325
Bowls/Glades (Gated)	147
Chutes/Glades (Gated)	35
Advanced/Expert Glades (Gated)	221
Intermediate Glades	109
Hike-to	309
TOTAL	**1,144**

Source: SE Group

b. Densely-treed and Less Accessible Areas

This consists primarily of the natural (non-thinned or maintained) forested areas between the defined skiing areas and ski runs, and also accounts for some of the less accessible open areas in the upper parts of the mountain. These areas are not regularly skied or snowboarded and represent a total of 708 acres of terrain.

4. Terrain Parks

Terrain parks are an important part of mountain resorts' operations. They continue to be popular and are dependent on regional location of the resort, demographics of the resort's target guests, and, significantly, the quality of the parks. A key component to a resort's overall terrain park strategy is progression, which refers to increasing levels of difficulty in the parks.

To offer skiers and riders of all abilities the chance to improve their freestyle skills, Snowmass currently builds, operates, and maintains numerous terrain parks, with a good progression for first-time park users to experts. The parks are currently located off the Village Express and Coney Glade lifts. Current parks include:

- Lowdown Park – Located on *Lower Blue Grouse* along Village Express lift, this is the introductory park. It consists of beginner- and low intermediate-level features.
- Makaha Park – Also located on *Lower Blue Grouse* along Village Express lift. This is the next progression step up and consists of all low intermediate- and intermediate-level features.
- Snowmass Park – Located below the Coney Glade lift. This Park consists of advanced- and expert-level features and also includes the Snowmass Pipe.

Visitors generally access Snowmass Park from the top terminal of Coney Glade lift; however, existing topography makes it difficult for most users to reach the park. Grading would improve the access to the terrain park. Snowmass constantly evaluates optimum park locations and varies park elements and locations frequently. Snowmass will continue this practice as conditions warrant, in locations that are appropriate based on the evolving needs of park users..

5. *Snow Tubing*

Snow tubing is available daily in Elk Camp Meadows throughout the ski season. The existing tubing operation at Elk Camp includes three lanes served by the Bear Bottom conveyor lift, as discussed above. Both skiers and tubers ride the lift simultaneously, with the skiers going to the east side to ski the Level 3 teaching terrain found there and the tubers accessing the tubing lanes on the west side of the conveyor. The lanes are all approximately 500 feet long, including the run-out. Tubing is offered from 11:00 a.m. to 3:30 p.m. on most days, and 5:30 p.m. to 8:30 p.m. during Ullr Nights. Depending on weather conditions, each lane serves an average of 160 person-rides per hour, for a total of 480 person-rides per hour across the entire venue.

The existing snow tubing operation is limited by the location of the Bear Bottom conveyor lift and the length of the snow tubing lanes. The existing configuration of the conveyor lift requires visitors to hike approximately 900-feet uphill from the top terminal of the Elk Camp gondola to access the tubing lanes. Once guests reach the tubing area, the 500-foot lanes make for short descents and a mediocre guest experience, which typically does not lead to repeated use. As a result, the snow tubing operation is underutilized and instead guests focus their time on the Breathtaker Alpine Coaster.

Ullr Nights takes place at Elk Camp each Friday night throughout the winter season. Activities include live music, s'mores, hot chocolate, and a la carte food offerings at Elk Camp Restaurant. Snow tubing and snow biking under the lights are also offered during Ullr Nights, and during holidays and other special events.

Tubing is offered as an amenity for existing guests, and it is estimated that around 80% of the tubers are also skiers. Very few guests come to Snowmass for the sole purpose of tubing.

D. EXISTING CAPACITY ANALYSIS

1. *Comfortable Carrying Capacity*

Determining the Comfortable Carrying Capacity (CCC) of a resort is an important first step in evaluating the overall guest experience. The CCC indicates the number of guests at which a resort's lift network can operate comfortably. A resort's CCC is computed by analyzing the resort's supply of, and demand for, vertical lift transport.

A detailed calculation of CCC was completed for this MDP, as shown in Table IV-5. In the 2015 Snowmass MDP, the existing CCC was calculated at 12,360 guests per day. The 2022 CCC of Snowmass was calculated at 12,500 guests per day.[20] The CCC has largely stayed the same with lift upgrades since 2015 improving the lift riding experience but not necessarily the overall lift network capacity.

20 The CCC for the Bear Bottom conveyor lift accounts for both skiing and tubing. The Treehouse overflow conveyor is not included in the CCC calculation, as, due to the way it is utilized (intermittently and only for specific programming), it does not contribute to an increase in overall resort CCC.

Table IV-5. Comfortable Carrying Capacity – Existing Conditions

Lift Name, Lift Type	Slope Length (ft)	Vertical Rise (ft)	Actual Design Capacity (guests/ hr)	Oper. Hours (hrs)	Up-Mtn. Access Role (%)	Misload/ Lift Stop (%)	Adjusted Hourly Cap. (guests/ hr)	VTF/ Day (000)	Vertical Demand (ft/day)	CCC (guests)
Two Creeks/DC4	9,874	1,700	1,640	7.0	50	5	738	8,784	13,378	660
Assay Hill/C4	1,438	197	1,200	7.0	0	10	1,080	1,493	3,626	410
Elk Camp Gondola Full/G8	8,659	1,371	1,961	7.0	50	5	883	8,471	9,523	890
Elk Camp Gondola Upper/G8	7,499	1,277	654	7.0	20	5	490	4,381	10,117	430
Elk Camp/DC4	7,559	1,540	2,020	6.5	0	5	1,919	19,215	14,150	1,360
Meadows/C4	1,304	112	1,200	6.5	0	15	1,020	745	2,222	340
Meadows Sunkid/C	235	21	600	6.5	0	5	570	79	1,453	50
Bear Bottom Sunkid/C	440	50	600	6.5	0	5	570	185	3,356	60
Alpine Springs/ DC4	7,164	1,518	2,400	7.0	10	5	2,040	21,678	15,590	1,390
High Alpine/DC4	5,622	1,666	1,800	6.5	0	5	1,710	18,518	28,950	640
Cirque Lift/S	3,981	786	450	6.0	0	10	405	1,911	14,875	130
Sheer Bliss/DC4	9,283	2,207	2,000	7.0	10	5	1,700	26,262	21,337	1,230
Big Burn/DC6	7,639	1,982	2,200	7.0	0	5	2,090	28,997	19,211	1,510
Coney Glade/DC4	4,931	1,213	2,000	7.0	0	5	1,900	16,132	20,028	810
Village Express Full/DC6	10,041	2,154	1,876	7.0	40	10	938	14,141	15,319	920
Village Express Lower/DC6	6,234	1,200	924	7.0	0	10	832	6,987	9,354	750
SkyCab/G6	1,069	146	530	7.0	100	0	0	0	5,029	0
Burlingame Sunkid/C	116	7	600	7.0	0	5	570	28	752	40
Treehouse Sunkid/C	80	5	720	7.0	0	5	684	24	510	50
Scooper Lift/S	876	227	428	7.0	0	10	385	613	8,126	80
Sam's Knob/DC4	3,869	1,199	1,800	6.5	0	5	1,710	13,331	25,736	520
Campground/C2	4,730	1,435	664	6.0	0	10	598	5,146	22,381	230
TOTAL	**102,645**		**28,267**				**22,831**	**197,121**		**12,500**

Source: SE Group
Notes: SkyCab was included in the analysis but does not contribute to CCC due it is up mountain access role.

2. *Density Analysis*

An important aspect of resort design is the balancing of uphill lift capacity with downhill trail capacity. Trail densities are derived by comparing the uphill, at-one-time capacity of each individual lift pod (i.e., CCC) with the trail acreage associated with that lift pod.

At any one time, skiers and riders are dispersed throughout the resort, using guest facilities and milling areas, waiting in lift mazes, riding lifts, or descending on ski terrain. For the trail density analysis, 25% of each lift's CCC is presumed to be "inactive"—i.e., using guest service facilities or milling areas and otherwise not actively skiing or riding lifts.

The active skier/rider population can be found in lift lines, on lifts, or on trails. The number of people waiting in line at each lift is a function of the uphill hourly capacity of the lift and the assumed length of wait time at each lift. The number of people on each lift is the product of the number and capacity of uphill carriers.

The remainder of the skier/rider population (the CCC minus the number of guests using guest facilities, milling in areas near the resort portals, waiting in lift mazes, and actually riding lifts) is assumed to be descending.

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

Again, it is important to point out that the trail density analysis considers only the acreage associated with the developed trail network. Since Snowmass attracts a large number of advanced- and expert-level skiers, it is typical to see a large portion of the skiers at the resort utilizing the hike-to, backcountry, glades, and other types of undeveloped terrain. However, it is important for a resort to have enough developed terrain to accommodate

the full capacity of the resort, as there are many days that skiing the undeveloped terrain is undesirable due to snow levels or weather conditions. As a result, the density analysis presented here looks at the capacity of the developed terrain.

The density analysis for Snowmass is illustrated in Table IV-6. This table shows that the average trail density at Snowmass is 5 skiers-per-acre, a density that is on the low end of the target range.[21] This situation is certainly desirable from the perspective of the recreational experience, as low skier/rider densities are a defining factor in the quality of the recreational experience.

The density figures included in Table IV-6 show that, for all of the individual lift/trail systems at Snowmass, the actual trail densities are at or below the target design criteria, meaning that trails are generally less crowded than at many resorts. As stated, the low densities are desirable from the standpoint of the quality of the skiing experience.

However, the low density numbers can also indicate underutilization of the existing terrain, meaning that there could comfortably be more skiers/riders on the terrain at any one time than there are at current visitation levels. This situation indicates that the amount of effort required to properly maintain the quantity of terrain could be disproportionately high when compared to the overall number of skiers/riders on the mountain, as discussed below.

3. Lift and Terrain Network Efficiency

Overall resort efficiency is becoming an increasingly important factor in the ski industry. This relates not only to energy and operational efficiency, but also to efficiency of the design and layout of the resort. 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 fewest number of lifts possible, while maintaining desired CCC rates, circulation routes, and service to the full spectrum of skier ability levels and types.

a. Lift Network Efficiency

Within the context of ski area design efficiency, the term "Lift Network Efficiency" refers to the amount of effort and cost required to operate and maintain the lift network, as compared to the number of guests served by the lift network. The energy and costs related to the lifts 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 resort.

One way to analyze Lift Network Efficiency is to calculate the average CCC per lift at a given resort. While this calculation does not relate to the overall capacity of the resort, it can indicate if (1) the resort is not getting maximum utilization out of its lifts, or (2) if there are more lifts than necessary for the capacity levels of the resort. When calculating this average, conveyors used for teaching, as well as lifts that are used for access only, are not included. Optimally, and generally speaking, 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 Snowmass is 738. This rating is well above average, almost at the ideal target number, indicating that Snowmass ranks very well in terms of overall lift network efficiency. There are few other resorts in the country that have an equivalent operational efficiency in their lift network.

b. Terrain Network Efficiency

An offshoot of the terrain density analysis is an analysis that provides an indication of the efficiency of the terrain network as compared to the lift network serving it. The term "Terrain Network Efficiency" refers to the amount of effort required to properly maintain the terrain (e.g., costs related to snowmaking, grooming, energy, ski patrol, summer trail maintenance, administration, etc.).

From this standpoint, the most efficient scenario is to have a quantity of terrain that closely meets the target density requirements. This can be easily achieved by reviewing the density analysis above, as a density index

21 Specific trails, particularly the egress trails towards the end of the day, can consistently have high densities.

Table IV-6. Density Analysis – Existing Conditions

Lift Name, Lift Type	CCC (guests)	Guest Dispersal				Density Analysis				Density Index (%)
		Support Fac./ Milling (guests)	Lift Lines (guests)	On Lift (guests)	On Terrain (guests)	Terrain Area (acres)	Terrain Density (guests/ ac)	Target Trail Density (guests/ ac)	Diff. (+/-)	
Two Creeks/DC4	660	165	25	110	360	46.6	8	6	2	133%
Assay Hill/C4	410	103	54	86	167	20.9	8	12	-4	67%
Elk Camp Gondola Full/ DG8	890	223	44	169	454	69.5	7	9	-2	78%
Elk Camp Gondola Upper/ DG8	430	108	25	245	52	18.9	3	9	-6	33%
Elk Camp/DC4	1,360	340	160	220	640	194.9	3	7	-4	43%
Meadows/C4	340	85	51	74	130	12.7	10	25	-15	40%
Meadows Sunkid/C	50	15	10	14	11	0.7	16	25	-9	64%
Bear Bottom Sunkid/C	60	15	10	26	9	0.7	13	25	-12	52%
Alpine Springs/ DC4	1,390	348	102	221	719	208.3	3	6	-3	50%
High Alpine/DC4	640	160	29	160	291	106.1	3	4	-1	75%
Cirque Lift/P	130	33	20	38	39	35.8	1	8	-7	13%
Sheer Bliss/DC4	1,230	308	85	239	598	139.9	4	5	-1	80%
Big Burn/DC6	1,510	378	105	242	785	172.5	5	6	-1	83%
Coney Glade/ DC4	810	203	95	156	356	47.6	7	6	1	117%
Village Express Full/DC6	920	230	78	149	463	136.2	3	7	-4	43%
Village Express Lower/DC6	750	188	28	82	452	79.0	6	9	-3	67%
Burlingame Sunkid/C	40	10	10	7	13	0.9	14	12	2	117%
Treehouse Sunkid/C	50	13	11	11	15	1.8	8	12	-4	83%
Scooper Lift/P	80	20	6	16	38	5.7	7	6	1	117%
Sam's Knob/DC4	520	130	86	110	194	63.2	3	5	-2	66%
Campground/C2	230	58	10	86	76	124.2	1	4	-3	25%
TOTAL	**12,500**	**3,133**	**1,044**	**2,461**	**5,862**	**1,490**	**5**	**7**	**-3**	**66%**

Source: SE Group

of 100% would imply that the resort had exactly the right amount of terrain to match target densities. Snowmass has an index of 66%, meaning that densities are 66% that of target densities. This reflects a policy by ASC to intentionally maintain lower trail densities than industry standards to ensure the higher quality experience expected by its destination guests. Because it maintains a lower terrain density than most resorts, Snowmass likely has somewhat higher operating costs associated with ski terrain maintenance per skier than other resorts, but this is a tradeoff that ASC makes to ensure a higher quality ski experience.

E. EXISTING GUEST SERVICES FACILITIES, FOOD SERVICE SEATING AND SPACE USE ANALYSIS

1. Guest Services

Guest service facilities constitute an essential component of the recreation experience at ski areas. These areas provide visitors with shelter from the elements, bathrooms, food and beverages; the capacity of these facilities is important in understanding whether the needs of visitors are being met. Existing guest service facilities are identified on Figure IV-1 and Table IV-7.

a. Base Area Guest Services

Guest services are found in the Snowmass base area—in the Snowmass Village Mall, Snowmass Base Village, Two Creeks, the Treehouse Kids' Adventure Center, and various other facilities. A significant portion of the guest service facilities (particularly the food and beverage facilities) in the Snowmass Base Village & the Snowmass Village Mall are not owned or operated by ASC.

b. On-Mountain Guest Services

On-mountain skier services are extensive at Snowmass. There are nine on-mountain restaurants, as well as ski rental/repair, ski school and ski patrol facilities across the mountain. Unique to Snowmass is the Wapiti Wildlife Center at the top of Elk Camp lift. This cabin, operated by the Aspen Center for Environmental Studies (ACES), has a staff of on-site naturalists who run daily ski-tours and are available to answer guest questions about Aspen's natural history and present.

2. Space Use Analysis

Sufficient existing guest service space should be provided to accommodate the existing resort CCC of 12,500 guests per day. A logical distribution of the CCC to each facility location is utilized to determine guest service capacities and space requirements at base area and on-mountain facilities. The CCC is distributed between each guest service facility location according to the number of guests that would be utilizing the lifts and terrain associated with each facility. Since the on-mountain guest services are extensive, and returning to the base area for lunch is not necessary, the majority of skiers remain on the mountain when they require guest services.

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

Based upon a CCC of 12,500 skiers, Table IV-7 compares the current total space use allocations of the guest service functions to industry norms for a resort of similar market orientation and regional context as Snowmass. Square footages contained in this chart are calculated to illustrate how Snowmass compares to industry averages and should not be considered absolute requirements.

Service functions that were considered in the total square footage recommendations include the following:

- **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 space.
- **Bar/Lounge:** All serving and seating areas, often designated as restricted use, for the serving and consumption of alcoholic beverages. Since used for food service, seats are included in seat counts.
- **Restrooms:** All space associated with restroom facilities (separate women, men, and employees).

- **Guest Services:** Services including resort information desks, kiosks, and lost and found.
- **Adult Ski School:** Includes ski school booking area and any indoor staging areas. Storage directly associated with ski school is 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. The assumed target number of units in the rental fleet is 40% of CCC.
- **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. Includes seasonal and daily lockers.
- **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.

A recommended amount of space for each function was calculated for each location, then totaled and compared to the total existing space for that location.

As shown in Table IV-7, total Snowmass guest use space falls within the recommended range.

The Elk Camp Restaurant has the greatest existing deficiency of guest service space. This is reflected in the fact that this facility is the main on-mountain hub,

Table IV-7. Industry Average Space Use – Existing Conditions

Service Function	Existing Total (sq. ft.)	Recommended Range (sq. ft.)	
		Recommended Low Range	Recommended High Range
Base Village / Snowmass Village Mall	106,666	75,320	97,220
Two Creeks Café	10,379	5,800	7,384
Elk Camp Restaurant	15,523	26,250	33,390
Sam's Restaurant	8,821	5,490	6,990
Ullrhof Restaurant	14,000	14,540	18,490
High Alpine Restaurant	28,000	31,800	40,440
Spider Sabich Picnic Area	6,348	1,930	2,450
Lynn Britt Cabin	1,770	1,960	2,490
Lizard Lodge	1,440	2,910	3,690
Up 4 Pizza	1,390	6,440	8,170
TOTAL RESORT	**194,337**	**172,370**	**220,624**

Source: SE Group
Notes: Alpin Room – Is a separate sit-down restaurant located within the footprint of the High Alpine Restaurant listed above. The Tent – Is a separate Ski School Only restaurant located within the footprint of the Elk Camp Restaurant listed above.

the primary ski school hub, the top of the gondola and easily accessible for non-skiers, and the farthest east up-mountain facility. Up4Pizza is another restaurant showing large deficiencies in space. Two Creeks shows a surplus in space; however, this facility has a multi-purpose function.

3. Food Service Seating

Food service seating at Snowmass is provided in the Snowmass Base Village, the Snowmass Village Mall and in nine separate locations on the mountain.

A key factor in evaluating restaurant capacity is the turnover rate of the seats. A turnover rate of 2 to 5 times throughout the day is the standard range utilized in determining restaurant capacity. Sit-down dining at resorts typically results in a lower turnover rate, while "fast food" cafeteria-style dining is characterized by a higher turnover rate. Grab-and-go services can have a turnover rate as high as 7 times throughout the day. Furthermore, weather has an influence on turnover rates at resorts, as on snowy days guests will spend more time indoors than on sunny days. Based on observed operating characteristics at Snowmass, an average turnover rate of 3.8 was used for the various facilities in this MDP, as shown Table IV-8.

As shown in the following table, the Elk Camp and Sam's restaurants have a deficiency of seats. Also note Elk Camp and High Alpine restaurants are highly utilized guest service seating locations accounting for 60 percent of all on-mountain indoor seating at Snowmass.

The surplus of seats in the Base Village are a result of the various restaurants that are associated with hospitality functions or non-ski related village visitation. The surplus of seating at Spider Sabich Picnic Area (all outdoor seats) reflects its dual-function for staging large events.

On foul weather days, when eating outdoors is impractical, indoor seating at Snowmass can accommodate 10,100 skiers. On those days, either visitation is generally lower than the CCC, or many skiers are enjoying a powder day and not inclined to eat lunch in a restaurant or eat later in the day.

Table IV-8. Recommended Restaurant Seating - Existing Conditions

	Base Village	Two Creeks Café	Elk Camp Rest.	Sam's Rest.	Ullrhof Rest.	High Alpine Rest.	Spider Sabich Picnic Area	Lynn Britt Cabin	Lizard Lodge	Up 4 Pizza	Total Resort
Lunchtime Capacity (CCC + other guests)	4,230	495	2,236	801	1,238	2,708	165	167	247	548	12,834
Average Seat Turnover	3.5	6.0	4.0	2.0	3.0	3.5	4.0	2.0	2.5	7.0	3.8
Existing Indoor Seats	1,084	81	395	180	259	678	0	65	80	60	2,882
Existing Outdoor Seats	640	56	150	50	250	150	250	50	50	40	1,686
Existing Total Seats	1,724	137	545	230	509	828	250	115	130	100	4,568
Required Seats	1,208	83	559	401	413	774	41	84	99	78	3,738
Difference	516	55	-14	-171	96	54	209	32	31	22	830
Existing seating capacity (existing seats x turnover)	6,034	822	2,180	460	1,527	2,898	1,000	230	325	700	16,176

Source: SE Group
CCC + other guests is accounting for the non-skiing guests who come to Snowmass with larger groups or families that use the guest service facilities just as the skiing guest does. Other guests are being calculated at 3% of CCC.

F. EXISTING PARKING CAPACITY

Parking for Snowmass guests is available across multiple lots as detailed in Table IV-9.

Vehicle occupancy was assumed to be 2.5 people per car for an average car occupancy at Snowmass, which aligns with national averages of 2.3 to 2.8 people per car and historic counts.

Using this average vehicle occupancy, there is a parking capacity for 10,403 guests, not including the RFTA Intercept P&R Lot. This represents 83% of the existing CCC. When including the RFTA Intercept P&R Lot, Snowmass has parking capacity for 14,903 guests, representing 119% of existing CCC.

Guests can also arrive by shuttles and buses. The Roaring Fork Transportation Authority (RFTA) provides a free skier shuttle bus to all four ASC ski mountains, a service that is subsidized by ASC. RFTA also stops at several Park and Ride locations, providing free satellite parking—most notably at the Brush Creek Intercept Lot (listed below). The City of Aspen offers a free shuttle service from TOSV, and TOSV provides a free transit service within the community.

The combination of parking capacity and transit options provides sufficient access capacity to Snowmass.

G. EXISTING RESORT OPERATIONS

1. *Ski Patrol/First Aid*

Snowmass has Ski Patrol facilities located in the base area, as well as duty stations at the top of the Elk Camp, High Alpine, Big Burn, and Sam's Knob lifts. From these facilities, ski patrol has access to all points of the developed trail network. The main first aid clinic is located in the Snowmass Base Village.

Table IV-9. Parking Capacity – Existing Conditions

Parking Area	Spaces	Year Built
Base Village Parking Structure	626	2007
TOSV Numbered Lots	1,000	1967–1975
Two Creeks Lot	400	1997
Town Park Lot	325	1975–2007
Rodeo Lot	100	1975–2007
Black Saddle Lot	150	2004
ASC Maintenance Facility	30	2001
Divide Lot	30	1997–2004
Parking associated w/1,000+ lodging units not associated w/numbered lots (approx. 1.5/unit)	1,500	1967–2021
RFTA Intercept P&R lot	1,800	2000
TOTAL	**5,961**	

Source: Snowmass

2. *Snowmaking Coverage*

a. Snowmaking System

The snowmaking system at Snowmass covers approximately 329 acres of terrain, as shown on Figure IV-2. On several runs (e.g., *Funnel* and *Max Park*) snowmaking coverage does not extend from edge to edge. Typically starting in the beginning of November and operating through the end of December, the system has a capacity of 4,200 gallons per minute (gpm) of water.

The following table summarizes the snowmaking system's statistics, averaged over the past five years of operation

Table IV-10. Snowmaking Operations – Existing Conditions

	Six-Year Average (2015 to 2021)
Total operational hours	550–650
Water consumption (Gallons)	99,270,000
Power consumption (KWH)	1,796,000
Total acre feet produced	377
Acre feet produced for terrain park features	60–90

b. Water Supply

Snowmass primarily obtains its snowmaking water supply from the 215-acre foot Ziegler Reservoir, owned and operated by the Snowmass Water and Sanitation District (SWSD). Ziegler Reservoir is an integral part of the SWSD's water supply system which includes numerous water rights. Among these, the Snowmass Creek Pipeline is decreed for an amount of 6 cfs for snowmaking uses from November 1 to December 31 (Water Court Case Nos. 92CW0307, 02CW0024, and 09CW0038). A flow rate of 6 cfs over the 60-day snowmaking withdrawal term equates to a total water volume of 232,674,078 gallons, or 714 acre-feet.

Machine-made snow has a typical density of 0.55 (i.e., it takes 0.55 acre-ft of water to make one foot of snow over one acre). Snowmass snowmaking operations cover 329 acres of terrain with an average coverage depth of about 18 inches, which equates to a total volume of 269 acre-feet of water. Additionally, snow production for the terrain parks requires, on average, about 41 acre-feet of water, for a total average annual volume of 310 acre-feet of water, or 101 million gallons of water per year, which closely matches its historical annual water consumption of just over 99 million gallons. Accordingly, Snowmass snowmaking operations is currently consuming just over 40% of its decreed water right, with an average consumption rate of less than 2.6 cfs over the 60-day term of its water withdrawal.

The Snowmass snowmaking system includes three on-mountain storage ponds: Sheer Bliss, Trout Hook, and Burlingame. These ponds start the snowmaking season at full capacity as a result of seasonal run-off and/or available streamflow. As a key part of the overall snowmaking infrastructure, these ponds are drained and filled several times during the course of the snowmaking season as necessary with system water from Ziegler Reservoir. Typically, refilling of the on-mountain storage ponds takes place during periods of warm temperatures when pumped water cannot be processed into snow.

Sheer Bliss and Trout Hook ponds are located on the east side of the mountain and provide water for snowmaking coverage on ski trails to the east, while Burlingame pond and Ziegler Reservoir are located on the west side of the mountain and provide water for snowmaking coverage on ski trails to the west. Additional water storage on the east side of the mountain is desirable as it would provide capacity and flexibility to make better use of the existing snowmaking system once Sheer Bliss and Trout Hook ponds are drained at the start of the snowmaking season.

Records maintained by the Snowmass snowmaking personnel indicate that during the snowmaking season (November 1st through December 31st), there are approximately 800 hours when temperatures are sufficient for snowmaking. On average, the Snowmass snowmaking crew complete their snowmaking operations in approximately 515 hours, or 65% of the total time typically available.

Man-made snow is currently applied on approximately 329 acres of ski trails. Thus, the average ratio of pumped water to acreage of ski trails with snowmaking is 0.93

acre feet/acre. A portion of the volume of water pumped during snowmaking operations is subject to losses due to evaporation, sublimation, and evapotranspiration (watershed losses). Mostly, these losses depend upon air temperatures during the snowmaking process, the volume of water pumped, and the type of year (dry, average, or wet). Calculations conducted for the study watersheds show that snowmaking water losses during average year conditions total approximately 26%.

3. Grooming

Snowmass grooms approximately 500 to 700 acres of terrain per night, including all of the beginner and novice terrain, at least two intermediate trails per lift, along with some selected upper ability-level areas. As is typical with most ski areas, terrain is groomed in an eight-hour shift and a ten-hour shift , with approximately 5 to 9 acres groomed per vehicle, per hour.

Snowmass operates eight groomer cats, two winch cats, two terrain park specific cats, and one small cat for the tubing area and narrow traverses.

4. Maintenance Facilities

Table IV-11 details the uses and sizes of the various maintenance facilities at Snowmass.

Table IV-11. Maintenance Facilities – Existing Conditions

Building/ Location	Year Built	Total Square Footage	Number of Maintenance Bays	Attributes*	General Condition
Control-Compressor Building/Mid-Mountain	1997	6,278	1	EL, RR, M, S, WS	Very Good
Primary Pumphouse	1997	1,440	1	M	Very Good
Alpine Springs Pumphouse	2008	912	1	M	Very Good
Elk Camp VMF	2001	11,850	10	A, EL, RR, M, S, WS	Very Good
Divide VMF	2002	14,810	2	A, EL, RR, M, S, WS, LO (includes shipping/receiving, restaurant food storage/ transfer, dumpsters, 6 employee housing units on 2nd floor	Very Good
Elk Camp Lift Maintenance	2006	2,390	1	RR, M, S, LO	Very Good
Sam's Knob Shop Area	1980/2021	4,280	2	RR, M, S, ES, LO, RR	Very Good / Fair
Alpine Springs VMF	1978	2,000	1	Fuel Storage, M, S	Fair

*KEY:
A = administration; EL = employee lockers/lounge; RR = restrooms, M = mechanical, S = storage (parts and supplies), WS = welding shop, CS = carpentry shop, ES = electrical shop, PS = plumbing shop, LO = lift operations maintenance, VMF = vehicle maintenance facility.

5. Power and Other Utilities

All electric power is supplied by Holy Cross Energy, which maintains and upgrades transmission lines and transformers as necessary. Grid maps can be found at holycross.com. In addition to main transmission lines, there is a network of secondary lines (owned by ASC) that branch off from the Holy Cross transformer locations to connect to various on-mountain facilities.

Natural gas is provided by Source Gas, with underground gas lines servicing the following on-mountain facilities: Elk Camp Restaurant, Elk Camp vehicle maintenance facility, Sam's Restaurant, Ullrhof Restaurant, Spider Sabich Race Arena, Lynn Britt Cabin, and Lizard Lodge. There is currently no natural gas service at the High Alpine & Up 4 Pizza Restaurants.

Underground communication and fiber optic (i.e., telephone) lines connect to all on-mountain facilities, lift terminals, and emergency phones. The system consists of main trunk lines extending up both the east and west sides of the mountain, with branch lines to existing facilities. Overhead communication lines exist along lift lines, located on lift towers. Some of these include fiber optic cables for high-speed data communication.

Radio communication systems allow for communication between on-mountain personnel. Various antennae and repeaters exist on the roofs of certain patrol buildings, restaurants, and lift terminals to support radio communication across the mountain. Free standing towers, antennae and repeaters also exist around the mountain.

6. Culinary Water and Sewer

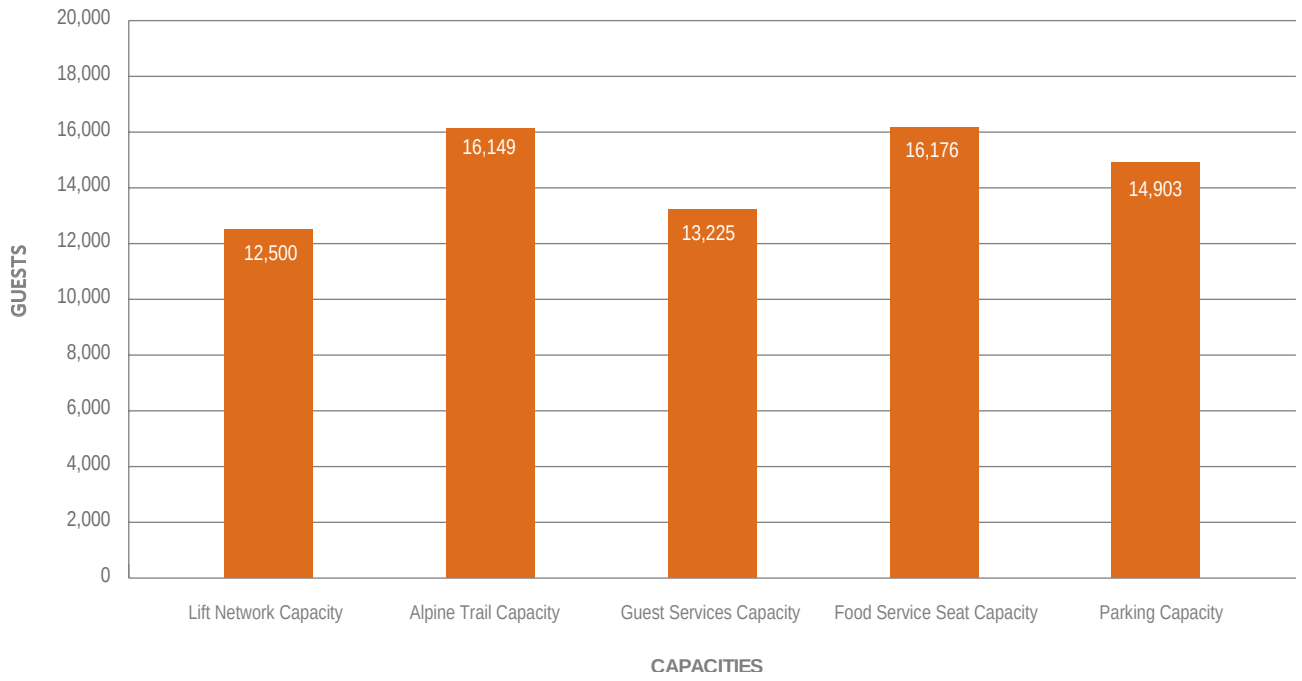
Table IV-12 details the uses and sizes of the domestic water system at Snowmass.

With the exception of Up 4 Pizza (which uses a composting toilet system), Snowmass on-mountain facilities are tied into the municipal Snowmass Water and Sanitation District sewer system, which has the ability to provide for current and projected needs.

Table IV-12. Domestic Water System – Existing Facilities

Building/Location	Public or Private System	Source of Water	Capacity of Source (gpm)	Type of Storage	Storage Capacity (gallons)	Annual Consumption (gallons)	Adequacy of Water Supply
Garret Gulch Pump Station (serves Sam's, Ullrhof, CB	Private	Surface -West Fork Brush Creek	100gpm +	Above ground concrete	60,000	1,300,000	Adequate
Sandy Park Diversion (serves EC Restaurant and VMF)	Private	Surface – East Fork Brush Creek	50gpm +	Below ground steel	10,000	1,000,000	Adequate
Sheer Bliss Diversion (serves High Alpine)	Private	Surface -West Fork Brush Creek	100gpm +	Below ground steel	10,000	1,000,000	Adequate
Lizard Lodge, Sabich, Lynn Britt	Public	Snowmass Water and Sanitation District	100+ gpm	NA	NA	300,000	More than adequate
Up 4 Pizza	Private	Hauled by Snowcat	NA	Below ground concrete	2,000	40,000	Barely adequate

Chart IV-2. Resort Balance – Existing Conditions



Source: SE Group

H. RESORT CAPACITY BALANCE AND LIMITING FACTORS

The overall balance of the existing resort is evaluated by calculating the capacities of the resort's various facilities and comparing those facilities to the resort's CCC. The above discussed capacities are shown in Chart IV-2.

Chart IV-2 indicates that Snowmass' facility capacities are well-balanced. The surplus of terrain network capacity is reflected in low skier densities at Snowmass, does not present a particular issue, and is certainly not negative from guests' standpoint. The food service seat capacity includes outdoor seats, and if only indoor seats are counted the capacity drops to 10,100 skiers. However, on bad weather days visitation is generally lower than the CCC, and/or skiers are enjoying the powder and less inclined to eat at a restaurant over the lunch period. When including the RFTA Intercept Lot (1,800 parking spaces) in the 14,903 guests parking capacity plus other transit and bus service capacity, there is sufficient capacity to access the resort during peak days when visitation is higher than the CCC.

I. SUMMER OPERATIONS

1. *Summary of the Existing Summer and Multi-Season Guest Experience*

The existing summer guest experience at Snowmass is characterized by more developed recreational opportunities on TOSV lands, and dispersed opportunities on NFS lands. On NFS lands, mountain biking is one of the most popular activities with guests. The combination of classic cross-country biking trails, such as the Government Trail, and newly developed gravity and "flow" trails make Snowmass very popular with various groups of mountain bikers. Families tend to participate in activities with lower risk, such as scenic chairlift rides and hiking.

In general, there is a lack of adventurous, exploratory activities on NFS lands that do not require a significant learning curve, or a high level of skill, in order to participate. Developing these types of opportunities will encourage guests, and youth in particular, to learn about the natural world that exists around them within the National Forest.

Summer visitation at Snowmass is generated by the activities and events that exist not only in Snowmass, but also in Aspen and the Roaring Fork Valley as a whole. The recreational activities offered on NFS lands at Snowmass may attract locals and those already visiting the area, but generally do not generate visits in-and-of themselves. In other words, few visitors are coming to Snowmass solely for the recreational activities offered on NFS lands.

Existing summer activities are shown on Figure IV-3 and existing summer zones on Figure IV-4.

2. Existing Summer and Multi-Season Facilities

a. Snowmass Village (Private Lands)

TOSV offers a variety of recreational opportunities for guests, including hot air ballooning, road biking, mountain biking, hiking, rafting, bowling, rodeo, fly fishing, a recreation center, yoga, golf, tennis, and paragliding, among others. There are also events scheduled throughout the summer, including the Snowmass Balloon Festival, Snowmass Wine Festival, Thursday Night Concerts, and Jazz Aspen-Snowmass Labor Day Experience. The TOSV Tourism Department is responsible for marketing events within the town, but also markets events occurring on NFS lands and in surrounding areas.

b. Elk Camp

Elk Camp is the on-mountain hub of existing summer and multi-season activity on NFS lands at Snowmass. A majority of guests accessing Elk Camp ride the Elk Camp gondola, though an increasing number are arriving via mountain biking or hiking trails. The Elk Camp Restaurant is open daily in the summer and offers a variety of food options for guests. As previously stated, there is currently a deficiency in restaurant seating/guest use space at the Elk Camp Restaurant, resulting in a crowded experience during the summer and winter.

The Elk Camp area offers a variety of adventure based, exploratory activities such as the Lost Forest Treeline Trial Challenge Course, the Rugged Ascent Climbing Wall, the Breathtaker Alpine Coaster, Fishing at Trout Hook Pond, and the Lost Forest Canopy Run Zipline Tour. These activities allow new visitors of the National

Forest to experience the outdoors in a controlled setting that does not require a significant learning curve, or a high level of skill. The Lost Forest Treeline Trial Challenge Course has become one of the more popular summer activities at Snowmass; however, ASC has identified a demand for additional beginner and intermediate courses as well as a children's course. Developing these types of opportunities will encourage guests, and youth in particular, to learn about the natural world that exists around them within the National Forest.

Snowmass currently offers a program called "Farm to Table Tuesdays" on select Tuesday evenings in June, July, August and September, at Elk Camp. This event offers special activities in addition to what is usually offered, including dinner, campfire, live music, line dancing, movies, and activities for children. This event is popular with both summer guests of Snowmass and surrounding resorts.

Outdoor live music is restricted to small-scale acts (fewer than 500 people) and usually occurs in conjunction with a special event. In the summer, live music moves inside the Elk Camp Restaurant or concludes by 9:00 p.m.

The kid's play spaces provide a safe environment for children's play and include sand pits, small ladders, climbing apparatus, and other equipment.

3. Lifts

Snowmass operates both the Elk Camp gondola and lift from June through September. The Elk Camp gondola accesses the facilities at Elk Camp, disc golf course #1, the Rabbit Run Nature Walk (led by the Aspen Center for Environmental Studies [ACES]), several hiking and mountain biking trails, and the Elk Camp Restaurant. The top of the Elk Camp gondola is located at 9,805 feet. Guests can also ride the Elk Camp lift to 11,325 feet, where they can access additional hiking and mountain biking trails, and are treated to views of the Roaring Fork Valley, Maroon Bells, and surrounding 14,000-foot peaks. Both the gondola and the chairlift are open as weather allows.

Generally speaking, mountain resorts with a restaurant, or other recreational amenities at the top of a scenic lift, typically experience higher summer and shoulder season utilization than resorts without specific activities. The quality of scenery also plays a large role in determining the overall success of the program. The scenery from the top of the Elk Camp lift in particular is some of the best in the state. Additional activities could encourage further exploration and enjoyment of the WRNF.

4. Mountain Biking

Mountain biking has become one of the most popular activities at Snowmass over the past two decades. There are numerous mountain biking trails spread across the SUP area, including NFS trails and those built by Snowmass trail crews. In total, there are more than 50 miles of trails and service roads open to mountain biking that are either wholly, or partially, on NFS lands within the Snowmass SUP area. Guests can purchase daily or season passes for bike haul on the Elk Camp gondola and lift, or they can access upper-mountain trails from the base areas.

Snowmass strives to cater to three types of mountain biking experience—traditional cross-country (XC), downhill, and all-mountain/enduro. Each of these categories has its own unique equipment and desired experience, and thus its own trail design needs.

Traditional XC riders generally utilize lighter equipment with smaller suspension systems, and typically climb uphill under their own power (i.e., they typically do not use lift service). The existing trail network at Snowmass serves this market well. The "Blast the Mass" XC course utilizes the Village Bound, Cross Mountain, Government, and Tom Blake trails to create a demanding loop. Trails within the Snowmass SUP area also connect to other area trails (e.g., Rim Trail, Sky Mountain Park) to create longer ride opportunities.

Downhill and all-mountain/enduro riders both fall into the category of gravity riders. Bikes designed for downhill use typically include longer-travel suspension designed to descend steep, rough terrain without the need to ascend for long periods. Downhill riders often wear protective equipment, such as full-face helmets, long-sleeves, and body armor. Generally, downhill riders utilize lifts or shuttles to transport them uphill. They seek opportunities to test their abilities on terrain features such as jumps, drops, wall rides, and rock gardens.

A growing category of riders are considered all-mountain/enduro riders. This category blends XC and downhill, with a focus on more downhill riding. They utilize lifts, but are not averse to ascending trails.

The majority of mountain biking trails within the Snowmass SUP area are designed for XC use. About 27 miles of trails (not including service roads) are dedicated to lift-served gravity riders, as compared to 34 miles of XC trails. As these categories continue to grow, additional trail development will be necessary to provide the level of variety sought by these riders. Feedback from mountain biking guests indicate the need for additional gravity terrain that is suitable for all ability levels.

Snowmass offers a diverse trail network suitable for most ability levels. In recent years, Snowmass has constructed trails for all ability levels, including a beginner skills park and flow trail, intermediate cross-country and flow

trails, advanced downhill, freeride trails and specifically constructed special event downhill trails. While some of the trails are open only to mountain bikes, a majority are multi-use trails also open to hikers and equestrian use. Additional mountain biking trails, including the Rim Trail, exist outside the Snowmass SUP area.

As shown in Table IV-13, there is a notable lack of beginner ability-level mountain biking terrain. There is also a deficiency in gravity trails for all ability levels. As the mountain biking trails system is expanded, Snowmass plans to provide a distribution of trails to meet the needs and expectations of guests of all ability levels.

Table IV-13. Mountain Bike Trails by Ability Level - Existing Conditions

Trail Name	Ability Level	Type	Length (miles)
Animal Cracker	Most Difficult	Gravity	1.5
Battle Axe	Most Difficult	Gravity	1.0
Beginner Loop	Easier	XC	0.6
Burlingame	More Difficult	XC	0.6
Connector	More Difficult	XC	1.2
Cowboy Coffee	Most Difficult	Gravity	2.0
Cross Mountain	More Difficult	XC	2.9
Ditch	More Difficult	XC	2.1
Dust Bunny	More Difficult	Gravity	0.9
Expresso	More Difficult	XC	1.7
EZ -PZ	Easier	Gravity	0.5
French Press	More Difficult	Gravity	4.5
Gargamel	More Difficult	Gravity	0.5
Gonzo	Most Difficult	Gravity	0.8
Government	Most Difficult	XC	9.5
K.A.R.*	Most Difficult	XC	0.8
Lemon	More Difficult	Gravity	0.5
Luge*	More Difficult	XC	1.1
Meadows 3	Easier	XC	0.3
Papa Smurf	More Difficult	Gravity	0.3
Parker's Plunge*	Most Difficult	XC	0.9
Powerline	More Difficult	XC	0.7
Sequel	More Difficult	XC	1.0
Snowmass Way*	More Difficult	XC	2.1
Squeezy	Easier	Gravity	0.5
Stark's	More Difficult	XC	1.1
Tom Blake	More Difficult	XC	2.0
Tom Blake Ridge	More Difficult	XC	1.7
Valhalla*	Most Difficult	Gravity	2.8
Valkyrie	More Difficult	Gravity	0.9
Vapor*	Most Difficult	Gravity	3.3
Verde*	Easier	Gravity	3.8
Viking	More Difficult	Gravity	2.7
Village Bound	More Difficult	XC	3.1
West Government	Most Difficult	XC	0.6
TOTAL			**60.5**

* indicates trails that are only open to mountain bikes

5. Hiking

Both guided and non-guided hiking opportunities are available at Snowmass. ACES offers daily hiking tours at the top of the Elk Camp gondola (on the Rabbit Run Nature Walk) and at the Village Mall (on the Snowmass Nature Trail Walk). These tours vary in length and difficulty, and feature interpretation by qualified naturalists. They provide opportunities for guests to experience the National Forest and learn about the plants and wildlife that inhabit it.

Approximately 35 miles of trails open to hiking exist across the SUP. Note that this does not include mountain service roads, which are also open to hiking. Table IV-14 shows the existing hiking trail distribution by ability level. Several of these trails are only open to hiking, but a majority are open to multiple uses, including mountain biking and equestrian use. There is a general lack of locational diversity in hiking trails. Specifically, existing trails do not access more remote portions of the Snowmass SUP area. Many miles of hiking trails also exist outside the Snowmass SUP on NFS lands, including in the surrounding Maroon Bells-Snowmass Wilderness.

Hiking trails within the SUP area supplement those that exist on NFS, TOSV, and other lands in the surrounding area. The Government Trail provides a vital connection to East Snowmass Creek trail to the west, and other hiking trails to the east. These connections are essential to the overall trails system in the Roaring Fork Valley and are included in WRNF Forest-wide guidelines for trail development.[22]

Table IV-14. Hiking Trails by Ability Level - Existing Conditions

Trail Name	Ability Level	Length (miles)
Beginner Loop	Easier	0.6
Burlingame	More Difficult	0.6
Connector	More Difficult	1.2
Cross Mountain	More Difficult	2.9
Discovery	Easier	2.0
Ditch	More Difficult	2.1
Expresso	More Difficult	1.7
Government	Most Difficult	9.5
Rabbit Run*	Easier	0.7
Sierra Loop*	More Difficult	1.9
Powerline	More Difficult	0.7
Sequel	More Difficult	1.0
Stark's	More Difficult	1.1
Tom Blake	More Difficult	2.0
Tom Blake Ridge	More Difficult	1.7
Summit*	Most Difficult	1.1
Vista*	Most Difficult	2.1
Village Bound	More Difficult	3.1
West Government	Most Difficult	0.6
TOTAL		**36.6**

* indicates trails that are only open to hiking

22 White River National Forest Land and Resources Management Plan – 2002 Revision, p. 2-40.

6. Miscellaneous Activities

Two 18-hole disc golf courses are open to the public at Snowmass. One disc golf course exists in the Elk Camp Meadows area. The second course begins near the Spider Sabich area and finishes just above the Snowmass Village Mall, and is located entirely on private lands. Snowmass offers disc golf rentals in both the Snowmass Base Village and Snowmass Village Mall. Disc golfers may pay to ride the gondola to the beginning of Course #1, or may hike to the start of the course.

Paintball is available on private lands in the Spider Sabich area & in a field near Scooper Cabin, with groups meeting at the base of the Elk Camp gondola twice per day. Two paintball venues, each capable of accommodating about 30 people at a time are available. A climbing wall and "Eurobungy" are also offered on private lands near the Snowmass Village Mall.[23]

Snowmass also offers numerous private recreational outings through the Ski & Snowboard Schools in the Winter and Camp Aspen Snowmass in the Summer. Activities include camping (at the top of the Elk Camp gondola), mountain boarding on service roads, fishing at Trout Hook Pond, and options for guests to design their own adventure.

Commercial Jeep tours are offered primarily through Blazing Adventures and their outfitter/guide permit. ASC also offers guest shuttle services on mountain access roads, both on public and private lands, for various activities such as private fishing tours, mountain boarding, paintball, zipline tour, and other special events.

7. Summer and Multi-Season Guest Service Facilities Use

The Snowmass Base Village is the center of summer activities at Snowmass. Equipment rental, ticket and retail sales, food and beverage services, restrooms, and various other guest service facilities are available in the Snowmass Base Village. It also provides primary access to the National Forest via the Elk Camp gondola.

In the summer months (typically between mid-June and early September), on-mountain services are provided at the Elk Camp restaurant, which is open daily. The restaurant offers food service, restrooms, both indoor and outdoor table seating, and broad views to surrounding mountains. As mentioned above, Elk Camp is also open certain evenings throughout the summer for special events, such as Farm to Table Tuesdays.

8. Existing Resort Summer Operations

In addition to operations in the Elk Camp area, including the Elk Camp facility, gondola, and lift, various other resort operations take place throughout the summer. Maintenance crews work on the mountain daily, implementing summer construction plans, lift and trail maintenance, facility and infrastructure maintenance, and other tasks related to offering a quality summer experience and preparing the mountain for the winter season.

23 A Eurobungy features a large trampoline, and attaches participants to a harness connected to bungy ropes on each side, allowing for a wide variety of airborne aerobatics.

V. Previously-Approved Projects, Not Yet Implemented

The projects detailed in this section have been previously approved, but have not yet been implemented. It is anticipated that the majority of these projects will ultimately be implemented as capital for on-mountain improvements becomes available. Prior to project implementation, the Forest Service will review project consistency with 2002 Forest Plan standards and guidelines and determine if additional analysis is warranted due to changed environmental and social conditions, and/or new planning and regulatory guidance. Previously-approved, not yet implemented projects are also discussed in Chapter VI and incorporated into the planning. Applicable approvals are contained in the following documents:

1994 Snowmass Ski Area, Final EIS, ROD

2000 Snowmass Ski Area, CE, DM

2006 Snowmass Ski Area Master Plan Amendment Ski Area Improvements, EA, DN/FONSI

2006 Snowmass Ski Area Elk Camp Beginner Park and Summer Multiple Use Trails, EA, DN/FONSI

2011 Aspen Skiing Company Forest Health Projects EA, DN/FONSI

2013 Burnt Mountain Egress Trail EA, DN/FONSI

2014 Snowmass Ski Area New/Realigned Mountain Bike Trails, CE, DM

2015 Snowmass Ski Area Ski Trail Enhancements and High Alpine Lift Replacement, EA, DN/FONSI

2017 Snowmass Ski Area Multi-Season Recreation Projects EIS, ROD

2019 Snowmass Ski Area Snowmaking and Elk Camp Meadows Projects EA, DN

The 1994 Snowmass Ski Area, Final EIS, ROD (1994 ROD) approved several of the projects discussed in this chapter, including the Burnt Mountain lift, Burnt Mountain Trails/Glading, and snowmaking. While resource analysis was completed and these projects are considered previously approved, it is understood that certain resource conditions (e.g., watershed and wildlife) may have changed since the 1994 ROD was published. Therefore, additional site-specific analysis will likely be required prior to implementation of these projects.

A. LIFTS

1. Burnt Mountain Lift

The Burnt Mountain lift was approved as part of the 1994 ROD with a vertical rise of 2,700 feet and an uphill capacity of 2,400 pph. The lift was approved to run from the intersection of the *Long Shot* and *East Branch* trails to just below the summit of Burnt Mountain. The relocated bottom terminal was approved in the 2000 Snowmass Ski Area, CE, DM (2000 CE). Top and bottom terminal access road were also approved in order to facilitate construction and maintenance of the approved Burnt Mountain lift.

B. TERRAIN

1. Burnt Mountain Trails/Glading

The 1994 ROD approved terrain development in the Burnt Mountain area, including 115 acres of full clearing, 5 acres of full clearing/grading, 195 acres of glading, and 35 acres of snowfield skiing. Subsequent NEPA analyses in 2006 and 2013 resulted in additional implementation of Burnt Mountain projects. To date, 30 acres of full clearing, 2 acres of full clearing/grading, and 55 acres of glading have been implemented.

The 2013 Burt Mountain Egress DN/FONSI approved the creation of "an improved egress trail that provides the necessary width and snow surface to move skiers safely from the Burnt Mountain Glades, back into the developed trail network." The approved Alternative 3 identified "a combination of a narrower trail and gladed terrain to facilitate public and emergency egress." This project would be implemented to provide improved terrain egress.

2. 2015 Glading Projects

The 2015 DN/FONSI approved six areas of glading across the resort, totaling approximately 84 acres. Of this, approximately 11 acres remain unimplemented. About 30% to 40% removal of tree basal area was approved. The purpose of the glading was to provide more diverse skiing opportunities for lower ability-level skiers. Glades approved in the 2015 DN/FONSI include *Sneaky's*, *Freefall/Glissade*, *Castle*, *Long Shot*, and *Upper Green Cabin*.

C. SNOWMAKING

As part of the 1994 ROD, approximately 220 acres of snowmaking coverage was approved on NFS lands, as well as 80 acres of snowmaking on private lands. This approved coverage supplemented 15 acres of existing snowmaking coverage on NFS lands and 45 acres existing snowmaking coverage on private lands. Of the 360 acres of original (installed before 1994) and approved coverage on NFS and private lands, no more than approximately 31 acres remain to be implemented. In the past 30 years since the 1994 ROD was approved and implementation began, changes in mapping technology and data collection methodology have created inconsistency regarding the measured versus actual acreages of previously approved and not yet implemented snowmaking coverage areas. Due to this uncertainty, combined with the age of the analysis completed for these previously approved snowmaking projects, it is expected that these projects may require supplemental NEPA analysis prior to implementation.

D. GUEST SERVICES

In March 2022, the WRNF released a Decision Memo (DM) which found a series of small projects to be categorically excluded from a full environmental analysis (EA) under NEPA. Specifically, this DM authorized a 2.500 square foot expansion of the deck at the Elk Camp restaurant, as well as renovation or demolition and in-place replacement of the Elk Camp Wildlife Center and Ski Patrol headquarters. The Elk Camp deck expansion is schedules to be completed in the summer of 2022.

E. MOUNTAIN BIKING TRAILS

1. Meadows Skills Center

A mountain biking skills park was approved as part of the 2014 MTB DM in the Elk Camp Meadows area. The approved skills park would feature additional spurs and terrain features incorporated in the Beginner Loop trail. A toddler loop for small bicycles without pedals was also approved. Total disturbance for this project was approximately 0.7 acre.

2. Trail 15

Trail 15 was approved as part of the 2017 Snowmass Ski Area Multi-Season Recreation Projects EIS/ROD. This trail was approved as a 0.5-mile-long hybrid gravity trail which will descend between Cowboy Coffee trail and French Press trail. The trail is approved to begin at the upper Vapor Trail/French Press junction and terminate at a junction with the Cowboy Coffee near the beginning of the Dust Bunny trail.

F. SUMMER ACTIVITIES

1. Zip Line

In the 2015 Snowmass Ski Area Multi-Season Recreation Projects EIS, a zip line was approved to begin under the Elk Camp gondola across the *Funnel* ski trail from the zip line canopy tour's point of termination and end near the Elk Camp Gondola Turn Station. The zip line was approved to be approximately 3,000 feet long.

G. FOREST HEALTH PROJECTS

The 2011 Aspen Skiing Company Forest Health Projects, EA, DN/FONSI (2011 DN/FONSI) analyzed a variety of vegetation treatments to be implemented on NFS lands within the SUP boundaries of the four ASC-owned ski resorts, including Snowmass, over a ten-year period.

It is understood that there will be overlap between the planned projects included in this MDP and the treatments approved in the 2011 DN/FONSI. Specifically, the proposed treatments may conflict with, or enhance, the summer activities discussed in Chapter VI. Any overlap between planned projects and forest health treatments will be addressed during site-specific NEPA analysis.

H. PREVIOUSLY-APPROVED PROJECTS MATRIX

Table V-1. Previously-Approved Projects, Not Yet Implemented

Project	Date Approved	Authorized, Not Yet Implemented	Approval Reference
Lifts			
Burnt Mountain Lift	3/8/1994	--	1994 EIS/ROD 2000 CE/DM
Terrain			
Burnt Mountain Trails/Glading 5 acres, full clearing/grading 115 acres full clearing 195 acres glading 35 acres additional	3/08/1994 2/16/2006 9/26/2013	3 acres clearing/grading; 85 acres full clearing; 140 acres glading; 35 acres additional – pending additional site specific NEPA	1994 EIS/ROD 2006 EA, DN/FONSI 2013 EA, DN/FONSI
2015 Glading Projects	_	55 acres glading	2015 EA, DN/FONSI
Snowmaking			
Snowmaking (220 acres on NFS Lands, and 80 acres on private lands.	3/8/1994	Up to 100 acres on NFS lands; 18 acres on private lands; 118 acres total - To be confirmed in final MDP	1994 EIS/ROD (final implementation requires site specific NEPA)
Guest Services			
Elk Camp Deck Expansion	3/21/2022	2,500 sq. ft. deck addition to existing Elk Camp Restaurant structure; replacement or remodel of Elk Camp Wildlife Center	2022 Elk Camp DM
Mountain Biking Trails			
Meadows Skills Center	5/28/2014	skills park – 1.9 acres of disturbance	2014 MTB CE, DM
Summer Activities			
Zip line	6/22/2017	3,000-foot zip line on private and NFS lands near Funnel trail	2015 Multi-Season Recreation Projects EIS/ROD
Other			
Aspen Skiing Company Forest Health Projects	12/9/2011	Ongoing	2011 EA, DN/FONSI

VI. Upgrade Plan

This MDP has been prepared in compliance with the terms and conditions of the Forest Service-issued 40-year Term SUP for Snowmass. As stated previously, Forest Service acceptance of this MDP does not convey approval of any projects contained herein. Implementation of any projects on NFS lands within the Snowmass SUP area is contingent upon site-specific environmental review and approval via NEPA. Planned projects contained in this Master Plan are conceptual in nature and may be refined in the future, as long as the original intent of a planned project is maintained.

The Upgrade Plan is depicted on Figures VI-1 through VI-5.

A. SUMMARY

This Upgrade Plan focuses on the intentions of Snowmass to enhance the total guest experience through a series of improvements. This would be achieved by implementation of strategic enhancements across the existing SUP area.

Snowmass strives to exceed its goals and objectives for providing its guests with world class experiences. The capital investments made since, and in accordance with the 2015 SMMP, are indicative of that intent. The timeline is estimated and will ultimately be based on NEPA approval, economic circumstances, ASC priorities, and guest preferences, among other factors.

Several terrain improvements are planned as part of this MDP. New trails and circulation routes are planned, primarily in the Alpine Springs terrain area. In addition, previously approved and new glading is planned in terrain serviced by the Alpine Springs, High Alpine, Sheer Bliss, Big Burn and Sam's Knob lifts. Finally, a new beginner terrain area, "Dawdler Bowl," is planned to be developed and graded near the Village Express mid-station.

In addition to the installation of the previously approved Burnt Mountain lift, several lift network improvements are contemplated in this analysis. Most notably, the Coney Glade lift is planned to be replaced with the new Coneygame lift, which will extend from the Snowmass Mall area, through a turn station near the former Burlingame lift top terminal, up to the site of the existing Coney Glade top terminal. Additionally, several lifts are planned to be upgraded or replaced in their existing alignment. Specifically, Alpine Springs lift and Elk Camp lift are both planned to be upgraded to detachable six -person lifts, Village Express is planned to be upgraded to a gondola, and the Cirque lift is planned to be replaced with a newer surface lift system.

Two new surface lifts are planned to be installed adjacent to the Village Express mid-station to service the new Dawdler Bowl terrain. A new surface lift is planned to be installed from the Wine Cabin to the top of Sam's Knob to enable early season operations in the Big Burn terrain area. Additionally, an existing surface lift will be moved

to Assay Hill to replace the learning area located adjacent to the Kid's Cave.

An expansion is planned for Sam's Restaurant and deck. Both expansions will enable the improvement of nighttime services and summer operations. A new restaurant is planned in the Elk Camp lift pod off of *Gunner's View* trail. Improvements are also planned for the Lynn Britt Cabin and the Spider Sabich picnic area. Ullrhof Restaurant is also planned for an expansion and redevelopment. In the base of the Alpine Springs area, a new restaurant is also planned.

A 94-acre expansion of snowmaking coverage is planned as part of this MDP. Furthermore, three additional on-mountain snowmaking ponds are planned to increase snowmaking production during favorable conditions and to increase efficiency.

Improvements to the snow tubing facility at the top of Elk Camp gondola are anticipated. These improvements will re-work and re-configure the facility to allow for an additional two or three lanes of tubing.

Other projects planned include the installation of additional cell tower sites, data equipment, fiber optic lines, and antennae tower sites.

Summer and multi-season projects, including mountain biking and hiking trails, a zip line/canopy tour, challenge course, among other activities, are planned in accordance with the summer zone designations. The planned mountain bike trails were part of a larger effort by Gravity Logic in 2021 to identify the best terrain to compliment and diversity Snowmass' successful mountain bike operations. The Gravity Logic assessment notes of the Burnt Mountain trails: "Accessed by a low angle uphill bike trail, constructed at approximately a 5% grade, this would be the starting point for several truly epic bike trails." This is one of Snowmass goals stated in Chapter 1, to establish Snowmass as a premier mountain biking destination.

With the planned upgrades to Snowmass, the resort's daily capacity (CCC) will increase from a planned CCC of 13,600 to 14,820 guests.

a. Comparison to 2015 Upgrade Plan

Snowmass's previous development plan was written and accepted in 2015. Since then, Big Burn has been upgraded to a high speed detachable six-person lift, and various summer and utility projects from that MDP have been completed, but no other major lift or terrain projects have been completed since that time. The planned CCC in the 2015 MDP was 13,600. The 2022 CCC is calculated at 14,820 guests per day.

B. UPGRADED LIFT NETWORK

As described in Chapter V, there is one previously approved lift installation that has not been implemented yet (Burnt Mountain). Additional details of the Burnt Mountain lift can be found in Chapter V. The upgrade plan lifts are described below:

1. Village Express

Village Express is planned to be upgraded to a 10-person gondola with a mid station at the top of the *Blue Grouse* run. The bottom station will be next to the Sky Cab bottom terminal with guests entering the gondola terminal from the north and east. The mid station would allow guests to unload. Northwest of the gondola mid station, a cabin storage and maintenance barn is planned with a transfer rail from the main line. The top terminal is planned in the same location as the existing Village Express at Sam's Knob.

Upgrading Village Express to a gondola would allow for a better guest experience for skiers and non-skiers to Snowmass. The capacity of the lift will increase by over 25%. This will provide much needed out of base capacity to Sam's Knob and the upper mountain. The gondola will also provide non-skiers a way to comfortably access Sam's Knob during the summer and winter.

2. Coneygame

Coney Glade is planned to be removed and replaced with a new detachable 6-person chairlift, Coneygame, in a new, extended alignment. The existing Coney Glade detachable quad lift was constructed in 1986 and is nearing the end of its usable life. Furthermore, the changes to the lift and terrain networks that have occurred in the ensuing decades mean that Coney

Glade's alignment no longer efficiently serves the needs of guests at Snowmass.

The top terminal of Coneygame will be in the current location of Coney Glade lift's top terminal, while the bottom will be located very near the former bottom terminal of Burlingame lift in the Snowmass Mall area. A turn station or sheaved turn will also be installed on non-forest service land near Lynn Britt Cabin to allow the lift to avoid crossing into private property not owned by ASC. There will be no loading or unloading from this station.

The alignment of the Coneygame 6-person chairlift allows the lift to act as a third uphill access option from the primary base area, which will help relieve morning congestion in the base area.

Grading projects associated with Coneygame lift are planned at the top and bottom terminals. The current unload platform for Coney Glade lift is smaller than desired and does not allow free skier flow from the lift unload to surrounding slopes. With installation of the Coneygame lift, the existing unloading platform will be enlarged to the southwest, and the skiway towards *Sunnyside* and *Max Park* runs will be recontoured to improve skier flow away from the lift. The area of disturbance for this project is projected to be in the order of 1.75 to 2.5 acres.

Recontouring at the lift's base terminal, to account for the larger detachable terminal and larger maze area that will be required for morning crowds (Coneygame is anticipated to play a large out-of-base access role,) as well as the requisite realignment of the mountain access road, will require a grading project with an expected disturbance area of about 1.5 acres. As a result of the Coneygame lift installation, an existing carpet will be removed. The carpet is planned to be relocated near the top of Assay Hill to service beginner skiers.

3. Alpine Springs

The Alpine Springs lift is planned to be replaced with a detachable 6-person chairlift in the same alignment as the existing lift. Alpine Springs was constructed in 1993 and is nearing the end of its usable life. Additionally, the lift does not have the capacity to handle existing guest volumes. The replacement lift is planned to have a design capacity of 3,000 people per hour and a daily carrying capacity of 1,740 guests. A small amount of groundwork at the top and bottom terminals may be necessary to ensure there is enough space for a 6-person chairlift and associated skier circulation.

4. Cirque Lift

The Cirque detachable platter surface lift is planned to be replaced with a higher capacity surface lift. The existing Cirque lift capacity is too low for existing demand and is difficult to load and ride, partially due to the turn in the upper portion of the alignment. The new lift would have a design capacity of up to 1,000 people per hour, which would double the guest capacity of the Cirque terrain area. Alternative alignments will be considered to potentially eliminate the turn so the lift has a straight alignment in order to improve the guest experience.

As part of the Cirque platter lift replacement project, a significant regrade of the bottom terminal area is planned. The current terminal site is on a relatively steep slope, which makes creating the level maze and lift loading area from snow very challenging. The planned project is to create a flatter landing zone for the lift, and the projected area of disturbance is 0.75 to 1.0 acres.

5. Elk Camp Lift

Elk Camp quad lift is planned to be replaced with a detachable 6-person chairlift in the same alignment as the existing lift. The Elk Camp lift is regularly over crowded for the existing visitation levels of the resort and needs to be upgraded to ensure a positive guest experience. The new lift is planned to have a design capacity of 2,800 people per hour and will have a daily guest capacity of 1,880. A small amount of groundwork at the top and bottom terminals may be necessary to ensure there is enough space for a 6-person chairlift and associated skier circulation.

6. Burnt Mountain Lift

This lift was previously approved in the 1994 ROD. It will provide access to the top of Burnt Mountain and the existing ski trails there, which are currently hike-to only. Additional trails (also previously approved) will be built in the area. The area is located in the easternmost portion of the Snowmass SUP, with the bottom terminal located

in the Two Creeks area, near the intersection of the *Long Sho*t and *East Brach* trails.

The Burnt Mountain lift top and bottom terminals are sited on moderate slopes that will require typical grading, with an anticipated area of disturbance of approximately one-half acre, each.

7. Sky Cab Gondola

A possible lift project within the term of this MDP is a replacement of the Sky Cab gondola with higher hourly capacity lift technology such as a detachable gondola. Because this lift functions primarily for pedestrian access and in-resort circulation from Base Camp to Snowmass Mall, increasing the lift's hourly capacity will not affect CCC. (Note: the Sky Cab gondola is owned by the Snowmass Village General Improvements District, and it would be their decision to replace the lift.)

8. Bear Bottom Tubing Carpet

The Bear Bottom carpet is planned to be extended and realigned. The new alignment's bottom terminal will be located to the east of the existing terminal and allow Snowmass to provide a longer and more exciting tubing experience. Following the relocation, Snowmass plans to stop allowing beginner skiers and riders access to the carpet, reserving the lift exclusively for tubers.

9. Dawdler Bowl Beginner Lifts

Two new surface lifts are planned to be installed to the northwest of the Village Express mid-station. The upper lift, Dawdler I, is planned to be a carpet lift approximately 500 feet in length. The lower lift, Dawdler II, is planned to be either a carpet lift or a platter lift approximately 490 feet in length. A small guest service facility will be built for the Dawdler project including a warming area, small F&B operation and restrooms. Approximately five acres of terrain will need to be re-graded to accommodate the new lifts and to ensure appropriate progression on the beginner terrain that they serve.

10. Sam's Access Surface Lift

A new access surface lift is planned between the Wine Cabin and Sam's Knob. This lift, which is planned to be 750 feet in length, will allow guests skiing and riding in the Big Burn terrain area to access the top terminal of the Village Express gondola for downloading. This lift would be operated in the early season when there is insufficient snow to open terrain down to the Snowmass Base Village.

11. General Lift Information

If lifts reach the end of their useful operational life, they may need to be replaced. This is true of Two Creeks lift. It is not anticipated the lift will need replacing within the term of this MDP, but if operation of the lift becomes unreasonably challenging in the shorter-term, it would be replaced.

Snowmass plans to construct a storage facility to hold the chairs of Big Burn lift. This facility is discussed further in the Planned Resort Operations section of this chapter.

All planned new detachable 6-person chairlifts (Elk Camp, Alpine Springs, and Coneygame) and the Village Express gondola will be equipped with diesel generators for backup operations. These generators will be approximately 12 feet wide and 40 feet long and will be sited in close proximity to the lift drives at the top terminals. Currently technology does not allow for electric battery backup of ski lifts, if this changes then ASC will endeavor to install a battery backup instead of diesel in these applications. Upgraded lifts are shown on Figure VI-1 and details are specified in Table VI-1.

Table IV-1. Lift Specifications - Upgrade Plan

Lift Name, Lift Type	Top Elev. (ft)	Bot. Elev. (ft)	Vert. Rise (ft)	Vert. Rise (ft)	Slope Length (ft)	Avg. Grade (%)	Planned Design Capacity (pers/hr)	Rope Speed (fpm)	Carrier Spacing (ft)	Year Installed
Two Creeks/DC4	9,810	8,110	1,700	9,607	9,874	18%	2,400	1,100	110	Poma/1995
Assay Hill/C4	8,523	8,325	197	1,424	1,438	14%	1,200	300	60	Poma/2007
Elk Camp Gondola Full/DG8	9,803	8,432	1,371	8,494	8,659	16%	1,961	1,000	184	Poma/2006
Elk Camp Gondola Upper/ DG8	9,803	8,526	1,277	7,352	7,499	17%	654	1,000	184	Poma/2006
Elk Camp/DC6	11,320	9,779	1,540	7,370	7,559	21%	2,800	1,100	141	Upgraded
Meadows/C4	9,927	9,815	112	1,299	1,304	9%	1,200	300	60	Poma/2007
Meadows Sunkid/C	9,837	9,816	21	234	235	9%	600	160	16	Sun Kid/2015
Bear Bottom Sunkid/C*	9,931	9,858	73	500	505	9%	600	160	16	Upgraded
Alpine Springs/DC6	10,505	8,987	1,518	6,957	7,164	22%	3,000	1,100	132	Upgraded
High Alpine/DC4	11,852	10,186	1,666	5,370	5,622	31%	1,800	1,000	133	LPOA/2015
Cirque Lift/S	12,527	11,741	786	3,894	3,981	20%	1,000	600	72	Upgraded
Sheer Bliss/DC4	11,857	9,650	2,207	8,978	9,283	25%	2,000	1,100	132	Poma/2008
Big Burn/DC6	11,793	9,811	1,982	7,378	7,639	27%	2,800	1,100	141	LPOA/2020
Coneygame/DC6	10,126	8,584	1,542	7,237	7,399	21%	2,800	1,100	141	Planned
Dawdler Conveyor I/C	9,650	9,602	48	494	496	10%	600	160	16	Planned
Dawdler Conveyor II/C	9,600	9,520	80	481	488	17%	600	160	16	Planned
Village Express Full/DG10	10,614	8,461	2,154	9,730	10,041	22%	2,412	1,100	135	Upgraded
Village Express Lower/DG10	9,661	8,461	1,200	6,075	6,234	20%	1,188	1,100	135	Upgraded
SkyCab/FG6	8,601	8,454	146	1,059	1,069	14%	530	1,000	1,132	Poma/2005
Treehouse Sunkid/C	8,601	8,606	5	80	80	6%	720	80	40	Sun Kid/1997
Scooper Lift/P	9,365	9,137	227	843	876	27%	428	350	49	Poma/2000
Sam's Knob/DC4	10,619	9,419	1,199	3,655	3,869	33%	1,800	1,000	33	Poma/2005
Campground/C2	9,659	8,224	1,435	4,459	4,730	32%	664	550	199	Poma/2003
Burnt Mountain/DC4	11,368	8,636	2,733	11,204	11,596	24%	1,800	1,000	67	Planned

Source: SE Group
C = carpet conveyor / T-Bar = T-Bar lift / S = surface lift
C2 = fixed-grip double chairlift / C4 = fixed-grip quad chairlift
DC4 = detachable quad chairlift / DC6 = detachable six-passenger chairlift
FG6 = six-passenger pulse gondola / DG8 = eight-passenger gondola / DG10 = ten-passenger gondola
*Upon relocation, the Bear Bottom Sunkid chair is planned to be used exclusively by tubing participants and thus does not contribute to the resort's CCC
Sam's access surface lift is planned to be operational only in the early season and is thus not enumerated in this table

C. UPGRADED TERRAIN NETWORK

1. Terrain Variety

As discussed in Chapter IV, terrain variety is the key factor in evaluating the quality of the actual skiing and riding guest experience (as opposed to lift quality, restaurant quality, or any other factor). A resort must have a diverse, interesting, and well designed developed trail system, but also must have a wide variety of alternate style terrain, such as mogul runs, bowls, trees, glades, open parks, in-bounds "backcountry style" (i.e., hike-to) terrain, and terrain parks and pipes. The reader is referred to Chapter IV (Section C) for an in-depth discussion of the importance of terrain variety.

2. Developed Alpine Trails

There are four areas for terrain improvements planned at Snowmass: previously approved Burnt Mountain, Elk Camp gondola, Alpine Springs/High Alpine, and Sam's Knob/Village Express. These changes would bring the total of the developed terrain network to 1,645 acres. The planned trail configuration under the Upgrade Plan is depicted in Figure VI-1 and the proposed terrain specifications are detailed in the Table VI-2.

Additionally, it is anticipated that localized trail widening and maintenance will be necessary throughout the life of the MDP to address skier safety issues and changing circulation patterns. These projects will be identified on a case-by-case basis and will respond to changes in skier visitation and vegetation conditions (e.g., forest health).

a. Burnt Mountain

Approximately 30 acres of newly-constructed developed terrain would be added off the Burnt Mountain lift, between *Long Shot* and the upper Elk Camp area in four new trail segments, identified as "P1-P4." This terrain was previously approved in the 1994 ROD, as described in Chapter V. In addition, approximately 140 acres of terrain between *Split Tree* and trails *P1-P4* would be gladed pursuant to the 1994 ROD. The hike-to developed trail *Long Shot* would become a lift-served intermediate trail. The gladed areas *Split Tree*, *A-Line*, and *Rio* would become lift-served but would remain glades. Additional glade improvements are planned in this area (refer to Figure VI-1).

Previously-approved glading in the Burnt Mountain area would complement and incorporate previously-approved treatment unit prescriptions from the 2011 Aspen Skiing Company Forest Health Projects Decision Notice (2011 Forest Health DN). Treatment unit prescriptions in this area include small clearcuts within thinning (partial cut) and salvage cutting (partial cut). The reader is referred to Appendix C for a map of the previously-approved treatments from the 2011 Forest Health EA. Additional information about each treatment unit is provided in the 2011 Forest Health EA.

Table VI-2. Terrain Specifications – Upgrade Plan

Trail Area/Name	Top Elev. (ft)	Bot. Elev. (ft)	Vert. Rise (ft)	Slope Length (ft)	Avg. Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
Eastbranch	8,862	8,627	235	2,115	25	1.2	11%	19%	Low Intermediate
Creekside	9,686	8,110	1,576	9,760	163	36.4	16%	47%	Intermediate
Cascade	9,609	8,861	748	3,523	127	10.3	22%	38%	Intermediate
West Fork	9,350	8,550	800	5,625	90	11.6	14%	32%	Low Intermediate
Assay Hill	8,514	8,324	190	1,499	194	6.7	13%	15%	Novice
Lone Star	9,810	9,623	187	1,235	131	3.7	15%	29%	Low Intermediate
Drumstick	9,840	9,630	210	1,399	86	2.8	15%	29%	Low Intermediate
Bottoms Up	9,639	9,364	275	1,017	178	4.2	28%	36%	Intermediate
Funnel Upper	9,766	9,363	403	2,781	273	17.4	15%	37%	Intermediate
Funnel Lower	9,363	8,460	903	6,359	326	47.6	15%	24%	Novice
Funnel Bypass	9,616	9,488	128	1,418	59	1.9	9%	15%	Novice
Funnel Bypass	9,370	9,320	51	537	51	0.6	9%	14%	Novice
No Name	9,236	9,001	235	1,452	86	2.9	17%	25%	Novice
Galavant	9,190	9,130	60	752	25	0.4	8%	14%	Novice
Eddy Out	9,148	8,661	487	2,586	65	3.8	19%	41%	Intermediate
Slider	9,847	8,974	873	5,238	179	21.6	17%	33%	Intermediate
Bull Run	11,323	9,926	1,396	6,654	473	72.2	21%	35%	Low Intermediate
Grey Wolf	11,310	10,155	1,155	4,904	304	34.2	24%	37%	Intermediate
Bear Bottom	11,303	9,932	1,371	6,443	211	31.1	22%	38%	Intermediate
Gunner's View	10,987	10,070	917	4,611	180	19.1	20%	34%	Low Intermediate
Sandy Park	11,315	9,852	1,462	8,285	201	38.3	18%	44%	Intermediate
EC Meadows	9,928	9,804	124	1,517	405	14.1	8%	14%	Beginner
Naked Lady	10,438	8,996	1,442	7,155	310	50.9	21%	36%	Intermediate
Lodge Pole	10,221	9,720	501	2,126	155	7.6	24%	38%	Intermediate
Log Deck	10,471	9,741	729	3,405	182	14.2	22%	39%	Intermediate
Toms Trace	9,789	9,353	435	1,829	269	11.3	25%	51%	Advanced Intermediate
Lunkerville	9,866	8,990	876	4,652	233	24.9	19%	36%	Intermediate
Adam's Avenue Lower	9,214	8,638	577	3,726	161	13.7	16%	28%	Low Intermediate
Adam's Avenue Middle Upper	9,396	9,330	65	371	48	0.4	18%	20%	Low Intermediate
Adam's Avenue Middle Lower	9,280	9,240	40	480	81	0.9	8%	13%	Low Intermediate
Adam's Avenue Upper	9,646	9,455	191	1,670	128	4.9	12%	18%	Low Intermediate

Trail Area/Name	Top Elev. (ft)	Bot. Elev. (ft)	Vert. Rise (ft)	Slope Length (ft)	Avg. Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
Coffee Pot	10,391	9,095	1,295	6,446	158	23.3	21%	38%	Intermediate
Granite	10,298	9,786	513	2,435	118	6.6	22%	43%	Intermediate
Green Cabin Lower	10,453	8,942	1,512	7,987	212	39.0	19%	38%	Intermediate
Green Cabin Upper	11,782	10,264	1,518	6,597	193	29.2	24%	44%	Intermediate
Reider's	11,774	10,475	1,300	4,390	191	19.3	31%	57%	Expert
Reidar's Glade	11,769	10,450	1,319	4,215	299	29.0	38%	62%	Expert Glade-Gated
Showcase	11,791	10,527	1,264	4,129	221	20.9	32%	46%	Advanced Intermediate
The Edge	11,797	10,472	1,324	4,488	231	23.8	31%	45%	Advanced Intermediate
Roberto's	11,920	11,427	492	1,483	209	7.1	36%	73%	Chute/Bowl-Gated
Frog Pond Glade	11,448	10,380	1,068	3,472	990	78.9	33%	50%	Expert Glade-Gated
Baby Ruth	11,357	10,738	619	1,462	200	6.7	47%	77%	Chute/Bowl-Gated
Big Spruce	11,211	10,430	781	1,875	286	12.3	46%	74%	Chute/Bowl-Gated
Cassidy's	10,817	10,394	424	991	236	5.4	48%	66%	Expert Glade-Gated
Willy's	10,662	10,242	420	968	425	9.4	49%	75%	Bowl/Glade-Gated
Cookies	10,996	10,545	451	1,104	305	7.7	45%	58%	Expert Glade-Gated
Turkey Trot	10,592	9,802	790	4,928	160	18.1	16%	42%	Intermediate
Turket Trot Upper	10,490	10,431	59	718	26	0.4	8%	12%	Intermediate
Rocky Mtn. High	12,497	11,795	702	3,860	360	31.9	19%	25%	Low Intermediate
AMF	11,945	11,369	576	1,720	355	14.0	36%	77%	Chute/Bowl-Gated
Cirque Headwall	12,344	11,677	667	2,119	922	44.8	33%	58%	Chute/Bowl-Gated
East Wall	12,192	11,683	509	1,910	356	15.6	28%	82%	Chute/Bowl-Gated
High Traverse	12,501	11,812	689	6,273	149	21.5	11%	55%	Chute/Bowl-Gated
Adios Ridge	11,644	11,209	435	1,085	460	11.5	44%	54%	Chute/Bowl-Gated
Ladder Lower	11,224	10,813	411	859	269	5.3	56%	89%	Chute/Bowl-Gated
Ladder Upper	11,441	11,241	201	414	99	0.9	56%	75%	Chute/Bowl-Gated
Dikes	11,669	10,241	1,428	5,923	949	129.1	25%	60%	Bowl/Glade-Gated
Gowdy's	11,842	11,267	575	1,827	308	12.9	34%	108%	Chute/Bowl-Gated
KT Gully	11,307	11,104	202	466	175	1.9	50%	77%	Chute/Bowl-Gated
Rock Island	11,137	10,675	462	988	493	11.2	54%	88%	Chute/Glade-Gated
Buck Skin	10,715	10,149	566	1,723	330	13.1	35%	73%	Expert Glade-Gated
Sheer Bliss	11,833	9,674	2,158	8,926	497	101.8	25%	44%	Intermediate
Camp 3	10,113	9,690	424	1,489	165	5.6	30%	47%	Advanced Intermediate
Garrett Gulch	10,775	9,852	923	3,460	116	9.2	28%	48%	Advanced Intermediate

Trail Area/Name	Top Elev. (ft)	Bot. Elev. (ft)	Vert. Rise (ft)	Slope Length (ft)	Avg. Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
West Face	10,928	10,679	249	677	667	10.4	40%	50%	Chute/Bowl-Gated
Free Fall	10,617	9,905	712	2,170	180	9.0	40%	69%	Expert Glade-Gated
Glissade	10,205	9,940	264	568	104	1.4	53%	60%	Expert
Whispering Jesse	10,901	9,900	1,001	3,390	191	14.9	31%	39%	Intermediate
Trestle	9,880	9,695	185	1,598	83	3.1	12%	38%	Intermediate
Timberline	11,725	9,918	1,807	6,721	204	31.4	28%	40%	Intermediate
Wineskin	11,837	9,972	1,865	6,875	162	25.5	28%	47%	Advanced Intermediate
Dallas Freeway	11,585	10,125	1,461	5,240	179	21.5	29%	42%	Intermediate
Micks' Gully	11,821	10,167	1,654	6,263	230	33.1	27%	42%	Intermediate
Powerline Glades	11,440	10,440	1,000	3,552	676	55.1	29%	43%	Intermediate Glade
Sneaky's	11,837	10,572	1,265	5,931	193	26.2	22%	29%	Low Intermediate
Sneaky's Glade	11,513	10,708	805	3,467	332	26.4	24%	31%	Intermediate Glade
Jack of Hearts	10,719	10,523	197	689	160	2.5	30%	30%	Intermediate
Powderhorn	10,565	8,253	2,312	9,081	146	30.4	27%	56%	Expert
Lower Banzai	9,820	8,895	926	3,865	217	19.2	25%	42%	Intermediate
Cabin	9,766	8,933	833	3,414	274	21.5	25%	45%	Intermediate
Coney Glade	10,096	9,748	348	1,288	466	13.8	28%	39%	Intermediate
Blue Grouse	9,667	8,855	812	3,650	299	25.0	23%	44%	Intermediate
Velvet Falls	9,614	8,857	757	3,348	225	17.3	23%	38%	Intermediate
Nor Way	9,201	9,073	127	756	63	1.1	17%	25%	Low Intermediate
Hal's Hollow	9,580	8,980	600	2,514	195	11.2	25%	40%	Intermediate
Scooper	9,507	9,008	499	2,333	214	11.5	22%	37%	Intermediate
Dawdler	9,638	8,714	924	6,685	194	29.7	14%	28%	Novice
Fanny Hill	8,899	8,462	437	3,175	251	18.3	14%	17%	Novice
Lunchline	10,117	9,428	689	4,784	144	15.9	15%	34%	Low Intermediate
Moonshine	10,191	9,416	775	3,436	205	16.2	23%	47%	Advanced Intermediate
Ute Chute	10,334	9,710	624	1,846	168	7.1	36%	45%	Advanced Intermediate
Fast Draw	10,435	10,036	399	1,103	120	3.0	39%	44%	Intermediate
Max Park	10,579	9,858	721	4,145	423	40.3	18%	43%	Intermediate
Sunnyside	10,609	9,943	666	2,600	122	7.3	27%	44%	Intermediate
Banzai Ridge	10,575	9,854	721	3,267	146	11.0	23%	32%	Low Intermediate
Monks Hood	9,895	9,544	351	2,002	84	3.8	18%	30%	Low Intermediate
Promenade	10,561	9,562	998	2,997	253	17.4	36%	46%	Advanced Intermediate

Trail Area/Name	Top Elev. (ft)	Bot. Elev. (ft)	Vert. Rise (ft)	Slope Length (ft)	Avg. Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
Zugspitze	10,552	9,420	1,133	3,694	181	15.4	32%	47%	Advanced Intermediate
Slot Upper	10,603	9,443	1,160	3,534	276	22.4	35%	45%	Advanced Intermediate
Slot Lower	9,437	8,228	1,209	5,390	285	35.2	23%	47%	Advanced Intermediate
Wildcat	10,484	9,124	1,360	4,959	145	16.5	29%	45%	Intermediate
Howler Upper	10,009	9,593	416	1,184	84	2.3	38%	47%	Advanced Intermediate
Howler Lower	9,488	9,450	38	367	52	0.4	10%	17%	Advanced Intermediate
Bearclaw	10,046	8,226	1,820	6,546	256	38.5	29%	51%	Advanced Intermediate
Campground	10,621	8,223	2,398	8,510	201	39.2	30%	53%	Advanced Intermediate
Split Tree	11,260	9,909	1,351	4,854	659	73.5	29%	58%	Expert Glade-Gated
Rio	11,309	9,976	1,334	4,671	483	51.8	30%	51%	Expert Glade-Gated
A-Line	11,281	9,105	2,176	10,736	302	74.4	21%	48%	Expert Glade-Gated
Long Shot	11,325	8,121	3,204	16,529	282	107.1	20%	47%	Advanced Intermediate
Black Saturday Bowl	10,912	10,343	569	1,952	484	21.7	31%	66%	Chute/Bowl-Gated
Burns Cliffs	11,060	10,793	267	551	415	5.3	57%	83%	Chute/Glade-Gated
Buttermilk	10,953	10,484	469	1,484	490	16.7	34%	65%	Expert Glade-Gated
Cirque Cornice	12,219	11,836	383	1,422	570	18.6	28%	44%	Chute/Bowl-Gated
Coyote Hollow	11,716	10,850	866	3,461	497	39.5	26%	42%	Expert Glade-Gated
Coyote Knob	11,865	11,698	168	390	567	5.1	48%	54%	Chute/Bowl-Gated
East 1 & 2	11,765	11,299	466	1,515	461	16.0	33%	54%	Chute/Bowl-Gated
Glade 1	10,534	10,213	320	632	250	3.6	59%	65%	Expert Glade-Gated
Glade 2	10,482	10,197	285	569	190	2.5	58%	62%	Expert Glade-Gated
Glade 3	10,412	10,172	240	485	221	2.5	57%	61%	Expert Glade-Gated
Hanging Valley Headwall	11,888	11,520	368	1,088	217	5.4	37%	83%	Chute/Bowl-Gated
Hanging Valley Runout	10,273	10,094	179	1,213	308	8.6	15%	22%	Chute/Bowl-Gated
Little Headwall	12,027	11,863	164	543	564	7.0	32%	58%	Chute/Bowl-Gated
North Woods	10,914	10,619	295	975	999	22.4	32%	43%	Chute/Bowl-Gated
Old Man Basin	11,403	11,149	255	791	248	4.5	34%	50%	Chute/Bowl-Gated
Pitch in the Valley	11,129	10,806	323	1,012	317	7.4	34%	56%	Expert Glade-Gated
Possible	11,591	11,503	88	339	65	0.5	28%	40%	Chute/Bowl-Gated
Possible Basin	11,460	11,096	364	745	374	6.4	57%	86%	Chute/Bowl-Gated
Ptarmigan Draw	12,089	11,772	317	1,292	299	8.9	25%	33%	Chute/Bowl-Gated
Rayburns Chute and Bowl	11,040	10,835	206	598	312	4.3	37%	45%	Chute/Bowl-Gated
Strawberry Patch	10,944	10,567	377	701	157	2.5	64%	75%	Chute/Bowl-Gated

Trail Area/Name	Top Elev. (ft)	Bot. Elev. (ft)	Vert. Rise (ft)	Slope Length (ft)	Avg. Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
Sun Kiss Glades	11,276	10,910	366	916	373	7.9	44%	66%	Chute/Glade-Gated
Sunspot	10,731	10,453	278	906	501	10.4	32%	41%	Chute/Glade-Gated
Union	10,756	10,295	461	1,211	324	9.0	42%	68%	Bowl/Glade-Gated
Valley Valley	11,173	10,801	372	910	284	5.9	45%	58%	Chute/Bowl-Gated
Wall 1	11,166	10,307	859	2,282	314	16.4	41%	83%	Chute/Bowl-Gated
Wall 2	11,058	10,649	409	736	132	2.2	67%	73%	Chute/Bowl-Gated
Waters	10,555	10,155	400	1,201	278	7.7	36%	66%	Expert Glade-Gated
West 1&2	11,896	11,527	369	968	165	3.7	42%	73%	Chute/Bowl-Gated
Castle Glade	11,352	10,780	572	1,380	286	9.0	51%	74%	Expert Glade-Gated
Long Shot Glade	10,471	9,663	808	3,100	210	15.0	24%	31%	Intermediate Glade
Upper Green Cabin Glade	11,116	10,750	366	1,870	187	8.0	31%	35%	Intermediate Glade
P1	10,635	8,751	1,884	8,218	87	16.4	24%	43%	Intermediate
P2	10,333	10,033	300	782	110	2.0	42%	65%	Expert
P3	10,217	9,260	957	3,128	128	9.2	32%	41%	Intermediate
P4	9,347	8,977	370	1,651	74	2.8	23%	50%	Advanced Intermediate
P5	10,364	9,715	649	2,555	119	7.0	26%	41%	Intermediate
P6	10,098	9,938	160	437	157	1.6	39%	54%	Advanced Intermediate
P7	9,556	9,131	425	2,012	99	4.6	22%	45%	Intermediate
P8	9,449	9,181	268	988	109	2.5	28%	45%	Intermediate
P9	9,098	9,056	42	467	43	0.5	9%	12%	Novice
P10	10,720	10,578	142	466	88	0.9	32%	45%	Intermediate
P11	9,638	9,577	61	512	45	0.5	12%	12%	Intermediate
Alpine Springs Glades						145.0			Intermediate Glade
Bonzai Glades						4.0			Intermediate Glade
Wildcat Glades						10.0			Expert Glade-Gated
Frog Pond Glades Expansion						10.0			Intermediate Glade
Burnt Mountain Glades						100.0			Expert Glade-Gated
Sneaky's Glade Extension						45.0			Intermediate Glade
TOTAL				**472,226**		**3,003**			

* The 2015 DN/FONSI approved 84 acres of new/improved glading. Of this, approximately 11 acres remain unimplemented

To facilitate emergency skier evacuations from the eastern portion of the Burnt Mountain area, an approximately 500-foot section at the mid-point of the existing egress route would be graded to create a 30-foot-wide, groomable bench. Negotiating this trail segment with a toboggan currently adds several minutes to the amount of time it takes ski patrol to evacuate an injured skier from the Burnt Mountain area.

b. Elk Camp Gondola

Several additional trails (labelled "P7", "P8", and "P9") are planned to be cut in the terrain area between the top terminal of Elk Camp gondola and the bottom terminal of Alpine Springs. *P7* and *P8* will be intermediate infill trails between *Adam's Avenue* and *Galavant*. These two trails will add a total of 7 acres. *P9* will be a 0.5 acre novice cutoff skiway from *No Name* below the *Galavant* run. This run allows novice skiers and riders to take a more moderate route to Alpine Springs without adding to traffic on *Galavant*. Together these three runs are intended to reduce congestion for skiers circulating between Elk Camp and Alpine Springs as well as limiting end-of-day congestion on *Adam's Avenue* and *Middle Funnel*.

In addition to new trails in the Elk Camp area, a trail improvement project is planned on *Funnel*. The project is planned to fill a compression downhill from the work road that intersects the trail. This would reduce the amount of snow required to produce a quality surface on *Funnel* and improve the skiing experience, as this location can be a terrain trap for beginners.

c. Alpine Springs/High Alpine

Three new trails are planned to be cut north of Hanging Valley, near the top terminal of Alpine Springs. The uppermost, "P10", is a one acre cut from *The Edge* to the top terminal of Alpine Springs lift. This cutoff will allow skiers and riders on *The Edge* to access the High Alpine Restaurant and lap High Alpine lift.

"P5" is a seven-acre intermediate run which extends uphill from *Slider*, primarily accessed from *Turkey Trot*. *P5* will also be accessible from *Naked Lady* via the advanced intermediate "P6" cutoff trail. These additions

will provide additional trail variety and downhill capacity for guests lapping Alpine Springs.

d. Sam's Knob/ Village Express

A 0.5-acre trail cut, "P11", is planned between the Village Express mid-station and the top of the halfpipe to the west. This will improve access to the halfpipe for park skiers coming from the Village Express mid station.

e. Dawdler Beginner Area

The existing cleared terrain to the west of the Village Express mid-station is planned to be repurposed into a new beginner learning area. As discussed above two new lifts would be installed. In addition, parts of the terrain are planned to be re-graded to enable a comfortable progression for beginners, from a smooth 10% grade adjacent to Dawdler I to moderately more varied and challenging runs graded at 15% and 17% off Dawdler II. In addition to the skiing enhancement projects, Dawdler Bowl is anticipated to have a warming hut, a small food & beverage operation, and restrooms to serve the guests using the beginner area. In all, approximately 5 acres of terrain is planned to be graded, while between one and two acres of forested terrain is planned to be cut to accommodate lifts and terrain.

f. Terrain Distribution by Ability Level

This terrain distribution analysis considers the 1,645 acres within the developed terrain network at Snowmass and does not change significantly from existing conditions. The ideal breakdown of trail capacity by ability level should align with percentages of skiers by ability level, based on the regional destination skier market. The terrain classification breakdown of the Upgrade Plan developed terrain is set forth in Table VI-3. The last column in this table represents what can be considered the ideal skill level distribution in the relevant market and provides a comparison with the planned conditions.

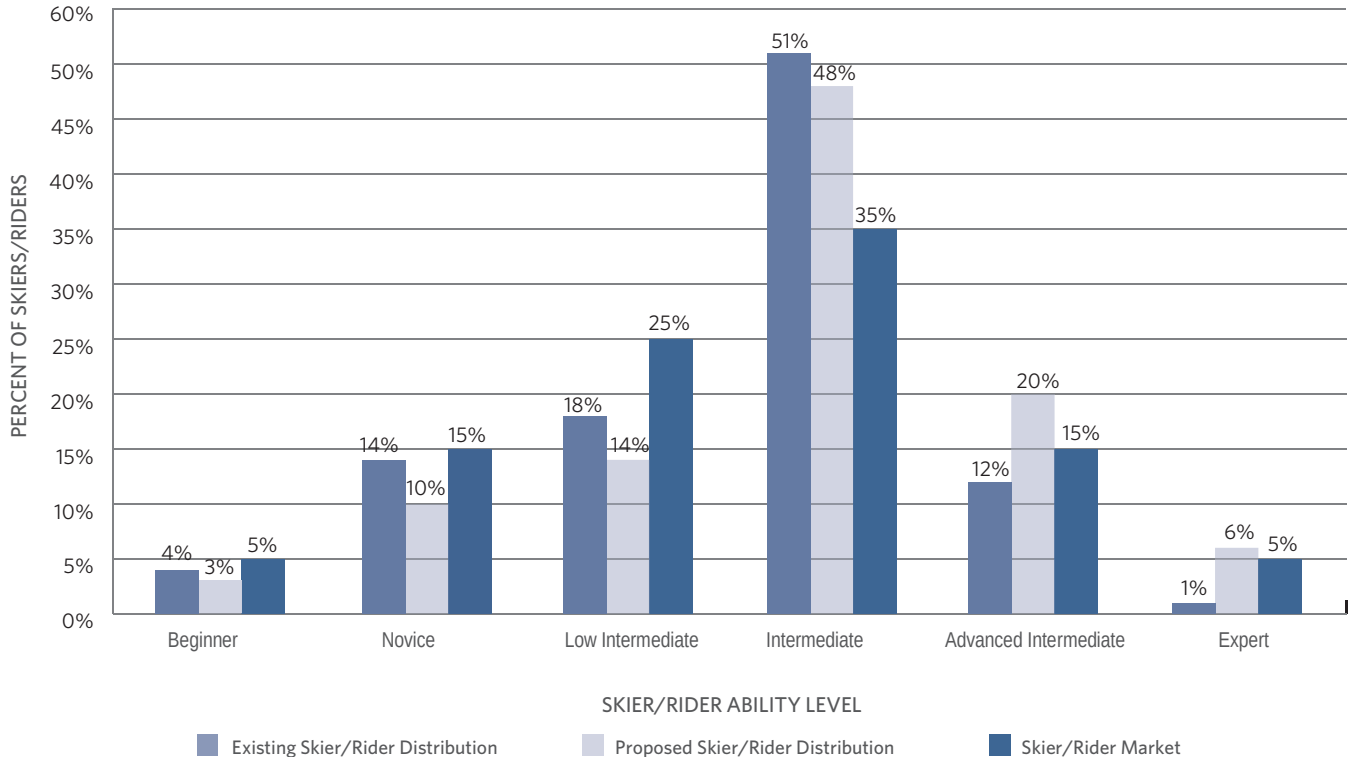
The terrain improvements included in the Upgrade Plan are designed to improve mountain circulation and alleviate areas of congestion. The terrain distribution by ability levels, as shown in Chat VI-1, is relatively unchanged from existing conditions. Since most of the new terrain would be rated novice, low intermediate or intermediate, there would be a slight increase to these percentage and a slight decrease in advanced intermediate terrain. The lower percentages for the advanced intermediate and expert terrain are made up for by the extensive undeveloped terrain at Snowmass.

Table VI-3. Developed Developed Terrain Distribution by Ability Level – Upgrade Plan

Skier/Rider Ability Level	Trail Area (acres)	Skier/Rider Capacity (guests)	Actual Skier/Rider Distribution (%)	Relevant Skier/Rider Market (%)
Beginner	14	353	3%	5%
Novice	109	1,303	13%	15%
Low intermediate	219	1,754	17%	25%
Intermediate	848	5,085	50%	35%
Advanced	403	1,613	16%	15%
Expert	53	106	1%	5%
TOTAL	**1,646**	**10,218**	**100%**	**100%**

Source: SE Group

Chart VI-1. Developed and Undeveloped Terrain Distribution by Ability Level – Upgrade Plan



Source: SE Group

3. *Undeveloped and Gladed Expert Terrain*

Undeveloped terrain is an important component of Snowmass. The topography within the SUP area includes steeps, chutes, bowls, and glades intermingled within, and outside of, the developed and maintained terrain network.

Undeveloped and gladed terrain will continue to be offered extensively at Snowmass. With the addition of the Burnt Mountain lift, a significant amount of existing hike-to terrain will become lift-served.

a. Lift Accessed Undeveloped, but Maintained, Terrain

This type of terrain accounts for an existing 1,144 acres. These areas are detailed in Table VI-2 and include maintained open bowls, areas that have been specifically thinned for glades, and chutes. In the Alpine Springs terrain, 145 acres of glading is planned to accompany other developed terrain improvements. Another 100 acres of glades on Burnt Mountain is also planned. The remaining acreage are smaller glading areas of *Castle*, *Bonzai*, *Wildcat*, *Sneaky's*, *Powderhorn*, and *Frog Pond*. As a result, the total amount of this terrain would increase to 1,358 acres.

Planned glading projects would complement and incorporate previously-approved forest health treatment unit prescriptions from the 2011 Forest Health DN. Treatment unit prescriptions in areas with planned glading include salvage cutting (partial cut), partial cut (remove all conifer), partial cut (remove all lodgepole pine), shelterwood cutting (partial cut), and small clearcuts within thinning (partial cut). Implementation of the planned glading projects would improve terrain variety and the recreational experience for guests of the National Forest, while also improving the health of forest stands which have deteriorated regionally due to a combination of problems such as mountain pine and spruce beetle infestations, aspen decline, dwarf mistletoe, and past drought. The reader is referred to Appendix C for a map of the previously-approved treatments from the 2011 Forest Health EA. Additional information about each treatment unit is provided in the 2011 Forest

Health EA. The 2015 DN/FONSI approved 84 acres of gladed terrain, of which approximately 11 acres remain unimplemented.

Table VI-4 summarizes the upgraded maintained, undeveloped terrain at Snowmass. Chart VI-1, meanwhile, shows the skill-level distribution of developed and undeveloped but maintained terrain, combined. Note that the chart shows a greater proportion of advanced and expert terrain than Table VI-3 due to the inclusion of undeveloped terrain.

Table VI-4. Undeveloped Terrain – Upgrade Plan

Terrain Type	Trail Area (acres)
Chutes/Bowls (Gated)	325
Bowls/Glades (Gated)	148
Chutes/Glades (Gated)	35
Advanced/Expert Glades (Gated)	442
Intermediate Glades	308
Additional Burnt Mountain Glades	100
TOTAL	**1,358**

Source: SE Group

b. Densely-treed and Less Accessible Areas

This consists primarily of the natural (non-thinned or maintained) forested areas between the defined skiing areas and ski runs, and also accounts for some of the less accessible open areas in the upper parts of the mountain. This total decreases as other areas become more developed. These areas will total 338 acres of terrain.

Table VI-5 summarizes the terrain at Snowmass, by category, under the Upgrade Plan.

Table VI-5. Terrain Summary – Upgrade Plan

Terrain Type	Existing Conditions (acres)	Upgrade Plan (acres)
Developed	1,490	1,646
Lift Accessed Undeveloped (but maintained)	1,144	1,358
Densely Treed/Less Accessible	708	338
TOTAL	**3,342**	**3,342**

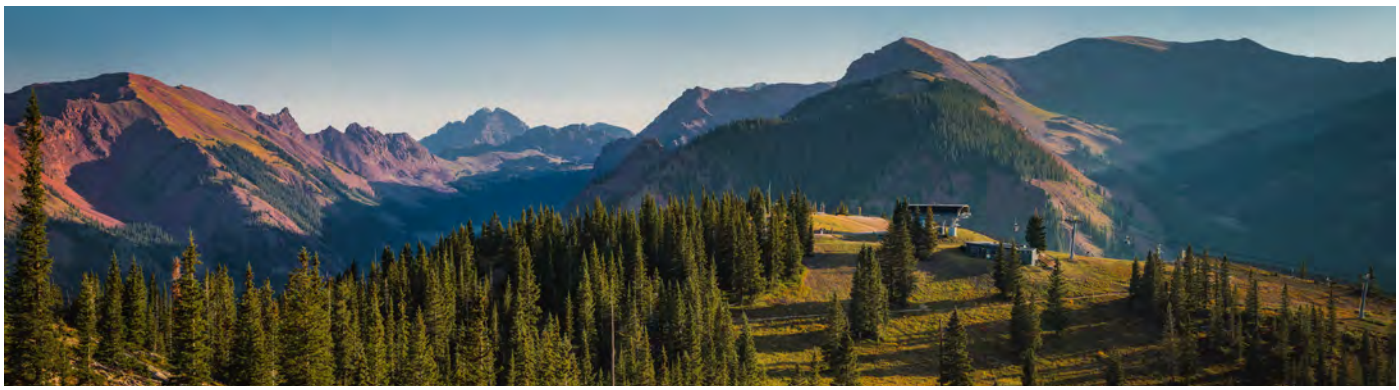
Source: SE Group

4. Terrain Parks

As described in Chapter IV, Snowmass currently builds terrain parks throughout the resort to offer skiers and riders of all abilities the chance to improve their freestyle skills. The resort plans on continuing this practice as conditions warrant, in locations that are appropriate based on the varying and evolving needs of park users.

5. Snow Tubing

The existing snow tubing site is planned to be re-worked and re-configured to allow for additional lanes of tubing and potentially extension of the existing lanes. This project would be undertaken simultaneously with the Bear Bottom carpet realignment and extension described above. Reconfiguring the tubing park in this way will create a more exciting experience that will be able to accommodate more guests



6. Uphill Travel

Climbing uphill on skis rather than riding a lift ("Uphilling") has become increasingly popular over the past decade. In order to provide the best and safest guest experience, new uphill trail routes will be proposed that are more isolated from the traditional downhill ski trails. These trails may be within the forests and may require limited timber removal.

D. PLANNED CAPACITY ANALYSIS

1. Comfortable Carrying Capacity

As detailed in Chapter IV, the existing CCC for Snowmass is calculated at 12,500. Under the Upgrade Plan, the CCC would increase, as detailed in Table VI-6, and has been calculated at 14,820 guests per day. The planned increase in CCC results primarily from upgrading 4-person lifts to 6-person chairlifts, but also is caused by increasing the capacity of Village Express (from 6-person chair to 10-person gondola) and installation of the Burnt Mountain lift. The increase in CCC will be incremental over the life of this MDP with each lift replacement or upgrade.

2. Previous MDP Comparison

The 2015 MDP contemplated an upgraded CCC of 13,600 guests per day. The planned CCC in this document is 14,820 guests, slightly higher than the previous planned CCC. This increase in upgrade CCC compared to previous plans can be attributed to additional lift capacity across the mountain and a new beginner area. These improvements will relieve base area congestion by reducing guest wait times and will create a better beginner experience by increasing the quantity and quality of beginner terrain.

Table VI-6. Comfortable Carrying Capacity – Upgrade Plan

Lift Name, Lift Type	Slope Length (ft)	Vertical Rise (ft)	Actual Design Capacity (guests/hr)	Oper. Hours (hrs)	Up-Mtn. Access Role (%)	Misload/ Lift Stop (%)	Adjusted Hourly Cap. (guests/hr)	VTF/Day (000)	Vertical Demand (ft/day)	CCC (guests)
Two Creeks/DC4	9,874	1,700	2,400	7.0	75	5	480	5,713	13,739	420
Assay Hill/C4	1,438	197	1,200	7.0	25	10	780	1,078	3,626	300
Elk Camp Gondola Full/DG8	8,659	1,371	1,961	7.0	50	5	883	8,471	9,523	890
Elk Camp Gondola Upper/DG8	7,499	1,277	654	7.0	20	5	490	4,381	10,117	430
Elk Camp/DC6	7,559	1,540	2,800	6.5	0	5	2,660	26,635	14,150	1,880
Meadows/C4	1,304	112	1,200	6.5	0	15	1,020	745	2,222	340
Meadows Sunkid/C	235	21	600	6.5	0	5	570	78	1,259	60
Alpine Springs/ DC6	7,164	1,518	3,000	7.0	10	5	2,550	27,097	15,590	1,740
High Alpine/DC4	5,622	1,666	1,800	6.5	0	5	1,710	18,518	28,950	640
Cirque Lift/S	3,981	786	1,000	6.0	0	10	900	4,247	14,108	300
Sheer Bliss/DC4	9,283	2,207	2,000	7.0	10	5	1,700	26,262	21,337	1,230
Big Burn/DC6	7,639	1,982	2,800	7.0	0	5	2,660	36,905	19,852	1,860
Coneygame/DC6	7,399	1,542	2,800	7.0	60	5	980	10,578	17,501	600
Dawdler Conveyor I/C	496	48	600	7.0	0	5	570	192	1,833	100
Dawdler Conveyor II/C	488	80	600	7.0	0	5	570	319	3,100	100
Village Express Full/DG10	10,041	2,154	2,412	7.0	40	10	1,206	18,181	16,056	1,130
Village Express Lower/DG10	6,234	1,200	1,188	7.0	40	10	594	4,991	9,285	540
SkyCab/FG6	1,069	146	530	7.0	100	0	0	0	0	0
Treehouse Sunkid/C	80	5	720	7.0	0	5	684	24	358	70
Scooper Lift/P	876	227	428	7.0	0	10	385	613	7,073	90
Sam's Knob/DC4	3,869	1,199	1,800	6.5	0	5	1,710	13,331	25,736	520
Campground/C2	4,730	1,435	664	6.0	0	10	598	5,146	21,371	240
Burnt Mountain/ DC4	11,596	2,733	1,800	6.0	0	5	1,710	28,036	20,999	1,340
TOTAL:	**117,642**		**35,557**				**25,410**	**241,541**		**14,820**

Source: SE Group
C = carpet conveyor / T-Bar = T-Bar lift / S = surface lift
C2 = fixed-grip double chairlift / C4 = fixed-grip quad chairlift
DC4 = detachable quad chairlift / DC6 = detachable six-passenger chairlift
PG6 = six-passenger pulse gondola / DG8 = eight-passenger gondola / DG10 = ten-passenger gondola
Bear Bottom Sunkid lift, which does not contribute to skier/rider capacity, is not shown in this table

3. Density Analysis

As discussed in Chapter IV, an important aspect of resort 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 VI-7.

Table VI-7 shows that the overall existing density of 5 skiers-per-acre will remain similar to existing conditions. This indicates that the lift and trail upgrades are balanced well with each other.

4. Lift and Terrain Network Efficiency

As discussed in Chapter IV, overall resort 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 resort. The idea behind resort 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 fewest number of lifts possible, while maintaining desired CCC rates, circulation routes, and service to the full spectrum of ability levels and types.

a. Lift Network Efficiency

As discussed in Chapter IV, this document analyzes Lift Network Efficiency by calculating the average CCC per lift. Optimally, and in general, the average CCC per lift would likely be close to 1,000. Industry-wide, the average CCC per lift is approximately 650. The existing average CCC per lift at Snowmass is well above average at 738, meaning that Snowmass rates very well in terms of lift network efficiency—almost at the ideal target mark. With the addition of the planned lifts, the average would decrease slightly to 706, still well above the industry average.

b. Terrain Network Efficiency

As discussed in Chapter IV, Terrain Network Efficiency refers to the amount of effort required to properly maintain a resort's terrain. From this standpoint, the most efficient scenario is to have a quantity of terrain that closely meets the target density requirements. As discussed, ASC has a policy to intentionally maintain lower trail densities than industry standards to ensure the higher quality experience expected by its destination guests. Also as discussed in Chapter IV, an effective way to review terrain efficiency is to interpret the density analysis. Under the Upgrade Plan, the overall "Density Index" figure would increase from the existing figure of 64% to 72%. This represents an improvement in efficiency, while still maintaining an excellent, low density, ski experience.

Table VI-7. Density Analysis – Upgrade Plan

Lift Name, Lift Type	CCC (guests)	Guest Dispersal				Density Analysis				Density Index (%)
		Support Fac./ Milling (guests)	Lift Lines (guests)	On Lift (guests)	On Terrain (guests)	Terrain Area (acres)	Terrain Density (guests/ac)	Target Trail Density (guests/ac)	Diff. (+/-)	
Two Creeks/DC4	420	105	8	72	235	46.6	5	6	-1	83%
Assay Hill/C4	300	75	39	62	124	20.9	6	12	-6	50%
Elk Camp Gondola Full/ DG8	890	223	44	169	454	69.5	7	9	-2	78%
Elk Camp Gondola Upper/ DG8	430	108	25	245	52	18.9	3	9	-6	33%
Elk Camp/DC6	1,880	470	222	305	883	194.9	5	7	-2	71%
Meadows/C4	340	85	51	74	130	13.4	10	25	-15	40%
Meadows Sunkid/C	60	15	14	14	17	0.7	24	25	-1	96%
Alpine Springs/ DC6	1,740	435	128	277	900	211.4	4	6	-2	67%
High Alpine/DC4	640	160	29	160	291	106.1	3	4	-1	75%
Cirque Lift/S	300	75	45	100	80	35.8	2	8	-6	25%
Sheer Bliss/DC4	1,230	308	85	239	598	139.9	4	5	-1	80%
Big Burn/DC6	1,860	465	89	308	998	172.5	6	6	0	100%
Coneygame/DC6	600	150	33	110	307	47.6	6	6	0	100%
Dawdler Conveyor I/C	100	25	10	29	36	0.9	40	25	15	160%
Dawdler Conveyor II/C	100	25	10	29	36	2.5	14	12	2	117%
Village Express Full/DG10	1,130	283	25	231	591	137.1	4	7	-3	57%
Village Express Lower/DG10	540	135	0	0	405	76.5	5	9	-4	56%
Treehouse Sunkid/C	70	18	23	11	18	0.9	20	25	-5	80%
Scooper Lift/P	90	23	13	16	38	5.7	7	6	1	117%
Sam's Knob/DC4	520	130	86	110	194	63.2	3	5	-2	66%
Campground/C2	240	60	20	86	74	124.2	1	4	-3	25%
Burnt Mountain/ DC4	1,340	335	86	330	589	156.2	4	5	-1	88%
TOTAL:	**14,820**	**3,708**	**1,085**	**2,977**	**7,050**	**1,646**	**5**	**7**	**-2**	**73%**

Source: SE Group

E. UPGRADED GUEST SERVICES FACILITIES, FOOD SERVICE SEATING AND SPACE USE ANALYSIS

1. Guest Services

Snowmass is planning five guest service projects as a part of this MDP—improvements to the Lynn Britt Cabin and the Spider Sabich Picnic/Race Arena, an expansion planned for Sam's Restaurant, an expansion and redevelop of Ullrhoff Restaurant, and a new guest service facility at the base of Alpine Springs. Up4Pizza is also planned to have a minor deck and interior dining space expansion if existing utilities allow for added capacity. The guest service facilities will be modernized to meet current guest expectations.

a. Gunner's View Restaurant

A new restaurant is planned in the Elk Camp lift pod. The goal is to provide a guest service facility with 100 indoor and 100 outdoor seats. The site was chosen due to the need for more seats on the eastern portion of the mountain. Additional on mountain guest service space would take pressure off of Elk Camp Restaurant. The new restaurant is planned to be located on the western side *Gunner's View* trail in the current location of the wooden structure.

b. Beginner Magic Area/ Lost Forest Headquarters

An expansion is planned for the Beginner Magic Area/ Lost Forest Headquarters building located at the top of the Elk Camp gondola. The expansion will provide additional guest service space to accommodate winter and summer activities in the Elk Camp area. The expansion includes a covered, open-air training area for beginner skiers during the winter, storage and administrative space for expanded summer activities, and a rooftop deck for winter and summer use. The expansion will be approximately 3,000 square feet in size.

c. Lynn Britt Cabin and Spider Sabich

The Lynn Britt Cabin and the Spider Sabich Picnic/Race Arena areas will be modified. These existing facilities are situated on private land. Currently the Lynn Britt Cabin functions as a table service lunch and snow-cat accessed dinner restaurant location. The improvements focus on outdoor spaces with an expanded deck and potentially a more permanent barn structure. Restrooms and some back of house spaces are also planned for remodel.

The Spider Sabich facility primarily serves as an outdoor picnic area for visiting ski club events usually associated with a racing event, or other group events. This facility is planned to be remodeled to provide a more versatile and appealing facility to better serve the existing uses. A grab and go or faster food service is planned in addition to the ski club events.

d. Sam's Restaurant

With the Village Express gondola installation, Sam's Restaurant is anticipated to be a popular destination for both skiers and non-skiers in the winter, as well as in the summer. Sam's is planned to receive dining room and deck expansions. The dining room expansion includes approximately 50 more seats and additional back of house space. The existing conditions analysis shows a need for more seating at Sam's Restaurant.

The Village Express gondola will also allow for nighttime service and events at Sam's Restaurant. The deck is a key component to provide a quality guest experience on the mountain in an outdoor environment, while still providing necessary services for an event as well as maintaining a brown-bag seating area.

e. Ullrhoff Restaurant

The Ullrhoff Restaurant will be expanded and redeveloped, as additional seating on the west side of the mountain has been identified as a need. Ullrhoff was determined the best location to add seats in this area. Some of the existing structure would be used in the design with the expansion extending to the west by approximately 28,000 square feet. A third level will be added with entry from the trail occurring upslope of the existing structure, and the restaurant will expand out over the deck on the first and second levels. This will add an additional 250 to 500 seats.

During Ullrhoff's redevelopment, a temporary facility is planned to provide food and beverage services in its place. The facility would be located in the vicinity of the Big Burn lift bottom terminal.

f. High Alpine Restaurant

The High Alpine Restaurant is planned for a back of house remodel to promote efficiency of energy and space.

g. Alpine Springs

A new restaurant is planned at the base of the Alpine Springs lift. The goal would be to provide a guest service facility for 400 people in a two-level building. The site was chosen due to ease of access from almost every lift on the mountain. Additional on mountain guest service space is needed in this location to take pressure off of Elk Camp, Ullrhof and High Alpine Restaurants. The restaurant is planned to be located on the uphill side where Naked Lady and Slider meet, nestled into the woods. This location allows skiers to easily access the Alpine Spring lift maze after using the facility.

h. Wapiti Wildlife Center/Elk Camp Ski Patrol

The Wapiti Wildlife Center at the summit of Elk Camp lift is planned to be either rebuilt, renovated, or relocated depending on future planning. Space planning may require that a utility corridor be extended to this facility.

2. Space Use Analysis

A distribution of CCC is utilized to determine guest service capacities and space requirements for guest services at base area portals and on-mountain facilities. The CCC should be distributed between each guest service facility location according to the number of guests that would be utilizing the lifts and terrain associated with each facility. Sufficient guest service space should be provided to accommodate the planned CCC of 14,820 guests per day.

Table VI-8 addresses the Upgrade Plan's space use needs at the base area and on-mountain facilities, under the upgraded CCC. The space recommendations are directly related to the distribution of the resort's capacity to the various guest service facilities located in the base area and on-mountain. The tables show recommended size ranges for the facilities, based on industry averages for space use by service function.

3. Food Service Seating

Seating and restaurant space recommendations are directly related to the lunchtime capacity. The lunchtime capacity is determined by the distribution of each lift pod's CCC. It is assumed that guests would prefer to dine at the facility closest to the area where they are skiing. To allow for this convenience, it is important to provide restaurant seating to accommodate the lunchtime capacity requirement of the area. Restaurant seating should be supplied per the recommendations in the following table.

As indicated in Table VI-9, Snowmass shows an overall surplus of restaurant seats; however, the areas of surpluses and deficiencies for the restaurant seating

Table VI-8. Industry Average Space Use – Upgrade Plan

Service Function	Recommended Range (sq. ft.)	
	Recommended Low Range	Recommended High Range
Base Village/Snowmass Mall	130,290	167,430
Two Creeks Café	6,833	8,705
Elk Camp Restaurant	31,080	39,510
Sam's Restaurant	5,910	7,510
Ullrhof Restaurant	15,020	19,130
High Alpine Restaurant	25,540	32,500
Spider Sabich Picnic Area	1,690	2,140
Lynn Britt Cabin	1,960	2,490
Lizard Lodge	3,010	3,830
Up 4 Pizza	7,260	9,230
Alpine Springs	26,260	33,400
Gunner's View	4,100	5,210
TOTAL RESORT	**257,843**	**329,695**

Source: SE Group

Table VI-9. Recommended Restaurant Seating - Upgrade Plan

	Base Village SM Mall	Two Creeks Café	Elk Camp Rest.	Sam's Rest.	Ullrhof Rest.	High Alpine Rest.	Spider Sabich Picnic Area	Lynn Britt Cabin	Lizard Lodge	Up 4 Pizza	Alpine Springs	Gunner's View	Total Resort
Lunchtime Capacity (CCC + other guests)	4,117	583	2,552	871	1,280	2,176	144	167	257	618	2,237	349	15,351
Average Seat Turnover	3.5	6.0	3.5	2.0	3.0	3.5	4.0	2.0	2.5	7.0	3.5	3.5	
Existing Indoor Seats	1,084	81	395	180	259	678	0	65	80	60	--	--	2,882
Existing Outdoor Seats	640	56	150	50	509	150	250	50	50	40	--	--	1,945
Existing Total Seats	1,724	137	545	230	768	828	250	115	130	100	--	--	4,827
Required Seats	1,176	97	729	436	427	622	36	84	103	88	639	100	4,536
Difference	548	40	-184	-206	341	206	214	32	27	12	-639	-100	391

Source: SE Group
CCC + other guests is accounting for the non-skiing guests who come to Snowmass with larger groups or families that use the guest service facilities just as the skiing guest does. Other guests are being calculated at 5% of CCC.

analysis takes into account outdoor seating. On inclement weather days when the outdoor seating is less utilized, Elk Camp, Sam's, Alpine Springs, Ullrhoff Restaurant, Lynn Britt Cabin and Up4Pizza are all locations where indoor seating is deficient. For example, Ullrhoff Restaurant shows a surplus of 341 seats in Table VI-9 when accounting for the 509 existing outdoor seats. When only accounting for indoor seats, there is a 168-seat deficit at Ullrhof.

Three issues were identified in relation to food service seating: deficiencies of seats at Sam's Restaurant and the Elk Camp Restaurant, and an underutilization of the Ullrhof Restaurant. The expansion of Sam's Restaurant will address the deficiencies at this facility while the upgrade of the Village Express gondola and planned remodel/expansion should increase utilization of the Ullrhof Restaurant, as it will become easier for skiers from other sections of the ski area to access the restaurant, and the restaurant will be upgraded to reflect current standards of access, appearance, and functionality.

Additionally, the planned changes to The Lynn Britt Cabin and the Spider Sabich Picnic/Race Arena areas will increase utilization of those areas, taking pressure off of other restaurants. The area adjacent to the Big Burn lift maze has been identified as a potential location for a temporary structure to house a restaurant while the Ullrhof is under construction. In addition this same area has been identified as a permanent grill/picnic area for the general public.

Two new restaurants are planned to help disperse the pressure of the lunchtime period. The Alpine Springs Restaurant is planned at the base of the Alpine Springs lift. The new Gunner's View Restaurant is planned midway up Elk Camp lift on *Gunner's View* trail. The restaurant is planned to include 100 indoor and 100 outdoor seats.

With the planned replacement of the Village Express lift with a 10-person gondola, Sam's Restaurant will be accessible for non-ski related dining and events. As such, the facility is planned to be used for special events during the day and nighttime events and dining after the area is closed for skiing.

F. PLANNED PARKING CAPACITY

Approximately 200 additional parking spaces are planned in Base Village to account for new lodging development. It is assumed that 150 of these spaces will be used by lodging guests who will be skiing, which will increase parking capacity by 375 guests. The planned parking capacity of 15,278 guests, plus anticipated expanded use of public and private transit options, are anticipated to meet the slight increase in demand.

G. PLANNED RESORT OPERATIONS

1. Ski Patrol/First Aid

A new patrol duty station will be required as a component of the Burnt Mountain lift. The patrol station integrated into the Elk Camp Wildlife Center is planned to be improved as part of the previously approved renovation of that building. Additionally, the High Alpine patrol headquarters building is nearing the end of its life. When it is determined that the building must be renovated or replaced, Snowmass plans to consider alternate site locations to improve patrol access to terrain.

2. Snowmaking Coverage

The existing snowmaking system at Snowmass has the ability to make snow on 329 acres of terrain. Implementation of previously approved snowmaking coverage on *Turkey Trot* ski trail and new snowmaking coverage planned within the Elk Camp, Alpine Springs, and Big Burn terrain pods adds 146 acres of snowmaking coverage. These areas are shown on Figure VI-3. This would bring the total coverage up to 475 acres.

Additional on-mountain water storage is desired in order to more efficiently support the planned snowmaking system. As discussed in Chapter IV, the existing snowmaking system has the capacity to convert 377 acre-feet of water, or 101 million gallons of water per year. Applying coverage to 475 acres of terrain with an average coverage depth of about 18 inches will equate to a total volume of 389 acre-feet of water, or 127 million gallons of water per year. As a result, three additional on-mountain storage ponds are desired. The Slider Pond, the Lunkerville Pond, and the Big Burn Pond are planned to be added, as shown on Figure VI-3.

On-mountain storage ponds are vital to snowmaking efficiency as they allow the snowmaking system to take advantage of favorable weather windows. Significantly more water and power are required to make any given quantity of snow under unfavorable weather—generally speaking, warmer and more humid. During cold, low humidity conditions, a larger quantity of quality snow can be made using comparatively less water and power. However, to take advantage of these weather windows in the late fall, there must be a sufficient supply of water. If there is not enough water to supply the system during these favorable weather windows, then the system is not able to take advantage of them. For this reason, it is important to have sufficient quantities of water, in proximate locations to where the snow will be made (to avoid lengthy and inefficient pumping). As a result, the three additional on-mountain ponds are planned in the locations shown in Figure VI-3.

Improvements to the existing Primary Pumphouse and Alpine Springs Pumphouse, as well as construction of a new Elk Camp Pumphouse and Big Burn Pumphouse are also included in the planned snowmaking system. The planned pumphouses would provide the necessary pumping capacity to support the expanded snowmaking system.

Additional planned snowmaking infrastructure improvements include the following: 1) a new valve building within the Wapiti campus, 2) improvements to the Ullrhof valve house, and 3) a new valve house at the top of Alpine Springs chair near the fuel farm building.

3. Grooming

Some of the planned new terrain in Alpine Springs/Elk Camp, Burnt Mountain and Sam's Knob areas would be groomed.

4. Maintenance Facilities

A Village Express gondola cabin maintenance and storage facility will be constructed at the mid-station of the planned Village Express gondola. The building will be located on the northeast side of the mid-station terminal and will be approximately 40 feet by 60 feet. The building will be used to store roughly 15 gondola cabins and will have space for cabin maintenance and a wash bay. This structure may also house the lift operator's space.

A Big Burn chair storage building will be constructed near the bottom terminal of the Big Burn Express lift. The building will likely be built to the north of the lift's bottom terminal, where the former Big Burn bottom terminal was located. The storage building will have a footprint of about 9,000 square feet and will be connected to the Big Burn bottom terminal by a covered conveyor.

Two additional facilities will be construction on private lands in or adjacent to the Main Base Area. A Parks and Pipe Team shop facility is planned in the Cabin Cutoff area uphill of the existing paintball venue. The facility would be approximately 1,800 square feet in size and would include shop equipment as well as a restroom. An expansion is also planned for the existing locker room and office facility located uphill of the planned Coneygame lift bottom terminal.

Finally, one or two covered general use storage and maintenance facilities are planned to be constructed in the existing Boneyard area on USFS land.

5. Utilities

Two new utilities corridors are planned to provide services to upper mountain facilities. Water and sewer lines will be installed in *Sandy Park* run to supply the Wapiti campus at the top of the Elk Camp lift and the new Gunner's View Restaurant. This utility corridor will parallel a planned snowmaking line in *Sandy Park*. A second utility corridor is planned for installation in Sneaky's with water, sewer, and power lines from Sam's Knob to Up4Pizza. This utility corridor will parallel a planned snowmaking line in Sneaky's. The planned power line up Sneaky's will replace the existing overhead power lines in Powerline Glades, which will be removed. Additional planned utility upgrades include power lines to the Burnt Mountain summit for the planned Burnt Mountain lift, and additional power line facilities will be necessary for the snowmaking and storage pond additions and the Alpine Spring Restaurant.

6. Communications

Cell towers, broadband, data equipment, antennae, towers, and fiber optic line installations are planned to be added in various locations. The current cell phone coverage on Snowmass is sporadic at best and does not meet the needs of visiting guests.
Snowmass is currently working with cellular service providers, as well as with local public agencies, to improve coverage. Service providers have preliminarily identified 10 potential sites, including on-mountain locations on NFS lands and base area locations on private lands, that, when combined, will greatly improve on-mountain cell phone coverage as well as coverage in the valley. Potential communications site locations are near the Boneyard Area, Divide Maintenance Facility, Big Burn top lift terminal, High Alpine Restaurant, Lynn Britt Cabin, Sam's Knob bottom lift terminal, Sam's Restaurant, Trestle Bridge, Two Creeks bottom lift terminal, and the Elk Camp Meadows area. Each location would require the implementation of either two 30 to 40 foot monopole towers or one 60 to 90 foot monopole tower. Site locations and equipment are subject to change given technological advances in communications infrastructure. Towers would be designed with natural colors in order to blend in with the surrounding environment. Fiber optic communication lines mounted on lift structures or buried in ski trails and mountain roads, along with equipment sheds and electrical utility connections are also planned to enhance cellular, broadband, and data infrastructure on the mountain.

7. Culinary Water and Sewer

Culinary water and sewer lines are planned for the new Alpine Springs Restaurant and the fine dining restaurant located near *Sandy Park* ski trail. Water for the Alpine Springs Restaurant will potentially be supplied from the main line that services the Elk Camp facilities or by water lines operated by the Snowmass Water and Sanitation District. The Big Burn lift maze temp restaurant & BBQ Grill/Picnic Area as well as the Dawdler Bowl food service/restrooms will be supplied by water and sewer lines. Finally, Snowmass plans to link Up4Pizza Restaurant to the resort's water system.

H. RESORT CAPACITY BALANCE AND LIMITING FACTORS

The overall balance of the existing resort is evaluated by calculating the capacities of the resort's various facilities and comparing those facilities to the resort's CCC. The upgraded capacities discussed above are shown in Chart VI-2.

Chart VI-2 indicates that most of Snowmass' capacities will remain fairly well-balanced. The surplus of terrain network capacity is reflected in low skier densities at Snowmass, does not present a particular issue, and is certainly not negative from guests' standpoint. When accounting for the number of guest service improvements and the RFTA Intercept P&R Lot, there is sufficient guest service space and restaurant seating, as well as parking and access capacity to access the resort.

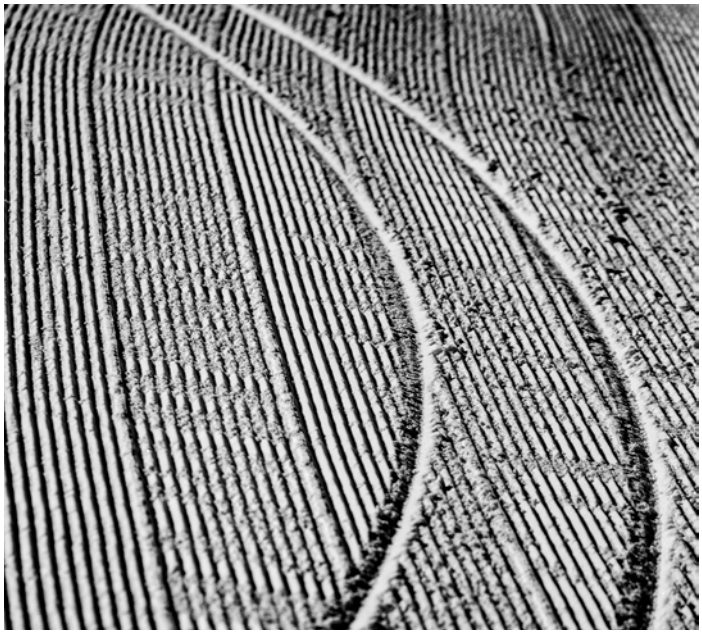
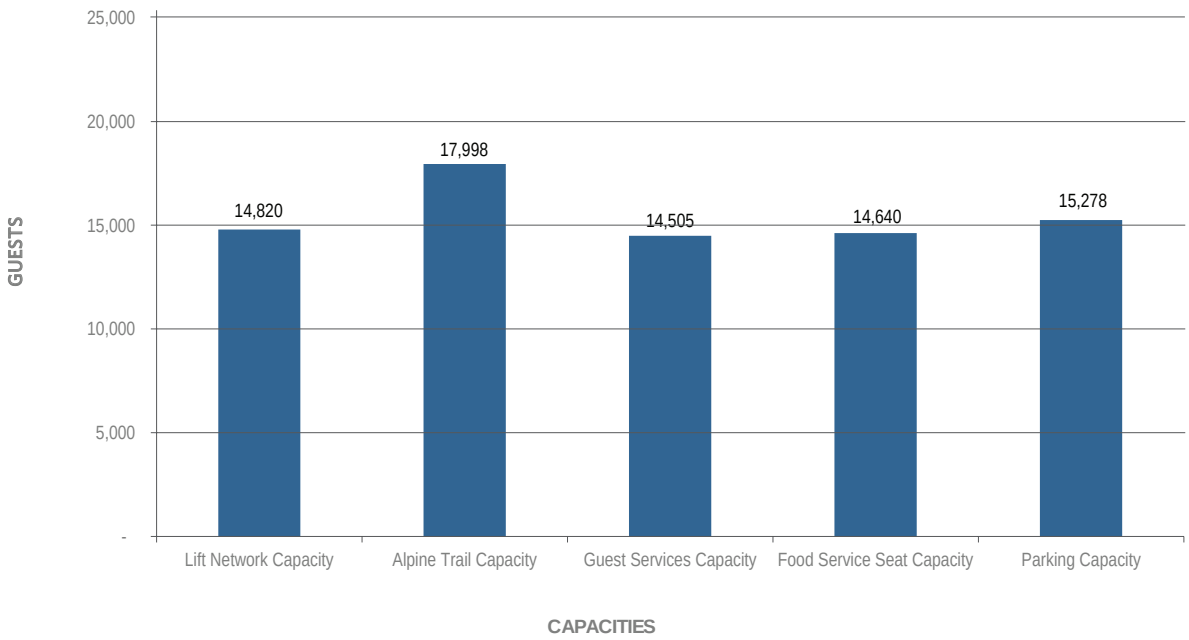


Chart VI-2. Resort Balance - Upgrade Plan



Source: SE Group

I. SUMMER OPERATIONS

1. *Summer and Multi-Season Offerings – Zones Concept*

As discussed in Chapter II, Snowmass identified four characteristics (access, remoteness, naturalness, and infrastructure) to define the summer and multi-season setting and guest experience within different landscapes across the SUP area. The first step in the zone designation process was a careful consideration of the setting and the proximity to infrastructure supporting snow sports. Features such as watersheds, topography, vegetation structure, level of existing disturbance, and existing infrastructure were considered in establishing zone boundaries across the entire SUP area.

The exercise resulted in the creation of 21 areas unique in their location and/or features. The second step of the zone designation process was applying a score for each characteristic on a scale of 1 to 3, with 1 being the most disturbed and 3 being the least disturbed. Figure VI-5, Proposed Summer Zone Plan, illustrates the zone designation within the Snowmass SUP area.

Because summer and multi-season uses are continually being developed and activities that do not currently exist may be popular within the next several years, a list of compatible activities is provided for each zone. The intent of the list of compatible activities is to allow for a certain amount of flexibility, since it is impossible to foresee exactly what new activities will be developed over this time. Snowmass will continue to work with the Forest Service to ensure that proposed summer and multi-season activities are suitable for the setting and desired experience within each zone.

a. Zone 1

Setting

The existing setting of Zone 1 is highly developed and disturbed. Within Zone 1, the built environment dominates the landscape. Within the context of the overall SUP area, the following summarizes the setting in Zone 1:

- Road access and roads are prevalent;
- Considerable human activity (people recreating and/or resort operations) occurs within and proximate to this setting—there is little to no feeling of remoteness;
- Terrain modifications (ground disturbance and vegetation removal) dominate the area; and
- Infrastructure, including chairlifts and buildings, are present.

Two areas within the Snowmass SUP were designated as Zone 1—the inner Elk Camp area and the summit of Sam's Knob. For planning purposes, the Village Express bottom terminal area, located on adjacent private lands in the Main Base Area, was also designated as Zone 1. Planned projects within this area have similar desired experiences and compatible activities and facilities; however, are not subject to Forest Service review or oversight, as they are located on private lands.

Desired Experiences

Within Zone 1, guests are expected to encounter a high concentration of other guests. The level of development will reflect the current setting and function of these areas as hubs of activity and portals to other activities across the ski area. Most guests visiting Zone 1 will initially access it from private land via the Elk Camp gondola (to Elk Camp) and the Village Express (to Sam's Knob). Within Zone 1, the concepts in the BEIG will be followed to ensure appropriate design guidelines for both landscape architecture and built architecture are followed. Zone 1 abuts Zone 2 on the fringes of developed on-mountain areas. This allows guests to experience a gradual transition between the built environment (Zone 1) and more-natural areas that still contain activities and facilities blending with the area's natural setting (Zone 2). Zone 1 abuts Zone 3 in one area, along the western side of Sam's Knob. The distinct change in topography in this area creates a natural buffer between these two zones. Zone 1 will offer interpretive opportunities in a developed setting, with goals of enhancing guests' understanding of the natural environment as they prepare to venture into less-developed areas. The educational focus will leverage existing partnerships with ACES and other organizations.

Compatible Activities and Facilities

Services and activities in Zone 1 include food and beverage operations, shelter and emergency services, restroom facilities, landscaped areas, and other activities. At Snowmass, Zone 1 serves as the on-mountain hub, from which guests will access surrounding activities and refuel between activities. Typically, guests will first access these areas after riding the Elk Camp gondola or Village Express; however, guests could also access Zone 1 under their own power from the surrounding trails network.

Elk Camp already hosts several multi-season recreational activities, including the Lost Forest Ropes Challenge Course, the Climbing Wall, the Breathtaker Alpine Coaster, the Zipline Canopy Course, live music, snow tubing, a playground, and others.

Activities on NFS lands will include an alpine coaster, challenge courses, canopy tours, singletrack, flow, and gravity/enduro mountain biking trails, a mountain biking skills park, hiking trails, and access pathways to zip lines, challenge courses, fishing and other water-based activities, temporary activities (such as the existing outdoor concerts and kid's playground), and other natural resource-based recreation activities. The activities will not compromise the existing skiing which occurs in Zone 1 during winter months.

b. Zone 2

Setting

The setting of Zone 2 is less disturbed when compared with Zone 1 and provides more naturalness due to a lesser degree of disturbance from the surrounding ski area. Within the context of the overall SUP area, the following summarizes the setting in Zone 2:

- Road access and roads are present;
- Human activity (people recreating) occurs within and proximate to this setting—there is little feeling of remoteness;
- Terrain modifications (ground disturbance and vegetation removal) are evident in the area, but past disturbance blends with the landscape; and
- Infrastructure, including chairlifts and buildings, are present.

Six areas within the Snowmass SUP area were designated as Zone 2—lower portions of the mountain surrounding the Elk Camp gondola, Two Creeks lift, Alpine Springs lift, and Sam's Knob; the High Alpine Restaurant; and the areas around the Elk Camp lift where summer trails exist.

Desired Experiences

Most guests will access Zone 2 from Zone 1, in areas surrounding Elk Camp and Sam's Knob. In moving between these zones, guests will transition from the built environment to a setting characterized by both developed

and passive activities proximate to existing infrastructure and facilities, but still offering a more-natural feel. For many guests of Snowmass, this may be their first real experience in the mountains, and providing a safe, comfortable environment for exploration is critical to the success of Zone 2 and the overall plan. Zone 2 provides the initial opportunity for guests to learn about and engage in their natural surroundings through hands-on recreational, interpretive, and educational offerings. In addition to hosting activities such as guided hikes, a zip line/canopy tour, and various trails, Zone 2 serves as a buffer between higher levels of development within Zone 1 and on private lands, and the more natural settings of Zones 3 and 4.

Compatible Activities and Facilities

Passive activities within Zone 2 include educational/interpretive opportunities, sightseeing and light hiking, or simply visiting with friends and family. Zone 2 will provide enhanced sightseeing opportunities when compared to Zone 1. Activity offerings include access to zip lines and canopy tours, guided hikes and interpretative opportunities, extended hiking trails, singletrack, flow, and gravity/enduro mountain biking trails, challenge courses, climbing walls, fishing and other water-based activities, and other natural resource-based activities.

As mentioned above, the Zone 2 serves two primary purposes—to provide activities in a natural setting in proximity to existing infrastructure and services, and to provide a buffer between Zones 3 and 4 and more developed areas within Zone 1 and on private lands. Thus, areas within Zone 2 serve as transitional zones, encouraging guest exploration into more natural portions of the National Forest in a setting that still feels comfortable for less-experienced Forest users. The setting of Zone 2 and the activities that occur within will offer sufficient challenge for first-time guests and will prepare others to venture into the less developed areas of Zones 3 and 4.

c. Zone 3

Setting

The setting of Zone 3 contains areas of disturbance from ski trail and chairlift development, but guests can still find a greater degree of remoteness and naturalness depending on their location within the zone. Generally speaking, Zone 3 includes areas where existing chairlifts are present; however, this was not the determining factor for the designation. Within the context of the overall SUP area, the following summarizes the setting in Zone 3:

- Road access and roads are present, but limited to certain areas;
- Human activity (people recreating) can be seen at a distance or is out of site from within this setting—a stronger feeling of remoteness is present;
- The area is moderately disturbed by ski area activity, including vegetation removal from ski trail development and some ground disturbance; and
- Infrastructure, including chairlifts and buildings, are present.

Seven areas within the SUP area were designated as Zone 3—areas around the *Bull Run* and *Sandy Park* ski trails; upper portions of Alpine Springs; the Big Burn; and the upper and lower portions of the Campground area. Not all of the areas which received a Zone 3 designation are equal in characteristics. For example, Sandy Park is less accessible and includes a higher degree of remoteness when compared to the Big Burn; however, both locations scored in the range to be characterized as Zone 3.

Desired Experiences

The majority of guests will initially experience Zone 3 during a scenic chairlift ride from private lands to Zones 1 and 2. In addition to beautiful views of the Roaring Fork Valley, this "fly over" exposure will allow guests to see diverse vegetation types and topographic features as they make their way up the mountain. On the ground, access to Zone 3 would typically occur after traveling through Zones 1 and 2 from the top lift terminals; however, guests could also access Zone 3 from private lands via the existing trails network. Once in Zone 3, guests will have a variety of opportunities to engage in their surroundings in a more natural and remote environment.

The desired experience in Zone 3 will be achieved through the activities offered there. Guests will enjoy nature hikes with interpretive signage that will provide education on their biological, cultural, and historical surroundings. Guests will hike to locations with views up and down the Roaring Fork Valley. Opportunities for self-guided tours, or dispersed travel also exist. Guests will ride mountain biking trails through forested settings and learn the importance of forest health and stewardship. The mountain bike trail network would be less dense compared to Zone 2. In Zone 3, guests will also ride zip lines and canopy tours over and through the canopy to experience amazing views of the Snowmass area and its natural surroundings.

Zone 3 offers a diverse set of experiences for guests, which will promote the WRNF as a recreationally-, biologically-, and geographically-diverse landscape.

Compatible Activities and Facilities

Activities include singletrack mountain biking trails, scenic chairlift rides, hiking trails, multiple-use trails, canopy tours, and other similar natural resource-based activities. Select activities such as interpretive tours, and canopy tours may occur on a year-round basis. Activities within Zone 3 will not require substantial modifications to natural topography to facilitate construction. Existing ski area development (ski trails and chairlifts) exist to varying degrees within Zone 3, and potential seasonal and year-round facilities and activities will be consistent with the level of existing development for the ski area operation.

d. Zone 4

Setting

The setting of Zone 4 is more remote and provides a great degree of naturalness. Ski area development is limited and, where ski trails are present, larger tree islands prevail. Within the context of the overall SUP area, the following summarizes the setting in Zone 4:

- Little to no road access occurs;
- Human activity (people recreating and/or resort operations) is distant or out of site facilitating a high degree remoteness;
- The area is completely natural or has limited disturbance; and

- Infrastructure, including a chairlift and small buildings, are present.

Six areas within the Snowmass SUP area were designated as Zone 4—the Burnt Mountain Glades, Hanging Valley, High Alpine, Lower Cirque, Upper Cirque, and the middle portion of the Campground area. The Burnt Mountain Glades area includes ski trails and glading, but development is limited. The Upper Cirque area includes the Cirque lift but has a feeling of remoteness due to the nature of the alpine terrain.

Desired Experiences

In Zone 4, guests will connect with the more natural setting in a relatively undisturbed environment. Dispersed hiking opportunities will allow guests to experience and interpret areas of the National Forest where natural processes are more evident, allowing for educational opportunities that are not available in more developed zones. The setting in Zone 4 will directly affect the guest experience and maintaining a more remote setting with opportunities for solitude will meet the guests' expectations.

Compatible Activities and Facilities

Activities will promote the surroundings and inform guests of similar environments throughout the National Forest. Activities include slower-moving actions to match the setting and character, which provide even greater opportunities for environmental education and exposure to unique environments. These activities include singletrack hiking trails with signage and interpretation and singletrack mountain biking trails. Activities within Zone 4 will require minimal site modification to maintain the current level of naturalness. In this zone, the low density of guests is expected to maintain the feeling of remoteness.

e. Zone 5

Zone 5 is the least developed of all zones. No areas within the Snowmass SUP area were classified as Zone 5. Table VI-10 describes the characteristics of each zone, and Table VI-11 provides information about each zone at Snowmass.

Table VI-10. Zone Characteristics

Zone Characteristics	Scores
Access	
Road Access within Area	1
Limited Road Access/Trails	2
No Road Access	3
Remoteness	
Proximate to Human Activity	1
Distant Sight of Human Activity within SUP	2
Out of Sight of Human Activity within SUP	3
Naturalness	
Heavily Disturbed by Ski Area Activity	1
Moderately Disturbed by Ski Area Activity	2
Undisturbed by Ski Area Activity	3
Infrastructure	
Adjacent to 2 or More Ski Area Infrastructure	1
Ski Area Infrastructure in Area	2
Out of Site of Ski Area Infrastructure	3
Minimum Score Possible	*4*
Maximum Score Possible	*12*
Zones	Score Range
1	4
2	5 to 6
3	7 to 9
4	10 to 11
5	12

Table VI-11. Snowmass Summer Use Zones

Area Boundaries	Scores	Appropriate Zone
Alpine Springs Summit		
Access	1	
Remoteness	2	
Naturalness	2	
Infrastructure	1	
Total Score	6	Zone 2
Bull Run		
Access	2	
Remoteness	2	
Naturalness	2	
Infrastructure	2	
Total Score	8	Zone 3
Campground Upper		
Access	1	
Remoteness	2	
Naturalness	2	
Infrastructure	2	
Total Score	7	Zone 3
Campground Middle		
Access	3	
Remoteness	2	
Naturalness	2	
Infrastructure	3	
Total Score	10	Zone 4
Hanging Valley		
Access	3	
Remoteness	2	
Naturalness	3	
Infrastructure	3	
Total Score	11	Zone 4
Lower Alpine Springs		
Access	1	
Remoteness	1	
Naturalness	2	
Infrastructure	2	
Total Score	6	Zone 2
Lower Cirque		
Access	2	
Remoteness	2	
Naturalness	3	
Infrastructure	3	
Total Score	10	Zone 4

Area Boundaries	Scores	Appropriate Zone
Sam's Knob		
Access	2	
Remoteness	1	
Naturalness	1	
Infrastructure	1	
Total Score	5	Zone 2
Sandy Park		
Access	2	
Remoteness	2	
Naturalness	2	
Infrastructure	3	
Total Score	9	Zone 3
Big Burn		
Access	2	
Remoteness	2	
Naturalness	2	
Infrastructure	1	
Total Score	7	Zone 3
Burnt Mountain Glades		
Access	3	
Remoteness	3	
Naturalness	2	
Infrastructure	2	
Total Score	10	Zone 4
Elk Camp – Inner		
Access	1	
Remoteness	1	
Naturalness	1	
Infrastructure	1	
Total Score	4	Zone 1
Campground Lower		
Access	1	
Remoteness	2	
Naturalness	2	
Infrastructure	2	
Total Score	7	Zone 3
High Alpine		
Access	3	
Remoteness	3	
Naturalness	2	
Infrastructure	2	
Total Score	10	Zone 4

Area Boundaries	Scores	Appropriate Zone
Lower Burnt Mountain		
Access	1	
Remoteness	1	
Naturalness	2	
Infrastructure	2	
Total Score	6	Zone 2
Lower Elk Camp		
Access	1	
Remoteness	1	
Naturalness	1	
Infrastructure	2	
Total Score	5	Zone 2
Sam's Knob Summit		
Access	1	
Remoteness	1	
Naturalness	1	
Infrastructure	1	
Total Score	4	Zone 1
Upper Alpine Springs		
Access	2	
Remoteness	2	
Naturalness	2	
Infrastructure	2	
Total Score	8	Zone 3
Upper Cirque		
Access	3	
Remoteness	3	
Naturalness	2	
Infrastructure	2	
Total Score	10	Zone 4
Upper Burnt Mountainx		
Access	2	
Remoteness	2	
Naturalness	2	
Infrastructure	2	
Total Score	8	Zone 3
Upper Elk Camp		
Access	1	
Remoteness	1	
Naturalness	2	
Infrastructure	2	
Total Score	6	Zone 2

2. *Summer and Multi-Season Activities and Facilities*

Summer activities at ski resorts have expanded and evolved over the last decade. Snowmass' offerings have aligned with this trend. Additionally, Snowmass recognizes that it must cater to a slightly different demographic than in the winter. Summer activities provided by Snowmass are a combination of activities that can enjoyed by all ages and ability levels.

Details on planned upgrades are presented below, but specific project locations and associated maps will be developed during site-specific analysis as part of the NEPA process. Phase 1 summer and multi-season projects are anticipated to be implemented, dependent upon NEPA analysis and approval. Projects beyond those described below may be implemented in accordance with the setting and desired experience of each zone, as described above. Planned projects include the following:

a. Snowmass Village (Private Lands)

Paintball and Archery

Upgrades are planned for the existing paintball venue located on private lands uphill of the Spider Sabich Picnic/Race Area. The addition of an archery range is also planned for this area.

Disc Golf

ASC plans to relocate portions of disc golf course #2, which is located on private lands along the Village Express lift line. Disc golf infrastructure would be relocated to private lands downhill of the Spider Sabich Picnic/Race Area and upper *Velvet Falls* ski trail.

b. Elk Camp

Kid's Activities

On-mountain kid's activities are currently limited to the kid's playground and those offered at Elk Camp during special events. In order to provide additional opportunities for children and families, ASC plans to add a new kid's zipline and kid's zone. Developing these types of opportunities will encourage guests, and youth in particular, to learn about the natural world that exists around them within the National Forest.

A kid's zip line or similar gravity-transported activity will be located in the lower Elk Camp area, over the

planned wildflower field. The planned infrastructure will provide opportunities for unsupervised play for children between the ages of 5 and 10. Children will access the zip line using an elevated platform, approximately 1 to 2 feet above the ground, and then glide the length of the structure before unloading on another elevated platform. The zipline will improve the variety of children's activities offered at Elk Camp by providing a more fast-paced and exciting option. The infrastructure will be removed for the winter season and reinstalled each summer.

The planned kid's zone would be located to the east of the lower Elk Camp area. The kid's zone would include a nature-based obstacle/ropes course and a small structure for equipment storage and ticket sales. The kid's zone would only be operated during the summer. The kid's zone and nature-based obstacle course will improve the variety of children's activities offered at Elk Camp by providing an additional passive recreation experience.

Expanded Challenge Course and Team Building Course

The Lost Forest Ropes Challenge Course has become one of the more popular summer activities at Snowmass. ASC has identified a demand for additional beginner and intermediate courses as well as a designated team building course. Therefore, ASC plans to expand the Lost Forest Ropes Challenge Course to include additional beginner and intermediate courses, as well as a course specifically designed for team building activities. The planned courses would be located in the forested area uphill of the existing Lost Forest Ropes Challenge Course. Access would be provided using the existing Meadows lift and the planned hiking trails.

The courses are intended to provide physical recreation and engagement in a natural setting, offering challenging personal development and team-building activities with both high and low elements.[24] The structures would be supported by trees, wooden utility poles, or steel supports, and would be designed to integrate with the existing Lost Forest Ropes Challenge Course. Outcomes achieved by challenge courses include exploring the

fundamentals of trust, craftsmanship, and coaching, intertwined with group interaction, problem solving, and leadership. A renewed knowledge and respect for the natural environment is another expected outcome of the challenge course. Developing these types of opportunities will encourage guests to learn about the natural world that exists around them within the National Forest.

Lost Forest Headquarters Building Expansion

An expansion is planned for the Lost Forest Headquarters building located at the top of the Elk Camp gondola. The expansion would provide space to accommodate additional summer activities within the Elk Camp area. The expansion would include additional storage and administrative space, as well as a roof-top deck on the south side of the building.

Wildflower Field

A planned wildflower field would be located in the Elk Camp area, south of the Elk Camp gondola top terminal. The wildflower field would be the first thing guests see after uploading from the gondola. The field would be landscaped with native wildflowers.

24 Low elements take place on or near the ground. High elements take place higher above the ground—in the forest canopy or on structures supported by utility-type poles—and may require a belay for safety.

Elevated Walkway

An elevated walkway is planned to realign a portion of the existing Rabbit Run nature trail. The elevated walkway would be located in a forested setting, adjacent to the existing Lost Forest Ropes Challenge Course and the planned expanded challenge course and team building course. The trail would wind through the forest and have multiple visual, interactive, and educational points of interest. The elevated walkway would consist of a wooden boardwalk with a gravel surface. The walkway would be constructed to comply with the Architectural Barriers Act of 1968.

Nature Based Interactive Exhibit

A permanent Nature Based Interactive Exhibit location is planned for the Elk Camp area. The exhibit would be located in a forested setting, adjacent to the Elevated Walkway so it may be accessed by visitors of the Elk Camp area during the winter and summer. The installation would provide an additional, unique experience, which would be accessible to all visitors of the National Forest.

Additional Nighttime Events

Nighttime dinning and events are also planned at Elk Camp during the summer and winter. These events would follow the same guidelines and standards for existing events and would be coordinated with the Town and Forest Service prior to occurring.

c. Greater Snowmass SUP Area

Zipline

A new zip line (or other gravity-transported activity) is planned from the top of the Elk Camp lift, to a mid-station near the bottom of *Frog Pond Glade* ski trail, to the upper Elk Camp area. Users would be clipped into gear—consisting of a harness, lanyards, carabineers, and zip pulleys on heavy-duty steel cables—and would glide from one elevated platform to the next. The zip line will provide guests with an active opportunity to engage and learn about the ecosystems of the WRNF as they travel through the forest canopy. Platforms would be located between zip line segments and constructed on poles. Users would travel at various speeds, remaining below the top of the tree canopy the majority of the time.

Along with the inherent adventure and scenery offered by the zip line, interpretation of the surrounding natural environment will play a significant role in attracting users to this activity.

Construction of a mountain access road will be required to reach the planned zip line mid-station. The planned road will extend off the existing mountain access road located on the *Turkey Trot* ski run and would also provide an alternate connection between the top of Alpine Springs and the Elk Camp Meadows area.

Mountain Biking Trails

In 2021 Aspen Skiing Company and Gravity Logic, the nation's preeminent mountain bike trail designers, went on a search within the Snowmass SUP for the best terrain to compliment and diversify Snowmass' successful mountain bike operations. The purpose of Gravity Logic's assessment was to determine the best options for an expanded trail network and to offer a more diverse mountain biking product. Gravity Logic assessed the entire ski area for expansion potential using criteria including accessibility, connectivity with other trials, proximity to existing infrastructure including restrooms and food and beverage services, topography, ground cover and tree coverage. Based on the assessment, the

upper Burnt Mountain and upper Sam's Knob were determined to be the most logical areas to expand.

The majority of planned trails will cater to intermediate and expert riders. As discussed in Section I.4 in Chapter IV, most existing trails at Snowmass are XC trails, while a growing percentage of Snowmass' guests are gravity/enduro riders. In order to address this deficiency, a primary goal of the planned mountain biking trails is to provide additional gravity terrain that will accommodate this growing segment of the market. The progression in mountain biking trail construction has become increasingly noticeable over the past several years. In order to continue to be a leader in the market, Snowmass desires to provide additional diversity and cutting-edge design in its mountain biking trails network.

Most of the new biking terrain proposed is concentrated in the upper Burnt Mountain area. Burnt Mountain has the right topography for the desired mountain bike experience and is located within Snowmass' SUP, an area designated as Management Area 8.25 in the WRNF Forest Plan. The desired condition of an 8.25 area is where "recreational uses are intensively managed during the summer and winter seasons".

An additional 13.1 miles of mountain biking trails are planned for the Burnt Mountain area (refer to Figures VI-4 and VI-5). Gravity Logic noted of the Burnt Mountain trails: "Accessed by a low angle uphill bike trail, constructed at approximately a 5% grade, this would be the starting point for several truly epic bike trails." The planned trails identified in Figure VI-4 are conceptual and are subject to change during site-specific planning and layout. All bike trails on Burnt Mountain are planned to be located outside of the existing elk calving zones. All use, construction, and maintenance activity on these trails will comply with the NFS-established elk closure dates, currently May 15th to June 27th.

Trails are also contemplated to start at the top of Sam's Knob. This terrain has access to food and beverage facilities at the top of the Village Express lift, as well as great views; however, based on the Gravity Logic assessment, "potential trails in this zone would have very limited connectivity to the existing downhill bike park network".

In addition to the expansions described above, Snowmass also plans to create a designated uphill bike trail between Ullrhof Restaurant and the top of Sam's Knob.

Generally, Zones 1, 2 and 3 will contain denser networks of trails, and will include cross-country singletrack, flow, and gravity/enduro trails. The higher levels of development and activity in these zones makes them suitable for this type of trail development. Most of the planned mountain bike trails are within Zones 2 and 3 and will consist of singletrack trails or flow trails. No mountain biking trails are currently planned in Zone 4.

Overall, these upgrades will increase opportunities for guests to explore NFS lands within the Snowmass SUP area and will promote the development of new riders. Interpretive signage will be located along planned trails to promote stewardship of surrounding natural resources.

Furthermore, eBikes are quickly growing in popularity across the US. eBike riders reflect a relatively new user type. Generally, these users ride bikes that resemble those used by enduro riders but with the addition of a battery and electric motor, which provides a modest amount of assistance when pedaling. As the market evolves, Snowmass hopes to explore options to sustainably provide opportunities for eBike use where appropriate and as Forest Service regulations allow.

Hiking Trails

Approximately 10.4 miles of additional hiking trails are planned to supplement the existing trail network. Planned hiking trails would provide connectivity through the woods across the east and west sides of Snowmass. These trails would serve as the primary attraction for day-hikers looking for a longer hike from the top of Sam's Knob. Other shorter hiking trails are planned to provide access to viewpoints and scenic destinations such as the Burnt Mountain Summit and the Sandy Park Saddle via short hikes from lifts. These trails would serve less active or physically-able visitors wishing to experience scenic vistas.

d. Summer and Multi-Season Activities and Zones

Activities would take place within each zone, as follows:

Zone 1

- Scenic chairlift rides utilizing the Elk Camp gondola and chairlift
- Scenic rides on the planned Village Express gondola
- Special events and nighttime dining at Sam's Knob
- Challenge courses in Elk Camp Meadows
- Alpine coaster
- Singletrack, flow, and gravity/enduro mountain biking trails and hiking trails
- Climbing wall
- Kid's play area
- Kids' zip line
- Kid's nature-based obstacle/ropes course
- Nature-based interactive exhibit
- Special event/gathering sites

Zone 2

- Scenic chairlift rides utilizing the Elk Camp gondola and chairlift
- Scenic rides on the planned Village Express gondola
- Challenge courses in Elk Camp Meadows
- Zipline extending from the top terminal of Elk Camp chairlift to the top terminal of Elk Camp gondola
- Canopy tour extending down mountain below Elk Camp
- Singletrack, flow, and gravity/enduro mountain biking trails and hiking trails
- Special event/gathering sites

Zone 3

- Scenic chairlift rides utilizing the Elk Camp chairlift
- Singletrack and flow mountain biking and hiking trails

Zone 4

- Singletrack hiking trails

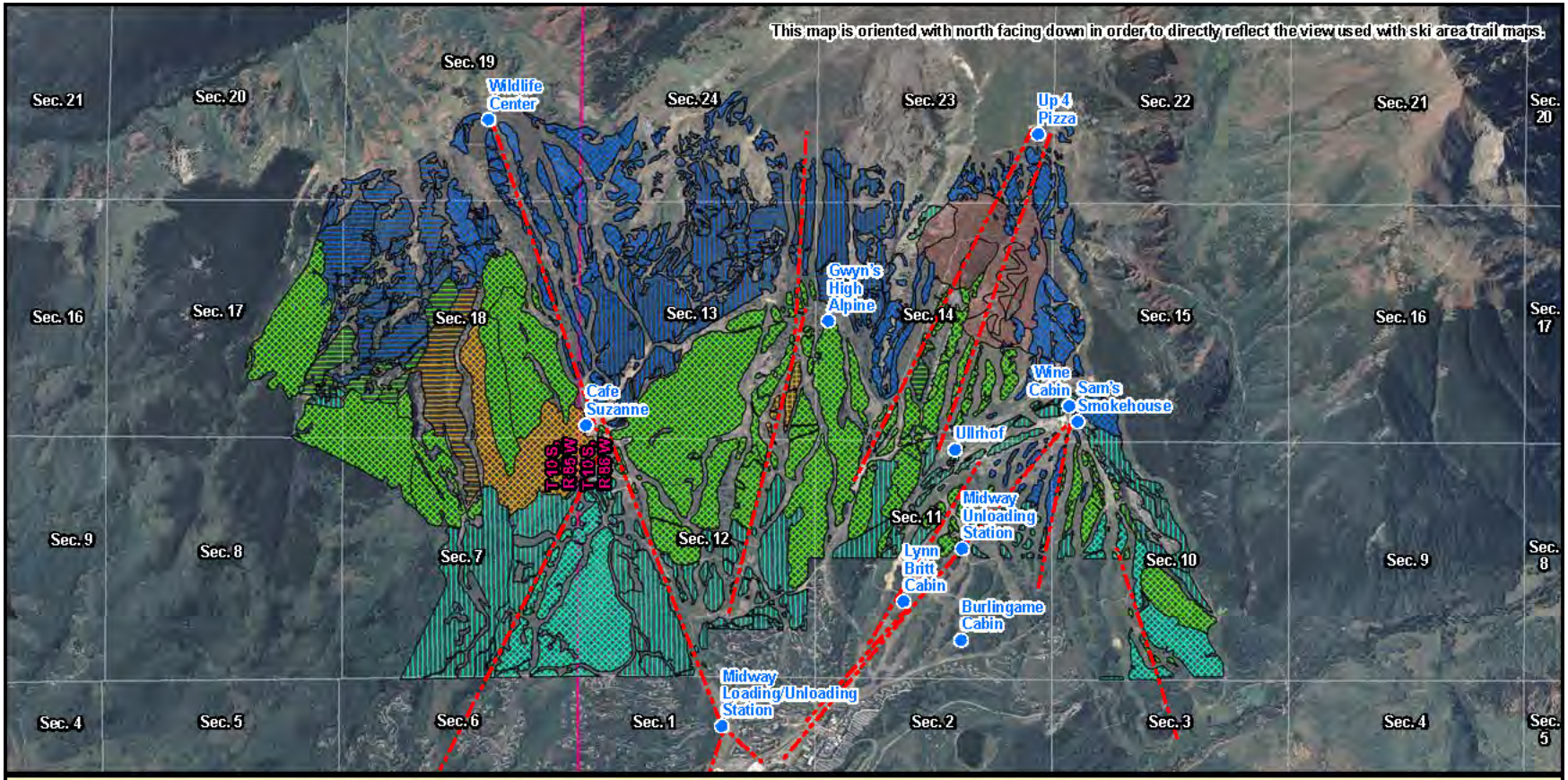
Appendices

APPENDIX A.
SNOWMASS FOREST HEALTH PROJECTS – PROPOSED TREATMENT MAP

APPENDIX C.
FOREST HEALTH PRESCRIPTIONS

APPENDIX C.
BOUNDARY MANAGEMENT PLAN

APPENDIX D.
USFS LETTER AND ASC RESPONSE TO USFS LETTER DATED AUGUST 24, 2022



Proposed Treatment Units - Snowmass Ski Area

Aspen Ranger District, White River National Forest

Ski Area Features
Ski Lifts

Stand Type 0: All Stands Where Required
- Hazard Tree Removal (Partial Cut)
- Plant Seedlings or Transplants

Stand Type 2: Pure Lodgepole Pine (90% +) and Mortality >50%
- Small Clearcuts within a Thinning (Partial Cut)
- Shelterwood Cutting (Partial Cut)
- Salvage Cutting (Partial Cut)

Stand Type 4: Mixed Lodgepole Pine (50-70%) and Other Species
- Partial Cut (Remove all Lodgepole Pine)
- Small Clearcuts within a Thinning (Partial Cut)
- Salvage Cutting (Partial Cut)

Stand Type 5: Mixed Lodgepole Pine (<50%) and Other Species
- Partial Cut (Remove all Lodgepole Pine)
- Small Clearcuts within a Thinning (Partial Cut)
- Salvage Cutting (Partial Cut)

Stand Type 7: Pure Aspen (90% +) and Other Tree Species
- Partial Cut (Remove all Conifer)
- Salvage Cut (Partial Cut)

Miles: 0 0.5 1
Feet: 0 2,000 4,000
Meters: 0 500 1,000

"This product is reproduced from geospatial information prepared by the U.S. Department of Agriculture, Forest Service, GIS data and product accuracy may vary. They may be; developed from sources of differing accuracy; accurate only at certain scales; based on modeling or interpretation; incomplete while being created or revised, etc. Using GIS products for purposes other than those for which they were created may yield inaccurateor misleading results. This information was released on 16 May 2011. The Forest Service reserves the right to correct, update, modify, or replace GIS products based on new inventories, new or revised information, and (if necessary) in conjunction with other federal, state, or local public agencies or the public in general as required by policy or regulation. Previous recipients of these products may not be notified unless required by policy or regulation."

For more information, contact the White River National Forest, Aspen Ranger District at 970-925-3445.

■ 1 Acre

Produced By: JG Management Systems, Inc.
For More Information Contact: Tim Sansom, Natural Resources Manager
Phone #: 970.254.1354
e-mail: timsansom@jgmsinc.com

1:48,000
1 inch = 4,000 feet

APPENDIX B. FOREST HEALTH PRESCRIPTIONS

The following is a complete list of silvicultural treatment options, with some variation, used in the Keystone, Vail, Beaver Creek, and Aspen area vegetation EAs. The "Do Nothing" option is always a consideration.

STAND 0: ALL STANDS WHERE REQUIRED (See Option description)

RX OPTION 0.1 – Insecticide or Pheromone Application and Treating Infested Trees (Preventive Action): This treatment maintains the stand through the current insect outbreak. If the stand succumbs to bark beetles another option should be used.

Treat high value trees by applying an approved insecticide or by applying an approved anti- aggregative pheromone prior to beetle emergence each year until the threat of infestation is over. In high value areas treat beetle-infested trees by felling and peeling, burning, chipping or removing the trees prior to beetle emergence.

RX OPTION 0.2 – Hazard Tree Removal (Partial Cut): This is a sanitation/salvage treatment. This option may be used in any stand type where appropriate, and is an understood component of all prescription options where appropriate.

Harvest hazard trees located within a 150 foot buffer zone from the edge of the stand. Retain all other species.

RX OPTION 0.3 – Plant seedlings or transplants (Regeneration): This option establishes healthy young trees to maintain the forested cover.

Plant trees in under stocked portions of the Big Burn where protection from skier or rider damage can be provided, as well as provide shelter from the harsh elements. Planting stock can either be nursery grown or transplanted from adjoining areas with sufficient seedling and sapling stock. Protection can either be provided by planting down-hill from existing barriers and shelter such as large trees, or be provided by fencing or other deterrents.

RX OPTION 0.4 – Final Shelterwood Harvest (if needed) and Pre-commercial Thinning (Partial Cut): Objective is to protect, and release, young, well-stocked stands of advanced regeneration.

Where there is an overstory, treat the patch as the final removal cut of a 2-step shelterwood harvest. Remove all lodgepole pine 7" dbh and greater while protecting the advanced regeneration. Retain all other species unless there is a reason to remove them. Protect regeneration with fencing, signing, barriers, etc. Where there is no overstory, or once the overstory is removed, follow the treatment as outlined below.

After harvest cut (and remove, scatter, pile and burn, chip, or treat in some way to reduce fuel hazard after cutting) understory trees that have been damaged by harvest operations, that are infested with beetles or mistletoe, or that have less than 25% crown ratio.

After the Overstory Removal harvest, if the understory would still be too dense to meet objectives after the damaged trees TSI thinning, than a stocking reduction thinning should be incorporated into the TSI thinning. In this case, while removing damaged and diseased trees, reduce the stocking of the crop (best) trees to approximately a 12x12 foot spacing (300 trees per acre). Uniform spacing is not as important as allowing each tree space for growth, so larger trees should be given more space than smaller trees. Do this by allowing approximately 4 to 6 feet spacing between crowns for the larger trees, using the 12x12 foot spacing as a lower limit, default spacing for smaller trees.

RX OPTION 0.5 – Salvage/Sanitation and Improvement cutting (Fuel Break): Objective is to create a fuel break along the edge of the resort.

Harvest the stand by removing beetle-infested or dead PICO (or other species) 7" dbh or greater, up to 25% of the basal area of the stand. In open areas, instead of a 25% removal target, remove enough trees so that there is 15 to 20 foot spacing between the crowns of the residual trees if this results in less than a 25% removal.

In areas where the majority of the stand is dead or beetle-infested lodgepole pine, clearcut (with reserves) the stand by removing all the lodgepole pine, live and dead, while retaining other species as long as there is a minimum of 15 to 20 foot spacing between residual trees or groups of trees. In areas that are clearcut, regeneration is desired and site preparation will be done. These areas will require thinning once regeneration is established to maintain the fuel break objective.

In addition, remove PICO less than 7.0" in diameter that have been attacked by or are infested with mountain pine beetles, or that are infested with mistletoe, or that have a crown ratio of less than 25%. In some areas, where PICO is over 25% of the stand, some PICO will remain; in these areas the PICO not removed will eventually be killed by mountain pine beetles and will probably end up as downfall in 10 to 15 years. Objective is to eventually have a 350 to 400 foot wide corridor of open stands of healthy trees spaced about 15 to 20 feet between crowns. Perform the next entry to maintain the fuel break, where needed, in 5 to 40 years.

STAND 1: PURE LODGEPOLE PINE (90% +) and MORTALITY < 50%

RX OPTION 1.1 – Partial Cut (Thinning): This thinning maintains the stand through the current insect outbreak. If the stand succumbs to mountain pine beetles before multiple age classes can be regenerated, another option should be used.

Thin the stand, removing approximately 20 to 30% of the basal area to a residual minimum of 50 square feet per acre. Target basal area is 60 to 80 square feet per acre to reduce the stand's susceptibility to bark beetle infestation. Lodgepole pine and subalpine fir are the preferred species for removal, in that order. Retain Engelmann spruce and aspen. Scarify the ground to expose 25% mineral soil, and lop and scatter tops evenly to provide a seed source. If needed, protect advanced regeneration from skier damage.

RX OPTION 1.2 – Shelterwood Cutting (Partial Cut): Option 1.2 is an even-aged management option. The treatment encourages an initial flush of regeneration and protects it with the residual stand until the regeneration is less susceptible to ski damage.

Treat the entire stand as the seed cut (first cutting) of a 2-step shelterwood harvest, removing approximately 35% of the basal area to a target of 50 to 70 square feet per acre. Target lodgepole pine and other trees infested by MPB for removal. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Perform an overstory removal (second and last cutting) in 10 to 15 years.

RX OPTION 1.3 – Shelterwood Cutting, Final Removal (Overstory Removal): This is an even-aged management option. The treatment removes the larger trees (the Overstory) that share the site with a healthy advanced regeneration understory.

Treat the unit as the final removal cut of a 2-step shelterwood harvest. Remove all lodgepole pine 7" dbh and greater while protecting the advanced regeneration. Retain all other species. Protect regeneration with fencing, signing, barriers, etc.

RX OPTION 1.4 – Salvage Cutting (Partial Cut): This is an even-aged management option designed to provide ski run separation and protect regeneration in situations where high levels of MPB mortality exist.

Salvage all dead lodgepole pine, removing no more than 75% of the basal area. Retain all live lodgepole pine and other species, if present, to maintain the functionality of the stand for ski run separation as much as possible. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Regeneration should be protected until it is established.

RX OPTION 1.5 – Small Clearcuts within a Thinning (Partial Cut): This option maintains the stand through the current insect outbreak, regenerates it in phases, and moves it to uneven-aged management. If the stand succumbs to mountain pine beetles before multiple age classes can be regenerated, options 1.4 or 1.6 should be used.

Patch clearcut (with reserves) approximately 25% of the stand in 1 to 5 acre patches focusing on areas of MPB caused mortality. Thin the remaining 75% of the stand to a target of 60 to 80 square feet per acre to reduce attraction to MPB (McGregor, Amman, Schmitz and Oakes, 1987; Samman and Logan 2000), removing no more than 35% of the basal area where there are blowdown concerns. Patch shapes should be irregular and mimic natural disturbances. Strip patches along the contour can be used to limit aesthetic impacts. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Perform another series of patch clearcuts in 20 years for the next phase of regeneration.

RX OPTION 1.6 – Clearcut: This is an even-aged management option for areas where ski run separation and protection of regeneration is not critical, and future management will focus on forest cover.

Clearcut (with reserves) the stand, if it is not needed for skier management, removing 100% of the trees killed or infested with MPB. Retain non-lodgepole pine trees with live crown ratios of 50% or greater. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Regeneration should be protected until it is established.

STAND 2: PURE LODGEPOLE PINE (90% +) and MORTALITY > 50%

RX OPTION 2.1 – Partial Cut (Thinning): This thinning maintains the stand through the current insect outbreak. If the stand succumbs to mountain pine beetles before multiple age classes can be regenerated, another option should be used.

Thin the stand, removing approximately 20 to 30% of the basal area to a residual minimum of 50 square feet per acre. Target basal area is 60 to 80 square feet per acre to reduce the stand's susceptibility to bark beetle infestation. Lodgepole pine and subalpine fir are the preferred species for removal, in that order. Retain Engelmann spruce and aspen. Scarify the ground to expose 25% mineral soil, and lop and scatter tops evenly to provide a seed source. If needed, protect advanced regeneration from skier damage.

RX OPTION 2.2 – Shelterwood Cutting (Partial Cut): Option 2.2 is an even-aged management option. The treatment encourages an initial flush of regeneration and protects it with the residual stand until the regeneration is less susceptible to ski damage.

Treat the entire stand as the seed cut (first cutting) of a 2-step shelterwood harvest, removing approximately 35% of the basal area to a target of 50 to 70 square feet per acre. Target lodgepole pine and other trees infested by MPB for removal. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Perform an overstory removal (second and last cutting) in 10 to 15 years.

RX OPTION 2.3 – Salvage Cutting (Partial Cut): This is an even-aged management option designed to provide ski run separation and protect regeneration in situations where high levels of MPB mortality exist.

Salvage all dead lodgepole pine, removing no more than 75% of the basal area. Retain all live lodgepole pine and other species, if present, to maintain the functionality of the stand for ski run separation as much as possible. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Regeneration should be protected until it is established.

RX OPTION 2.4 – Small Clearcuts within a Thinning (Partial Cut): This option maintains the stand through the current insect outbreak, regenerates it in phases, and moves it to uneven-aged management. If the stand succumbs to mountain pine beetles before multiple age classes can be regenerated, options 2.3 or 2.5 should be used.

Patch clearcut (with reserves) approximately 25% of the stand in 1 to 5 acre patches focusing on areas of MPB caused mortality. Thin the remaining 75% of the stand to a target of 60 to 80 square feet per acre to reduce attraction to MPB (McGregor, Amman, Schmitz and Oakes, 1987; Samman and Logan 2000), removing no more than 35% of the basal area where there are blowdown concerns. Patch shapes should be irregular and mimic natural disturbances. Strip patches along the contour can be used to limit aesthetic impacts. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Perform another series of patch clearcuts in 20 years for the next phase of regeneration.

RX OPTION 2.5 – Clearcut: This is an even-aged management option for areas where ski run separation and protection of regeneration is not critical, and future management will focus on forest cover.

Clearcut (with reserves) the stand, if it is not needed for skier management, removing 100% of the trees killed or infested with MPB. Retain non-lodgepole pine trees with live crown ratios of 50% or greater. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Regeneration should be protected until it is established.

STAND 3: MIXED LODGEPOLE PINE (70-90%) and OTHER SPECIES

RX OPTION 3.1 – Partial Cut (Remove all lodgepole pine): Option 3.1 creates a two-aged stand that can be moved toward uneven-aged management in the future.

Harvest all lodgepole pine in the stand (up to 35% of the basal area) and retain other species. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source.

RX OPTION 3.2 – Shelterwood Cutting (Partial Cut): Option 3.2 is an even-aged management option designed to encourage an initial flush of regeneration, and protect it with the residual stand until it is less susceptible to ski damage.

Treat the entire stand as the seed cut (first cutting) of a 2-step shelterwood harvest, removing approximately 35% of the basal area to a target of 50 to 70 square feet per acre. Target lodgepole pine and other trees infested by MPB for removal. Retain other species. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Perform an overstory removal (second and last cutting) in 10 to 15 years.

RX OPTION 3.3 – Salvage Cutting (Partial Cut): This is an even-aged management option designed to provide ski run separation and protect regeneration in situations where high levels of MPB mortality exist.

Salvage all dead lodgepole pine, removing no more than 75% of the basal area. Retain all live lodgepole pine and other species, if present, to maintain the functionality of the stand for ski run separation as much as possible. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Regeneration should be protected until it is established.

RX OPTION 3.4 – Small Clearcuts within a Thinning (Partial Cut): This option maintains the stand through the current insect outbreak, regenerates it in phases, and moves it to uneven-aged management.

Patch clearcut (with reserves) approximately 25% of the stand in 1 to 5 acre patches focusing on areas of MPB caused mortality. Thin the remaining 75% of the stand to a target of 60 to 80 square feet per acre to reduce attraction to MPB (McGregor, Amman, Schmitz and Oakes, 1987; Samman and Logan 2000), removing no more than 35% of the basal area where there are blowdown concerns. Patch shapes should be irregular and mimic natural disturbances. Strip patches along the contour can be used to limit aesthetic impacts. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Perform another series of patch clearcuts in 20 years for the next phase of regeneration.

RX OPTION 3.5 – Clearcut: This is an even-aged management option for areas where ski run separation and protection of regeneration is not critical, and future management will focus on forest cover.

Clearcut (with reserves) the stand, if it is not needed for skier management, removing 100% of the trees killed or infested with MPB. Retain any live trees with live crown ratios of 50% or greater. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Regeneration should be protected until it is established.

STAND 4: MIXED LODGEPOLE PINE (50-70%) and OTHER SPECIES

RX OPTION 4.1 – Partial Cut (Thinning): This thinning maintains the stand through the current insect outbreak. If the stand succumbs to the mountain pine beetle before multiple age classes can be regenerated, another option should be used.

Thin the stand, removing approximately 20 to 30% of the basal area to a residual minimum of 50 square feet per acre. Lodgepole pine and subalpine fir are the preferred species for removal, in that order. Retain Engelmann spruce and aspen. Scarify the ground to expose 25% mineral soil, and lop and scatter tops evenly to provide a seed source. If needed, protect advanced regeneration from skier damage.

RX OPTION 4.2 – Shelterwood Cutting (Partial Cut): This option is an even-aged management option designed to encourage regeneration with spruce, and protect it with the residual stand until it is less susceptible to ski damage.

Harvest up to 25% of the spruce basal area in a first step of a 3 to 4 step shelterwood system. Scarify the ground to expose up to 25% mineral soil. Lop and scatter tops to provide protection for regeneration. Perform next step (cutting) in 20 years.

RX OPTION 4.3 – Shelterwood Cutting (Partial Cut): This is an even-aged management option designed to encourage an initial flush of regeneration, and protect it with the residual stand until it is less susceptible to ski damage.

Treat the entire stand as the seed cut (first cutting) of a 2-step shelterwood harvest, removing approximately 35% of the basal area to a target of 50 to 70 square feet per acre. Target lodgepole pine and other trees infested by MPB, and trees with less than 30% live crown ratios, for removal. Retain other trees. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Perform an overstory removal (second and last cutting) in 10 to 15 years.

RX OPTION 4.4 – Salvage Cutting (Partial Cut): Option 4.4 salvages dead and infested lodgepole pine, and maintains the stand through the current insect outbreak.

Harvest all the dead or beetle infested trees in the stand, up to 35% (in stands of recently killed trees) to 50% (stands of mostly older dead trees) of the basal area of the stand, and retain all other trees. Scarify the ground to expose 25% mineral soil, and lop and scatter tops evenly to provide a seed source. Protect regeneration with fencing, signing, barriers, etc.

RX OPTION 4.5 – Partial Cut (Remove all lodgepole pine): Option 4.5 creates a two-aged stand that can be moved toward uneven-aged management in future entries.

Harvest all the lodgepole pine in the stand and retain other species. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Regeneration should be protected until it is established.

RX OPTION 4.6 – Small Clearcuts within a Thinning (Partial Cut): This option maintains the stand through the current insect outbreak, regenerates it in phases, and moves it to uneven-aged management.

Patch clearcut (with reserves) approximately 25% of the stand in 1 to 5 acre patches focusing on areas of MPB caused mortality. Thin the remaining 75% of the stand to a target of 60 to 80 square feet per acre to reduce attraction to MPB (McGregor, Amman, Schmitz and Oakes, 1987; Samman and Logan 2000), removing no more than 35% of the basal area where there are blowdown concerns. Patch shapes should be irregular and mimic natural disturbances. Strip patches along the contour can be used to limit aesthetic impacts. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Perform another series of patch clearcuts in 20 years for the next phase of regeneration.

RX OPTION 4.7 – Clearcut: This is an even-aged management option for areas where ski run separation and protection of regeneration is not critical, and future management will focus on forest cover.

Clearcut (with reserves) the stand, if it is not needed for skier management, removing 100% of the trees killed or infested with MPB. Retain any live trees with live crown ratios of 50% or greater. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Regeneration should be protected until it is established.

STAND 5: MIXED LODGEPOLE PINE (< 50%) and OTHER SPECIES

RX OPTION 5.1 – Partial Cut (Remove all aspen): Option 5.1 converts the aspen stand to a conifer stand. The resulting conifer stand will probably be an open glade.

Harvest all aspen in the stand and retain healthy conifers. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source.

RX OPTION 5.2 – Salvage Cutting (Partial Cut): Option 5.2 salvages dead and infested lodgepole pine, and maintains the stand through the current insect outbreak.

Harvest all the dead or beetle infested trees in the stand, up to 35% (in stands of recently killed trees) to 50% (stands of mostly older dead trees) of the basal area of the stand, and retain all other trees. Scarify the ground to expose 25% mineral soil, and lop and scatter tops evenly to provide a seed source. Protect regeneration with fencing, signing, barriers, etc.

RX OPTION 5.3 – Partial Cut (Remove all lodgepole pine): Option 5.3 creates a two-aged stand that can be moved toward uneven-aged management in the future.

Harvest all lodgepole pine in the stand (up to 35% of the basal area) and retain other species. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source.

RX OPTION 5.4 – Selection Cutting (Partial Cut): This option regenerates the stand with spruce in phases and maintains the stand's uneven-aged character.

Harvest up to 20% of the stand in 1/4 to 2 acre groups. Scarify the ground to expose up to 25% mineral soil. Lop and scatter slash to protect regeneration. Perform the next cutting in 15 to 20 years.

RX OPTION 5.5 – Partial Cut (Thinning): This thinning maintains the stand through the current insect outbreak.

Thin the stand, removing approximately 20 to 30% of the live basal area to a residual minimum of 50 square feet per acre. Lodgepole pine and subalpine fir are the preferred species for removal, in that order. Retain Engelmann spruce and aspen. Scarify the ground to expose 25% mineral soil, and lop and scatter tops evenly to provide a seed source. Protect regeneration with methods such as fencing, signing or barriers as needed.

RX OPTION 5.6 – Shelterwood Cutting (Partial Cut): This option is an even-aged management option designed to encourage regeneration with spruce, and protect it with the residual stand until it is less susceptible to ski damage.

Harvest up to 25% of the spruce basal area in a first step of a 3 to 4 step shelterwood system. Scarify the ground to expose up to 25% mineral soil. Lop and scatter tops to provide protection for regeneration. Perform next step (cutting) in 20 years.

RX OPTION 5.7 – Shelterwood Cutting (Partial Cut): This is an even-aged management option designed to encourage an initial flush of regeneration, and protect it with the residual stand until it is less susceptible to ski damage.

Treat the entire stand as the seed cut (first cutting) of a 2-step shelterwood harvest, removing approximately 35% of the basal area to a target of 50 to 70 square feet per acre. Target lodgepole pine and other trees infested by MPB, and trees with less than 30% live crown ratios, for removal. Retain other trees. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Perform an overstory removal (second and last cutting) in 10 to 15 years.

RX OPTION 5.8 – Small Clearcuts within a Thinning (Partial Cut): This option maintains the stand through the current insect outbreak, regenerates it in phases, and moves it to uneven-aged management. This option would be used where the lodgepole pine is in groups within the stand or tree island.

Patch clearcut (with reserves) approximately 25% of the stand in 1 to 5 acre patches focusing on areas of MPB caused mortality. Thin the remaining 75% of the stand to a target of 60 to 80 square feet per acre to reduce attraction to MPB (McGregor, Amman, Schmitz and Oakes, 1987; Samman and Logan 2000), removing no more than 35% of the basal area where there are blowdown concerns. Patch shapes should be irregular and mimic natural disturbances. Strip patches along the contour can be used to limit aesthetic impacts. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Perform another series of patch clearcuts in 20 years for the next phase of regeneration.

RX OPTION 5.9 – Clearcut: This is an even-aged management option for areas where ski run separation and protection of regeneration is not critical, and future management will focus on forest cover.

Clearcut (with reserves) the stand, if it is not needed for skier management, removing 100% of the trees killed or infested with MPB. Retain any live trees with live crown ratios of 50% or greater. Scarify the ground to expose 25% of the surface as mineral soil, and lop and

scatter tops evenly to provide a seed source. Regeneration should be protected until it is established.

STAND 6: PURE SPRUCE (90%+) AND MIXED SPRUCE

RX OPTION 6.1 – Partial Cut (Remove all lodgepole pine): Option 6.1 creates a two-aged stand that can be moved toward uneven-aged management in the future.

Harvest all lodgepole pine in the stand (up to 35% of the basal area) and retain other species. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source.

RX OPTION 6.2 – Selection Cutting (Partial Cut): This option regenerates the stand with spruce in phases and maintains the stand's uneven-aged character.

Harvest up to 20% of the stand in 1/4 to 2 acre groups. Scarify the ground to expose up to 25% mineral soil. Lop and scatter slash to protect regeneration. Perform the next cutting in 15 t 20 years.

RX OPTION 6.3 – Partial Cut (Thinning): This thinning maintains the stand through the current insect outbreak.

Thin the stand, removing approximately 20 to 30% of the live basal area to a residual minimum of 50 square feet per acre. Lodgepole pine and subalpine fir are the preferred species for removal, in that order. Retain Engelmann spruce and aspen. Scarify the ground to expose 25% mineral soil, and lop and scatter tops evenly to provide a seed source. Protect regeneration with methods such as fencing, signing or barriers as needed.

RX OPTION 6.4 – Shelterwood Cutting (Partial Cut): This is an even-aged management option designed to encourage an initial flush of regeneration, and protect it with the residual stand until it is less susceptible to ski damage.

Treat the entire stand as the seed cut (first cutting) of a 2-step shelterwood harvest, removing approximately 35% of the basal area to a target of 50 to 70 square feet per acre. Target lodgepole pine and other trees infested by MPB, and trees with less than 30% live crown ratios, for removal. Retain other trees. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Perform an overstory removal (second and last cutting) in 10 to 15 years.

RX OPTION 6.5 – Small Clearcuts within a Thinning (Partial Cut): This option maintains the stand through the current insect outbreak, regenerates it in phases, and moves it to uneven-aged management. This option would be used where the lodgepole pine is in groups within the stand or tree island.

Patch clearcut (with reserves) approximately 25% of the stand in 1 to 5 acre patches focusing on areas of MPB caused mortality. Thin the remaining 75% of the stand to a target of 60 to 80 square feet per acre to reduce attraction to MPB (McGregor, Amman, Schmitz and Oakes, 1987; Samman and Logan 2000), removing no more than 35% of the basal area where there are blowdown concerns. Patch shapes should be irregular and mimic natural disturbances. Strip patches along the contour can be used to limit aesthetic impacts. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Perform another series of patch clearcuts in 20 years for the next phase of regeneration.

STAND 7: PURE ASPEN (90%+) AND ASPEN MIXED WITH OTHER TREE SPECIES

RX OPTION 7.1 – Partial Cut (Remove all conifers): Option 7.1 maintains aspen for the short term.

Harvest all conifers in the stand and retain aspen.

RX OPTION 7.2 – Partial Cut (Remove all aspen): Option 7.2 converts the aspen stand to a conifer stand. The resulting conifer stand will probably be an open glade.

Harvest all aspen in the stand and retain healthy conifers. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source.

RX OPTION 7.3 – Salvage Cutting (Partial Cut): Option 7.3 salvages dead aspen, and dead and infested lodgepole pine, and maintains the aspen stand through the current insect outbreak.

Harvest all the dead aspen, and dead or beetle infested trees, in the stand, up to 35% (in stands of recently killed trees) to 50% (stands of mostly older dead trees) of the

basal area of the stand, and retain all other trees. Protect regeneration with fencing, signing, barriers, etc.

RX OPTION 7.4 – Small Clearcuts within a Thinning (Partial Cut): This option maintains the stand through the current insect outbreak, regenerates it in phases, and moves it to uneven-aged management. This option would be used where the lodgepole pine is in groups within the stand or tree island.

Patch clearcut (with reserves) approximately 25% of the stand in 1 to 5 acre patches focusing on areas of MPB caused mortality. Thin the remaining 75% of the stand to a target of 60 to 80 square feet per acre to reduce attraction to MPB (McGregor, Amman, Schmitz and Oakes, 1987; Samman and Logan 2000), removing no more than 35% of the basal area where there are blowdown concerns. Patch shapes should be irregular and mimic natural disturbances. Strip patches along the contour can be used to limit aesthetic impacts. Scarify the ground to expose 25% of the surface as mineral soil, and lop and scatter tops evenly to provide a seed source. Perform another series of patch clearcuts in 20 years for the next phase of regeneration.

RX OPTION 7.5 – Clearcut: This is an even-aged management option for areas where ski run separation and protection of regeneration is not critical, and future management will focus on forest cover.

Clearcut (with reserves) the stand, if it is not needed for skier management, removing 100% of the aspen, lodgepole pine and fir. Retain healthy and windfirm spruce. Regeneration should be protected until it is established.

REGENERATION OPTIONS

Regeneration methods for the above prescriptions focus on natural regeneration of lodgepole pine using the existing seed stock in the stands. Planting other species is an option, using seed collected from the correct seed zones on the White River NF. Supplementing natural regeneration by planting lodgepole pine grown from seed collected during harvest operations is another option.

The Regeneration Options are:

REGEN OPTION A

Natural - lop and scatter, scarify

REGEN OPTION B

Artificial - lop and scatter, scarify and supplement with transplants

REGEN OPTION C

Artificial - lop and scatter, scarify and supplement with nursery stock

REGEN OPTION D

Combination - lop and scatter, scarify and interplant nursery stock and transplants

REGEN OPTION E

None for conifer; allow aspen to fill in naturally or coppice

APPENDIX C. BOUNDARY MANAGEMENT PLAN

The Boundary Management Plan for the Snowmass Ski Area is based primarily upon the requirements of the Colorado Ski Safety Act of 1979, as amended (the "Act"), and the provisions set forth in the applicable U.S. Forest Service permit for the Snowmass Ski Area and the Ski Area Boundary Management Guidelines released by Richard E. Woodrow, Forest Supervisor for the White River National Forest in August of 1987. This plan addresses the issues that are unique to the Snowmass Ski Area and incorporates the historical experience of the area with boundary management.

The stated goal of the guideline is to inform and educate members of the public to hazards that exist adjacent to ski areas while providing a reasonable degree of opportunity for a "backcountry experience." At this time, the primary landowner adjacent to the Snowmass Ski Area is the Forest Service. In accordance with the Act and the applicable federal regulations, the Forest Service has not closed any of its adjacent lands and has not requested the Ski Area to post "closed" signs along any portion of its boundary. The one exception is the section of boundary that borders the Lynx Habitat Conservation Area that runs along the northeastern boundary of Burnt Mountain. That section, which is approximately 2,300 feet long, will be posted with ski area boundary signs and an additional sign that reads; "USFS Lynx Habitat Conservation Area Closed".

A system of ropes and signs mark the ski area boundary as required by the Act. A number of Forest Service Resort Exit Points have been installed to serve as access points to National Forest System land outside the Ski Area boundary. In those circumstances where the land adjacent to the Ski Area is privately owned and the owner has requested that his land be closed to the public, the Ski Area boundary has been so signed.

The Ski Area boundary that has been marked as described above is the boundary of that terrain that has been developed, administered and operated for skiing. Until such time that the Ski Area is advised otherwise by the Forest Service, those areas that are under the Forest Service permit but outside the historic operational boundary and not approved for development and incorporation into the operational Ski Area will be treated the same as they have historically as other National Forest System land outside of the Ski Area. For example, this is the case with the areas to the south of the Cirque and Big Burn.

Consistent with the Act, the Ski Area has no responsibility for National Forest System land beyond the Ski Area boundary or for the welfare of people or skiers once they are beyond the area boundaries that are marked as provided in this plan.

In order to delineate the Snowmass Ski Area boundary, a system of permanent posts and ropes has been installed around most of the area. The exceptions to this system are the heavily wooded areas, non-skiable terrain barriers, and areas adjacent to Snowmass Village and other residential developments at the bottom of the Ski Area. "Ski Area Boundary" signs are placed around the perimeter of the area as prescribed in the Act.

The Forest Service has located a total of six Resort Exit Points ("R.E.P.") on the Ski Area Boundary to serve as access points to the backcountry. An R.E.P. is located at the top of each of the following lifts: the Cirque, Big Burn, and High Alpine. Additional R.E.P.s are located on the Creekside run to provide access to the Government Trail and on the eastern Ridge of Burnt Mountain below the Cornice. Each R.E.P. contains a large sign board that contains a "Ski Area Boundary" sign, the Forest Service standard National Forest access point sign, and an Aspen Skiing Company warning sign, informing people that they are leaving the Ski Area.

The following is the text for the latter sign:

WARNING:

There are many unforeseen risks and dangers in the backcountry including avalanche slopes, cliffs, gullies, stream beds, thick forests, abandoned mine shafts, and other natural hazards. No patrol services are provided beyond this point. You are leaving the Ski Area.

This U.S. Forest Service access point is for the sole purpose of providing access to the National Forest for the backcountry skier. All backcountry skiers are responsible for knowing the boundary of the Snowmass

Ski Area and the closures within the area. If re-entering the permit area, the backcountry skier may not violate any Ski Area closure. Information regarding closures and locations of U.S. Forest Service access gates can be obtained from the Ski Patrol.

In addition to these signs, the "gate" will consist of a metal gate with a self-closing hinge system that the backcountry user must open and exit the Ski Area through. Attached to this gate will be a yellow sign with red lettering that will read as follows:

This is your decision point. The backcountry can be dangerous. Proceed at your own risk.

The backcountry user may enter the Snowmass Ski Area anywhere along its boundary except where closed. Those portions of the boundary will be marked with signs, which read as follows:

Closed at this point. Enter at gate only.

A gate to enter the Ski Area is located along the boundary in the West Willow Saddle to provide access back into the ski area from the West Willow Basin.

In response to the high usage out of the following R.E.P.s, an additional sign is located at the Hanging Valley Headwall and Cirque gates which read as follows:

Attention!

You are leaving the Ski Area

There are no services beyond this point

The average cost of an out of area rescue is $3,000.00

1. *Do you have backcountry knowledge and training?*
2. *Are you properly equipped with transceiver, shovel, probe and partner?*
3. *Do you have a current avalanched hazard and weather forecast?*
4. *Do you or anyone in your party know where you are going and how to return to the ski area?*
5. *Have you left your backcountry itinerary with anyone?*

If you answer NO to any of these questions, DON'T GO!

All Closures within the Ski Area are closures consistent with the requirements of the Act. They cannot be entered to reach the Ski Area boundary. Conversely no skier may enter or re-enter the Ski Area through a closed area. Closures will be signed with the international "Closed" sign and may also be marked with ropes.

In the event a backcountry skier is injured, lost, incapacitated or suffers an event necessitating a rescue outside the marked Ski Area boundary, the rescue effort will be the responsibility of the Pitkin County Sheriff. Any assistance that may be offered by the Ski Patrol will be performed at the request and under the direction of the Pitkin County Sheriff's office, performed on a volunteer basis only, performed without unreasonable risk to Aspen Skiing Company personnel, and done to the extent that normal emergency preparedness within the Ski Area boundary and other obligations to the Aspen Skiing company and its guests are not jeopardized.

As a final overview, it should be re-emphasized that no section of the Snowmass Ski Area boundary is closed to the public with the exception of those areas where closure has been through established Forest Service R.E.P.s and the Lynx Habitat Conservation Area on Burnt Mountain. The Ski Area has no responsibility to those individuals skiing outside of the marked Ski Area boundaries.

USDA United States Department of Agriculture | Forest Service | White River National Forest
900 Grand Ave
P.O. Box 948
Glenwood Springs, CO 81601-3602
970-945-2521

File Code: 2720
Date: August 24, 2022

Mak Keeling
Senior Project Manager - Planning and Development
Aspen Skiing Company
117 Aspen Airport Business Center
Aspen, CO 81611

Thank you for the time and effort you and the Aspen Skiing Company (ASC) team have put into the 2022 Snowmass Master Development Plan. The White River National Forest (WRNF) has reviewed the plan and in general, this plan meets the objectives of the WRNF, Forest Plan for Management area 8.25 Ski Area – Existing and Potential. With a focus on "*Nature Based Recreation*" activities, there are many improvements that will support the public experience at Snowmass.

There are a few specific items that the WRNF would like ASC to consider more closely. These items were discussed during our 8/5/22 meeting, and this letter outlines the considerations below.

WRNF 8/2022 Comments

1994 Snowmass Record of Decision (ROD)

- The 1994 ROD for Snowmass is now 28 years old. Environmental conditions, and recreational uses have changed during this time. We recognize that this analysis is part of the historic planning process for Snowmass, however these prior approvals will require new environmental analysis due to a changed condition.

Burnt Mountain Winter Improvements

- *"Previously Approved /Planned Glading"* Depictions on Figure VI-1 will require additional analysis (see comment above). I would also like ASC to reconsider new glading projects and look for opportunities to preserve continuous tree islands and timber stands. Please see general glading comments as a separate item below.
- "Burnt Mountain Lift", "Naked Man Lift" One of the unique qualities of Burnt Mountain is the 'hike to' aspect of the terrain. Many areas of Snowmass have lift service, perhaps it adds variety to have some areas that are not. It's a different type of terrain, with different access and I would like ASC to consider preserving this unique experience.

Burnt Mountain Summer Improvements

- *"Proposed Downhill Biking Trails"* Burnt Mtn. is not currently zoned for summer uses due to its high quality wildlife habitat. WRNF has recently extended the springtime public closure of this entire area, including the critical elk caving habitat that extends to Buttermilk. This decision was based on the need for greater cow/calf retention from this

elk herd and is supported by Colorado Parks and Wildlife. It is important to respect the declining herd in this area by minimizing public disruptions. I would like ASC to explore other areas of the mountain for additional downhill bike trails, if additional bike trails are needed. I encourage ASC to take a closer look at Sandy Park, Two Creek or Sam's Knob as alternative locations.

Additional Glading Projects

- Snowmass currently offers a large amount of gladed terrain, with additional glading approved and not yet implemented. There is valuable wildlife habitat in uninterrupted tree islands, as we discussed. Depending on location, water availability and adjacent tree stands, even small tree islands can support wildlife. There is not a set 'minimum size' for a tree island to be valuable, it depends on many factors. I encourage ASC to look at reduced acreage for potential glading, especially large tree islands and tree islands near extended habitat. I would also encourage more accurate depictions of glading that has already been implemented.

Huts/Camps/Primitive Camps

- The WRNF and/or our existing partners offer these types of experiences within a reasonable distance, and it is difficult to recognize the true need for this experience to be offered at Snowmass. Nationally, lodging experiences at ski areas are offered on private land with few exceptions. If ASC has identified the need for on mountain lodging, I would encourage ASC to explore the private land that is available to fulfill this type of offering.

In addition to the location specific recommendations listed above I encourage ASC to invite Colorado Parks and Wildlife into a pre-acceptance discussion regarding this new MDP. This discussion is especially important to me in regard to the proposals in the Burnt Mtn area. I am happy to have myself and/or my staff participate in this discussion.

Please consider these comments closely as ASC makes edits to the 2022 Snowmass MDP. Please reach out to Monte Lutterman monte.lutterman@usda.gov with any questions, clarifications, or ideas you may have to ensure that this MDP achieves desired results for both ASC and the WRNF.

X _____

SCOTT G. FITZWILLIAMS
Forest Supervisor

cc: Kevin Warner, Monte Lutterman, Shelly Grail

ASPEN SNOWMASS

Scott G. Fitzwilliams
Forest Supervisor
USDA Forest Service
White River National Forest, Aspen-Sopris Ranger District

November 18, 2022

Re: 2022 Snowmass Master Development Plan - Response to USFS letter dated August 24th, 2022

Dear Scott,

Thank you for your thoughtful letter regarding our draft Snowmass Master Development Plan submission and for your suggestion that Aspen Skiing Company (ASC) and the White River National Forest (WRNF) jointly meet with Colorado Parks & Wildlife (CPW) to obtain that agency's reactions to our proposal.

On October 18, 2022, representatives from ASC and WRNF met with CPW's Matt Yamashita and Kurtis Tesch. Having a conversation outside of the formal application process was valuable. It helped us gain a deeper understanding of CPW's desire to manage elk herd size and habitat, which we learned is based in part on community and other public agency input, and we identified some shared causes on which we can collaborate in the future.

Aspen Skiing Company has carefully processed those discussions, as well as the comments about our plan included in your letter dated August 24, 2002. We have made several revisions to the original plan in response to the feedback received. Those changes are summarized below. This letter also provides additional insight into our proposals for summer biking trails and overnight facilities.

Plan Changes

Changes to the plan originally submitted to you in May 2022 are as follows:

- Proposed glading areas have been reduced or eliminated, reducing total planned gladed terrain areas from 294 acres to 214 acres.
- Rustic camping has been removed from the plan.
- The previously approved, not-yet-implemented "Naked Man" surface lift has been removed from the plan.
- The high-altitude-traverse hiking trail has been removed from the plan.

P.O. Box 1248
Aspen, CO 81612-1248
970-925-1220
aspensnowmass.com

ASPEN SNOWMASS

- Summer biking trails in Burnt Mountain have been reduced and adjusted.

Environmental Review

The Record of Decision (ROD) for the Snowmass Ski Area Final Environmental Impact Statement (FEIS) that approved Burnt Mountain ski infrastructure was approved in 1994. Because of the passage of time, we understand that the projects listed in the Previously Approved/Not Yet Implemented Projects category in the Burnt Mountain area of the existing SUP (the lift, P1-P4 ski trails, and the glades) will trigger a new environmental analysis, which will be scoped by your team when we submit a Project Proposal Letter for any work in this area. While we do not have a short-term timeline for completing work in this area, we do expect to initiate projects within the lifespan of this Master Development Plan.

Summer Biking Trails

The Snowmass Master Development Plan draft submission contemplated—and still contemplates—downhill biking trails in the Burnt Mountain area. In your response to our draft submission, you questioned why Burnt Mountain was the best area for bike expansion. Prior to submission, we extensively studied all options within the Snowmass Ski Area SUP for expanding our popular downhill biking network. The details of that analysis were not included in our draft proposal, so we offer them here.

To assess the entirety of the Snowmass Ski Area for the potential of expanding downhill bike trails, Gravity Logic (the industry's premier mountain biking consultant) was retained. Areas examined by Gravity Logic and ASC included:

- the entire Sam's Knob pod
- the entire Big Burn pod
- the entire Alpine Springs pod
- the Two Creeks pod
- the lower Burnt Mountain pod
- the upper Burnt Mountain pod

Gravity Logic concluded that the Sam's Knob pod, upper Big Burn pod, and upper Alpine Springs pods were either too rocky, too steep and/or did not have reasonable access points. These areas were subsequently deemed unsuitable for additional trails. Two Creeks was determined to provide quality mountain biking terrain, but trails would be unable to connect back to Snowmass Base Village and/or the bottom of the Elk Camp Gondola, and thus were ruled out. The lower Big Burn pod, while not

P.O. Box 1248
Aspen, CO 81612-1248
970-925-1220
aspensnowmass.com

ASPEN SNOWMASS

ideal due to the limited amount of tree canopy coverage, does otherwise have suitable terrain, and we have included new downhill bike trails in this area in our plan. The upper Burnt Mountain pod, due to its combination of tree canopy, grades, accessibility from existing downhill trails, and adjacency to existing summer use infrastructure at Elk Camp, was deemed as ideal for providing additional advanced and intermediate terrain, and we subsequently commissioned Gravity Logic to develop a conceptual trail network layout.

Based on the rationale described above, we stand by the conclusion that Burnt Mountain provides the most suitable terrain and the best guest experience.

That being said, we have adjusted our proposed trails plan in the upper Burnt Mountain pod to better reflect site-specific data about elk habitat contained in the 1994 FEIS, as well as to incorporate insight gleaned from our discussions with WRNF and CPW. Specifically, we reduced the total length of trails by approximately two miles and limited the coverage area of the downhill bike trails to meet the following parameters:

- All proposed downhill bike trails are located outside of identified elk calving areas described in the 1994 FEIS and as currently identified in CPW's published GIS data.
- All proposed downhill bike trails on Burnt Mountain are only located in areas above 9,600'. Elevations below 9,600' in this area are described as a critical component to elk calving areas due to snow still being present above this elevation during calving season, and previous studies also indicated its suitability as summer habitat. The qualitative difference in the higher elevation terrain (above 9,600') versus lower elevation terrain was described in the 1994 FEIS thusly: "Much of the proposed expansion area contains summer range of low-to-moderate suitability for elk. Some lower elevations, however, provided habitat of high suitability during early summer."
- All proposed downhill bike trails are located outside of areas with aspen stands. We made this adjustment after CPW told us that aspen groves with dense understory are prime terrain for elk calving areas.
- All proposed downhill bike trails are located outside of a ¼-mile radius from all aspen groves with a water source, which CPW described as critical for elk calving habitat and for summer terrain.
- Language has been added to the plan confirming there will be no proposed use, work, or operations within the Burnt Mountain area from May 15 to June 27 of each year, or as occasionally adjusted by the WRNF. This will extend the existing elk calving

P.O. Box 1248
Aspen, CO 81612-1248
970-925-1220
aspensnowmass.com

ASPEN SNOWMASS

restrictions we use on the east side of Snowmass Ski Area to encompass the Burnt Mountain area.

- None of the proposed downhill bike trails will connect to the Government Trail or to the Town of Snowmass Village's mixed-use cross-country trails. This will limit the potential for people to access these trails during the elk calving closure periods.

Overnight Facilities

With regards to the overnight facilities proposed in our draft plan, we have removed primitive camping from the plan but are requesting to keep the huts and platform camping components. We believe that both of these offerings will promote nature-based recreation that allows a wider cross section of people, including those with physical limitations, to fully experience the WRNF. These huts would be complementary to the other hut systems that currently exist on WRNF lands, as those huts are subject to exceedingly high demand from local and visiting users.

The huts and platform-camping facilities support Snowmass's goal, as stated in the MDP, to develop and expand activities on WRNF lands that introduce visitors to the mountain environment without requiring specialized skill or knowledge. Huts and platform camping create opportunities for those:

- Who don't possess the physical fitness (including young children) and/or have health/mobility issues that limit their ability to access the 10th Mountain and Braun Hut systems;
- Who aren't sufficiently adventurous to find the 10th Mountain and Braun Hut systems appealing;
- Who simply don't have the proper gear and training to safely access the nearby 10th Mountain and Braun Hut systems.

We believe there is a need for additional overnight facilities in the WRNF, based on the current demand for the 10th Mountain Division and Braun Hut Systems and the growing demand nationwide for outdoor experiences from new outdoor recreationalists. Since 2019, outdoor participation grew nearly 7% to 164.2 million participants, based on data from the Outdoor Industry Association. Snowmass can support these facilities with existing infrastructure and provide a similar experience to the 10th Mountain Division and Braun Hut Systems while offering more accessibility, all within Snowmass's SUP boundary.

The Snowmass huts concept was included in the 2015 Snowmass Master Development Plan, and the idea was received favorably by the local community at that time. We did not provide specific locations for the huts in 2015, but we have subsequently analyzed potential locations on both private

P.O. Box 1248
Aspen, CO 81612-1248
970-925-1220
aspensnowmass.com

ASPEN SNOWMASS

and public land within the Snowmass SUP. The desired experience for the hut and platform-tent camping is for guests to build an appreciation for the natural environment by feeling embedded in high alpine surroundings. We were not able to find tracts of private land within the SUP that would deliver the remote setting that connects guests with the outdoors. In evaluating the private land options available, we concluded that the setting on private land would feel more like a backyard camping experience adjacent to an existing neighborhood and would not result in the desired remote hut experience we envision. We are very enthusiastic about the hut locations proposed in the plan and look forward to visiting the sites with you.

Thank you again for meeting with us to discuss the components of the 2022 Snowmass MDP. We look forward to continuing our review of the plan with you and your team. We will submit the updated 2022 Snowmass MDP document to Monte Lutterman and Kevin Warner electronically as well as physically at the Sopris Ranger Station.

Thank you,

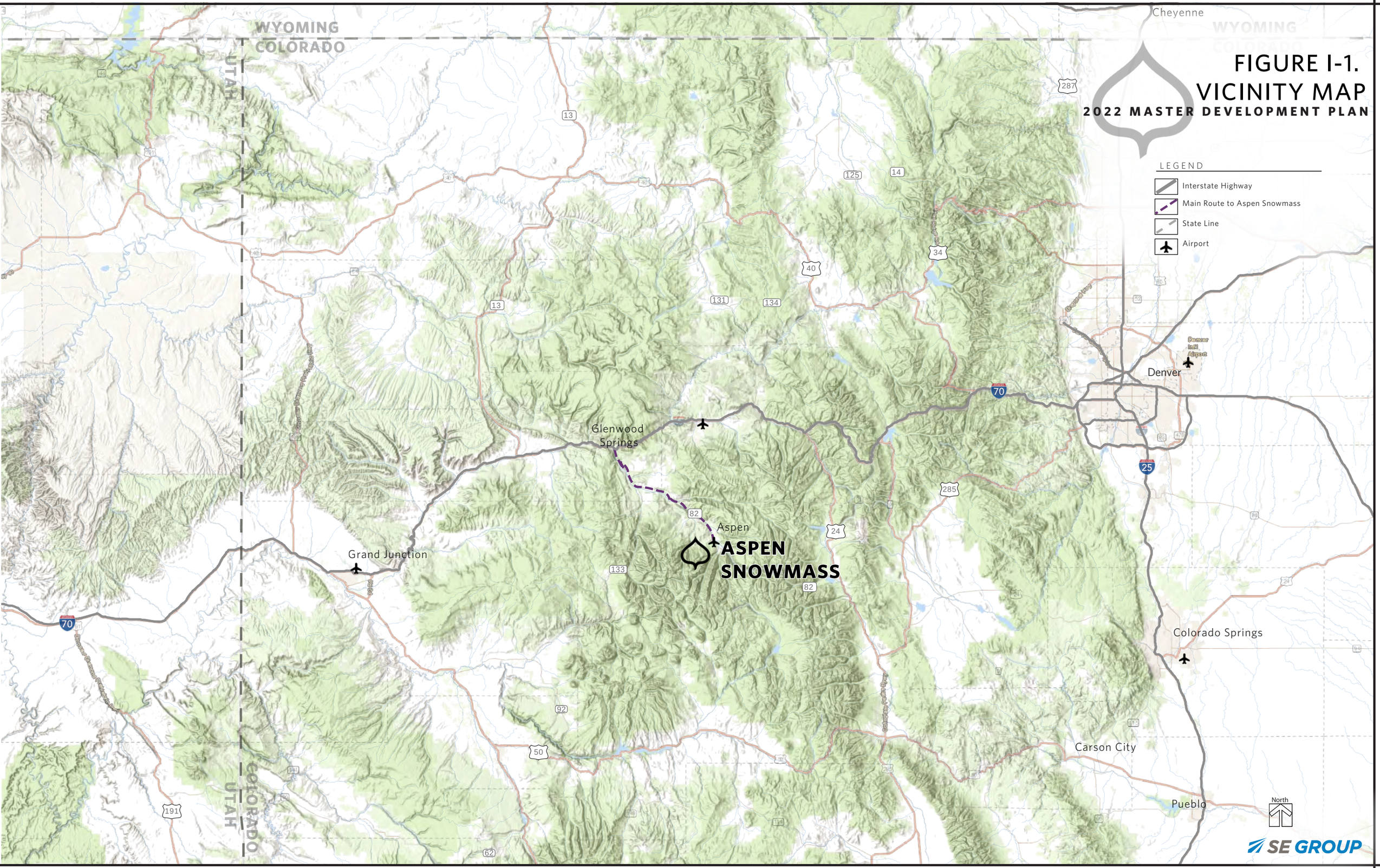
Mak Keeling
Senior Project Manager, Planning & Development
Aspen Skiing Company

Cc: Mike Kaplan, Rana Dershowitz, Chris Kiley (Aspen Skiing Company)
Kevin Warner, Shelly Grail, Monte Lutterman (White River National Forest)

P.O. Box 1248
Aspen, CO 81612-1248
970-925-1220
aspensnowmass.com

Figures

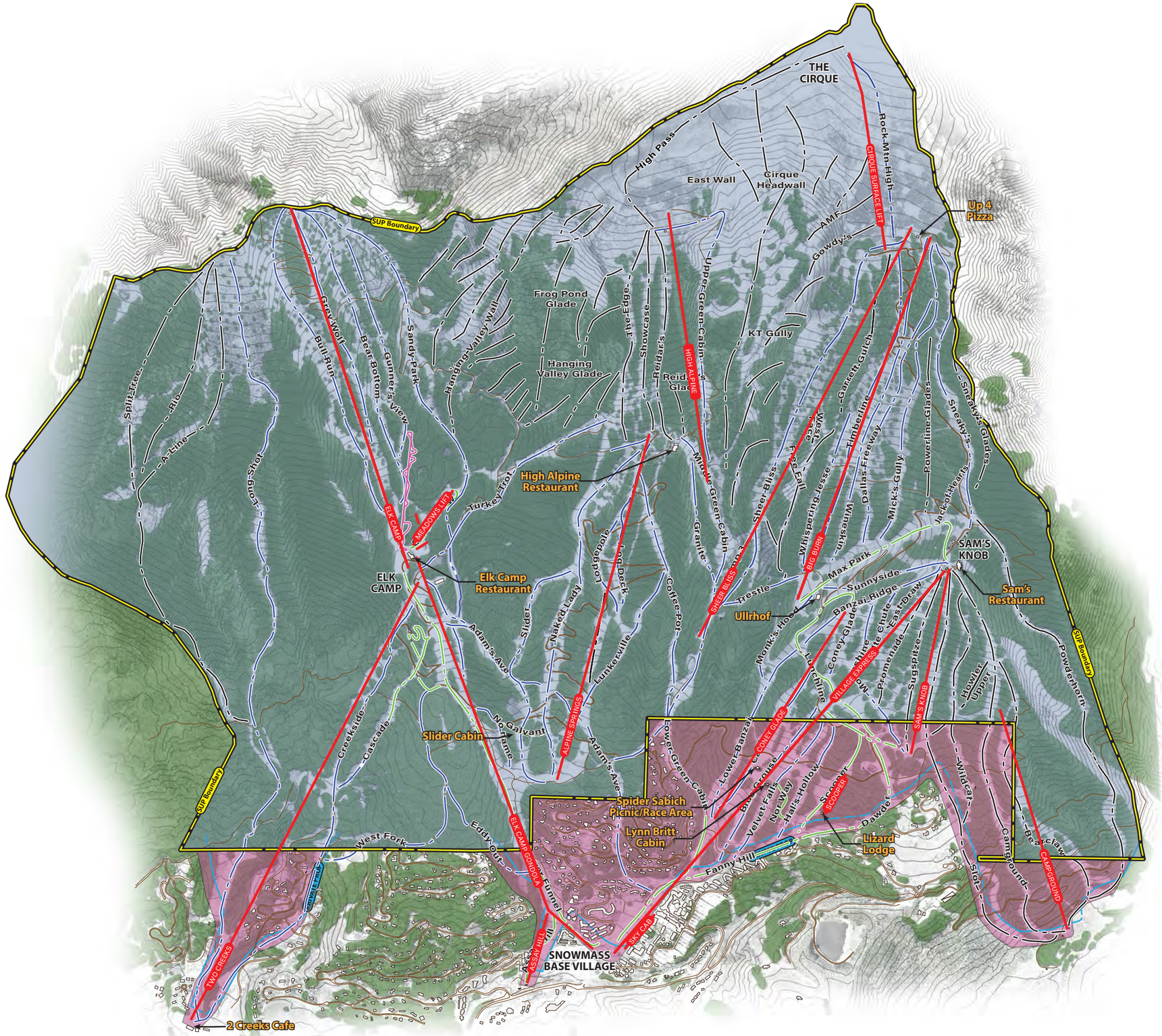
FIGURE I-1.
VICINITY MAP
2022 MASTER DEVELOPMENT PLAN



SE GROUP

FIGURE I-2. PROPERTY BOUNDARIES PLAN

2022 MASTER DEVELOPMENT PLAN



LEGEND

- Private Property
- SUP Property Area
- SUP Boundary
- Existing Lift
- Existing Mountain Coaster
- Existing Mountain Access Roads
- Existing Vegetation
- Existing Beginner Trail
- Existing Intermediate Trail
- Existing Expert Trail

North

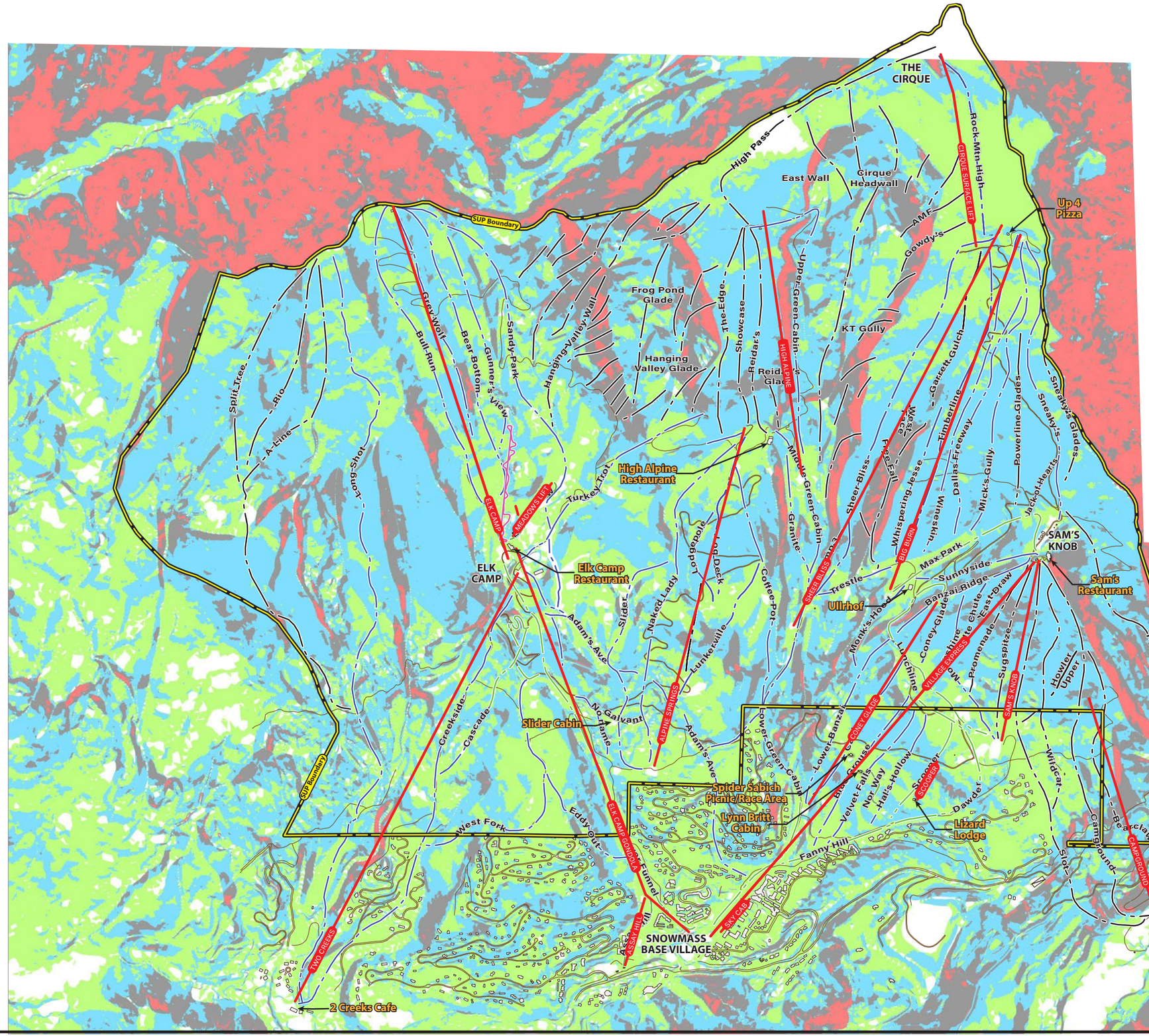
Contour Interval: 50 Feet

SE GROUP

0 500 1000 2000 4000 6000 Feet

FIGURE III-1. SLOPE ANALYSIS PLAN

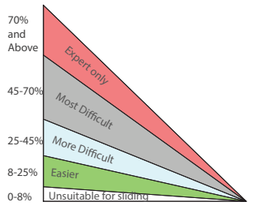
2022 MASTER DEVELOPMENT PLAN



LEGEND

- Existing Lift
- Existing Beginner Trail
- Existing Intermediate Trail
- Existing Expert Trail
- Existing Vegetation
- SUP Boundary
- Existing Mountain Access Roads
- Existing Mountain Coaster

SLOPE LEGEND



North

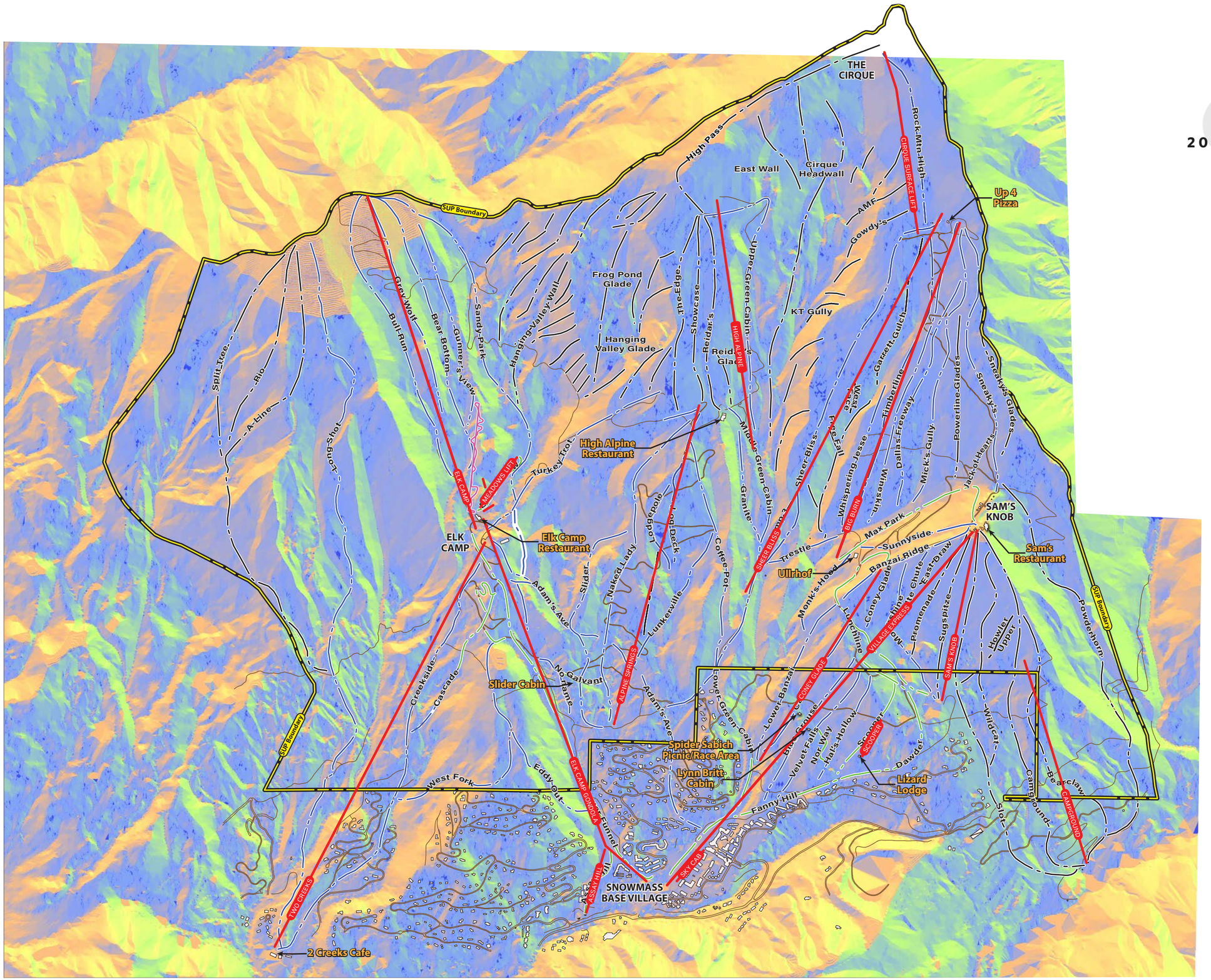
Contour Interval: 50 Feet

SE GROUP

0 500 1000 2000 4000 6000 Feet

FIGURE III-2. ASPECT ANALYSIS PLAN

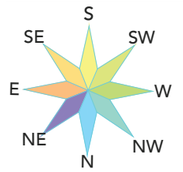
2022 MASTER DEVELOPMENT PLAN



LEGEND

- Existing Lift
- Existing Beginner Trail
- Existing Intermediate Trail
- Existing Expert Trail
- Existing Vegetation
- SUP Boundary
- Existing Mountain Access Roads
- Existing Mountain Coaster

ASPECT LEGEND



North

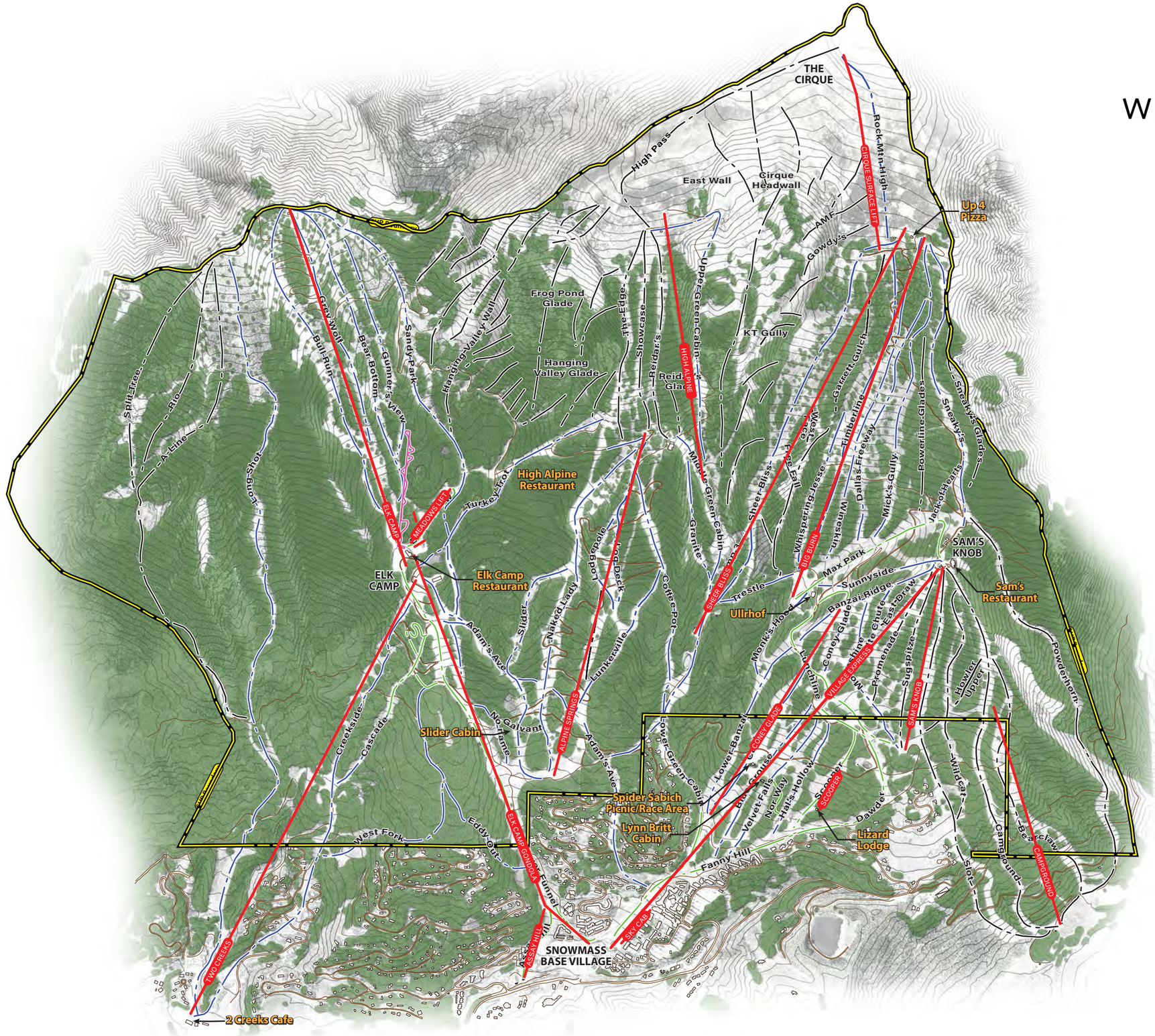
Contour Interval: 50 Feet

SE GROUP

0 500 1000 2000 4000 6000 Feet

FIGURE IV-1. EXISTING WINTER CONDITIONS PLAN

2022 MASTER DEVELOPMENT PLAN



LEGEND

- Existing Lift
- Existing Beginner Trail
- Existing Intermediate Trail
- Existing Expert Trail
- SUP Boundary
- Existing Mountain Access Roads
- Existing Vegetation
- Existing Mountain Coaster

North

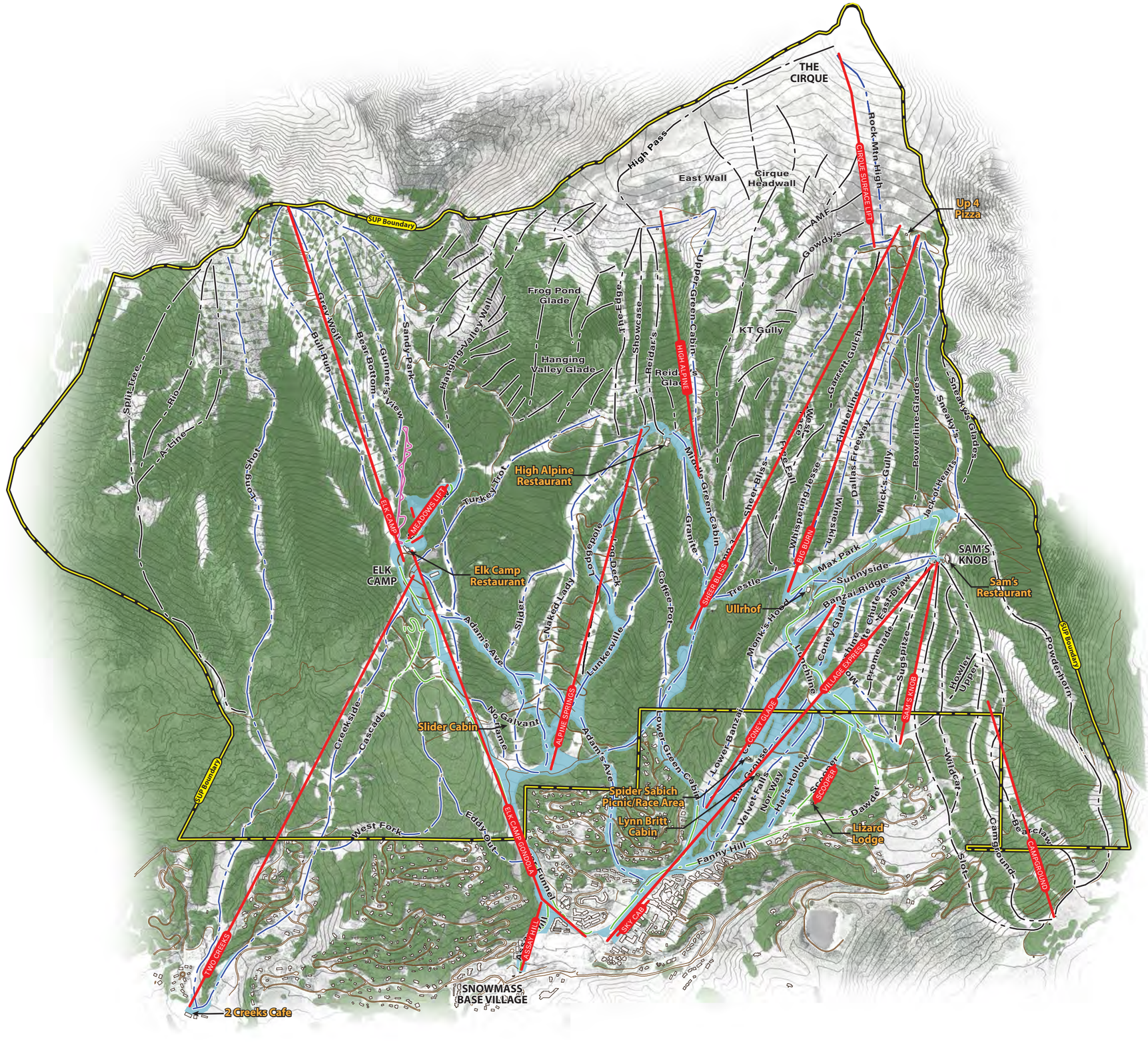
Contour Interval: 50 Feet

SE GROUP

0 500 1000 2000 4000 6000 Feet

FIGURE IV-2. EXISTING SNOWMAKING PLAN

2022 MASTER DEVELOPMENT PLAN



LEGEND

- Existing Lift
- Existing Beginner Trail
- Existing Intermediate Trail
- Existing Expert Trail
- Existing Mountain Coaster
- Existing Snowmaking
- SUP Boundary
- Existing Mountain Access Roads
- Existing Vegetation

North

Contour Interval: 50 Feet

SE GROUP

0 500 1000 2000 4000 6000 Feet

FIGURE IV-3. EXISTING SUMMER CONDITIONS PLAN

2022 MASTER DEVELOPMENT PLAN

LEGEND

- Existing Summer Use Lift
- Existing Winter Use Lift
- Existing MTB Trail
- Existing Tent Site
- SUP Boundary
- Existing Mountain Access Roads
- Existing Multi-Use Trail
- Existing Special Events Downhill Bike Trail

North

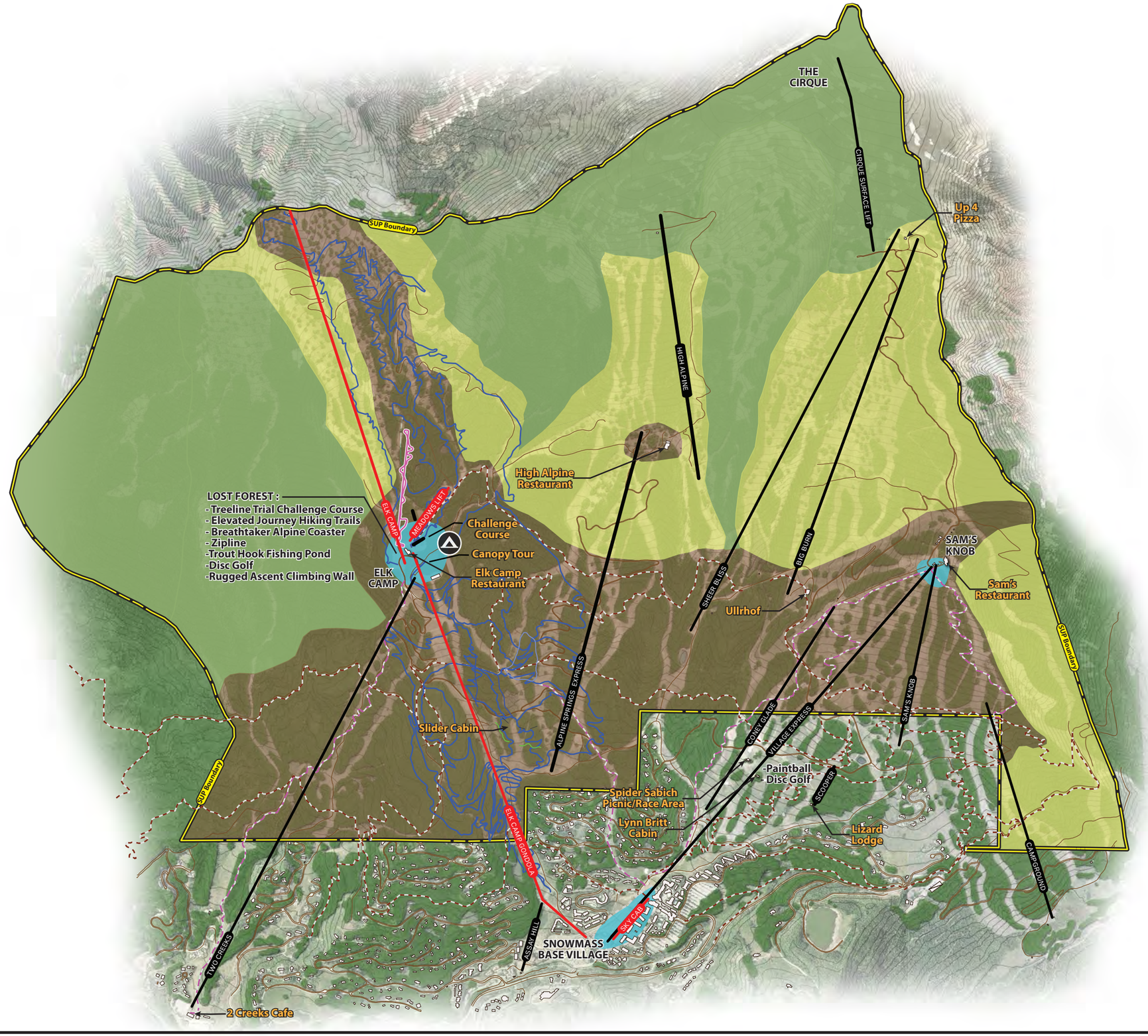
Contour Interval: 50 Feet

SE GROUP

0 500 1000 2000 4000 6000 Feet

FIGURE IV-4. EXISTING SUMMER ZONES PLAN

2022 MASTER DEVELOPMENT PLAN



LEGEND

- Existing Summer Use Lift
- Existing Winter Use Lift
- Existing MTB Trail
- Existing Tent Site
- SUP Boundary
- Existing Mountain Access Roads
- Existing Multi-Use Trail
- Existing Special Events Downhill Bike Trail

ZONES LEGEND

- Zone 1
- Zone 2
- Zone 3
- Zone 4

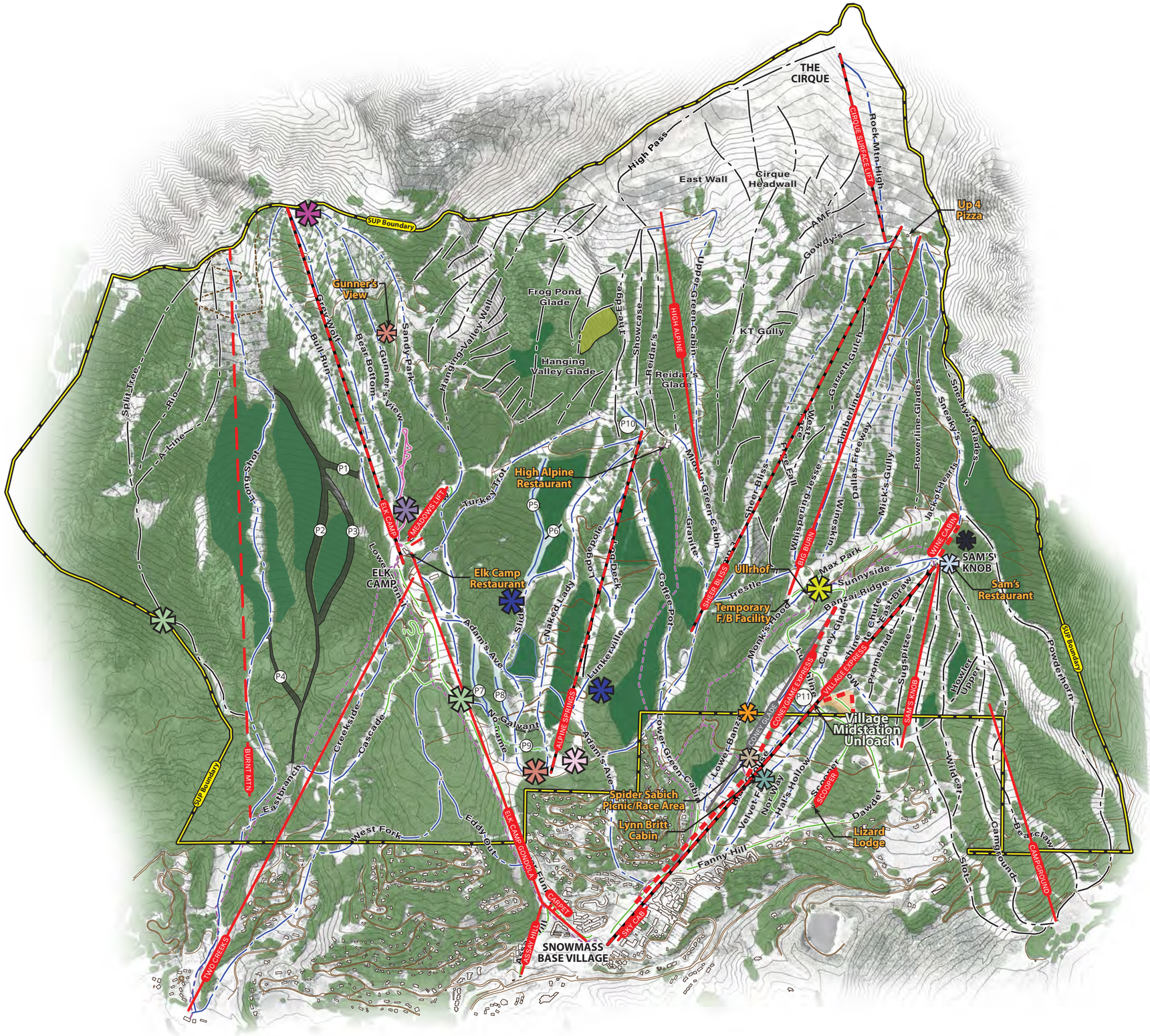
North

Contour Interval: 50 Feet

SE GROUP

0 500 1000 2000 4000 6000 Feet

FIGURE VI-1.
UPGRADE PLAN
2022 MASTER DEVELOPMENT PLAN



LEGEND

- Existing Lift
- Planned Lift Upgrade
- Planned Lift
- Previously Approved Lift
- Lift to be Removed
- Existing Beginner Trail
- Existing Intermediate Trail
- Existing Expert Trail
- Existing Vegetation
- SUP Boundary
- Existing Mountain Access Roads
- Existing Mountain Coaster
- Planned Uphill Routes
- Planned Glading
- Planned Ski Trail
- Planned Beginner Zone
- Planned Mountain Access Road
- Previously Approved/Planned Glading
- Previously Approved Ski Trail
- Planned Restaurant
- Ullrhof Restaurant Planned Expansion
- Planned Snowmaking Pond
- Planned Snowmaking Pond and Pumphouse
- Tubing Hill Modification
- Planned Spider Sabich Improvements
- Lynn Britt Cabin Improvements
- Waipiti Planned Expansion
- Planned Expansion
- Potential Trail Improvements
- Planned Covered Storage/ Shop for Parks & Pipe
- Planned Storage/Maintenance Facilities
- Previously Approved Mountain Access Road

North

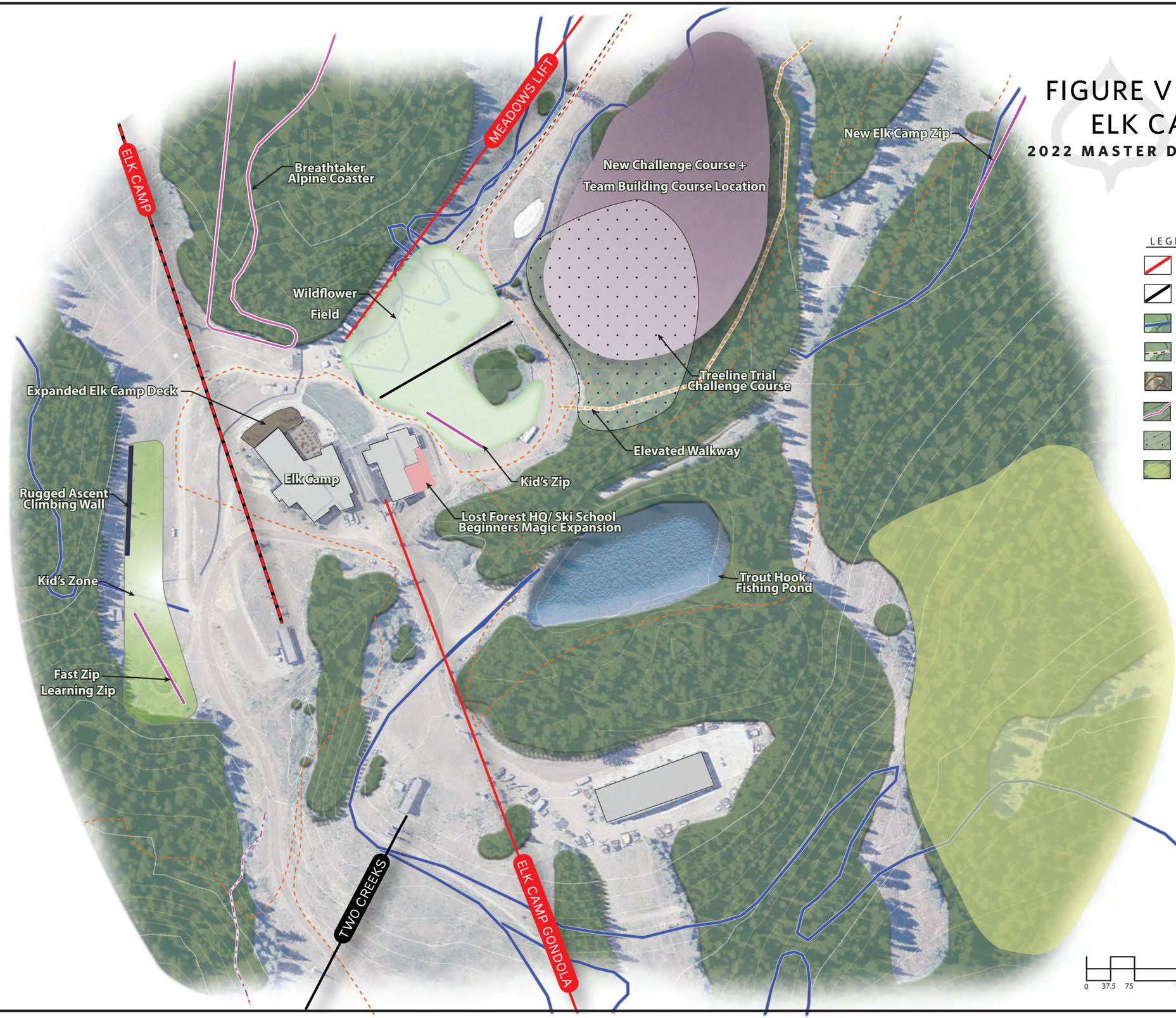
Contour Interval: 50 Feet

SE GROUP

0 500 1000 2000 4000 6000 Feet

FIGURE VI-2. UPGRADE ELK CAMP ZOOM IN

2022 MASTER DEVELOPMENT PLAN



LEGEND

- Existing Summer Use Lift
- Existing Winter Use Lift
- Existing MTB Trail
- Existing Multi-Use Trail
- Existing Mountain Access Roads
- Existing Mountain Coaster
- Existing Challenge Course
- Existing Canopy Tour
- Planned Lift Upgrade
- Planned Lift
- Previously Approved Lift
- Lift to be Removed
- Planned Hiking Trail
- Existing Hiking Only Trail
- Trail Converted from Special Event Downhill Bike Trail to Permanent Use

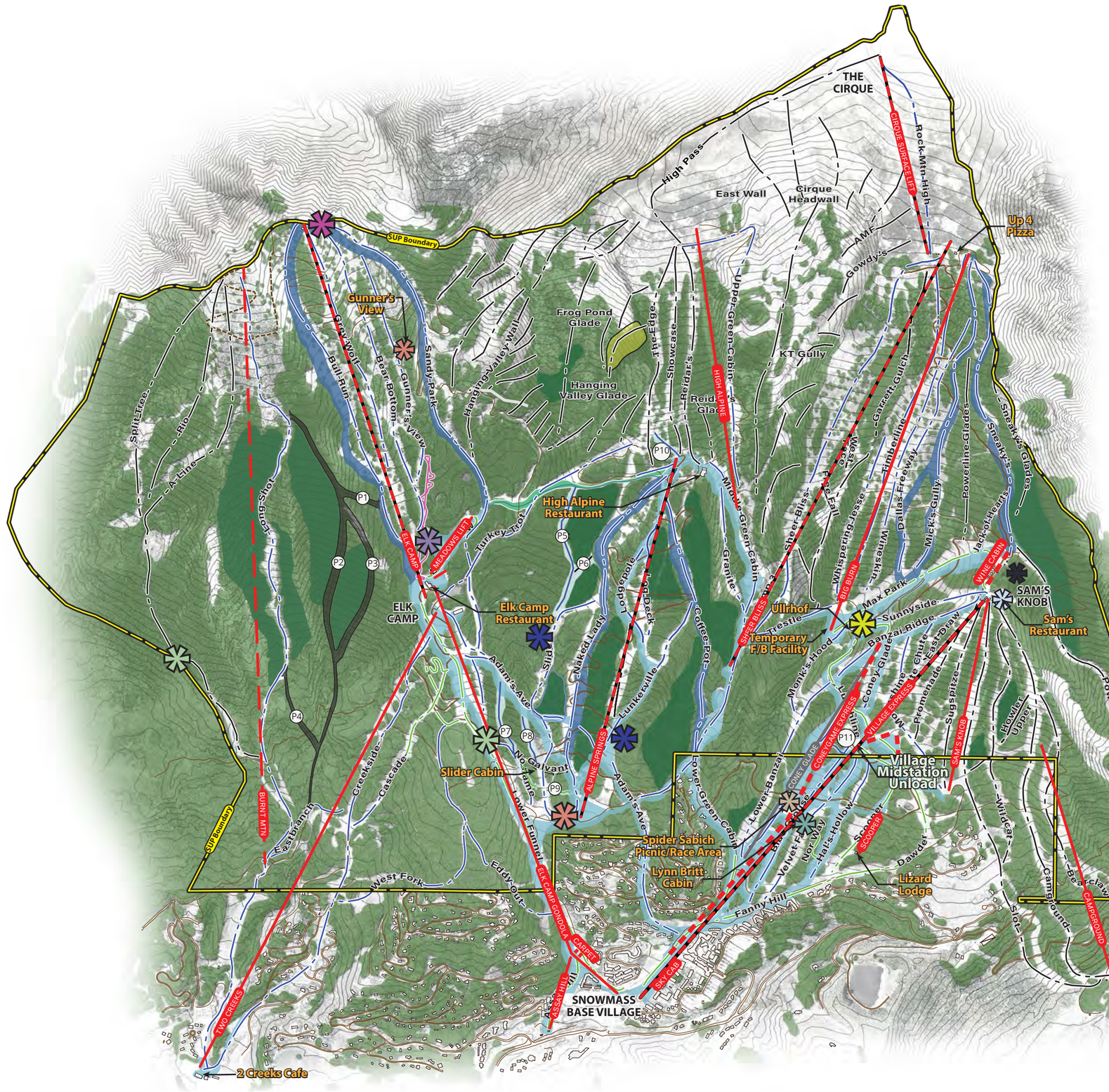
North

Contour Interval: 10 Feet

SE GROUP

0 37.5 75 150 300 450 Feet

FIGURE VI-3.
SNOWMAKING UPGRADE PLAN
2022 MASTER DEVELOPMENT PLAN



LEGEND

- Existing Snowmaking Coverage
- Existing Lift
- Planned Lift Upgrade
- Planned Lift
- Previously Approved Lift
- Lift to be Removed
- Existing Beginner Trail
- Existing Intermediate Trail
- Existing Expert Trail
- Existing Vegetation
- SUP Boundary
- Existing Mountain Access Roads
- Existing Mountain Coaster
- Planned Ski Trail
- Planned Glading
- Previously Approved Snowmaking Coverage
- Planned Snowmaking Coverage
- Previously Approved/ Planned Glading
- Previously Approved Ski Trail
- Planned Restaurant
- Ullrhof Restaurant Planned Expansion
- Planned Snowmaking Pond
- Planned Snowmaking Pond and Pumphouse
- Tubing Hill Modification
- Planned Spider Sabich Improvements
- Lynn Britt Cabin Improvements
- Planned Expansion
- Potential Trail Improvements
- Waipiti Planned Expansion
- Planned Mountain Access Road
- Previously Approved Mountain Access Road

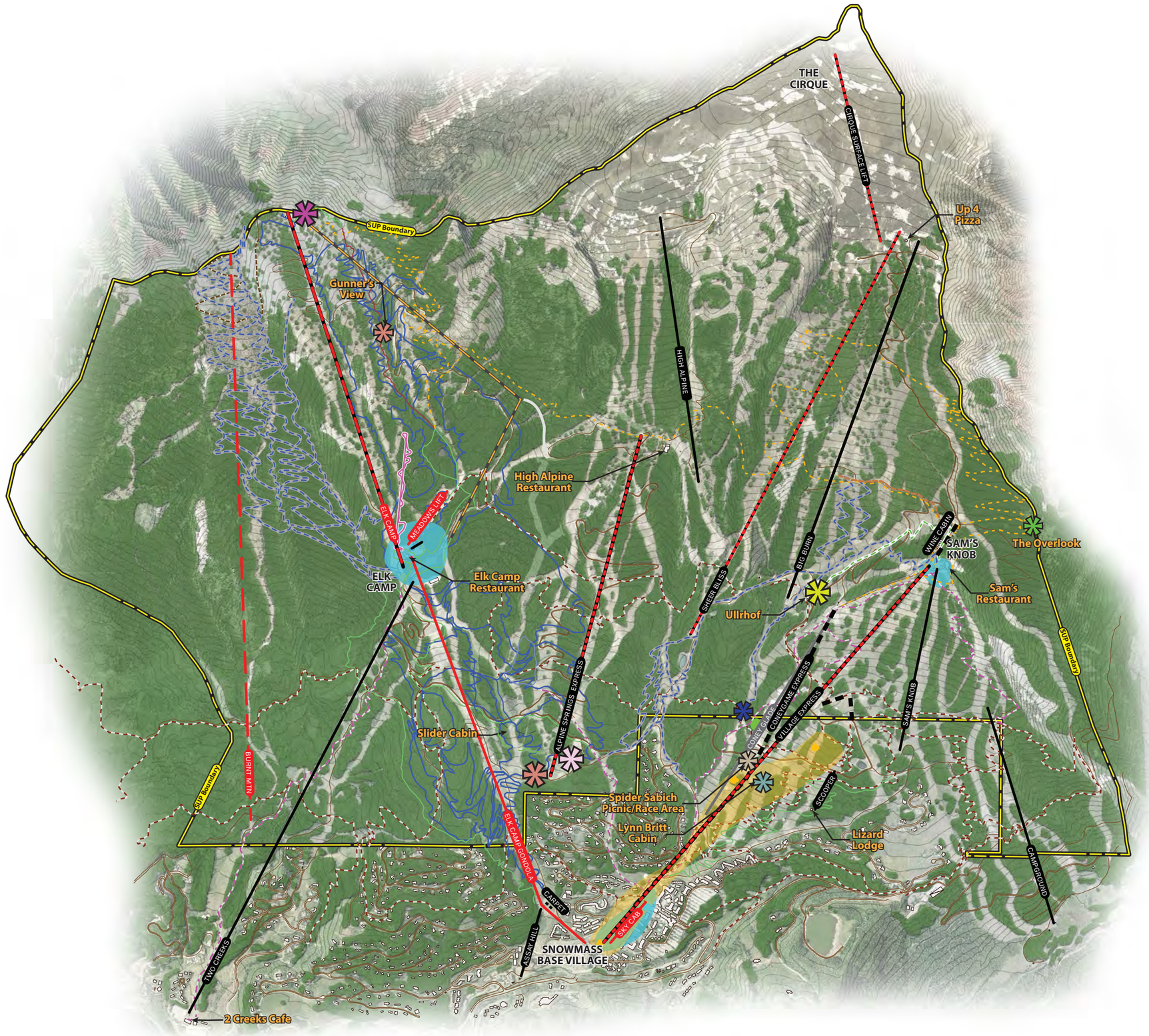
North

Contour Interval: 50 Feet

SE GROUP

0 500 1000 2000 4000 6000 Feet

FIGURE VI-4.
SUMMER UPGRADE PLAN
2022 MASTER DEVELOPMENT PLAN



LEGEND

- Existing Summer Use Lift
- Existing Winter Use Lift
- Planned Summe Use Lift Upgrade
- Planned Winter Use Lift Upgrade
- Planned Lift Summer Use
- Planned Lift Winter Use
- Previously Approved Lift
- Lift to be Removed
- Existing MTB Trail
- Planned MTB Trail
- Planned Uphill MTB Trail
- Existing Mountain Access Roads
- SUP Boundary
- Existing Hiking Only Trail
- Existing Hiking Decomissioned
- Planned Hiking Trail
- Existing Multi-Use Trail
- Existing Mountain Coaster
- Planned Zipline
- Planned Restaurant
- Ullrhof Restaurant Planned Expansion
- Planned Spider Sabich Remodel/Replacement
- Lynn Britt Cabin Improvements
- Waipiti Planned Expansion
- Planned Nature Based Exhibit Near Overlooks
- Planned Covered Storage/ Shop for Parks & Pipe
- Planned Storage/Maintenance Facilities
- Planned Disc Golf Course
- Planned Paintball and Archery
- Planned Zone 1
- Planned Mountain Access Road
- Mountain Access Road to be Improved
- Previously Approved Mountain Access Road
- Trail Converted from Special Event Downhill Bike Trail to Permanent Use

North

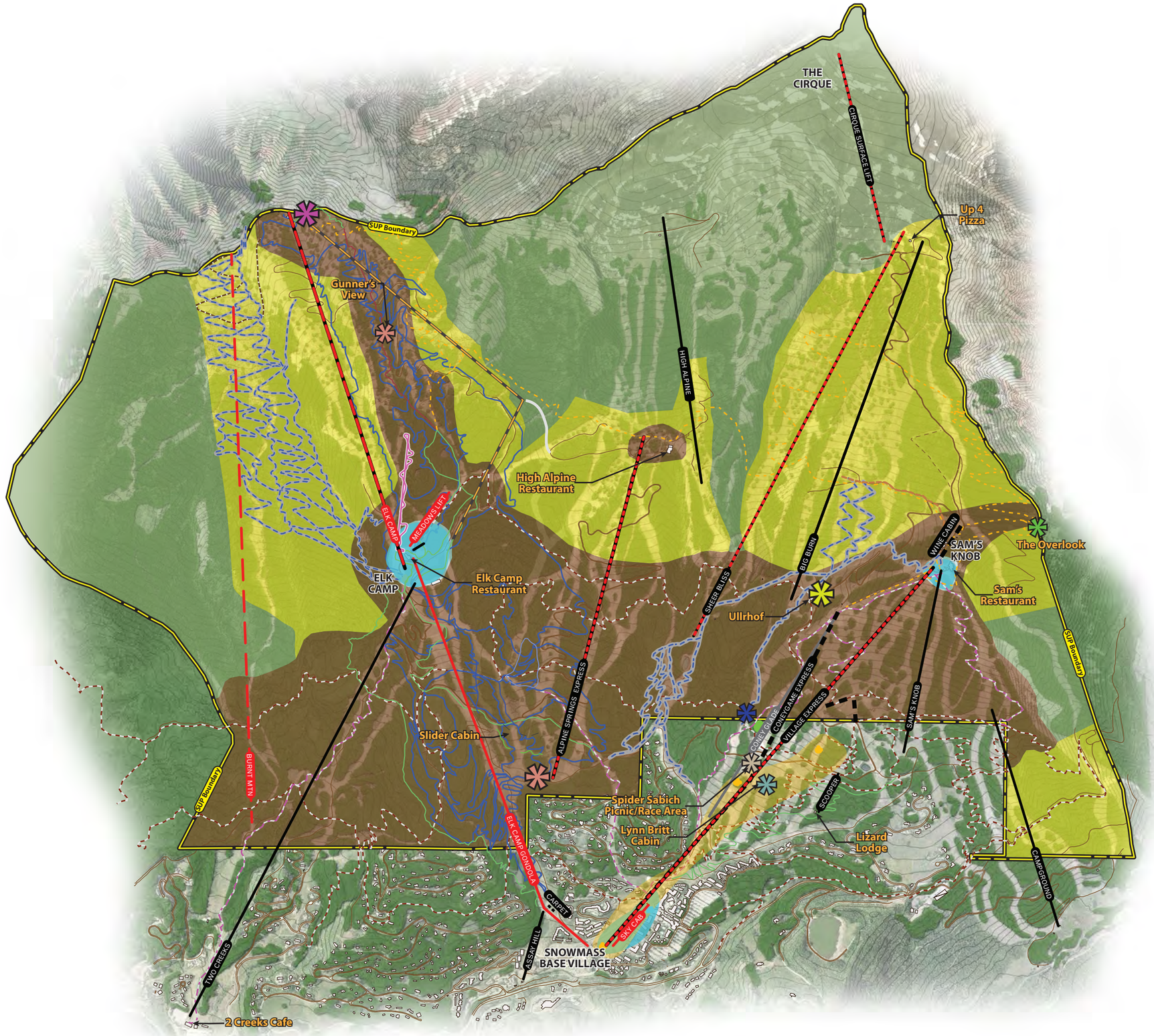
Contour Interval: 50 Feet

SE GROUP

0 500 1000 2000 4000 6000 Feet

FIGURE VI-5. PROPOSED SUMMER ZONING PLAN

2022 MASTER DEVELOPMENT PLAN



LEGEND

- Existing Summer Use Lift
- Existing Winter Use Lift
- Planned Summe Use Lift Upgrade
- Planned Winter Use Lift Upgrade
- Planned Lift Summer Use
- Planned Lift Winter Use
- Previously Approved Lift
- Lift to be Removed
- Existing MTB Trail
- Planned MTB Trail
- Existing Mountain Access Roads
- SUP Boundary
- Existing Hiking Only Trail
- Existing Hiking Decomissioned
- Planned Hiking Trail
- Existing Multi-Use Trail
- Existing Mountain Coaster
- Planned Restaurant
- Ullrhof Restaurant Planned Expansion
- Planned Spider Sabich Remodel/Replacement
- Lynn Britt Cabin Improvements
- Waipiti Planned Expansion
- Planned Nature Based Exhibit Near Overlooks
- Planned Covered Storage/ Shop for Parks & Pipe
- Planned Disc Golf Course
- Planned Paintball and Archery
- Planned Mountain Access Road
- Mountain Access Road to be Improved
- Previously Approved Mountain Access Road
- Trail Converted from Special Event Downhill Bike Trail to Permanent Use
- Planned Ski Trails
- Planned Zipline

ZONES LEGEND

- Zone 1
- Zone 2
- Zone 3
- Zone 4

North

Contour Interval: 50 Feet

SE GROUP

0 500 1000 2000 4000 6000 Feet