GRAND TARGHEE RESORT

2018 MASTER DEVELOPMENT PLAN

Prepared for:

USDA Forest Service
Caribou-Targhee National Forest

Prepared by:

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CHAPTER 1. INTRODUCTION

This Master Development Plan (MDP) has been prepared to replace the 2017 Grand Targhee Resort MDP. It provides a thorough assessment of existing operations and facilities at Grand Targhee Resort (GTR) and identifies a comprehensive plan for future improvements to the ski area. This MDP is designed to guide the creation of a balanced recreation experience that will be both appealing to guests and operationally efficient. In addition, the plan is respectful of the natural resources within GTR's Special Use Permit (SUP) boundary while incorporating important guest preferences.

Following the introduction provided in this chapter, this MDP is comprised of the following chapters:

- Chapter 2 describes the design criteria used for mountain planning purposes, specific to GTR
- Chapter 3 provides a site inventory of the ski area, including physical resources such as aspect and gradient analyses, and opportunities and limitations of the ski area
- Chapter 4 addresses the existing conditions at GTR and evaluates the balance of ski area operations, facilities, and infrastructure including components such as downhill terrain, lifts, guest services, and parking capacities.
- Chapter 5 reviews several projects previously approved by the Forest Service, but not yet implemented, within GTR's existing SUP boundary
- Chapter 6 details planned upgrades/improvements to the resort
- Chapter 7 provides a glossary of terms used throughout this document

It is important to note that Forest Service *acceptance* of this MDP does not convey *approval* of any projects contained herein. Implementation of any projects on National Forest System (NFS) lands within GTR's SUP area is contingent upon site-specific environmental review and approval as required under the National Environmental Policy Act (NEPA).

The Wastewater System, Water Supply and Storage, and Snowmaking Coverage sections in this MDP have been coordinated, and are consistent with, the *2008 Grand Targhee Resort Master Plan* (the County Master Plan) that was assembled for GTR's private base lands and has been approved by Teton County, Wyoming. GTR is currently in the process of updating plans for the private base lands, and the guest services component of this MDP is consistent with the direction of these plans. The updated Base Area Master Plan has not yet been completed, and has not been incorporated into the County Master Plan at this time. As the majority of GTR's lift and trail network is located on public lands administered by the Caribou-Targhee National Forest (CTNF), proposed projects must also be consistent with the 1997 Targhee Forest Plan (discussed in Chapter 2). Upon Forest Service acceptance of a site-specific set of projects from this MDP, NEPA review will commence and a thorough

Forest Plan consistency analysis will be performed. At this time, no inconsistencies between the Upgrade Plan (see Chapter 6) and the 1997 Targhee Forest Plan have been identified.

A. LOCATION

The majority of GTR's lift and trail network is located on NFS lands under the jurisdiction of the Teton Basin Ranger District of the CTNF in Teton County, Wyoming. All base area (Targhee Village) facilities, guest service facilities, portions of the beginner terrain, and a few other trails, are located on private lands owned by GTR. Refer to Figures 1.1 and 1.2 for more information on location and land ownership.

GTR is approximately 8 miles east of Alta, Wyoming, on the west side of the Teton Mountain Range. It is accessed from Highway 33 via East Ski Hill Road in Driggs, Idaho. From Driggs, Ski Hill Road continues east into Teton County, Wyoming and the Town of Alta, and then crosses into the CTNF, terminating at the resort. GTR is approximately 45 miles (by road) northwest of Jackson, Wyoming, roughly 87 miles northeast of Idaho Falls, Idaho, and 300 miles north of Salt Lake City, Utah.

The resort and related operations encompass an area of approximately 2,414 acres. Of this area, approximately 120 acres are located on private lands in the base area. The remainder of the area (approximately 2,294 acres) is within the Forest Service-administered SUP area. The lowest elevations at GTR are located at the bottom terminal of the Sacajawea Lift (7,602 feet above mean sea level [amsl]) and the base area (7,960 feet amsl). The highest elevations are the top of the Dreamcatcher Lift (9,840 feet amsl) and the summit of Mary's Nipple (requiring a hike to 9,925 feet amsl). Thus, GTR's lift-served vertical drop is 2,240 feet, and its total skiable vertical drop is 2,323 feet, including hike-to terrain.

B. BACKGROUND AND DEVELOPMENT HISTORY

Since its inception in the 1960s GTR has been renowned for its abundant, quality snow, fun and diverse terrain, and uncrowded slopes. Over the decades it has strived to capitalize on these defining characteristics while maintaining the laid-back atmosphere that guests have come to expect.

1. 1960s

In December 1969 GTR was issued a SUP by the CTNF and commenced operation as a winter recreation site. The resort initially consisted of two lifts (Bannock and Shoshone) as well as a single rope tow. Base area facilities consisted of a 16-unit hostel and a cafeteria. The resort was originally founded as a nonprofit organization with the intention of providing an economic benefit for the communities and residents of the Teton Valley. The dramatic setting and outstanding snow conditions quickly developed GTR's reputation as a destination for purists and locals alike.

2. 1970s

In 1971a MDP was prepared for GTR. It included, among other things: a mountain capacity of 6,000 skiers, construction of 475 units in the base area, snowmobile trails, a golf course, and a summer trailer park. Construction of the Sioux Lodge (32 units) was also completed in 1971.

The resort went under private ownership in 1973 when it was purchased by Bill Robinson. Robinson continued to implement components of the 1971 MDP—the Blackfoot Lift was constructed in 1974, and the Teewinot Lodge (48 units) was constructed in 1977. Further improvements continued at the base area with guest service facilities (including upgrades to the day lodge and restaurant in 1977), as well as construction of the maintenance facility in 1979.

3. 1980s

In 1987 the resort was sold to the Bergmeyer family, who continued to improve the base area facilities and guest accommodations. Shortly after the Bergmeyers took ownership of the resort, guided SnowCat tours began on Peaked Mountain and the Sacajawea terrain.

4. 1990s

In 1990 a fire destroyed nearly all of the buildings at the resort's base area. The base area facilities were rebuilt with the focus of creating an intimate and family-friendly guest experience. The reconstruction of the base area and resulting improvements helped GTR to further define itself as a destination resort.

In 1991 a new MDP was completed that included both on-mountain and base area development at the resort with substantial planned upgrades. The 1991 MDP called for development of the resort's lift and trail network to include a total of eight lifts with a skier capacity of 6,490 skiers per day. Commensurate with the planned mountain upgrades, the 1991 MDP called for the development of approximately 85 acres of base area lands comprised of a mix of hotel, condominium, and single family residences. In addition to the resort's accommodations, 124,569 square feet of guest services and commercial property were planned.

The Forest Service analyzed the 1991 MDP via the NEPA process and in 1994 issued a Final Environmental Impact Statement (EIS) and Record of Decision (ROD).[1] The ROD established the SUP at approximately 2,412 acres and approved an increase of the ski area's daily capacity to 5,130 skiers. GTR's base area facilities were approved for expansion, including development of 686 units of lodging, 98,342 square feet of skier services, 37,900 square feet of commercial space, 9.2 acres of parking, a conference area, spa, and health facilities. Development of a summer trail network was also approved. The 1994 ROD was appealed and a modified ROD was issued in 1995 which granted the approval of the on-mountain facilities and included limits to the rate of base area development at the resort at that time.

The resort changed hands again in 1997 when it was purchased by Booth Creek Ski Holdings, Inc. (a company controlled by the George Gillett family). Booth Creek made further improvements to mountain facilities including the replacement of the Bannock Lift with the resort's first detachable high-speed quad lift (Dreamcatcher) and the replacement of the Shoshone double lift with a new, fixed-grip quad.

[1] The ROD was appealed, and the resulting Appeal Resolution established additional procedures for future projects at GTR.

In 1997 a land exchange was initiated between Booth Creek Ski Holdings, Inc. and the CTNF. Alternatives considered for the land exchange involved NFS lands with development potential at the base of GTR (ranging from 108 to 195 acres) for 400 acres of private lands (valued for grizzly bear habitat and wetlands) surrounded by the CTNF, referred to as Squirrel Meadows. An EIS was completed by the CTNF to analyze the potential effects and impacts of the proposed Squirrel Meadows-Grand Targhee Land Exchange. The Final EIS and ROD for the land exchange were issued in 2004 and granted approval for 120 acres of NFS land at the base area of the resort to become private land. It is important to note that mitigation measures and monitoring requirements that were associated with Forest Service approval of projects at the base area prior to the land exchange are no longer within the CTNF's jurisdiction. Current and future projects on private lands at GTR are defined within the 2008 County Master Plan. Therefore, the County has jurisdiction over GTR's development on private lands.

5. 2000s

In 2000 the resort was purchased by the current operators, GTR, a company that is owned by the Gillett family. Under the new ownership, the teaching area was upgraded with the installation of a magic carpet, and in 2001, the resort expanded the lift served terrain by 500 acres with the installation of the Sacajawea Lift. In 2004 the Squirrel Meadows Land Exchange was approved by the Forest Service, resulting in 120 acres of additional private land at the base area. In 2008 a Supplemental Information Report (2008 SIR) reaffirmed the approval to replace (and realign) the Blackfoot Chairlift, however ensuing economic conditions prevented GTR from implementing the project.

6. 2010s

In 2011 an updated MDP was completed that included realignment of Blackfoot Lift, a lift to service Peaked Mountain (currently terrain used for cat skiing), a new Lightning pod (with lifts and trails), and various other upgrades (including snowmaking, grooming, and glading).

In 2016 the Blackfoot Lift was replaced with a fixed-grip four passenger chair with a design capacity of 1,800 people per hour (PPH). In general, the alignment remained the same with the lift shifting a minor distance to the south to establish the top and bottom terminals in the most suitable positions. Constructing the terminals in these locations capitalized on the natural topography of the area and would improve loading, unloading and skier circulation.

The resort is still owned and operated by the Gillett family, who continue the tradition of providing a high quality guest experience and catering to locals, families, and destination visitors, while maintaining the resort's unique and intimate character. With the growth and development of communities in the Teton Basin and the resort's close proximity to Yellowstone and Grand Teton National Parks, GTR is expected to see increases in visitation from both winter and summer recreational enthusiasts.

C. MARKET NICHE

As discussed above, GTR has a well-earned reputation within the ski industry. It is known for the intimate, uncrowded skiing and riding experience that it offers—reminding guests of "how skiing is supposed to be." Its abundant "champagne powder," fun and diverse terrain (both traditional and hike-to), and outstanding views of the Grand Tetons make it a truly unique regional destination resort.

GTR is primarily a day use/regional destination resort, attracting people from western Wyoming, eastern Idaho, and the greater Intermountain region. It has a strong local following from residents of Victor and Driggs, Idaho and capitalizes on nearby Jackson Hole Mountain Resort's (Wyoming) destination market appeal. GTR hosts the majority of its guests on weekends and holiday periods with lodging available at the resort as well as in the surrounding towns of Driggs and Victor, Idaho, and Jackson, Wyoming.

D. ABSTRACT OF THE PROPOSED UPGRADE PLAN

In summary, the Upgrade Plan in Chapter 6 includes:

1. Terrain

- Approximately 350 acres of new trails (mostly in the Mono Trees pod, North Boundary pod and on Peaked Mountain)
- Conversion of terrain on Peaked Mountain (within GTR's SUP area) that is currently dedicated to guided SnowCat skiing and riding to lift service
- Expansion of the SUP boundary into the "South Bowl" area adjacent to Peaked Mountain, adding about 600 acres to the resort's permitted area and new gladed trails
- Expansion of the SUP boundary to the west to include the Mono Trees pod, adding approximately 600 acres to the resort's permitted area
- Approximately 550 acres of new or improved glades
- Approximately 149 acres of trail grading, primarily to improve the skiability of existing trails, but also associated with planned terrain
- Additional teaching terrain served by proposed carpet lifts adjacent to the upgraded Shoshone mid-station
- New circulation trails between the main base area and the Sacajawea/Peaked Mountain areas

2. Lift Installations

- Installation of Mono Trees Lift in the Lightning Ridge area (a lift was previously approved extending to the south)
- Installation of the Crazy Horse Lift—a new lift starting near the top of *Screaming Cheetah* to the top terminal of the Dreamcatcher Lift
- Installation of the Rick's Basin Lift—a new lift to connect Targhee Village and Rick's Basin
- Installation of the North Boundary Lift—a new lift in the northern portion of the existing SUP boundary
- Installation of two additional teaching carpet lifts adjacent to the base area
- Installation of the Peaked Lift (previously approved)
- Installation of three lifts in South Bowl
- Installation of a surface lift and lights on Palmer's Raceway

3. Lift Replacements & Upgrades

- Upgrade, realignment, and extension of the Shoshone Lift
- Realignment of the existing Papoose teaching carpet lift adjacent to the base area

4. Snowmaking

- Installation of snowmaking infrastructure sufficient to provide approximately 104 acres of coverage (existing and planned) and two reservoir locations

5. Guest Services

- Construction of a 6,800- to 7,000-square foot on-mountain restaurant on Fred's Mountain, near the top terminal of the Dreamcatcher Lift
- Construction of a 5,000- to 6,500-square foot restaurant near the top terminal of the Sacajawea Lift
- Construction of warming cabins in Rick's Basin (to support GTR's Nordic trail network) and on Lightning Ridge
- Construction of restroom and warming facilities with limited food service at the bottom terminals of the previously approved Blackfoot and Peaked lifts
- Construction of a yurt at the top of the Shoshone Lift to provide on-hill facilities, potentially including evening winter sleigh rides or summer horseback rides to dinner

6. Multi-Season Recreation and Alternative Winter Activities

- Approximately 37 miles of summer recreation trails (hiking, mountain biking, equestrian), including both previously approved, but not yet constructed trails and newly-planned trails, which would bring GTR's total multiple use trail network mileage to approximately 89 miles
- Installation of an aerial adventure/canopy tour from the top of the Dreamcatcher Lift to the base area
- Additional recreation features located within the Summer Activity Zone including a mountain bike skills park, zip lines, canopy tour, Fly Line, aerial adventure course, and summer tubing
- Construction of a dedicated, permanent tubing and snowplay facility at Targhee Village (potentially on NFS lands)

7. Ski Area Operations

- Construction and reclamation of roads throughout GTR's SUP area
- Relocation of the maintenance/SnowCat storage facility (10,000 square feet) and avalanche control explosives magazine to NFS lands
- Installation of lights on Bighorn, Palmer's Raceway and in the terrain park at the bottom of Sweetwater

E. RESORT SUMMARY

GTR is currently owned and operated by the Gillett family. The SUP was renewed in May of 2004.

The ski area attracts its guests partly from local markets, but a significant portion of resort visitation is from regional and national destination markets. GTR has earned a reputation for its intimate, uncrowded setting; abundant, quality snow; fun and diverse developed and hike-to terrain; and outstanding views of the Grand Tetons.

GTR averages over 500 inches of snowfall per season, placing it at the top of the list of ski resorts in North America in terms of snowfall quantity. This is an impressive statistic, as the resort sits 670 miles inland; thus, the snow that falls is typically dry and light powder snow. The reason for the abundant snowfall is twofold. First, it is on the west slope or "wet" side of the Grand Tetons and, second; there is a moisture channel through the Rocky Mountains formed by the Snake River Plain that channels moisture to the west slope of the Tetons all the way from the Pacific Ocean.

GTR currently operates four lifts and one beginner conveyor lift. Skiable terrain includes 78 named, lift-served Alpine trails and routes that total approximately 520 acres. The remainder of the resort's Alpine terrain is comprised of open bowls and glades. Snowmaking operations at GTR are limited to the lower, novice slopes of the mountain, specifically in support of lower-level teaching terrain.

In addition to developed ski terrain, GTR operates guided SnowCat tours on approximately 600 acres of terrain on Peaked Mountain within the SUP area. GTR also complements its alpine skiing with approximately 7 miles (15 km) of groomed Nordic trails. Winter fat bikes share both the snowshoe and Nordic trails to offer close to 11 miles of fat biking trails to guests. Summer activities at the ski area include mountain biking, horseback riding, music festivals, and a variety of other activities.

Skier support facilities and services are provided in a number of buildings at the base area, including rental gear, lift ticket sales, ski school, first aid, guest services, restrooms, public lockers, day care, and food and beverage services. Targhee Village also includes 96 units for overnight accommodations, as well as destination-oriented services such as a grocery store, sit-down restaurants, and retail shops.

Lodging options for destination guests include on-site accommodations on GTR private lands, as well as lodging in Alta, Wyoming and Driggs, Idaho. The U.S. Census Bureau reports that in 2010, the Town of Alta had 400 residents, the Town of Driggs had a population of 1,660, and Teton County, Wyoming had a population of 21,294.

As shown in Table 1-1, GTR's annual visitation over the past five seasons has been characterized by a general upward trend. During the five-year period, GTR averaged 176,574 annual visits. GTR averages 140 operational days per season.

Table 1-1. Annual Skier/Rider Visits (2013–2018)

Season	Visitation
2013/14	167,481
2014/15	174,997
2015/16	178,706
2016/17	164,129
2017/18	197,555
Five-Year Average	**176,574**

F. GOALS AND OBJECTIVES OF THIS MDP

As a result of evolving expectations and demands in today's skier/rider market, resorts are increasingly focusing on raising service standards, improving the recreational experience, and addressing shortcomings in their terrain offerings and operations. In essence, GTR must strive to improve its offerings in order to remain viable in the competitive destination skier/rider market.

With this concept in mind, this MDP is dedicated to improving the opportunities for people to enjoy public lands on the CTNF. Starting with this chapter and culminating with the Upgrade Plan in Chapter 6, this MDP identifies and capitalizes on GTR's current recreational/operational assets and opportunities, and addresses its constraints.

This conceptual planning document essentially serves as a "road map" for future improvements at GTR. By identifying the type, size, capacity, and location of improvements that are appropriate to achieve the goals of the resort, this MDP establishes the direction and priorities for the physical improvement of mountain and base area facilities at GTR over roughly the next decade. Thus, this document provides a comprehensive portrayal of how GTR will function as a cohesive resort across both public and private lands. It is expected that additional site-specific design will be warranted and completed at the time of individual project proposal, analysis, and implementation on both NFS and private lands.

It is important to note that this is intended to be a dynamic document, which may be amended periodically in response to changes in GTR's market, the evolution of the ski/snowboard industry, and technological innovations.

Nationally, the ski industry set an all-time record in annual skier visits in 2010/11, with approximately 60.5 million visits. Since the 2010/11 season, annual skier visits have averaged 54.2 million over the last five years. Part of the decline can be attributed to poor weather conditions in the Pacific Southwest and the Northeast. Despite the national decline over the last five years nationally, the Rocky Mountain region had its best season ever in terms of snowsports visits (up 7.3 percent) in 2015/16. The Rocky Mountain region includes Colorado, Utah, New Mexico, Wyoming, Idaho, and Montana.[2]

To address the growth in the Idaho and Wyoming skier markets and, more importantly, to meet increasing guest expectations, GTR must continue to develop and improve its on-mountain and base area facilities. The development of additional facilities at GTR is in direct response to evolving consumer demands and the competitive regional destination ski market. The improvements illustrated within this MDP were designed to enhance the recreation experience of current GTR guests.

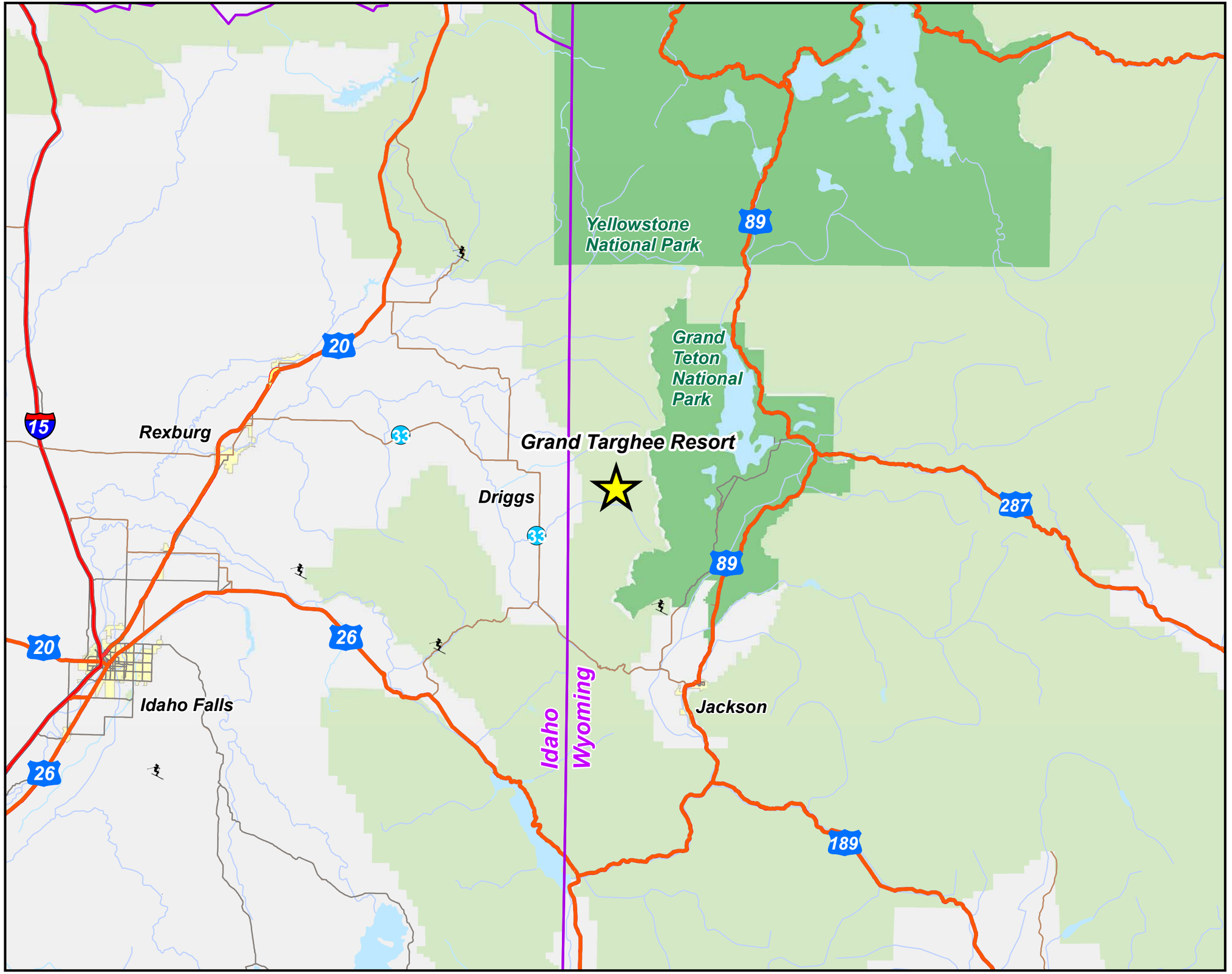
GTR's niche in the ski industry (defined previously) and the clientele it serves helped cultivate the concepts found throughout this document. This MDP has identified numerous opportunities that, when capitalized on, will greatly improve the recreational experience and help ensure the resort's viability.

[2] National Ski Areas Association. 2016. Kottke National End of Season Survey 2015/16. July.

Through planning efforts, the following major opportunities were identified:

1. Improve the first-time and beginning ski experience at GTR by providing an appropriate learning progression in an uncongested area, and by developing additional beginner and low ability-level terrain
2. Increase the quantity of intermediate terrain to meet current and anticipated public demand
3. Cater to the growing advanced-intermediate and advanced skier/snowboarder demographic through additional terrain offerings and improvements
4. Improve skier circulation and access to and from the base area, and from and to the Sacajawea and Peaked Mountain terrain
5. Enhance the overall recreation experience by providing convenient on-mountain guest services
6. Enhance the overall resort experience by improving the base area guest services
7. Increase alternate winter and summer activities including tubing, Nordic skiing, mountain biking and hiking opportunities, zip lines, canopy tours, fly lines, and aerial adventure courses—all of which would cater to existing and potential winter and summer visitors

Each of these concepts is detailed in the Upgrade Plan in Chapter 6, which strives to achieve the goal of maintaining a desired skiing experience with comfortable terrain capacities.



GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 1.1

Vicinity Map

LEGEND

- River
- Major Highway
- Municipality
- State / County Lands
- National Forest
- National Park

DATE: August 2018

0 5 10 20 Miles

Graphic Scale: 1 Inch = 10 miles

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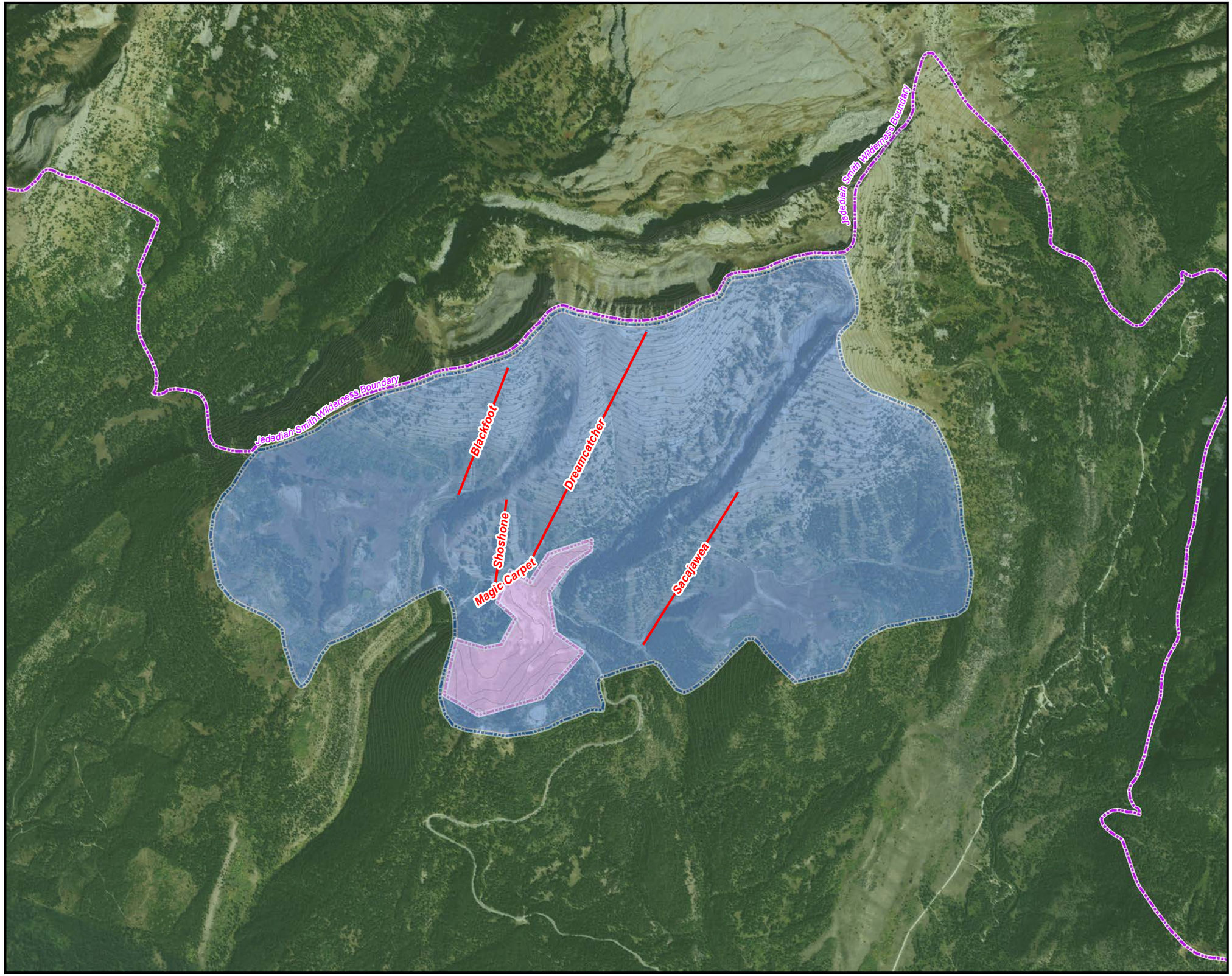

GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 1.2

Existing Land Management

LEGEND

- Existing Lifts
- Wilderness Boundary
- Private Land
- Existing Permit Boundary
- Caribou-Targhee National Forest

DATE: August 2018

0 1,000 2,000 4,000 Feet

Graphic Scale: 1 Inch = 2,000 Feet
Contour Interval: 50 Foot

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CHAPTER 2. DESIGN CRITERIA & FOREST SERVICE DIRECTION

Establishing design criteria is an important concept in resort master planning. Chapter 2 provides an overview of the basic design criteria upon which Chapter 4 (Existing Ski Area Facilities) and Chapter 6 (Upgrade Plan) are based. With the exception of Forest Service Policy and Direction, information presented in Chapter 2 is general in nature and related to the concept of resort master planning, rather than to GTR specifically. Chapters 3, 4, 5, and 6 present information that is specific to GTR.

A. 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 multi-day vacationers. At regional destination resorts, lodging typically is a component; however, due to the average length of stay and perhaps guests' vacation budgets, lodging and related services are usually less extensive than what might be expected at a larger destination resort that attracts national and international visitors. Where a regional destination resort has evolved from within, or adjacent to, an existing community, services are often supplied by proprietors in the existing community. Such is the case at GTR and the nearby towns of Alta, Wyoming and Driggs, Idaho. Even though the services offered at GTR cater directly to guests of the resort or summer vacationers to the area, proprietors within the Town of Driggs also supply services to vacationers. This helps maintain the balanced lifestyle that permanent residents and second home owners tend to enjoy.

B. BASE AREA DESIGN

The relationship between planning a resort's base area developments (typically located on private lands) and on-mountain lift and terrain network (typically located on NFS lands) is critically important. This relationship affects the overall function and perception of a resort.

Design of the base lands for 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: guest service locations, skier/rider circulation, pedestrians, parking/access requirements, and mass-transit drop-offs, among other components.

Planners rely on resort layout as one tool to establish resort character. The manner in which resort elements are 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 in 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)

As mentioned in Chapter 1, GTR's 2008 County Master Plan has been approved by Teton County and addresses future development of private, base area development outside the scope of this MDP. GTR is in the process of updating this plan and creating a new Base Area Master Plan.

C. MOUNTAIN DESIGN

1. Trail Design

Slope Gradients and Terrain Breakdown

Terrain ability level designations are based on slope gradients and terrain features associated with the varying terrain unique to each mountain. In essence, ability level designations are based on the maximum sustained gradient calculated for each trail. While short sections of a trail can be more or less steep without affecting the overall run designation, a sustained steeper pitch may cause the trail to be classified with a higher difficulty rating.

Table 2-1 shows the general gradients used to classify the difficulty level of skiing terrain.

Table 2-1. Terrain Gradients

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

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

Table 2-2. Rocky Mountain Skier Ability Breakdown

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

Trail Density

The calculation of capacity for a ski area is based in part on the target number of skiers and riders that can be accommodated, on average, on a typical acre of terrain at any one given time. The criteria for the range of trail densities for North American ski areas is shown in Table 2-3.

Table 2-3. Skier Density per Acre

Skier Ability	Trail Density
Beginner	25–40 skiers/acre
Novice	12–30 skiers/acre
Low Intermediate	8–25 skiers/acre
Intermediate	6–20 skiers/acre
Advanced Intermediate	4–15 skiers/acre
Expert	2–10 skiers/acre
Alpine Bowls	0.5 skier/acre

These density figures account for the skiers that are actually populating the trails and do not account for other guests who are 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.

Since GTR represents a style of ski resort that is known for uncrowded ski runs, open bowls, and wide glades, the lower end of these ranges were used for analyzing its terrain network.

Trail System

A resort's trail system should be designed to provide a wide variety of terrain that meets the needs of the full range of ability levels consistent with each level's respective market demand. 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.

In terms of a resort's ability to retain guests, both for longer durations of visitation and for repeat business, variety of terrain has proven to be one of the more important factors. This means providing developed runs for all ability levels—some groomed on a regular basis and some not, along with bowls, trees, and terrain parks and pipes. This concept of terrain variety is explored in greater detail in Chapter 4 – Existing Conditions.

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.

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 resulted in changes to 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 also 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, lift design has to take into consideration such factors as wind, round-trip utilization of the terrain pod, access needs, interconnectability between other lift pods, the need for circulation space at the lower and upper terminal sites, and the presence of natural resources (e.g., visual impacts, wetlands, and riparian areas). The vertical rise, length, and ride time of lifts across a mountain are important measures of the overall attractiveness and marketability of any resort.

3. On-Mountain Guest Services

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

4. 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 fifth or tenth busiest day, and peak-day visitation at most resorts is at least 10% higher than the design capacity.

Comfortable Carrying Capacity (CCC) is the term used in this document to represent GTR's design capacity. As described above, CCC is synonymous with Skier Carrying Capacity and Skiers at One Time (SAOT).

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 a mountain's true CCC.

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 descent.

Note: It is not uncommon for resorts to experience peak days during which visitation exceeds the CCC by as much as 25%. However, from a planning perspective, it is not recommended to consistently exceed the CCC due to the resulting decrease in the quality of the recreational experience, and thus the resort's market appeal.

D. 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 components, as well as other 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 than the other resort components.

E. APPLICABLE FOREST SERVICE POLICY & DIRECTION

As discussed in Chapter 1, Forest Service "*acceptance*" of this MDP does not convey "*approval*" of any projects contained herein. In other words, this MDP is not an approval document. It is a planning document that has been prepared in response to GTR's business and operational goals, within the parameters of its Forest Service-administered SUP. All planned projects are subject to modification in response to site-specific analysis.

As the majority of GTR's lift and trail network is located on NFS lands within its SUP area, proposed projects must be generally consistent with Forest-wide, as well as the Management Area, standards of the 1997 Targhee Forest Plan (discussed below). Upon the Forest Service's acceptance of a site-specific set of projects from this MDP, a NEPA process will commence and a thorough Forest Plan consistency analysis will be performed. Should it be determined that any proposed projects are inconsistent with the 1997 Targhee Forest Plan, either project modification or a Forest Plan amendment would be necessary.

GTR is currently bound by three prior decision documents for implementation of previously approved projects. They are: 1) the 1994 Record of Decision which approved the 1995 Master Development Plan; and 2) the 2002 Record of Decision which approved the Squirrel Meadows-Grand Targhee Land Exchange Proposal; and 3) the approval of the 2011 Master Development Plan.

The following information pertaining to the 1997 Targhee Forest Plan is included to illustrate the unique dynamic between the ski area permittee (GTR) and the federal land management agency (the CTNF). This information is not intended to be exhaustive.

1. 1997 Targhee National Forest Revised Forest Plan

The CTNF contains approximately 1,789,000 acres of land in eastern Idaho, western Wyoming, and northern Utah. The Forest is bordered on the east by Yellowstone and Grand Teton National Parks and the Bridger-Teton National Forest, on the south by the Uinta-Wasatch-Cache National Forest, on the west by the Challis and Salmon National Forests, and on the north by the Beaverhead and Gallatin National Forests. The Forest lies almost entirely within the Greater Yellowstone Ecosystem, an area of

over 12 million acres and the largest remaining block of relatively undisturbed plant and animal habitat in the contiguous United States.

The Caribou and Targhee National Forests combined to form the CTNF in 2000. Separate Forest Plans were prepared for each. The Revised Forest Plan for the Targhee National Forest was released in 1997, and the Revised Forest Plan for the Caribou National Forest was released in 2003. GTR is within the Targhee portion of the CTNF, and is thus subject to management direction contained in the 1997 Targhee Forest Plan, which guides all natural resource management activities and establishes management standards for lands within its scope. Direction in the form of goals, objectives, standards, and guidelines is prescribed at three different geographic levels: Forest-wide Standards and Guidelines; Subsection Direction; and Management Prescriptions.

A **Goal** is a concise statement that describes a Desired Future Condition, which normally is expressed in broad, general terms that are timeless, in that there is no specific date by which each goal is to be achieved.

An **Objective** is a concise, typically time-specific, statement of a condition, outcome, or purpose. Objectives are often measurable planned results that respond to goals.

A **Standard** is a condition of land, normally a maximum or minimum condition, that is measurable. A standard can also be expressed as a constraint on management activities or practices. Standards are established on a Forest-wide, subsection, and management prescription area basis to promote achievement of the Desired Future Condition and objectives. Deviation from compliance with a standard requires a Forest Plan amendment.

A **Guideline** is a preferred or advisable course of action that is generally expected to be carried out. Deviation from compliance with a guideline does not require a Forest Plan amendment, but the rationale for such a deviation shall be documented in the project decision document. Guidelines are established on a Forest-wide, subsection, and management prescription area basis to promote achievement of the Desired Future Condition and objectives in an operationally flexible manner that responds to such variations as changing site conditions or changed management circumstances.

Forest-Wide Standards and Guidelines – Developed Facilities

Forest-wide Standards and Guidelines are common to the entire Forest. However, very little Forest-wide direction is related to GTR's activities within its SUP area. One Forest-wide goal speaks to developed recreational facilities:[3]

1) Expand existing developed facilities to meet public needs

[3] USDA Forest Service. 1997. Revised Forest Plan for the Targhee National Forest. p. III-26

Teton Range Subsection Direction

Based on a larger national mapping effort it was determined that the Forest—wholly or partially—overlays seven large ecological units, or subsections, which were delineated using physiographic parameters. Using this approach, resource conditions can be viewed at a scale between the larger forest and the smaller prescription area levels. GTR is within subsection M331Db – Teton Range.

Regarding the Teton Range Subsection, the 1997 Targhee Forest Plan states:[4]

> *This area encompasses the Teton Mountains, bounded on the north by South Boone Creek, on the south by Highway 22, on the west by the Teton Basin and on the east by Jackson Hole in Wyoming. The Teton Range is a spectacular line of high peaks rising abruptly along the east side of the Teton Basin. The landscape is a diverse mix of forested and open vegetation. The Jedediah Smith Wilderness traverses the upper portions of the west slopes of the Teton Mountains. The Grand Targhee Ski and Summer Resort is a major tourist destination. Two permitted organized youth camps operate within the subsection. This area is known for its many backcountry trail systems, which are accessible by horse or foot.*

Teton Range Subsection – Desired Future Condition

The Teton Range Subsection is dominated by the lands inside the Jedediah Smith Wilderness. Over 73% of the subsection is wilderness where the focus is to provide quality wilderness experiences. However, it is noted that "the subsection includes the Grand Targhee Ski and Summer Resort, which will be managed to provide a safe and enjoyable recreation experience."[5]

Teton Range Subsection – Goals

The Recreational goal for the Teton Range Subsection is to "provide for a variety of opportunities including motorized, non-motorized, developed and dispersed recreation uses."

Teton Range Subsection – Standards & Guidelines

One Guideline is included for the Teton Range Subsection. This states: "Manage the development of the Grand Targhee Ski and Summer Resort within the intent of the 1994 Master Development Plan Final Environmental Impact Statement and according to the Master Plan approved April 27, 1995."[6]

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[4] Ibid. p. III-54
[5] Ibid.
[6] Ibid. p. III-56. Note that per page III-2 of the 1997 Targhee Forest Plan, deviation from compliance with a guideline *does not* require a Forest Plan amendment. However, GTR and the CTNF may determine that a non-significant Forest Plan amendment (i.e., to replace reference to the 1995 MDP with the 2011 MDP) is appropriate upon acceptance of this MDP and subsequent site-specific analysis and approval of projects contained herein.

Management Prescription 4.2 – Special Use Permit Recreation Sites

A management prescription is a composite of the specific multiple-use direction applicable to all or part of a management area that generally includes, but is not limited to, goals, objectives, standards, guidelines, and probable management practices. All areas of the GTR SUP area are allocated to one prescription area. Forest-wide, there are 45 management prescriptions.

GTR is within Management Prescription 4.2 – Special Use Permit Recreation Sites. This prescription applies to ski areas, resorts, summer home sites, and organization camps that are allowed under a special use permit from the Forest. The emphasis is on providing privately-operated types of recreation on NFS land for large concentrated groups of people. Overall, it is expected that visitors will see many signs of people, and little or no evidence of resource development except for recreation. Cabins and buildings used by permittees are visible but blend into the surroundings. Roads are generally graveled, but may be paved in higher use areas. Off-highway vehicles use is limited to entry and departure routes and for administrative purposes. In some areas visitors may see extensive development associated with ski areas or resorts—for example, buildings, ski lifts, maintenance equipment, etc. Many pedestrians and cars may be seen in these areas.[7]

Management Prescription 4.2 – Goals

Goals within Management Prescription 4.2 include:

- Provide for privately operated recreation use
- Protect and enhance a natural appearing environment to the extent possible while providing for private and group recreation opportunities
- Strive to incorporate opportunities for watchable wildlife

Management Prescription 4.2 – Standards & Guidelines

Forest-wide standards and guidelines apply additional, relevant direction for Management Prescription 4.2 related to GTR's activities includes:

Soil and Water

- Use rehabilitation techniques that do not detract from the recreation opportunity
- Avoid new construction on unstable or highly erosive soils
- On new developments provide adequate vegetation filters to maintain and/or enhance riparian dependent resources

[7] Ibid. p. 111-128

- *Developed*: Natural vegetation should be favored around facilities
- *Trails*: Trails may be allowed for the convenience of people using these sites
  - » Short trails are allowed which provide access to facilities and opportunities for interpretation
- *Recreation Opportunity Spectrum*: Roaded Natural to Urban
- *Visual Quality Objectives (VQO)*: Manage for a full range from Partial Retention to Maximum Modification; Facilities are often evident, but harmonize and blend with the natural setting[8]

2. Northern Rockies Lynx Management Direction

In 2000 the U.S. Fish and Wildlife Service (USFWS) listed the Canada lynx as a threatened species and in 2001 the Forest Service signed a Lynx Conservation Agreement with the USFWS to consider the Lynx Conservation Assessment and Strategy (LCAS). As a result, the Northern Rockies Lynx Management Direction (NRLMD) was developed. Goals of the NRLMD are to incorporate management direction in land management plans that conserves and promotes recovery of Canada lynx, by reducing or eliminating adverse effects from land management activities on National Forest System (NFS) lands, while preserving the overall multiple-use direction in existing plans.[9]

GTR is located on NFS land and is governed by direction. The LCAS identified risk factors affecting lynx productivity as:

- *Timber management*
- *Wildland fire management*
- *Livestock grazing*
- *Recreational uses*
- *Forest backcountry roads and trails*
- *Other human developments*

GTR is within the Canada lynx area of influence. A species area of influence encompasses a larger area than where the species is known to exist. Any project within the area of influence should consider potential direct and indirect effects to the Threatened, Endangered, Proposed and Candidate species in reference to Section 7 of the Endangered Species Act of 1973, as amended.

[8] VQOs for the ski area are Retention and Partial Retention for the steeper slopes and Modification for the flatter areas in Rick's Basin. Approximately 85% of the permit area has a VQO of Retention, which is atypically high for lands within a ski area.
[9] USDA Forest Service. 2007. Northern Rockies Lynx Management Direction Final Environmental Impact Statement, Vol. 1

CHAPTER 3. SITE INVENTORY

Chapter 3 provides a brief overview of some of the unique characteristics of the SUP area that were taken into consideration when assembling this MDP.

A. TOPOGRAPHY

The lift-serviced ski terrain at GTR is located on two separate peaks: Fred's Mountain and Peaked Mountain, with a very pronounced drainage between them. The north-facing side of this drainage, the Peaked Mountain side, is characterized by a steep cliff band that drops several hundred feet down to the drainage. While the south-facing side, on Fred's Mountain, is less dramatic, a steep section does exist just uphill from the drainage. Additionally, a distinct ridge runs westward down Fred's Mountain, delineating the Dreamcatcher area from the Blackfoot area, and separating the Blackfoot area from the base area. Both of these features represent significant challenges to circulation between the various sections of the resort.

The highest lift-serviced point at GTR is the top of Dreamcatcher, at about 9,840 feet amsl. The highest hike-to point is the top of Mary's Nipple, at 9,925 feet amsl. The lowest skiable point is the bottom of Sacajawea, at just over 7,600 feet amsl. This equates to a lift-serviced vertical drop of 2,240 feet.

B. SLOPE GRADIENTS

As discussed in Chapter 2, 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 (*Headwall Traverse*, for example). 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 (*North Boundary Traverse*, for example).

Slope gradients at GTR are depicted on Figure 3.1.

- **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

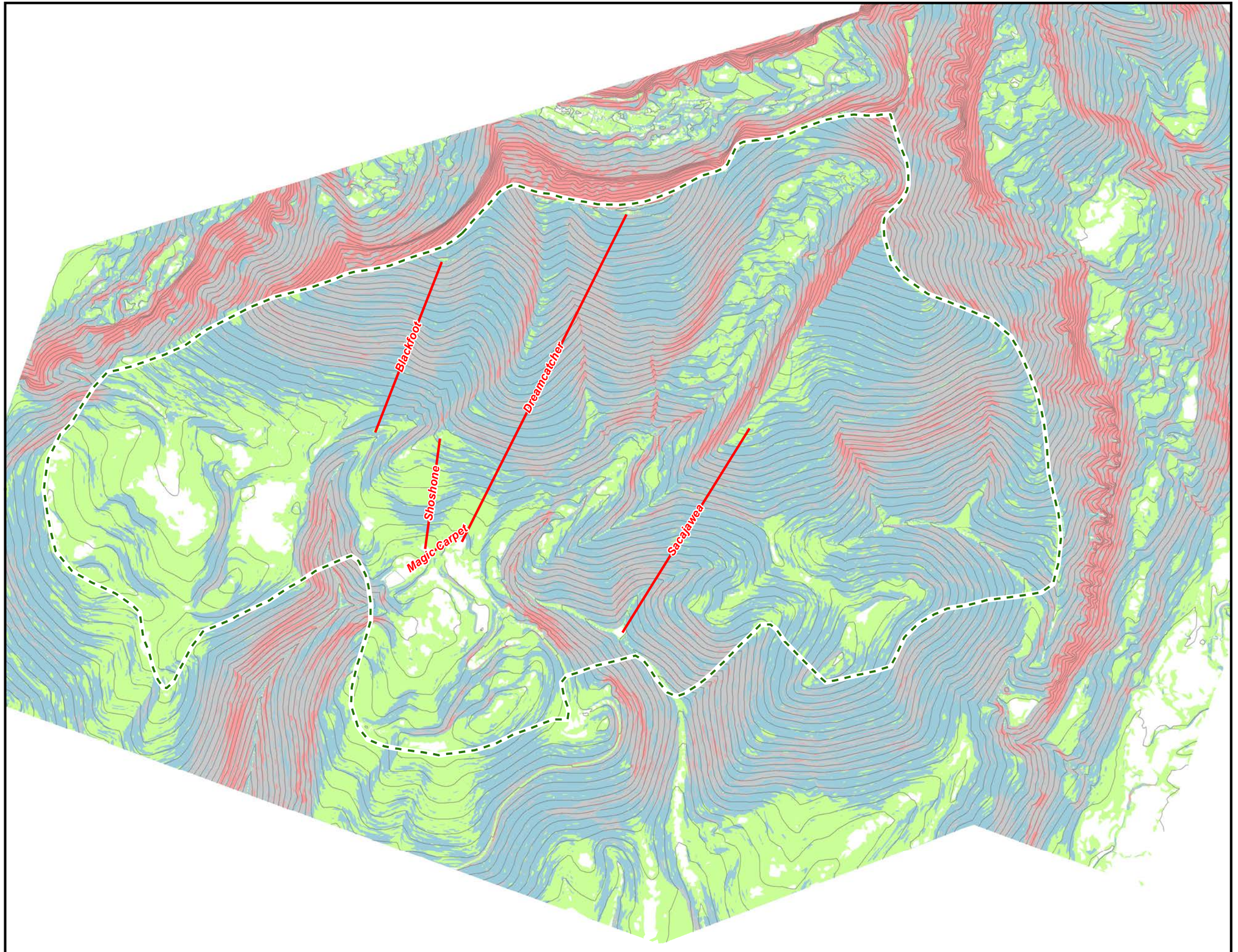
As shown Figure 3.1, the skiable terrain at GTR is dominated by intermediate- and advanced-level gradients. Even more importantly, the gradients remain continuous for extended periods, virtually from the top to the bottom of the lifts. Continuously skiable paths of intermediate-level terrain are available off all three major lifts, as is advanced-level terrain. This is a very desirable situation—high quality runs of varying ability levels can be present throughout the resort. Continuous novice-level terrain is present in the Shoshone Lift area.

C. SOLAR ASPECT

GTR is characterized by predominantly west-facing slopes. Aspects vary from south to north, but are focused mostly southwest to northwest. While more north-facing slopes would provide better snow retention, west facing slopes do provide decent snow retention and also have good sun exposure, particularly in the afternoons. GTR's aspect analysis is shown in Figure 3.2.

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



GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 3.1

Slope Analysis

LEGEND

- *Existing Lifts*
- *Existing Permit Boundary*

SLOPE

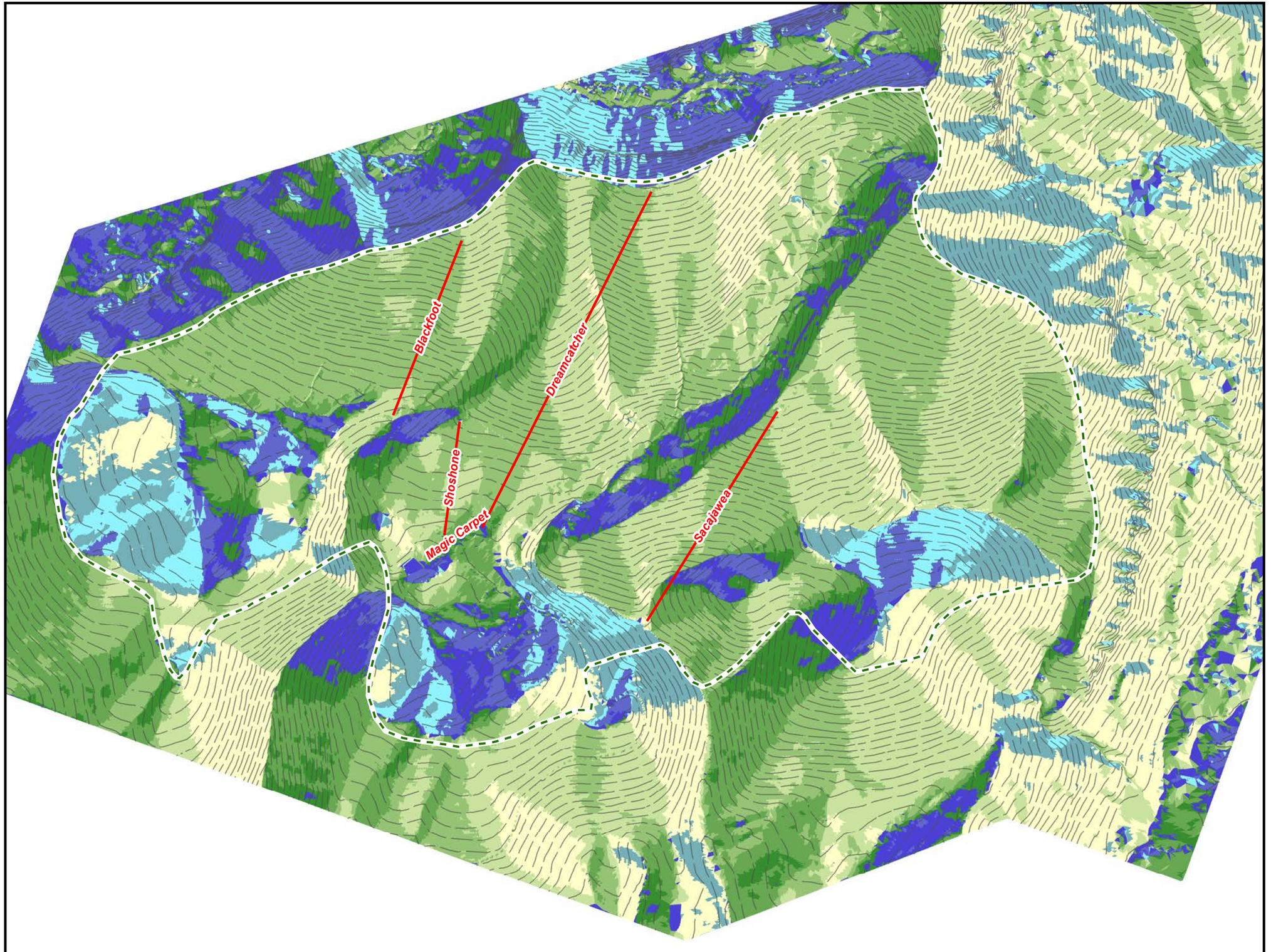
- *70% +*
- *45-70%*
- *25-45%*
- *8-25%*

DATE: August 2018

0 750 1,500 3,000 Feet

Graphic Scale: 1 Inch = 1,500 Feet

PRODUCED BY: SE GROUP



GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

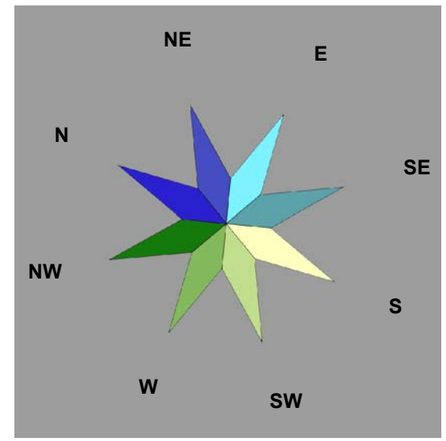
FIGURE 3.2

Aspect Analysis

LEGEND

- *Existing Lifts*
- *Existing Permit Boundary*

ASPECT



DATE: August 2018

0 750 1,500 3,000 Feet

Graphic Scale: 1 Inch = 1,500 Feet

PRODUCED BY: SE GROUP

CHAPTER 4. EXISTING CONDITIONS

This chapter contains an examination and analysis of existing facilities at GTR. 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 structures, guest services, other resort functions/activities, day-use parking, operations, mountain roads, and utilities/infrastructure. The analysis of the inventoried data involves the application of industry standards to GTR's existing conditions. 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 current CCC. This examination of capacities helps to identify GTR's strengths, weaknesses, opportunities, and constraints as a resort. The next step is the identification of improvements that would bring the existing facilities into better equilibrium, which will assist the resort in meeting the ever-changing expectations of its market. Accomplishing these objectives will result in a well-balanced resort that provides an adequate array of services and experiences capable of satisfying guest expectations for a quality recreation experience.

The examination of existing facilities presented in this chapter correlates with Figures 4.1, 4.2 and 4.3.

A. SUMMARY OF THE EXISTING GUEST EXPERIENCE

Determining the resort CCC is an important first step in evaluating the overall guest experience because it enables planners to understand the overall balance of the recreational facility. Empirical observations and a close examination of GTR's principal components reveal the existing mountain is fairly well balanced, indicating that any opportunities for expansions should address the full spectrum of facilities and skier ability levels, while focusing on particular areas to correct some small existing imbalances.

A resort's CCC is computed by analyzing the resort's supply of, and demand for, vertical lift transport. GTR's CCC was determined to be approximately 2,980 guests. From a terrain standpoint the resort's trail network has sufficient capacity for a trail density of 4 skiers-per-acre, a density that is on the low side of industry averages. This is a desirable situation that ensures an uncrowded experience, even on peak days. This analysis also indicates an imbalance—namely, that there is not enough lift capacity to serve the terrain capacity.

Generally speaking, the current guest experience at GTR is good. There is a friendly atmosphere, the facilities are well maintained and spacious for the number of skiers, the snow is typically abundant, and the skiing/riding is excellent. On most weekdays and non-peak weekends, actual daily visitation levels at the resort are below the calculated CCC, meaning that long lift lines are uncommon.

Despite its attributes, several aspects of the facilities at GTR are in need of upgrading. While the existing lifts are relatively new, in good shape, and access available terrain efficiently, they are limited in extent. In many locations throughout the resort, runs are in need of grading to improve skiability, reduce congestion, and ensure continuously skiable gradients. Likely the most significant deficiency, however, is in skier service space—particularly restaurants. There is a shortage of restaurant seating throughout the resort, and a complete lack of on-mountain skier services. The existing base area buildings are old and do not provide the best guest experience. The lack of on-mountain restaurants and restrooms is a significant deficiency, as eating lunch on the mountain is very popular with skiers, particularly in areas where it is difficult and time-consuming to get back to the base area (e.g., in the Sacajawea and Blackfoot pods).

B. EXISTING LIFT NETWORK

GTR currently operates five lifts—two detachable quads, two fixed-grip quad, and one carpet—with a total uphill design lift capacity calculated at 8,060 people-per-hour (pph). Table 4-1 summarizes the technical specifications for the existing lifts, and Figure 4.1 illustrates the location of existing lifts.

Overall, GTR's lift network services the available terrain efficiently and effectively. The primary difficulty at the resort lies in circulating to the Blackfoot and Sacajawea lifts from the base area (and Dreamcatcher Lift), and then returning to the base area from these pods. As stated, most of the lifts are newer and have been well maintained.

Table 4-1. Lift Specifications – Existing Conditions

Lift Name, Lift Type	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Grade (%)	Actual Design Capacity (pers/hr)	Rope Speed (fpm)	Carrier Spacing (ft)	Lift Manufacturer/ Year Installed
Dreamcatcher *DC-4*	9,837	7,972	1,865	5,960	6,302	31	2,280	950	100	CTEC 1996
Shoshone *C-4*	8,317	7,923	394	1,834	1,882	22	1,540	300	47	CTEC 1996
Papoose Magic Carpet *C*	7,957	7,922	35	224	227	14	400	50	8	Boardwalk 2000
Blackfoot *C-4*	9,285	8,085	1,200	2,925	3,236	41	1,800	450	60	Doppelmayr 2016
Sacajawea *DC-4*	8,875	7,594	1,281	3,945	4,182	33	2,040	850	100	CTEC 2001

Source: SE Group
C = carpet
C-2 = fixed-grip double chairlift
C-4 = fixed-grip quad chairlift
DC-4 = detachable-grip quad chairlift

1. Teaching and Beginner Lifts

Papoose Carpet

The Papoose carpet was installed in 2000, and is used for children and first-time beginners. It services 35 vertical feet of terrain. From here, guests "graduate" to the Shoshone Lift.

Shoshone Lift

The Shoshone fixed-grip quad chairlift was installed in 1996 and serves beginner and novice terrain adjacent to Targhee Village.

2. Dreamcatcher Detachable Quad

The Dreamcatcher high-speed quad was installed in 1996 and provides out-of-base access from Targhee Village to the summit of Fred's Mountain. This chairlift services almost 1,900 vertical feet of intermediate through expert terrain.

3. Blackfoot Fixed-Grip Quad

In 2008 GTR proposed to address identified skier circulation and operational issues through an upgrade and realignment of the Blackfoot Lift, which was approved via the 1994 ROD. However, changes to the regulatory environment since the 1994 ROD were administered and reassessment of the Final EIS and ROD were deemed necessary. Through a supplemental information report CTNF Supervisor Larry Timchak concluded the Blackfoot Lift replacement/realignment would be consistent with the Final EIS, and the previous decision made in the 1994 ROD was reaffirmed.

In 2016 GTR replaced the outdated Blackfoot Lift with a fixed-grip quad, approximately 3,250 feet in length, and a capacity of 1,800 pph. This replacement utilizes the existing alignment, retaining the approved realignment proposal by CTNF Supervisor's reaffirmation by the 1994 ROD.

4. Sacajawea Detachable Quad

The Sacajawea detachable quad services almost 1,300 vertical feet of intermediate, advanced-intermediate, and expert terrain on the lower, western flank of Peaked Mountain.

C. EXISTING TERRAIN NETWORK

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 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 not only have a diverse, interesting, and well-designed developed trail system, but also 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 in offering 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 undeveloped terrain type to the extent practical. 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 intriguing terrain, and typically are the areas that skiers/riders strive to access. In summary, variety is increasingly becoming a crucial factor in guests' decisions for where to visit.

2. Developed Alpine Trails

The existing developed alpine terrain network is depicted on Figure 4.1. The developed, or formalized, terrain network at GTR consists of the named, defined, lift-serviced, and maintained trails at the resort. 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 and ride. They are also usually the only place to ski/ride during the early season, periods of poor or undesirable snow conditions, avalanche closures, and certain weather conditions. As such, the developed trail network represents a true reflection of acreage used by the average skier/rider on a consistent basis, as well as that used by virtually all guests during the aforementioned conditions. Therefore, the total acreage of the terrain and the ability level breakdown must be sufficient to accommodate the full capacity of the resort.

Based on the rationale presented in the preceding paragraph, and for the purposes of this analysis, only the developed trail network is applied to the trail acreage calculations, skier/rider classification breakdown, trail capacity, and density formulas. Were this analysis to account for terrain outside of the developed trail network, it would have a misleading effect on those calculations. However, terrain outside of the developed network is crucial to terrain variety and the overall quality of the guest experience, and as such, is addressed later in this section.

The developed trail network accommodates beginner- through expert-level guests on 78 lift-served, named trails spanning approximately 520 acres. Most "green" and "blue" runs are groomed on a regular basis. However, as discussed throughout this document, GTR is best known for its extensive array of open glades, bowls, chutes, steeps, and other backcountry style terrain—most of which is not included in the developed alpine trail network.

The following terrain discussion is broken down by lift pod.

Teaching Terrain

All of GTR's teaching terrain is located at the base area. Children and first-time beginners start out on teaching terrain served by the Papoose carpet lift and progress to the Shoshone Lift, which services approximately 37 acres of beginner and novice terrain. True beginner terrain totals less than 1 acre, which is not enough for the demand from first-timers and children.

Dreamcatcher Pod

From the summit of Fred's Mountain, the Dreamcatcher Lift services a wide range of ability levels—approximately 282 acres of developed intermediate through expert terrain, with the majority of terrain being classified as advanced-intermediate. In addition to developed terrain, the Dreamcatcher pod includes glades (e.g., the *Lightning Trees*). Note that since there is only this one lift accessing much of this terrain, the terrain (particularly the south-facing terrain) is underutilized.

Blackfoot Pod

The Blackfoot Lift services just over 81 acres of developed intermediate through expert terrain, with the majority of terrain being classified as advanced-intermediate.

Sacajawea Pod

Terrain on the lower two-thirds of Peaked Mountain served by the Sacajawea Lift is composed of intermediate through expert classifications, totaling approximately 113 acres. In addition, the Sacajawea Lift provides access to the *Quiver Glades* and *Medicine Bowl*, which are not included in the developed terrain network..

Table 4-2 lists the specifications for all the developed terrain at GTR.

Table 4-2. Terrain Specifications – Existing Conditions

Trail Area/Name	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Average Grade (%)	Max Grade (%)	Ability Level
Teton Vista Traverse	9,833	8,037	1,795	13,074	13,238	52	15.8	14	29	Novice
Painted Pony	9,481	9,120	361	1,094	1,162	321	8.6	33	48	Intermediate
Lost Groomer	9,556	8,994	562	1,632	1,739	393	15.7	34	49	Adv. Intermediate
Patrol Chute	9,153	8,806	347	925	1,006	338	7.8	37	76	Expert
Instructors Chute	9,178	8,672	506	1,346	1,470	291	9.8	38	81	Expert
Happy Hunting Grounds	9,669	9,168	501	1,138	1,245	700	20.0	44	52	Adv. Intermediate
Crazy Horse	9,819	8,439	1,380	3,455	3,729	197	16.8	40	51	Adv. Intermediate
Crazy Horse Woods	9,121	8,501	620	1,332	1,471	142	4.8	47	51	Adv. Intermediate
Nasty Gash	9,178	8,236	942	2,080	2,303	310	16.4	45	70	Expert
Wild Willie	9,792	8,439	1,354	3,565	3,830	189	16.6	38	55	Adv. Intermediate
Headwall Traverse	9,828	9,292	536	3,642	3,701	40	3.4	15	38	Intermediate
The Face	9,756	9,461	295	738	800	208	3.8	40	52	Adv. Intermediate
Sitting Bull Ridge	9,709	8,877	831	2,942	3,063	158	11.1	28	40	Intermediate
Ladies Waist	9,448	8,575	872	2,182	2,360	214	11.6	40	49	Expert
Wandering Moose	8,980	8,392	588	1,552	1,661	219	8.3	38	43	Intermediate
Slim's Shot	8,916	8,306	610	1,597	1,713	221	8.7	38	49	Adv. Intermediate
Sweetwater	8,886	7,973	914	2,941	3,104	186	13.3	31	50	Adv. Intermediate
Big Thunder	8,879	8,282	597	1,432	1,556	237	8.5	42	51	Adv. Intermediate
Wild Turkey	8,894	8,324	570	1,546	1,655	216	8.2	37	47	Intermediate

Table 4-2. Terrain Specifications – Existing Conditions

Trail Area/Name	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Average Grade (%)	Max Grade (%)	Ability Level
The Good	9,427	8,895	532	1,192	1,311	382	11.5	45	62	Expert
The Bad	9,235	8,748	487	1,062	1,177	203	5.5	46	77	Expert
The Ugly	9,076	8,623	453	955	1,062	268	6.5	47	67	Expert
The Eastwoods	8,983	8,429	554	1,252	1,377	299	9.5	44	62	Expert
Rock Garden	9,662	9,307	356	1,136	1,194	128	3.5	31	44	Intermediate
Headwall	9,609	9,103	505	1,026	1,145	508	13.4	49	59	Expert
Chief Joseph Bowl	9,393	8,091	1,303	4,221	4,437	189	19.2	31	41	Intermediate
The Funnel	8,424	8,349	75	619	626	106	1.5	12	21	Intermediate
Middle Earth	8,958	8,307	651	3,423	3,509	98	7.9	19	39	Intermediate
Palmer's Way	8,329	8,039	289	1,538	1,574	173	6.3	19	33	Low Int.
Big Horn	8,324	7,980	344	1,717	1,755	153	6.2	20	28	Low Int.
Exhibition	8,301	7,921	380	2,025	2,063	121	5.7	19	27	Low Int.
Little Bighorn	8,324	8,179	144	817	832	126	2.4	18	25	Novice
The Meadow	8,265	7,947	317	1,859	1,890	156	6.8	17	29	Low Int.
Bobsled Run	8,238	8,028	209	1,103	1,125	158	4.1	19	25	Novice
North Pole Park	8,242	8,051	191	1,006	1,028	127	3.0	19	28	Low Int.
Blackfoot Access	8,318	8,169	149	570	595	53	0.7	26	43	Intermediate
Little Beaver Traverse	8,040	7,927	113	1,593	1,599	50	1.8	7	18	Novice
Papoose	7,955	7,922	33	289	291	101	0.7	11	15	Beginner

Table 4-2. Terrain Specifications – Existing Conditions

Trail Area/Name	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Average Grade (%)	Max Grade (%)	Ability Level
Upper Blackfoot Traverse	9,292	9,095	197	1,163	1,183	27	0.7	17	26	Intermediate
Lower Blackfoot Traverse	9,101	8,962	139	1,018	1,030	35	0.8	14	18	Adv. Intermediate
Chief Joe Traverse	9,276	9,224	53	558	563	29	0.4	9	13	Intermediate
Fallen Timber	9,254	9,001	253	549	605	341	4.7	46	51	Adv. Intermediate
Arrowhead	9,226	8,100	1,126	2,723	2,957	143	9.7	41	55	Adv. Intermediate
Steam Vent	9,074	8,601	473	1,165	1,261	120	3.5	41	52	Adv. Intermediate
Floyd's Fantasy	9,293	8,387	906	2,012	2,213	201	10.2	45	53	Adv. Intermediate
Williamson Bowl	9,135	8,095	1,040	2,579	2,788	205	13.1	40	49	Intermediate
Raven Woods	9,035	8,173	862	2,118	2,304	214	11.3	41	62	Expert
Lost Warrior	8,964	8,283	681	1,392	1,550	225	8.0	49	55	Adv. Intermediate
Powder Cache	8,960	8,320	641	1,406	1,551	289	10.3	46	59	Expert
North Boundary	8,970	8,378	592	1,556	1,682	130	5.0	38	60	Expert
N. Boundary Traverse	8,375	8,140	234	2,874	2,889	42	2.8	8	18	Adv. Intermediate
Blackfoot Egress	8,117	8,040	78	1,230	1,235	36	1.0	6	10	Intermediate
Snowdancer	8,876	7,597	1,279	4,979	5,164	244	29.0	26	41	Intermediate
Bird Woman	8,870	8,022	848	2,220	2,386	282	15.5	38	53	Adv. Intermediate
Shaman	8,798	7,973	826	1,951	2,125	247	12.1	42	55	Expert
Powwow	8,532	8,226	306	820	878	281	5.7	37	52	Adv. Intermediate
Dreamweaver	8,876	7,601	1,275	6,160	6,333	105	15.3	21	46	Intermediate

Table 4-2. Terrain Specifications – Existing Conditions

Trail Area/Name	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Average Grade (%)	Max Grade (%)	Ability Level
Shadow Woman	8,230	7,627	603	1,514	1,633	181	6.8	40	51	Adv. Intermediate
Powder Reserve Traverse	8,360	7,974	386	5,100	5,134	51	6.0	8	19	Intermediate
Northern Lights	8,303	8,047	257	2,162	2,187	132	6.6	12	25	Intermediate
Northern Lights Lower	8,047	7,702	344	868	937	169	3.6	40	48	Adv. Intermediate
Mill Creek Traverse	8,004	7,707	297	1,797	1,835	43	1.8	17	29	Intermediate
Das Boat	8,850	8,511	339	596	699	682	10.9	57	89	Expert
TOTAL					**132,516**		**520.3**			

Source: SE Group

Terrain Distribution by Ability Level

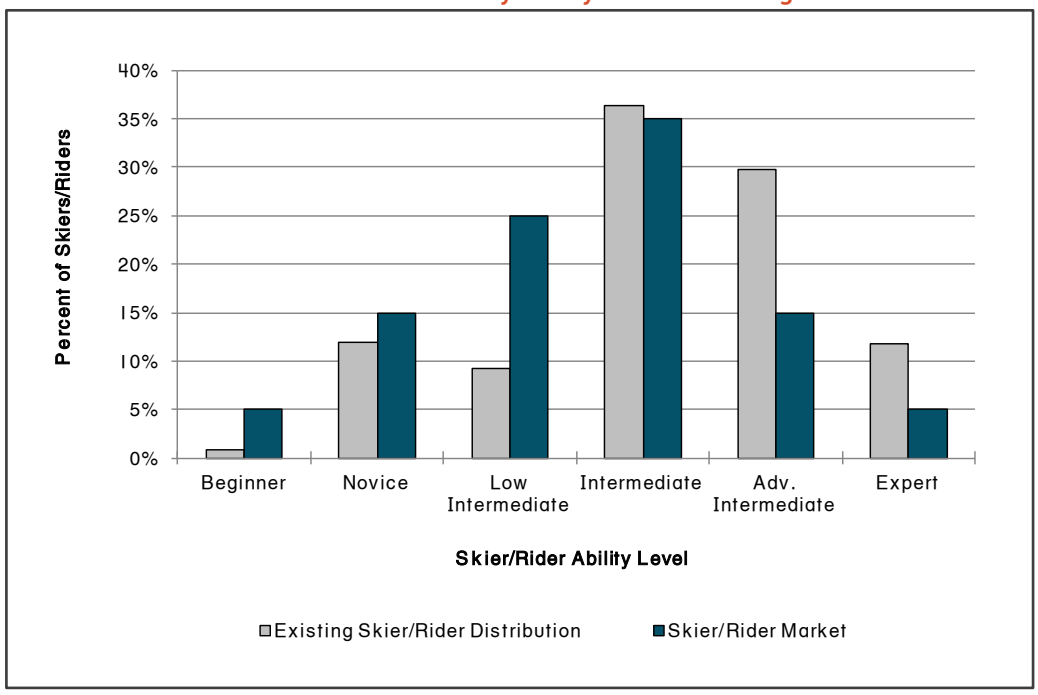
The terrain distribution through the full range of ability levels is relatively close to the ideal breakdown for the regional destination skier/rider market. The terrain classification breakdown of the existing resort is set forth in the Table 4-3 and Chart 4-1. The last column in this table represents what can be considered the skill level distribution in the relevant skier/rider market and provides a comparison with the existing breakdown at GTR.

Table 4-3. Terrain Distribution by Ability Level – Existing Conditions

Skier/Rider Ability Level	Trail Area (acres)	Skier/Rider Capacity (guests)	Skier/Rider Distribution (%)	Skier/Rider Market (%)
Beginner	0.7	20.3	1	5
Novice	24.1	289.4	12	15
Low Intermediate	27.9	223.4	9	25
Intermediate	146.5	879.1	36	35
Adv. Intermediate	179.5	717.9	30	15
Expert	141.6	283.2	12	5
TOTAL	**520.3**	**2,413**	**100%**	**100%**

Source: SE Group

Chart 4-1. Terrain Distribution by Ability Level – Existing Conditions



Source: SE Group

Table 4-3 illustrates a relatively close match between GTR's existing terrain distribution and the market demand for most ability levels. The deficiency of beginner terrain reflects the small amount of terrain dedicated to the Papoose carpet. Novice and intermediate terrain are both very closely matched to the market. There is a deficiency of low-intermediate terrain, which indicates that it can be difficult for skiers to progress from novice-level to intermediate-level runs. The surplus of advanced- and expert-level terrain reflects the market niche of GTR, which is well-known for having high quality and diverse upper-level terrain. Given that reputation, this surplus is not seen as a significant constraint.

3. Undeveloped and Gladed Expert Terrain

Undeveloped terrain is one of GTR's main draws; the topography within the SUP area includes steeps, chutes, bowls and glades intermingled within, and outside of, the developed and maintained terrain network.

As discussed previously under "Terrain Variety," for the purposes of this analysis, only the developed trail network is applied to the trail acreage calculations, skier/rider classification breakdown, trail capacity, and density formulas. Were this analysis to account for terrain outside of the developed trail network, it would have a misleading effect on all of those calculations. However, terrain outside of the developed network is very important to terrain variety and the overall quality of the guest experience, as evidenced in this section.

This MDP places GTR's undeveloped and gladed expert terrain into two categories: lift-served and hike-to. Both are discussed below.

Lift-Served Undeveloped and Gladed Expert Terrain

Examples of undeveloped expert terrain throughout the SUP area include glades, chutes and steeps which are readily accessible from GTR's lift and developed trail network. A distinguishing characteristic of GTR is that the resort is literally skiable "wall-to-wall" due to the open areas and naturally-gladed tree stands. Examples of these areas within GTR's developed terrain network include: the *Lightning Trees* (Dreamcatcher pod), *Quiver* (Sacajawea pod), and *Medicine Bowl* (Sacajawea pod). Depending on snow conditions, these areas are heavily used by expert skiers and riders. GTR has identified additional opportunities to selectively thin and manage specific areas within its existing SUP area that could help address the demand for these types of opportunities. Areas with potential for glading are discussed in Chapter 6.

Hike-To Expert Terrain

Mary's Nipple is accessed by traversing southeast from the top of the Dreamcatcher Lift and then hiking for approximately 20 minutes. From the top, expert chutes and open bowls are accessible. After descending from Mary's Nipple, skiers and riders take the *Teton Vista Traverse or Powder Reserve Traverse* back to Targhee Village and the Dreamcatcher Lift.

4. Terrain Parks

GTR has historically built terrain parks—most recently between the Shoshone Lift and Dreamcatcher Lift—to offer skiers and riders of all abilities the chance to hone their freestyle skills. The resort plans on continuing this practice as demand warrants, in locations that are appropriate based on the varying and evolving needs of park users.

In addition, GTR's natural terrain creates excellent freestyle opportunities. With skillful grooming, the *Middle Earth* area (off the *Teton Vista Traverse*) is converted into a natural terrain "playground."

D. EXISTING CAPACITY ANALYSIS

1. Comfortable Carrying Capacity

As discussed previously in Chapter 2, ski area planning involves the establishment of a "design capacity," which represents the 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.

Comfortable Carrying Capacity (CCC) is the term used in this document to represent GTR's design capacity. This term refers to a level of utilization that provides a pleasant recreational experience, without overburdening the resort infrastructure. Accordingly, the CCC does not normally indicate a maximum level of visitation, but rather the number of visitors that can be "comfortably" accommodated on a daily basis. CCC 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.

The accurate calculation of a resort's CCC is the single most important planning criterion for a resort. All other related guest service facilities can be evaluated and planned based on the proper identification of the mountain's CCC, which is derived from the resort's supply of vertical transport (the combined uphill hourly capacities of the lifts) and demand for vertical transport (the aggregate number of runs demanded multiplied by the vertical rise associated with those runs).

A detailed calculation of GTR's CCC was completed for this MDP, as shown in Table 4-4. As indicated, GTR's CCC was calculated at 2,930 guests per day.

Table 4-4. 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 Stoppages (%)	Adjusted Hourly Capacity (guests/hr)	VTF/ Day (000)	Vertical Demand (ft/day)	Daily Lift Capacity (guests)
Dreamcatcher *DC-4*	6,302	1,865	2,280	7.00	5	5	2,052	26,790	24,581	1,090
Shoshone C-4	1,882	394	1,540	7.00	5	20	1,155	3,188	6,236	510
Papoose Magic Carpet *C*	227	35	400	7.00	0	5	380	93	1,277	70
Blackfoot *C-4*	3,236	1,200	1,800	6.50	0	10	1,620	12,636	23,110	550
Sacajawea *DC-4*	4,182	1,281	2,040	6.75	0	5	1,938	16,756	22,162	760
TOTAL	**15,829**		**16,120**				**15,205**	**59,463**		**2,980**

Source: SE Group
C = carpet
C-2 = fixed-grip double chairlift
C-4 = fixed-grip quad chairlift
DC-4 = detachable-grip quad chairlift

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 contrasting the uphill, at-one-time capacity of each individual lift pod (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. For the trail density analysis, 25% of each lift's CCC is presumed to be inactive—using guest service facilities or milling areas.

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

The trail density analysis considers only the acreage associated with the developed trail network, as described above (see Figure 4.1). The density analysis for GTR is illustrated in Table 4-5. This table shows that the average trail density at GTR is 4 skiers-per-acre, a density that is on the low end of the industry standard range.[10] 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. However, this also indicates an imbalance, as it shows that there is not enough lift capacity to efficiently serve the available terrain.

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

Table 4-5. Density Analysis – Existing Conditions

Map Reference	Daily Lift Capacity	Guest Dispersal				Density Analysis				Density Index
		Support Facility/ Milling	Lift Lines	On Lift	On Terrain	Terrain Area	Terrain Density	Target Trail Density	Diff.	
		(guests)	(guests)	(guests)	(guests)	(acres)	(guests/ac)	(guests/ac)	(+/-)	(%)
Dreamcatcher *DC-4*	1,090	273	103	227	487	279.8	2	4	-2	44
Shoshone *C-4*	510	128	39	121	222	31.5	7	9	-2	78
Papoose Magic Carpet *C*	70	21	6	29	14	0.5	26	30	-4	86
Blackfoot *C-4*	550	138	41	194	177	95.8	2	4	-2	46
Sacajawea *DC-4*	760	190	97	159	314	112.7	3	4	-1	70
TOTAL	**2,980**	**750**	**286**	**730**	**1,214**	**520.3**	**4**	**5**	**-2**	**64%**

Source: SE Group
C = carpet
C-2 = fixed-grip double chairlift
C-4 = fixed-grip quad chairlift
DC-4 = detachable-grip quad chairlift

The density figures included in Table 4-5 show, for all of the individual lift/trail systems at GTR, that the actual trail densities are lower than the target design criteria, meaning that trails are generally less crowded than at most resorts. The lift with the lowest density is noteworthy. Densities on the Dreamcatcher Lift are very low because there is so much terrain that is only accessible from this lift—over half of the total terrain at GTR can only be accessed for repeat-skiing by riding Dreamcatcher. Accordingly, opportunities should be investigated to increase lift access to this terrain.

The low density numbers also indicate under-utilization 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 is disproportionately high when compared to the overall number of skiers/riders on the mountain.

In terms of the guest dispersal percentages, GTR is in the enviable position of having a higher percentage of skiers on the trails than in lift lines and on lifts. This is a desirable situation, implying that the lift system is efficient. This concept is discussed in the following section.

3. Lift and Terrain Network Efficiency Analysis

Overall resort efficiency is becoming an increasingly important factor in the ski industry. This refers not only to energy efficiency 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.

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 still 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, conveyor lifts used for teaching, as well as lifts that are used for access only, are not included. 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 average CCC per lift at GTR is 745. This figure is above average, indicating that GTR’s lift system is efficiently serving the available terrain.

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. In this usage, 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—a density index of 100% would imply that the resort had exactly the right amount of terrain to match target densities. Since GTR has an index of 64%, it can be assumed that the terrain network is reasonably efficient, but could be more so.

Furthermore, it is important to note that only the developed terrain network is used in these calculations because it is largely the developed terrain that incurs the highest operational and maintenance costs. As a result, increasing the quantity of alternate, undeveloped terrain not only meets the demand and current industry trend for this style of terrain, but also increases a resort's terrain network efficiency.

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

1. Guest Services

Guest services are provided in the base area at GTR. There are no on-mountain guest service facilities. Existing guest service facilities are identified on Figure 4.1.

Base Area Guest Services

Guest services are provided in numerous buildings throughout the base area. The following table provides further information on individual building square footage. As of the writing of this document, a Base Area Master Plan is being completed to address private land development.

Table 4-6. Base Area Space Use – Existing Conditions

Service Function	Existing Facilities											Existing Total
	Rendezvous Lodge	Trap Bar & Grill	Teton Mountain Outfitters	Check-in/ Admin	Targhee Base Camp	Fitness Cabin	The Spa	Kid's Club	Powder Scouts	Ski School	Ticket Booth	
Ticket Sales/ Guest Services		384	-	-	-	-	-	76	260	-	550	1,270
Public Lockers	-	1,344	-	-	-	-	-	-	-	-	-	1,344
Rentals/Repair	1,822	-	382	-	-	-	-	-	-	-	-	2,204
Retail Sales	569	1,472	684	-	-	-	-	-	-	-	-	2,725
Bar/lounge	-	1,639	-	-	-	-	-	-	-	-	-	1,639
Adult Ski School	-	-	-	-	-	-	-	-	-	271	-	271
Kid's Ski School	-	-	-	-	-	-	-	934	433	-	-	1,367
Restaurant Seating	7,544	900	-	-	-	-	-	-	-	-	-	8,444
Kitchen/Scramble	4,302	1,472	-	-	-	-	-	-	-	-	-	5,774
Restrooms	1,277	329	17	-	580	-	-	40	193	-	-	2,436
Ski Patrol	760	-	-	-	-	-	-	-	-	-	-	760
Administration	129	1,013	-	2,415	1,015	-	-	56	195	126	-	4,949
Employee Lockers/Lounge	-	815	-	-	1,710	-	-	-	658	-	-	3,183
Mechanical	507	-	-	-	165	-	-	-	-	-	-	672
Storage	1,406	609	-	-	165	-	-	-	-	-	-	2,180
Circulation/Waste	5,538	1,616	-	1045	496	-	-	-	-	-	-	8,695
TOTAL SQUARE FEET	**23,854**	**11,593**	**1,083**	**3,460**	**4,131**	**0**	**0**	**1,106**	**1,739**	**397**	**550**	**47,913**

Source: SE Group
Notes: Existing space use square footages have been updated based on a more detailed assessment undertaken in 2014. The SnowCat programs uses 259 square feet of guest services in Rendezvous. Property Management is in downtown Driggs.

2. Space Use Analysis

Sufficient guest service space should be provided to accommodate the existing resort CCC of 2,980 guests per day. A 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 there are no on-mountain facilities at GTR, all skiers must return to the base area for all services. This does not indicate a lack of demand for on-mountain facilities, but rather that there are no options currently. This is an identified constraint for GTR, as guests expect on-mountain food service and restrooms.

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.

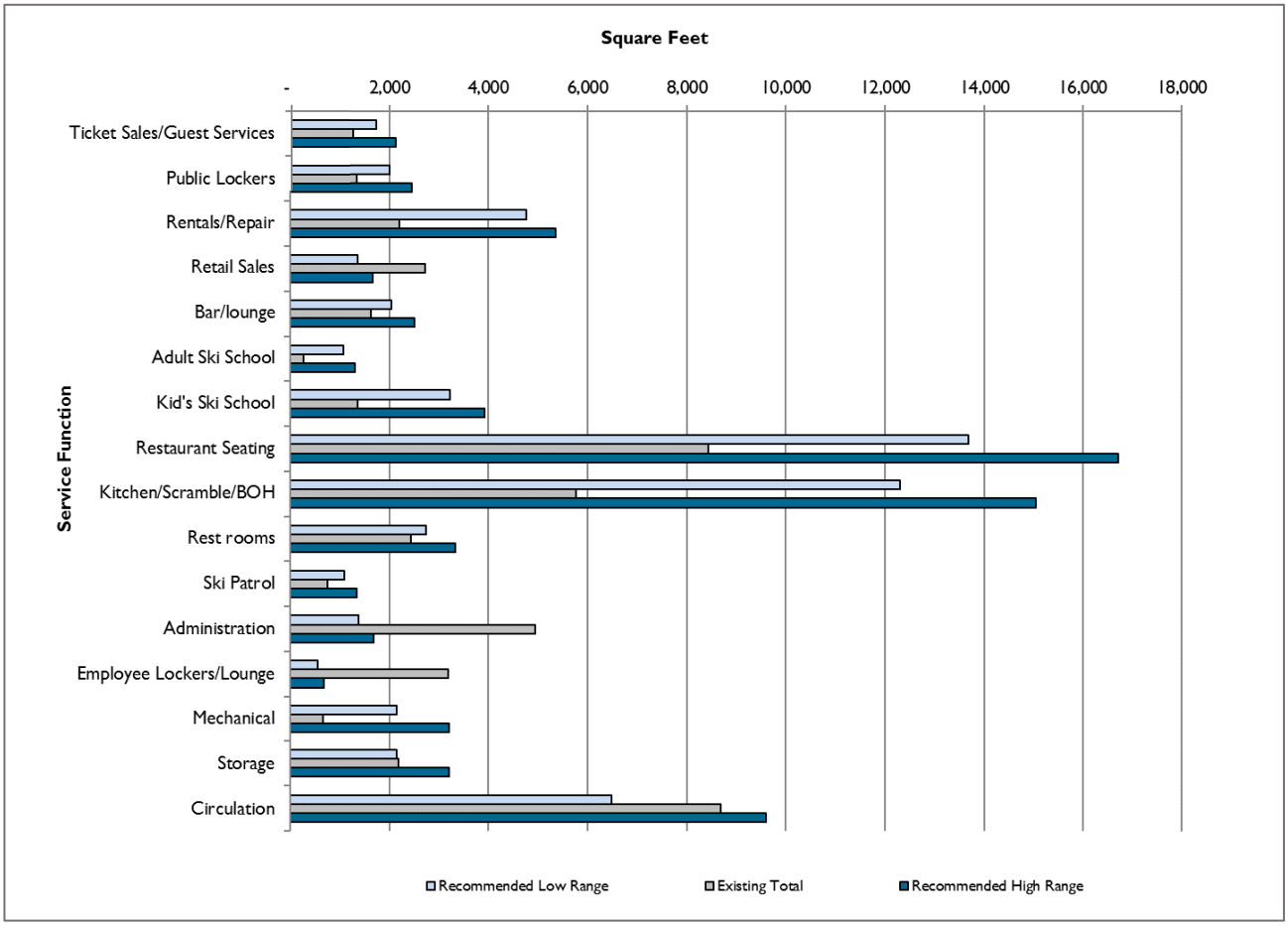
Based upon a CCC of 2,980 skiers, Chart 4-2 compares the current space use allocations of the guest service functions to industry norms for a resort of similar market orientation and regional context as GTR. Square footage contained in this chart is calculated to illustrate how GTR compares to industry averages, and should not be considered an absolute requirement.

Service functions include:

- **Ticket Sales:** All ticketing and season pass sales areas and associated office space.
- **Guest Services:** Services including resort information desks, kiosks, and lost and found.
- **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.
- **Rentals/Repair:** All rental shop, repair services, and associated storage areas.
- **Retail Sales:** All retail shops and associated storage areas.
- **Bar/Lounge:** All serving and seating areas designated as restricted use for the serving and consumption of alcoholic beverages. If used for food service, seats are included in seat counts.
- **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.
- **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/BOH:** Includes all food preparation, food service, and back-of-house functions (i.e., food storage, trash removal).
- **Restrooms:** All space associated with restroom facilities (separate women, men, and employees).
- **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.
- **Mechanical:** All space designated to mechanical functions, including telephone rooms, furnace rooms, and space occupied by water heaters.
- **Storage:** All storage space not previously allocated to the other service functions listed under the space use definition section.
- **Circulation:** All circulation space and associated spaces, including hallways, stairwells, lobbies, elevators, etc.

Chart 4-2. Total Space Use and Recommendations – Existing Conditions



Source: SE Group

Table 4-7. Industry Average Space Use, Overall Resort – Existing Conditions

Service Function	Existing Total	Recommended Range		Difference from Recommended	
		Low	High	Low	High
Ticket Sales/Guest Services	1,270	1,740	2,130	(470)	(860)
Public Lockers	1,344	2,010	2,460	(666)	(1116)
Rentals/Repair	2,204	4,770	5,360	(2,566)	(3,156)
Retail Sales	2,725	1,370	1,670	1,355	1,055
Bar/lounge	1,639	2,050	2,510	(411)	(871)
Adult Ski School	271	1,070	1,310	(799)	(1,039)
Kid's Ski School	1,367	3,220	3,930	(1,853)	(2,563)
Restaurant Seating	8,444	13,680	16,720	(5,236)	(8,276)
Kitchen/Scramble/BOH	5,774	12,310	15,050	(6,536)	(9,276)
Restrooms	2,436	2,740	3,340	(304)	(904)
Ski Patrol	1,400	1,090	1,340	310	60
Administration	4,949	1,380	1,690	3,569	3,259
Employee Lockers/Lounge	3,183	550	680	2,633	2,503
Mechanical	672	2,160	3,200	(1,488)	(2,528)
Storage	2,180	2,160	3,200	20	(1,020)
Circulation	8,695	6,480	9,600	2,215	(905)
TOTAL SQUARE FEET	**48,553**	**58,780**	**74,190**	**(10,227)**	**(25,637)**

Source: SE Group
Notes: Existing space use square footages have been updated based on a more detailed assessment undertaken in 2014.

As shown in Chart 4-2 and Table 4-7, GTR is deficient in overall guest service space when considering the low end of the recommended range. Many of the categories are below the industry average numbers, and there are four categories that show significant deficiencies: rentals/repair, kid's ski school, restaurant/bar seating, and kitchen/scramble. All four of these functions have substantial revenue-generation potential, so the shortages could be adversely affecting the resort's effective yield per skier. The shortage of restaurant seating is particularly noteworthy, since restaurant seating is typically in very high demand at destination resorts, as well as being an important profit center. So, while the other categories of space use could handle increased visitation rates, restaurant seating is currently well below recommended levels, indicating that restaurant seating space should be increased to meet current demand. Related to this, a deficit in kitchen/scramble space would negatively impact

the ability to prepare and serve food to meet the lunchtime demand. In addition to these deficiencies, ticketing, lockers, adult ski school space, and restrooms space all show deficiencies.

3. Food Service Seating

Food service seating at GTR is provided at several locations in the base area: The Branding Iron Grill, the Trap Bar, Snorkels, and Wild Bill's Grill.

A key factor in evaluating restaurant capacity is the turnover rate of the seats. A turnover rate of 2 to 5 times is the standard range utilized in determining restaurant capacity. Sit-down dining at resorts typically results in a lower turnover rate, while "fast food" cafeteria style dining is characterized by a higher turnover rate. Furthermore, weather has an influence on turnover rates at resorts, as on snowy days guests will spend more time indoors than on sunny days. Based on observed operating characteristics at GTR, a turnover rate of 3.5 was used for the various facilities in this MDP, as shown in Table 4-8 which summarizes the seating requirements at GTR.

Table 4-8. Recommended Restaurant Seating

	Base Area
Lunchtime Capacity (CCC)	3,040
Average Seat Turnover	3.5
Required Seats	868
Existing Seats	448
Difference	-420
Existing Indoor Seating Capacity *assuming 3.5 average seat turnover*	1,568

Source: SE Group
Notes: Existing Seats = Branding Iron Grill 65 seats; Trap Bar 130 seats (includes bar stools); Snorkels 43 seats; Wild Bill's Grill 120 seats (South) 90 seats (North).

As shown in the Table 4-8, there is currently a deficiency in seating at GTR by 420 seats. On good weather days, this deficiency is somewhat mitigated by outdoor seating, but this is an issue that should be addressed.

F. EXISTING PARKING CAPACITY

Parking for GTR day skiers and overnight guests is available across multiple lots located in the base area; all of these parking lots are on private lands owned by the resort. The total area of parking lots is roughly 10 acres. One of the lots—the overflow lot—is laid out more like a wide road and is parked in a single-loaded fashion. An industry average of 120 cars per acre is typically used for calculating parking capacity, to account for parking efficiencies and snow storage. As specified in Table 9-1 of the *County Master Plan,* the existing parking lots can hold a total of 1,130 cars, which is roughly equivalent to 113 cars per acre.

The average vehicle occupancy at GTR is 2.6 people per car, a ratio that is within national averages of 2.3 to 2.8 people per car and consistent with the Country Master Plan.

Existing parking areas are identified on Figure 4.1. Table 4-9 analyzes GTR's existing skier parking capacity. As indicated, GTR has a comfortable surplus (109 spaces) of parking based on its existing CCC.

Table 4-9. Recommended Parking at Staging Portals – Existing Conditions

	Total
CCC + other guests	3,040
Skiers using on-site lodging, other transit or drop-off	667
Net parking requirement	**2,448**
Average Vehicle Occupancy	2.6
Required skier car parking spaces	941
Required employee car parking spaces	80
Total required spaces	1,021
Existing parking spaces	1,130
surplus/deficit	109
Existing parking capacity (guests)	3,018

Source: SE Group
Note: Average vehicle occupancy, employee parking requirements, and existing number of parking spaces from County Master Plan.

G. EXISTING ALTERNATIVE AND NON-WINTER ACTIVITIES

In addition to skiing and riding, there are other winter and summer opportunities at GTR and nearby in which guests can participate when they are not skiing and riding lift-serviced terrain at the resort. Some of these include:

1. Winter

Guided SnowCat Tours

Over 600 acres of expansive bowls, glades, cruisers, and steep treed pitches are available on the southwest face of Peaked Mountain through GTR's guided SnowCat tours. Terrain in the SnowCat area, which is adjacent to, and above, the Sacajawea pod, ranges from intermediate through expert. In 2008 ten new trails were constructed off of the top of Peaked Mountain to improve skiability for SnowCat guests. Only GTR SnowCat patrons are allowed in this terrain while the tours are operating. However, hiking is permitted, through a gated entry, to access the area when the SnowCat program is not in operation and conditions are deemed safe. This policy is clearly described on resort trail maps.

Snow Tubing

GTR operates snow tubing on the terrain served by the Papoose carpet from 4:00 p.m. to 7:00 p.m., Wednesday through Sunday. While GTR's snow tubing operation provides an amenity to guests who stay overnight at the resort, utilizing the Papoose carpet and wide-open teaching terrain limits their ability to meet guest expectations for alternate forms of recreation. Therefore, a designated snow tubing facility (with permanent lanes and a dedicated lift) is a necessary step for GTR to offer the experience for which it strives.

Snowshoeing, Nordic Skiing, and Fat Biking

There are 5 miles of snowshoe trails available on two dedicated loops—one beginner and one advanced trail.

The Nordic trail system at GTR consists of approximately 7 miles of groomed classic cross-country trails and skate skiing lanes. These trails are available in Rick's Basin, in the northern portion of the SUP area, and in the village meadow below the parking lots.

Winter fat bikes share the Nordic trail system, as well as the advanced snowshoe trail; thus, fat bike enthusiasts have access to approximately 11 miles of trails. These trails are shown on Figure 4.1.

2. Summer

Scenic Chairlift Rides

The Dreamcatcher Lift is operated throughout the summer for scenic chairlift rides and access to summer recreation trails.

Summer Recreation Trails

GTR offers summer recreation trails (hiking, biking, and equestrian), ranging from classifications of "easy" to "difficult." Some of the trails are restricted to one or two of the uses and others are open to all three uses. The summer recreation trail network is depicted on Figure 4.2, and totals approximately 50 miles. The summer recreation trails network consists of:

- downhill biking trails (11 miles)
- hiking trails (4 miles)
- equestrian/hiking trails (5 miles) - equestrian use is also permitted on the Rick's Basin and Valley Overlook trails, as well as on all mountain access roads
- multi-use trails (29 miles)

In addition to the summer recreation trail network, GTR also offers a "Summer Activity Zone" which offers some additional mountain bike features and flow trails. The location is depicted on Figure 4.2. This area is designed for the practice and improvement of both cross-country and downhill mountain biking skills and abilities.

Special Events and Programs

GTR accommodates conferences, weddings, special events, and music festivals throughout the winter and summer seasons.

Disc Golf

An 18-hole disc golf course is located adjacent to Targhee Village, throughout the Shoshone pod and extending under the lower portions of the Dreamcatcher pod. This course is located within the Summer Activity Zone, on both private and NFS lands.

H. EXISTING RESORT OPERATIONS

1. Ski Patrol/First Aid

GTR's Ski Patrol headquarters is located at the summit of the Dreamcatcher Lift on Fred's Mountain. A similar ski patrol duty station is located at the top of Sacajawea Lift. From these two facilities, ski patrol has downhill access to all points of the developed trail network. A well-appointed first aid facility is located in the base area.

2. Snowmaking Coverage

GTR relies on natural snow for almost all of its terrain. A small snowmaking system is used to make snow on *Big Horn* and *Papoose*. The system provides coverage on approximately 10 acres, and enables the resort to open low ability-level terrain earlier in the season and to construct terrain park features. Water comes from GTR's existing water system.

3. Maintenance Facilities

GTR's maintenance facility is located at the south end of the lower parking lot. This location is an inefficient use of parking space and overlaps with guest services. A new location is needed to improve operational efficiencies.

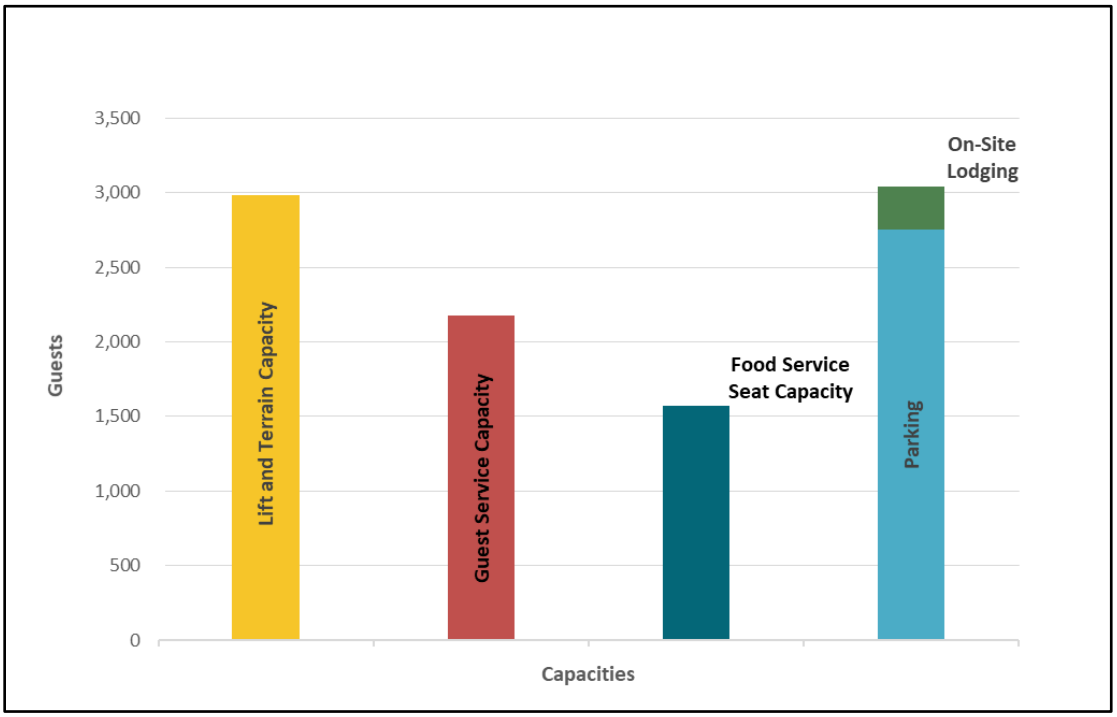
4. Mountain Roads

Approximately 11.5 miles of mountain roads exist across private and public lands at GTR. These roads provide access throughout the SUP area for summer maintenance but are poorly-constructed, steep, and rocky. Refer to Figure 4.3 for location of existing mountain roads.

I. 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 capacities discussed above are shown in Chart 4-3.

Chart 4-3. Resort Balance – Existing Conditions



Source: SE Group

As Chart 4-3 indicates, the lift and terrain capacities and parking/on-site lodging are closely aligned. Guest services, and most notably food service seating capacity are deficient and should be addressed—preferably with on-mountain options, since not having any on-mountain restaurants is a notable deficiency of the overall resort. The implication of this is that expansion in any one area needs to be balanced with expansions of all facilities and services.

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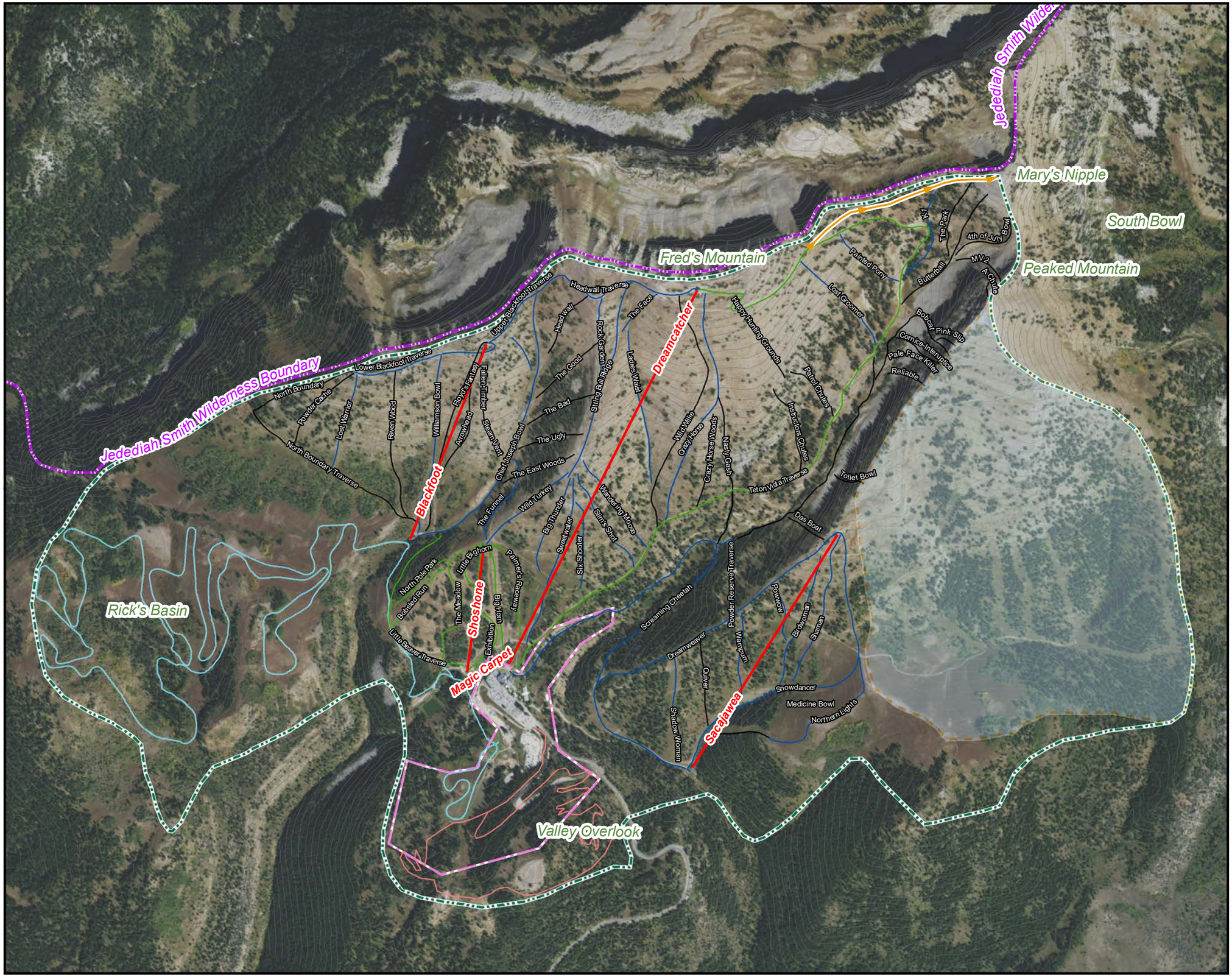


GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 4.1

Existing Conditions

LEGEND

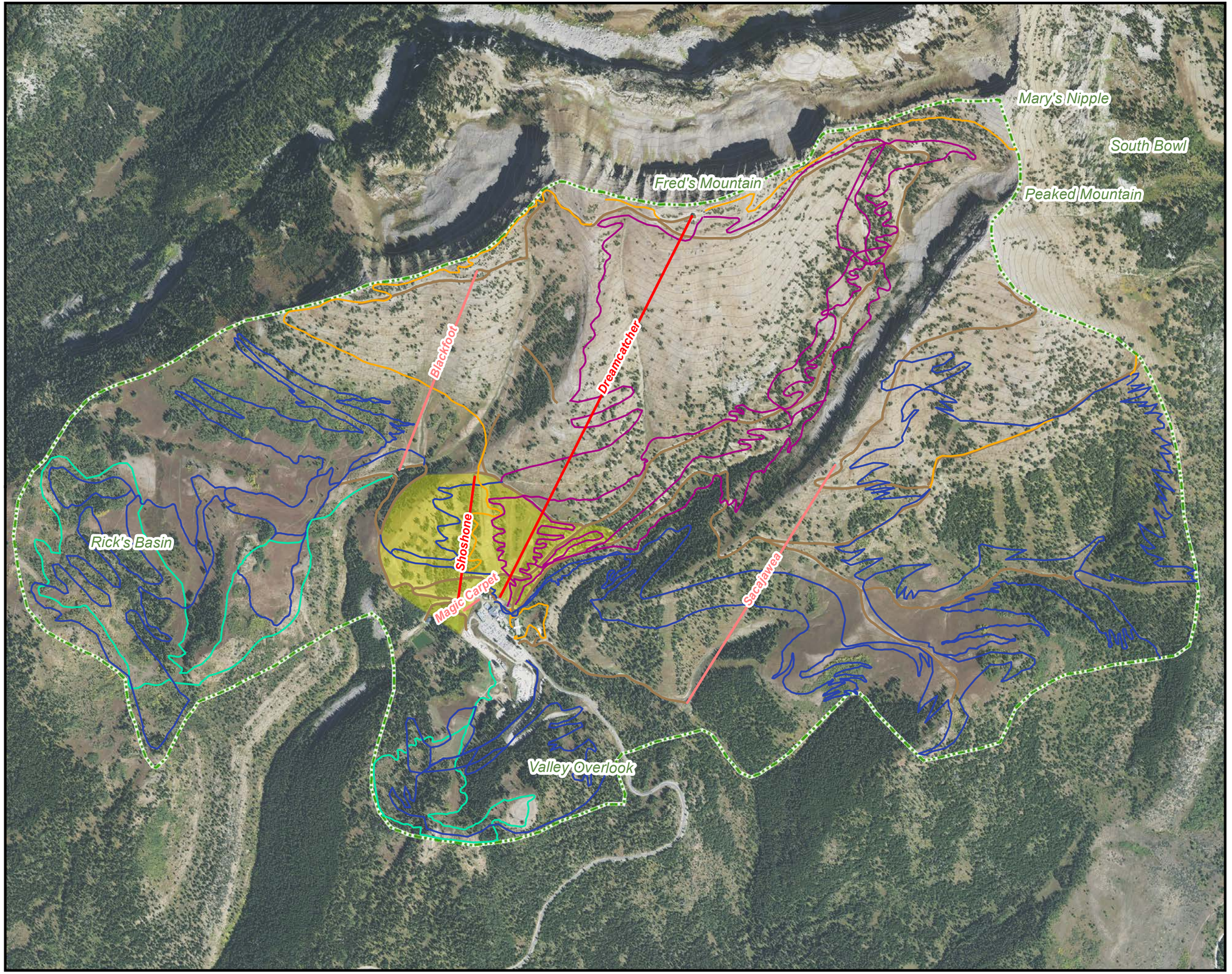
- Existing Lifts
- Existing Expert Trail
- Existing Intermediate Trail
- Existing Novice Trail
- Existing Nordic Trail
- Existing Fat Bike Trail
- Guided Cat Skiing
- Existing Permit Boundary
- Wilderness Boundary
- Private Lands
- Hike-To Access Route

DATE: August 2018

0 500 1,000 2,000 Feet

Graphic Scale: 1 Inch = 1,300 Feet
Contour Interval: 50 Foot

PRODUCED BY: SE GROUP



GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 4.2

Existing Summer Recreation

LEGEND

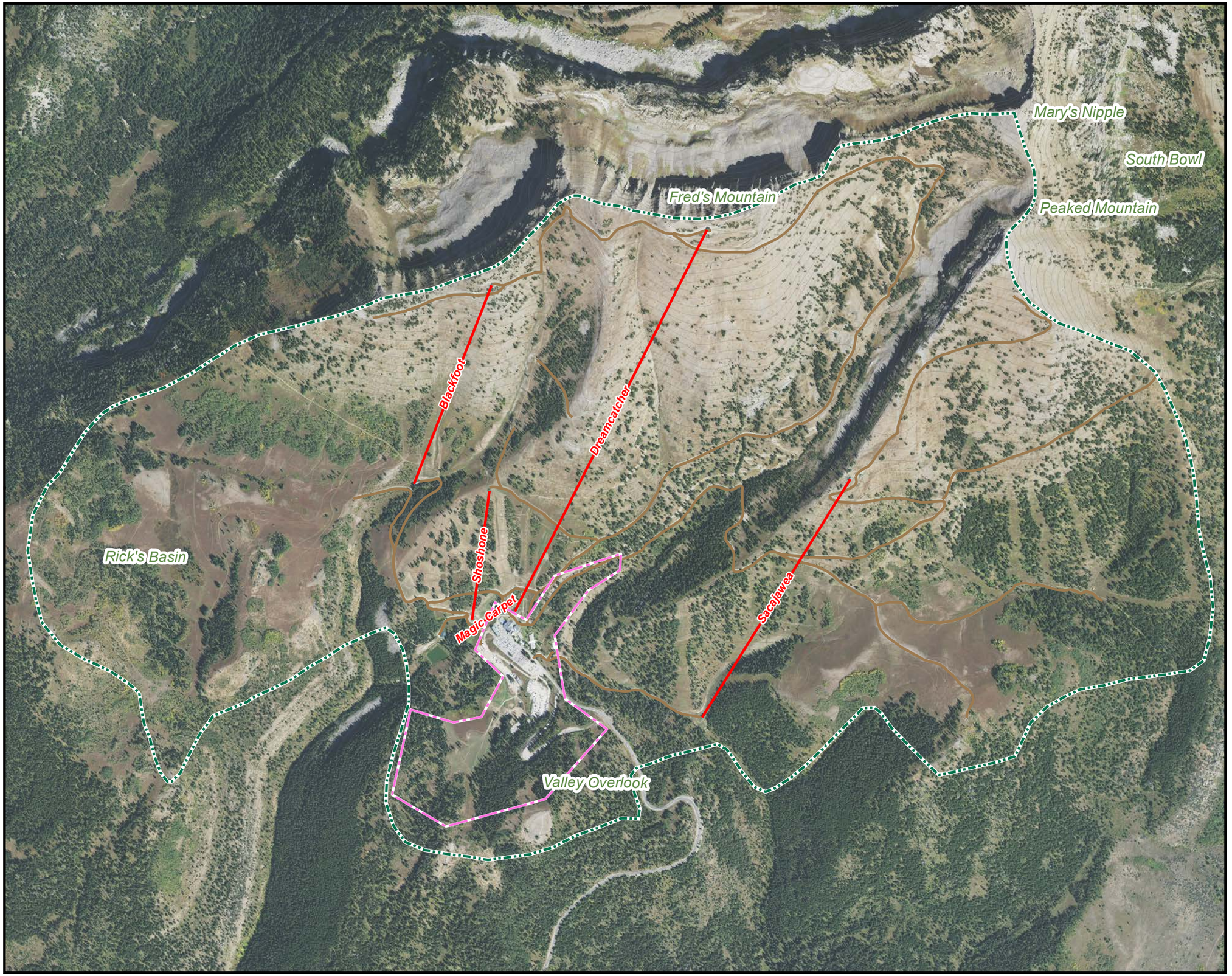
- Existing Summer Lift Operations
- Existing Lift Infrastructure
- Downhill Biking Trail
- Hiking Trail
- Horse/Hiking Trail
- Multi-Use Trail
- Summer Activity Zone
- Existing Permit Boundary
- Existing Mountain Road

DATE: November 2018

0 500 1,000 2,000 Feet

Graphic Scale: 1 Inch = 1,300 Feet
Contour Interval: 50 Foot

PRODUCED BY: SE GROUP



GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 4.3

Existing Road Plan

LEGEND

- Existing Lifts
- Existing Permit Boundary
- Private Lands
- Existing Mountain Road

DATE: November 2018

0 500 1,000 2,000 Feet

Graphic Scale: 1 Inch = 1,300 Feet
Contour Interval: 50 Foot

PRODUCED BY: SE GROUP

CHAPTER 5. PREVIOUSLY-APPROVED PROJECTS

A. 1995 MASTER DEVELOPMENT PLAN: APPROVED/UNIMPLEMENTED PROJECTS

In April 1994 William LeVere, Acting Forest Supervisor for the Targhee National Forest, signed the Record of Decision (1994 ROD) for a Final EIS that was prepared to analyze GTR's proposed MDP. The Final EIS analyzed the potential environmental and social issues of nine alternatives, including the required No Action Alternative. The 1994 ROD identified Alternative 4 "…with modifications and mitigation measures described in the FEIS and this Record of Decision…" as the Selected Alternative.[11] Alternative 4 was labeled "Increased Development on Fred's and Peaked Mountains." Modifications to Alternative 4 dealt primarily with the lift configuration, location of runs, and other facilities on Peaked Mountain.

Per the 1994 ROD, "the final [MDP] will provide specific information for implementation of Alternative 4 as described in the FEIS and [ROD]. Additional environmental analysis and documentation may be needed if facilities, land, or mitigation measures other than those described in the FEIS are being considered. Any environmental analysis associated with the revised [MDP] will apply only to elements which deviate from the FEIS or this [ROD]. It is not prepared for the [MDP] per se."[12] The result of the 1994 ROD was the preparation of GTR's 1995 Approved MDP, which reflected Alternative 4 (Modified). Projects contained therein include:

- A total of eight lifts, including:
  - development of Peaked Mountain with four lifts (Peaked #5, #6, #7 and #8)
  - replacement of the Bannock double chair with a detachable quad (currently the Dreamcatcher Lift)
  - replacement/realignment of the Blackfoot double chair with a triple or detachable quad
  - replacement/realignment of the Shoshone double chair with a quad
  - replacement/relocation of the Beginner rope tow with a platter or chair
- 98,342 square feet of skier services space in the base area and on-mountain

[11] USDA Forest Service. 1994. Record of Decision for the Grand Targhee Resort Master Development Plan, p. 1. Targhee National Forest
[12] Ibid, p. 12

- Three on-mountain restaurants/warming huts, including:
  - » Peaked Mountain Restaurant on Lightning Mountain (7,560 square feet)
  - » Rick's Basin Warming Hut (2,000 square feet)
  - » Fred's Mountain Restaurant/Patrol Hut (3,000 square feet)
- Two ski patrol buildings
- 578 acres of developed ski terrain (a 221-acre increase)[13]
- A 2,412-acre SUP area (a 53-acre increase)
- A skiers-at-one-time capacity of 5,130 (an increase of 3,130)
- 37,906 square feet of commercial floor space
- 686 lodging units
- 9.2 acres of parking
- 9.8 miles of new maintenance/skier traverse road
- 1 mile of new summer use trails
- A new maintenance building

The 1994 ROD resulted in GTR's 1995 MPD, which contained projects approved for implementation by the CTNF. To date, and consistent with the provisions of the 1994 ROD, GTR has implemented many of the approved projects from its 1995 MDP. However, due to the amount of time that has elapsed since the ROD was signed, GTR has prepared supplemental information and analyses at the CTNF's request to reaffirm projects that were previously approved. These projects are detailed in the following discussions.

1. Peaked Mountain

A total of four lifts (identified as Peaked #5, #6, #7 and #8) were approved in the 1994 ROD to be constructed on Peaked Mountain. Of these approved lifts, only Peaked #5 (Sacajawea) has been constructed to date. In 2007 GTR was poised to further act upon the approved development of Peaked Mountain by constructing Peaked #6 and associated trails. However, beyond specifying a total of 12 trails (with centerlines) and a detachable quad lift, the Final EIS and 1994 ROD did not analyze or disclose the acreage of associated vegetation impacts. Therefore, mountain planners reassessed the Final EIS, 1994 ROD, and 1995 MDP in conjunction with current plans to develop Peaked Mountain to re-create, or approximate, the trail acreages that were approved. This exercise revealed that approximately 98 acres of trails were approved.

[13] Neither the 1994 FEIS, nor the ROD, quantified vegetation removal or ground disturbance.

The 2007 planning exercises for the Peaked #6 lift and trails resulted in a slightly modified plan for development of Peaked Mountain (compared to that which was originally analyzed in the 1994 Final EIS and depicted in 1995 MDP); however, it borrowed from the basic trail layout. The resulting impacts to vegetation from construction of the Peaked #6 lift and trail pod, based on new planning, were quantified to be substantially *less than* envisioned in the 1994 ROD—approximately 57 acres. GTR constructed most of the Peaked #6 trails in 2008, which have complemented their cat skiing operation since that time. The Peaked #6 lift has not yet been constructed.

The planned Peaked Lift (up to 2,400 pph capacity) would provide lift access on the western flank of Peaked Mountain. This area is currently within GTR's SUP area and is accessible to guests either by participating in the resort's guided SnowCat skiing program or by hiking to access the area when the SnowCat program is not in operation. The area is currently controlled by a gated entry that prevents the public from entering the terrain when conditions are unsafe or SnowCat tours are in session. This area will become lift-served with the Peaked Lift installation.

In 2016 a Supplemental Information Report (2016 SIR) was prepared to reaffirm the approval to construct the Peaked Lift. The SIR was signed on June 6, 2017. The lift installation would include various related infrastructure projects including power supply and communication cable, lift operator huts at the bottom and top lift terminals, and construction of a ski patrol dispatch cabin at the lift's top terminal location to provide for public safety.

2. Summer Recreation Trails

GTR previously proposed to construct additional summer recreation trails (including biking, hiking, and multi-use trails) within its SUP area. Construction of these trails was categorically excluded from analysis under four separate NEPA processes. Four associated Decision Memos (June 2007, October 2011, May 2013, and July 2014) were produced to document the decision.

The approvals included the addition of new downhill mountain biking trails, hiking trails, hiking and equestrian trails, multi-use trails, and a mountain bike skills park (this area is within the "Summer Activity Zone" shown on Figure 6.1 in order to include other activities). Previously approved, not yet implemented trails at GTR include approximately 9 miles of downhill mountain biking trails, 1 mile of hiking and equestrian trails, and 10 miles of multi-use trails, for a total of 20 miles of trails.

The mountain bike skills park was approved to be 11 acres in size. To date, approximately 0.9 acre of this has been constructed with an average trail width of approximately 12 feet. The main park route has been constructed and GTR plans to continue constructing the skills park by adding side routes and options off the main route.

B. COUNTY MASTER PLAN: FOREST SERVICE ACCEPTED PROJECTS

The 2008 County Master Plan includes projects that are located on public lands in the base area. Therefore, Teton County, Wyoming requested that GTR discuss these projects with the CTNF and receive assurance that they are acceptable from the Forest Service's perspective. In a letter dated January 20, 2010 to GTR, Forest Supervisor Brent Larson indicated that these projects are indeed "acceptable," as specifically related to the County Master Plan that had been approved by Teton County. These accepted components include the following:

1. Relocating the maintenance facility to NFS lands. This planned location is described in Chapter 6 (Section H.6 – Ski Area Operations: Maintenance Facilities) and shown on Figure 6.1.
2. Relocating/new water storage tanks to NFS lands above existing tanks. This is discussed in Chapter 6 (Section H.2 – Ski Area Operations: Water Supply and Storage).
3. Relocating avalanche control explosives magazine to NFS lands.
4. Expansion of wastewater and equalization/emergency storage tanks. This is discussed in Chapter 6 (Section H.1 – Ski Area Operations: Wastewater System) and shown on Figure 6.1.
5. Constructing a recycling facility in conjunction with the relocated maintenance facility. This is also described in Chapter 6 (Section H.6 – Ski Area Operations: Maintenance Facilities) and shown on Figure 6.1.
6. Shoshone Lift and conveyor lifts. These are discussed in Chapter 6 (Section B – Lift Network) and shown on Figure 6.1.

GTR is currently in the process of updating its Base Area Master Plan for the private lands in the base area. At this time there are no anticipated changes to the above components of the County Master Plan.

C. CAPACITIES OF EXISTING AND PREVIOUSLY APPROVED BUT UNIMPLEMENTED PROJECTS

Determining the resort capacities with the completion of the above described projects is important as these projects are planned for implementation in the near future. Once completed, the baseline capacity of the resort will increase. An important aspect of this capacity increase is that current plans for the base area, including parking, skier service space, restaurant seating, etc., are calculated to balance with a resort capacity that includes these projects.

As discussed, a resort's CCC is computed by analyzing the resort's supply of, and demand for, vertical lift transport. GTR's current CCC was determined to be approximately 2,980 guests with existing facilities. Including the previously approved but unimplemented lift projects brings the (existing + approved) CCC to 3,720. As discussed in Chapter 4, there is a current imbalance between the lift network and the terrain network: noting that there is insufficient lift capacity to balance with terrain

capacity. The one previously approved but not implemented lift project (Peaked) will help to address this imbalance.

The following set of tables presents the capacity calculations for the build-out scenario where the previously approved projects, detailed in this chapter, have been implemented.

- Table 5-1 presents lift statistics, including details on the new lifts.
- Table 5-2 provides terrain statistics, showing the approximately 169 acres of Peaked ski terrain that would become lift-serviced and groomed after the installation of the Peaked Lift. It is important to note, as discussed elsewhere, that this ski terrain already exists and is used in conjunction with the current SnowCat skiing program.
- Table 5-3 displays the terrain distribution by ability level, showing increases in the intermediate and expert ability levels, as that is the terrain that is found in the Peaked area.
- Table 5-4 presents the CCC calculation, with the discussed increase of 740 guests—from 2,980 to 3,720.
- Table 5-5 displays industry average space use comparisons resort-wide. Note that a Base Area Master Plan is currently being developed to increase overall skier service space and more efficiently use existing space. As stated, this plan is designed to match with the capacity of the resort in the scenario of the approved plans being implemented, so the space use programming is responsive to the recommended ranges shown in this table.
- Table 5-6 presents the restaurant seating analysis. Note that the significant deficiency in restaurant seats is planned to be addressed through the current base area master planning exercise.
- Table 5-7 presents the parking analysis. Note lodging offerings are a significant component of the current base area master planning exercise, Additional lodging units are planned to be constructed, which will include parking spaces. In addition to lodging, GTR should explore other parking and transit options to support its facilities. This could include, but is not limited to, additional base area parking and on-site lodging, off-site parking and transit, investment in local transit to the resort or incentivize carpooling.

Table 5-1. Lift Specifications – Existing Conditions and Previously Approved but Unimplemented Projects

Lift Name, Lift Type	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Avg. Grade (%)	Actual Design Capacity (pers/hr)	Rope Speed (fpm)	Carrier Spacing (ft)	Lift Manufacturer/ Year Installed
Dreamcatcher *DC-4*	9,837	7,972	1,865	5,960	6,302	31	2,280	950	100	CTEC 1996
Shoshone *C-4*	8,317	7,923	394	1,834	1,882	22	1,540	300	47	CTEC 1996
Papoose Magic Carpet *C*	7,957	7,922	35	224	227	14	400	50	8	Boardwalk 2000
Blackfoot *C-4*	9,285	8,085	1,200	2,925	3,236	41	1,800	450	60	Doppelmayr 2016
Sacajawea *DC-4*	8,875	7,594	1,281	3,945	4,182	33	2,040	850	100	CTEC 2001
Peaked D*C-4*	9,691	7,862	1,829	4,470	4,861	41	2,000	1,000	120	Planned

Source: SE Group
C = carpet
C-2 = fixed-grip double chairlift
C-3 = fixed-grip triple chairlift
C-4 = fixed-grip quad chairlift
DC-4 = detachable-grip quad chairlift
fpm = feet-per-minute

Table 5-2. Terrain Specifications – Existing Conditions and Previously Approved but Unimplemented Projects

Trail Area/Name	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Average Grade (%)	Max Grade (%)	Ability Level
Teton Vista Traverse	9,833	8,037	1,795	13,074	13,238	52	15.8	14	29	Novice
Painted Pony	9,481	9,120	361	1,094	1,162	321	8.6	33	48	Intermediate
Lost Groomer	9,556	8,994	562	1,632	1,739	393	15.7	34	49	Adv. Intermediate
Patrol Chute	9,153	8,806	347	925	1,006	338	7.8	37	76	Expert
Instructors Chute	9,178	8,672	506	1,346	1,470	291	9.8	38	81	Expert
Happy Hunting Grounds	9,669	9,168	501	1,138	1,245	700	20.0	44	52	Adv. Intermediate
Crazy Horse	9,819	8,439	1,380	3,455	3,729	197	16.8	40	51	Adv. Intermediate
Crazy Horse Woods	9,121	8,501	620	1,332	1,471	142	4.8	47	51	Adv. Intermediate
Nasty Gash	9,178	8,236	942	2,080	2,303	310	16.4	45	70	Expert
Wild Willie	9,792	8,439	1,354	3,565	3,830	189	16.6	38	55	Adv. Intermediate
Headwall Traverse	9,828	9,292	536	3,642	3,701	40	3.4	15	38	Intermediate
The Face	9,756	9,461	295	738	800	208	3.8	40	52	Adv. Intermediate
Sitting Bull Ridge	9,709	8,877	831	2,942	3,063	158	11.1	28	40	Intermediate
Ladies Waist	9,448	8,575	872	2,182	2,360	214	11.6	40	49	Expert
Wandering Moose	8,980	8,392	588	1,552	1,661	219	8.3	38	43	Intermediate
Slim's Shot	8,916	8,306	610	1,597	1,713	221	8.7	38	49	Adv. Intermediate
Sweetwater	8,886	7,973	914	2,941	3,104	186	13.3	31	50	Adv. Intermediate
Big Thunder	8,879	8,282	597	1,432	1,556	237	8.5	42	51	Adv. Intermediate

Table 5-2. Terrain Specifications – Existing Conditions and Previously Approved but Unimplemented Projects

Trail Area/Name	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Average Grade (%)	Max Grade (%)	Ability Level
Wild Turkey	8,894	8,324	570	1,546	1,655	216	8.2	37	47	Intermediate
The Good	9,427	8,895	532	1,192	1,311	382	11.5	45	62	Expert
The Bad	9,235	8,748	487	1,062	1,177	203	5.5	46	77	Expert
The Ugly	9,076	8,623	453	955	1,062	268	6.5	47	67	Expert
The Eastwoods	8,983	8,429	554	1,252	1,377	299	9.5	44	62	Expert
Rock Garden	9,662	9,307	356	1,136	1,194	128	3.5	31	44	Intermediate
Headwall	9,609	9,103	505	1,026	1,145	508	13.4	49	59	Expert
Chief Joseph Bowl	9,393	8,091	1,303	4,221	4,437	189	19.2	31	41	Intermediate
The Funnel	8,424	8,349	75	619	626	106	1.5	12	21	Intermediate
Middle Earth	8,958	8,307	651	3,423	3,509	98	7.9	19	39	Intermediate
Palmer's Way	8,329	8,039	289	1,538	1,574	173	6.3	19	33	Low Int.
Big Horn	8,324	7,980	344	1,717	1,755	153	6.2	20	28	Low Int.
Exhibition	8,301	7,921	380	2,025	2,063	121	5.7	19	27	Low Int.
Little Bighorn	8,324	8,179	144	817	832	126	2.4	18	25	Novice
The Meadow	8,265	7,947	317	1,859	1,890	156	6.8	17	29	Low Int.
Bobsled Run	8,238	8,028	209	1,103	1,125	158	4.1	19	25	Novice
North Pole Park	8,242	8,051	191	1,006	1,028	127	3.0	19	28	Low Int.
Blackfoot Access	8,318	8,169	149	570	595	53	0.7	26	43	Intermediate

Table 5-2. Terrain Specifications – Existing Conditions and Previously Approved but Unimplemented Projects

Trail Area/Name	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Average Grade (%)	Max Grade (%)	Ability Level
Little Beaver Traverse	8,040	7,927	113	1,593	1,599	50	1.8	7	18	Novice
Papoose	7,955	7,922	33	289	291	101	0.7	11	15	Beginner
Upper Blackfoot Traverse	9,292	9,095	197	1,163	1,183	27	0.7	17	26	Intermediate
Lower Blackfoot Traverse	9,101	8,962	139	1,018	1,030	35	0.8	14	18	Adv. Intermediate
Chief Joe Traverse	9,276	9,224	53	558	563	29	0.4	9	13	Intermediate
Fallen Timber	9,254	9,001	253	549	605	341	4.7	46	51	Adv. Intermediate
Arrowhead	9,226	8,100	1,126	2,723	2,957	143	9.7	41	55	Adv. Intermediate
Steam Vent	9,074	8,601	473	1,165	1,261	120	3.5	41	52	Adv. Intermediate
Floyd's Fantasy	9,293	8,387	906	2,012	2,213	201	10.2	45	53	Adv. Intermediate
Williamson Bowl	9,135	8,095	1,040	2,579	2,788	205	13.1	40	49	Intermediate
Raven Woods	9,035	8,173	862	2,118	2,304	214	11.3	41	62	Expert
Lost Warrior	8,964	8,283	681	1,392	1,550	225	8.0	49	55	Adv. Intermediate
Powder Cache	8,960	8,320	641	1,406	1,551	289	10.3	46	59	Expert
North Boundary	8,970	8,378	592	1,556	1,682	130	5.0	38	60	Expert
N. Boundary Traverse	8,375	8,140	234	2,874	2,889	42	2.8	8	18	Adv. Intermediate
Blackfoot Egress	8,117	8,040	78	1,230	1,235	36	1.0	6	10	Intermediate
Snowdancer	8,876	7,597	1,279	4,979	5,164	244	29.0	26	41	Intermediate
Bird Woman	8,870	8,022	848	2,220	2,386	282	15.5	38	53	Adv. Intermediate

Table 5-2. Terrain Specifications – Existing Conditions and Previously Approved but Unimplemented Projects

Trail Area/Name	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Average Grade (%)	Max Grade (%)	Ability Level
Shaman	8,798	7,973	826	1,951	2,125	247	12.1	42	55	Expert
Powwow	8,532	8,226	306	820	878	281	5.7	37	52	Adv. Intermediate
Dreamweaver	8,876	7,601	1,275	6,160	6,333	105	15.3	21	46	Intermediate
Shadow Woman	8,230	7,627	603	1,514	1,633	181	6.8	40	51	Adv. Intermediate
Powder Reserve Traverse	8,360	7,974	386	5,100	5,134	51	6.0	8	19	Intermediate
Northern Lights	8,303	8,047	257	2,162	2,187	132	6.6	12	25	Intermediate
Northern Lights Lower	8,047	7,702	344	868	937	169	3.6	40	48	Adv. Intermediate
Mill Creek Traverse	8,004	7,707	297	1,797	1,835	43	1.8	17	29	Intermediate
Das Boat	8,850	8,511	339	596	699	682	10.9	57	89	Expert
P10	9,686	8,088	1,598	5,835	6,078	164	22.9	27%	45%	Intermediate
P9	9,664	8,011	1,653	5,248	5,525	127	16.1	32%	44%	Intermediate
P8	9,668	8,645	1,023	3,136	3,315	106	8.1	33%	45%	Intermediate
P7	9,596	7,993	1,603	3,973	4,300	127	12.6	40%	66%	Expert
P6	9,526	7,932	1,594	3,879	4,214	150	14.5	41%	65%	Expert
P5	9,051	7,869	1,182	2,458	2,743	123	7.8	48%	67%	Expert
P3	9,367	7,895	1,472	3,202	3,552	366	29.9	46%	60%	Expert
P2	9,187	7,992	1,195	2,851	3,100	283	20.1	42%	60%	Expert
P1	9,690	7,859	1,831	7,086	7,373	157	26.6	26%	45%	Intermediate

Table 5-2. Terrain Specifications – Existing Conditions and Previously Approved but Unimplemented Projects

Trail Area/Name	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Average Grade (%)	Max Grade (%)	Ability Level
P4	8,310	7,872	439	1,373	1,444	125	4.1	32%	37%	Intermediate
H11	8,304	8,137	167	916	932	117	2.5	18%	22%	Intermediate
S12	9,068	8,838	230	1,220	1,243	132	3.8	19%	24%	Intermediate
TOTAL					**176,414**		**689.2**			

Source: SE Group

Table 5-3. Terrain Distribution by Ability Level – Existing Conditions and Previously Approved but Unimplemented Projects

Skier/Rider Ability Level	Trail Area (acres)	Skier/Rider Capacity (guests)	Skier/Rider Distribution (%)	Skier/Rider Market (%)
Beginner	0.7	20.3	1%	5
Novice	24.1	289.4	9%	15
Low Intermediate	27.9	223.4	7%	25
Intermediate	230.6	1383.8	45%	35
Adv. Intermediate	179.5	717.9	23%	15
Expert	226.4	452.8	15%	5
TOTAL	**689.2**	**3,088**	**100%**	**100%**

Source: SE Group

Table 5-4. Comfortable Carrying Capacity – Existing Conditions and Previously Approved but Unimplemented Projects

Lift Name, Lift Type	Slope Length (ft)	Vertical Rise (ft)	Actual Design Capacity (guests/hr)	Oper. Hours (hrs)	Up-Mtn. Access Role (%)	Misload/ Lift Stoppages (%)	Adjusted Hourly Capacity (guests/hr)	VTF/ Day (000)	Vertical Demand (ft/day)	Daily Lift Capacity (guests)
Dreamcatcher *DC-4*	6,302	1,865	2,280	7.00	5	5	2,052	26,790	24,581	1,090
Shoshone *C-4*	1,882	394	1,540	7.00	5	20	1,155	3,188	6,236	510
Papoose Magic Carpet *C*	227	35	400	7.00	0	5	380	93	1,277	70
Blackfoot *C-4*	3,236	1,200	1,800	6.50	0	10	1,620	12,636	23,110	550
Sacajawea *DC-4*	4,182	1,281	2,040	6.75	5	5	1,836	15,874	22,162	720
Peaked *DC-4*	4,861	1,829	2,000	6.50	0	5	1,900	22,589	28,988	780
TOTAL	**21,998**		**9,560**				**8,393**			**3,720**

Source: SE Group
C = carpet
C-2 = fixed-grip double chairlift
C-3 = fixed-grip triple chairlift
C-4 = fixed-grip quad chairlift
DC-4 = detachable-grip quad chairlift

Table 5-5. Industry Average Space Use
Overall Resort – Existing Conditions and Previously Approved but Unimplemented Projects

Service Function	Existing Total	Recommended Range		Difference from Recommended	
		Low	High	Low	High
Ticket Sales/Guest Services	1,270	2,180	2,660	(910)	(1,390)
Public Lockers	1,344	2,510	3,070	(1,166)	(1,726)
Rentals/Repair	2,204	3,300	3,960	(1,096)	(1,756)
Retail Sales	2,725	1,710	2,090	1,015	635
Bar/lounge	1,639	2,560	3,130	(921)	(1,491)
Adult Ski School	271	1,340	1,640	(1,069)	(1,369)
Kid's Ski School	1,367	4,500	4,950	(3,133)	(3,583)
Restaurant Seating	8,444	17,070	20,870	(8,626)	(12,426)
Kitchen/Scramble/BOH	5,774	15,370	18,780	(9,596)	(13,006)
Rest rooms	2,436	3,410	4,170	(974)	(1,734)
Ski Patrol	1,440	1,370	1,670	30	(270)
Administration	4,949	1,720	2,110	3,229	2,839
Employee Lockers/Lounge	3,183	690	840	2,493	2,343
Mechanical	672	2,600	3,850	(1,928)	(3,178)
Storage	2,180	2,600	3,850	(420)	(1,670)
Circulation	8,695	7,790	11,540	905	(2,845)
TOTAL SQUARE FEET	**48,553**	**70,720**	**89,180**	**(22,167)**	**(40,627)**

Source: SE Group

Table 5-6. Recommended Restaurant Seating – Existing Conditions and Previously Approved but Unimplemented Projects

	Base Area
Lunchtime Capacity (CCC)	3,794
Average Seat Turnover	3.5
Required Seats	1,084
Existing Seats	448
Difference	-636
Existing Indoor Seating Capacity *assuming 3.5 average seat turnover*	1,568

Source: SE Group

Table 5-7. Recommended Parking at Staging Portals – Existing Conditions and Previously Approved but Unimplemented Projects

	Total
CCC + other guests	3,794
Skiers using on-site lodging, other transit or drop-off	667
Net parking requirement	**3,127**
Average Vehicle Occupancy	2.6
Required skier car parking spaces	1,137
Required employee car parking spaces	80
Total required spaces	1,217
Existing parking spaces	1,130
surplus/deficit	-153
Existing parking capacity (guests)	3,018

Source: SE Group
Notes: Average vehicle occupancy, employee parking requirements, and existing number of parking spaces from
County Master Plan.

CHAPTER 6. UPGRADE PLAN

The purpose of this Upgrade Plan is to provide direction for the future development of GTR, which ensures a balance of facilities and a variety of amenities and opportunities—all leading to an improved recreational experience as well as operational efficiencies. This plan will allow GTR to remain competitive in the regional destination skier market, help retain existing guests, and attract new visitors. The Upgrade Plan is depicted on Figures 6.1 through 6.10.

The Wastewater System, Water Supply and Storage, and Snowmaking Coverage sections in this Upgrade Plan have been coordinated, and are consistent with the County Master Plan, which was assembled for GTR's private base lands and has been approved by Teton County, Wyoming. GTR is currently in the process of updating plans for the private base lands, and the guest services component of this MDP is consistent with the direction of these plans. The updated Base Area Master Plan has not been completed and has not been incorporated into the County Master Plan at this time.

A. SUMMARY OF THE UPGRADE PLAN

This Upgrade Plan capitalizes on GTR's assets to improve the total guest experience through a series of on-mountain projects. This will be achieved by methodical implementation of strategic enhancements across the resort. There is no particular, outstanding element or theme that is intended to achieve this purpose.

Approximately 348 acres of new lift-served trails are planned, in addition to new and improved glades on both Fred's and Peaked Mountains. New teaching terrain will be developed adjacent to Targhee Village. Terrain on Peaked Mountain is planned to be improved and expanded, and a lift in the Mono Trees area, up to Lightning Ridge, will provide round-trip skiing as well.

The Upgrade Plan assumes implementation of one previously approved lift project—the Peaked Lift (discussed in Chapter 5). A third lift, the Lightning Lift, similar to the Mono Trees Lift in this MDP, was proposed initially with an alignment to the south and approved in 1994/95. Planned lift upgrades include realigning and extending the Shoshone Lift and the Papoose carpet. Finally, three new lifts—Crazy Horse, North Boundary, and Rick's Basin—and two new teaching carpets are planned.

Consistent with the 1994 ROD, two on-mountain restaurants are planned to better meet guests' needs—one at the summit of Fred's Mountain (near the top of the Dreamcatcher Lift) and one at the top of the Sacajawea Lift (instead of Lightning Ridge, as specified in the 1994 ROD). In addition, a yurt with limited food service is planned at the top of the Shoshone Lift, and smaller guest service facilities with restrooms are planned at the bottom of the Blackfoot and Peaked lifts. In addition, two warming cabins are planned—one in Rick's Basin and one on Lightning Ridge. Base area guest services are improved, with a specific focus on increasing the number of restaurant seats.

A dedicated snow tubing area, for both day and nighttime use, is planned at Targhee Village. This will be an improvement over the current snow tubing operation, which uses the Papoose carpet and teaching terrain.

The Upgrade Plan includes enlarging GTR's SUP area to the south by approximately 600 acres, into an area that is referred to as the "South Bowl." With the Upgrade Plan, GTR would install three new lifts in the South Bowl. In the interim period between potential project approval and installation of the proposed lifts in South Bowl, GTR could operate SnowCat skiing in the area. Ski routes from the proposed lifts would be selectively gladed to allow for consistent fall line skiing while keeping the naturalness of the area. With lift installation in South Bowl, additional trail clearing may be needed to provide a consistent skiing experience across GTR.

The Upgrade Plan also includes enlarging GTR's SUP area to the west by approximately 600 acres for the Mono Trees pod. This development will allow for the addition of a new lift and significantly expanded terrain.

GTR's existing snowmaking system is planned to be expanded from 10 to 104 acres (approximately 94 acres of new snowmaking coverage). Of the 104 acres, 2 acres of snowmaking coverage is planned for the snow tubing facility. Two reservoir locations, one located near *Screaming Cheetah* and the other near the tubing area, are also planned.

The Upgrade Plan includes significant additions to the existing multiple use trail network, which have been conceived to provide a comprehensive program of excursion opportunities. GTR's multi-use recreation trail network is planned to be expanded from roughly 50 miles to 84 miles. Additional multi-season recreation activities are planned, including an aerial adventure/canopy tour from the top of the Dreamcatcher Lift, and a number of activities within the Summer Activity Zone including a zip line, canopy tour, fly line, aerial adventure course, and summer tubing.

A Mountain Roads Rehabilitation Program will be implemented to eliminate road segments that are too steep or are no longer necessary for construction and/or maintenance access. The program will also result in the creation of new roads to bypass steep gradients and improve mountain circulation. The primary components of the Mountain Roads Rehabilitation Program are the realignment and reconstruction of the Teton Vista Traverse road, the Powder Reserve Traverse Road, and the Rick's Basin access road near the Blackfoot Lift bottom terminal.

B. LIFT NETWORK

GTR proposed to install six lifts; five newly proposed lifts and one previously approved lift, the Peaked Lift. Refer to Chapter 5, Section A.1 – 1995 MDP Peaked Mountain for a detailed description of the Peaked Lift.

1. New Lift Installations

Mono Trees Lift

The detachable Mono Trees Lift (1,800 pph capacity) is planned to provide access to a significant amount of new intermediate and advanced terrain. The terrain accessible from this lift will include developed runs, glades, and open meadows. An important feature of this lift is to provide a quality skiing experience during periods when the upper mountain experiences poor visibility, high winds, or other weather factors. A lift in the Lightning Ridge area was approved for construction in the 1994 ROD with a north-south alignment.

Crazy Horse

The detachable Crazy Horse Lift (1,800 pph) will provide access to terrain on Fred's mountain. Under existing conditions, all of the south-facing terrain off of Fred's Mountain is accessible only off the Dreamcatcher Lift, and there is a significant amount of terrain—resulting in underutilization of this terrain (refer to Chapter 4, Section D – Existing Capacity Analysis). To get better utilization of this area, the Crazy Horse Lift will be added. As an additional benefit, the Crazy Horse Lift will provide redundant access to the top of Fred's Mountain. In the event of a lift closure on Dreamcatcher Lift, skiers will be able to access the terrain, and restaurant, by riding Sacajawea and Crazy Horse in succession.

Rick's Basin

The Rick's Basin Lift is an access lift—meaning that it does not provide any repeat-skiing. Its purpose is to provide access to the North Boundary area without having to ride Dreamcatcher or Blackfoot lifts. This is particularly important during periods when weather restrictions cause those lifts to be closed. In such circumstances, skiers would be able to access the North Boundary area from the Rick's Basin access lift.

North Boundary

The North Boundary Lift provides access to the terrain from the North Boundary Traverse down to Rick's Basin. This lift will provide better utilization of the terrain at the far north edge of the resort, as well as providing access to intermediate and advanced terrain that is currently not lift-accessed. Additionally, this lift would be able to be operated during weather days when the upper mountain lifts need to be closed down. Similar to Mono Trees Lift, the North Boundary Lift would help provide a quality ski experience on those days when Dreamcatcher and Blackfoot lifts cannot be operated due to fog, wind, or other weather factors.

Teaching Carpets

Two additional beginner teaching carpets are planned adjacent to the mid-station of the Shoshone Lift—one within the SUP area and one on private lands. These carpets will provide additional lift service for first time skiers/riders and will access additional, needed beginner terrain adjacent to Targhee Village.

South Bowl West

One of the three lifts proposed in South Bowl is the South Bowl West Lift. This lift would likely be a top-drive lift that provides lift service skiing and riding to the western portion of the South Bowl area. It will serve as the connection for guest in South Bowl to return to Peaked Mountain and the base area. Construction and maintenance access to this lift will be provided via an upgraded road to the top of the Peaked Lift.

South Bowl East

The farthest east lift proposed at GTR is the South Bowl East Lift. This lift would likely be a bottom-drive lift that will provide skiing and riding in an open bowl setting with interspersed vegetation. Guests will get a backcountry feel without venturing outside of ski area boundaries. There will be a small guest services facility located at the base of this lift. Construction and maintenance access to this lift will be provided via the planned South Bowl access road.

South Bowl Connector

The South Bowl Connector Lift is required to transport guests from South Bowl East to South Bowl West lifts. The lift would be 1,700 feet in length and transport guests 250 feet in elevation from the bottom terminal of the South Bowl East Lift to bottom terminal of the South Bowl West Lift. Construction and maintenance access to this lift will be provided via the planned South Bowl access road.

Palmer Platter

A surface lift is planned to be installed on Palmer's Raceway in the Shoshone pod. The lift would be aligned along the southside of the tree island between Big Horn and Palmer's Raceway. Lights are planned on Palmer's Raceway as well. The lift will provide a quick turn around for athletes training on Palmer's Raceway and the lights will allow for longer training sessions during the winter months.

2. Lift Replacements/Removals

Shoshone

The existing Shoshone Lift is planned to be upgraded to a detachable lift, and will be lengthened and realigned. The new top terminal will be located approximately 100 feet to the south of the existing top terminal. In addition to realigning the lift, the new top terminal will be raised and an unloading and milling area will be created. The higher top terminal elevation will provide better grades for guests accessing the surrounding terrain. The associated grading around the top terminal will improve access to surrounding runs and provide the necessary milling and prep space for ski school and lower-ability guests using this terrain. This location provides further separation between the intermediate and advanced skiers and riders on the adjacent *Wild Turkey* trail, and beginner and novice skiers and riders on the Shoshone Lift.

The bottom terminal of the Shoshone Lift will be extended by approximately 1,200 feet to an area adjacent to GTR private lands. This terminal location will provide guests staying at residences and using ski runs on private land with a lift connection to the rest of the resort.

The beginner/novice skiing and riding function of the realigned Shoshone Lift will be served by a mid-loading station. Skiers and riders using the terrain historically served by the existing Shoshone Lift will load at its mid-terminal.

The realignment and upgrade of the Shoshone Lift will provide access from private lands, while also improving the resort experience for beginner and novice skiers by providing detachable lift technology, which facilitates an easier lift loading and unloading process.

In Table 6-1 only the upper portion of the Shoshone Lift is listed, as the lower section has no influence on the lifts functionality for skiing/riding.

Papoose

The Papoose carpet is planned to be realigned slightly to provide better integration with the Targhee Village plans. The lift will continue to provide both repeat skiing/teaching terrain as well as access from the mid-station of the Shoshone Lift up to the base area and the Dreamcatcher Lift.

Table 6-1 includes detailed information on the lift specifications in the Upgrade Plan.

Table 6-1. Lift Specifications – Upgrade Plan

Lift Name, Lift Type	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Avg. Grade (%)	Actual Design Capacity (pers/hr)	Rope Speed (fpm)	Carrier Spacing (ft)	Lift Manufacturer/ Year Installed
Dreamcatcher *DC-4*	9,837	7,972	1,865	5,960	6,302	31%	2,280	950	100	CTEC 1996
Shoshone Upgrade *DC-4*	8,325	7,895	430	2,080	2,130	21%	1,800	750	100	Proposed
Papoose Realigned *C*	7,962	7,902	60	429	434	14%	400	50	8	Boardwalk 2000
Blackfoot *C-4*	9,285	8,085	1,200	2,925	3,236	41%	1,800	450	60	Doppelmayr 2016
Sacajawea *DC-4*	8,875	7,594	1,281	3,945	4,182	33%	2,040	850	100	CTEC 2001
Mono Trees *DC-4*	8,452	7,278	1,174	4,222	4,406	28%	1,800	1,000	133	Proposed
Peaked *DC-4*	9,691	7,862	1,829	4,470	4,861	41%	2,000	1,000	120	Proposed
Beginner Carpet 1	7,921	7,895	26	145	148	18%	400	50	8	Proposed
Beginner Carpet 2	7,916	7,895	21	242	243	9%	400	50	8	Proposed
North Boundary *C-3*	9,286	7,977	1,309	4,072	4,298	32%	1,200	500	75	Proposed
Ricks Basin Access *C-3*	8,024	7,978	45	1,711	1,757	3%	1,200	400	60	Proposed
Crazy Horse *DC-4*	9,840	8,170	1,670	3,850	4,197	43%	1,800	1,000	133	Proposed
South Bowl West *C-4*	9,750	8,228	1,522	3,378	3,705	45%	1,800	450	60	Proposed
South Bowl East *C-4*	9,180	7,970	1,210	3,628	3,824	33%	1,800	450	60	Proposed
South Bowl Connector *C-4*	8,228	7,970	258	1,726	1,745	15%	1,200	450	90	Proposed
Palmer Platter	8,461	8,072	389	763	790	48%	600	120	12	Proposed

Source: SE Group
C = carpet
C-2 = fixed-grip double chairlift
C-4 = fixed-grip quad chairlift
DC-4 = detachable-grip quad chairlift

C. TERRAIN NETWORK

1. Terrain Variety

As discussed in previous chapters, terrain variety is the key factor in evaluating the quality of the actual skiing and riding guest experience. 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 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.

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 to the extent practical. 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 are only usable when conditions warrant, they represent the most intriguing terrain, and typically are the areas that skiers/riders strive to access.

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 still ski and ride, and they are usually the only place to go during the early season, periods of poor or undesirable snow conditions, avalanche closures, and certain weather conditions. As such, the developed trail network represents a true reflection of acreage used by the average skier/rider on a consistent basis, as well as that used by virtually all guests during the aforementioned conditions. Therefore, the total acreage of the developed terrain network, and its distribution by ability levels, must be sufficient to accommodate the full capacity of the resort. As such, the two terrain types are discussed separately below.

2. Developed Alpine Trails

Overall, approximately 348 acres are planned on being added to GTR's lift-serviced terrain network. The currently existing developed terrain network encompasses about 520 acres, with an additional 174 acres currently approved, to be implemented in the near future (most of which is on Peaked mountain and is currently used in the SnowCat skiing program). The 174 acres currently served by SnowCat is included in the additional planned 348 acres to GTR's lift-serviced network. Thus, the planned trail network will total 868 acres.

The planned trail configuration under the Upgrade Plan is depicted in Figure 6.1. The reader is encouraged to review that figure in conjunction with the following summary.

Teaching Terrain

A significant amount of new teaching terrain will be available off of the three carpets in the Upgrade Plan. The realigned Papoose will continue to have dedicated terrain, at a 10% average grade. Carpet 2 will be important for teaching progression, as it will have two separate terrain areas, both with an 8% average grade. Carpet 1 will also have a 10% average grade, but will have a 12% maximum grade.

Dreamcatcher and Crazy Horse Pods

- Create two new trails (D1 and D2): one between *Crazy Horse* and *Happy Hunting Grounds*, and one between *Happy Hunting Grounds* and *Lost Groomer*.
- Realign the upper section of the *Teton Vista Traverse* to eliminate switchbacks and improve the novice skiing experience. The entirety of the realigned Teton Vista Traverse is shown on Figure 6.1.
- Expand the central portion of *Middle Earth*, shown as D3.
- Extend five existing trails, shown on Figure 6.1 as trails D4 to D8, so that they will terminate on the realigned Teton Vista Traverse.

Blackfoot Pod

- Improve *The Good*, *The Bad*, *The Ugly*, and *The East Woods* through strategic vegetation removal.
- Lengthen and realign the lower portion of *Wild Turkey*. The realignment and extension of this trail is designed to improve skier access to the Blackfoot Lift. This planned trail alignment will also provide further separation between existing *Wild Turkey* and the Shoshone Lift and associated beginner trails. This alignment will allow guests to ski to the base of Blackfoot without having to traverse.
- Create a new run (R10), between *Steamvent* and *Arrowhead*. This will be an intermediate run and will help balance with the recently increased uphill capacity of Blackfoot.

Sacajawea Pod and Circulation to/from Base Area

Approximately 18 acres of new low-intermediate, intermediate, and advanced-intermediate terrain is associated with the Sacajawea Lift. These trails are identified as S1 through S3, S6, S7, S10, and S12 on Figure 6.1.

Peaked Pod

Approximately 170 acres of existing intermediate through expert terrain on Peaked Mountain (within the SUP area) will be converted from GTR's guided SnowCat terrain to lift-served terrain. Vegetation in this area has been cleared in support of cat skiing, but the trails will require additional work and refinement (i.e., widening, grubbing, rock removal, etc.) to become improved for lift-served skiing. Among the planned terrain is “interconnected ski spaces,” or groomable glade-style skiing areas. Essentially, interconnected ski spaces consist of a braided network of interwoven ski runs that are cleared to a width of about 50 to 80 feet and separated by small tree islands. These areas are planned for P2 and P3 (totaling approximately 60 acres, refer to Figure 6.1). This style of ski terrain provides a glade-like skiing experience for lower-level intermediate skiers, as it can be groomed as necessary to maintain or improve the snow surface quality.

Mono Trees Pod

The Mono Trees Lift is intended to offer round trip skiing and riding on the north- and east-facing slopes of Lightning Peak. Note that, as discussed above, an important aspect of this lift is to provide a quality skiing experience during periods when the upper mountain is closed due to fog, high winds, or other weather related factors. Approximately 97 acres of intermediate and advanced-intermediate trails (F1 and F2, M1 through M5 and M10 through M12) are associated with the planned Mono Trees Lift.

- Planned Trails F1 and F2 will provide access from the Mono Trees Lift to the Peaked Lift bottom terminal.
- Planned Trails M1 through M5 will provide repeat skiing off of the Mono Trees Lift.
- Planned Trail M10 will provide access from the top terminals of Mono Trees Lift to the bottom of the Sacajawea Lift.
- Planned Trail M11 and M12 will provide access from the Sacajawea and Peaked pods to the bottom terminal of the Mono Trees Lift.

Installation of the Mono Trees Lift, development of the associated terrain, and the resultant challenges related to boundary management, will require a partial expansion into the Cold Springs Gully. It is proposed that GTR's current SUP boundary be adjusted in this area to include approximately 600 acres. The boundary adjustment will allow GTR to efficiently increase their developed terrain options, particularly during inclement weather. The described SUP boundary adjustment will additionally allow GTR to conduct regular snow safety procedures within the steep terrain located to the north of the skiway accessing the base of the Mono Trees lift (M12). Development and operation of the Mono Trees pod will utilize the existing road from the base area to the bottom terminal of Sacajawea Lift and 0.9 miles of new road construction from the bottom terminal of Sacajawea Lift to access the Lightning Ridge area for construction and in case of emergency.

Shoshone Pod and Carpets

- Develop 1.6 acres of additional teaching terrain for the planned carpets adjacent to the upgraded Shoshone mid-terminal.
- Develop a trail to the bottom terminal of the Shoshone Lift (Trail B3). While the grades from the mid-station down to the bottom terminal are quite flat, an average grade of 8% will be achieved, with a short section of 6%.

North Boundary Pod

New ski runs will be constructed in conjunction with the North Boundary Lift.

- Planned Trails R1 through R6 are essentially extensions of the existing North Boundary Powder Cache, and Lost Warrior runs. These runs continue the fall-line runs down to the base of available slope, at the beginning of Rick's Basin.
- R7 is the primary access route to the North Boundary area, in addition to being the collector trail for runs R6 through R3.
- R8 is a short access trail to get from the top of the Rick's Basin Lift onto R7.
- R9 is a short access trail to access the entry to the Rick's Basin Lift.

South Bowl Pod

The South Bowl is an open, steep bowl on the southside of Peaked Mountain. New ski runs are planned to be constructed in conjunction with the construction of the three South Bowl lifts. The South Bowl area will maintain its open bowl feel, as much as possible. Skiers and riders will access the terrain by riding Sacajawea and Peaked lifts, or by riding Dreamcatcher and hiking to the bowl along the ridge.

Construction of planned lifts and a construction access road would require grading as shown in Figure 6.10. The proposed terrain specifications are detailed in the Table 6-2.

In the interim period prior to the construction of the three South Bowl lifts and construction, the South Bowl terrain will be served by SnowCat skiing operations. Select tree clearing or glading may be needed to enhance the experience of the SnowCat skiing operation in places were future ski trails would be located.

Trail Construction

Note that the planned trails discussed in this section are all developed trails, with well-defined and smooth skiable surfaces. As such, heavy machinery will be required in certain circumstances to achieve the desired surface. This trail work will be in areas shown as requiring grading in Figure 6.2, as well as any other area that is determined to require surface smoothing.

The proposed terrain specifications are detailed in the Table 6-2.

Table 6-2. Terrain Specifications – Upgrade Plan

Trail Area/1995 MDP Map Reference	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
Painted Pony/1B	9,481	9,120	361	1,094	1,162	321	8.6	33	48	Intermediate
Lost Groomer/1C	9,556	8,994	562	1,632	1,739	393	15.7	34	49	Adv. Intermediate
Patrol Chute/1D	9,153	8,806	347	925	1,006	338	7.8	37	76	Expert
Instructors Chute/1D	9,178	8,672	506	1,346	1,470	291	9.8	38	81	Expert
Happy Hunting Grounds/1D	9,669	9,168	501	1,138	1,245	700	20.0	44	52	Adv. Intermediate
Crazy Horse/1F	9,819	8,439	1,380	3,455	3,729	197	16.8	40	51	Adv. Intermediate
Crazy Horse Woods/1F	9,121	8,501	620	1,332	1,471	142	4.8	47	51	Adv. Intermediate
Nasty Gash/1E	9,178	8,410	768	1,574	1,762	313	12.7	49	70	Expert
Wild Willie/1J	9,792	8,439	1,354	3,565	3,830	189	16.6	38	55	Adv. Intermediate
Headwall Traverse/1R	9,828	9,292	536	3,642	3,701	40	3.4	15	38	Intermediate
The Face/1P	9,756	9,461	295	738	800	208	3.8	40	52	Adv. Intermediate
Sitting Bull Ridge/1Q	9,709	8,877	831	2,942	3,063	158	11.1	28	40	Intermediate
Ladies Waist/1L	9,448	8,575	872	2,182	2,360	214	11.6	40	49	Expert
Wandering Moose/1M	8,980	8,392	588	1,552	1,661	219	8.3	38	43	Intermediate
Slim's Shot/1N	8,916	8,306	610	1,597	1,713	221	8.7	38	49	Adv. Intermediate
Sweetwater/1O	8,886	7,973	914	2,941	3,104	186	13.3	31	50	Adv. Intermediate
Big Thunder/1Y	8,879	8,282	597	1,432	1,556	237	8.5	42	51	Adv. Intermediate
Wild Turkey/1X	8,894	8,324	570	1,546	1,655	216	8.2	37	47	Intermediate
The Good/1T	9,427	8,895	532	1,192	1,311	382	11.5	45	62	Expert

Table 6-2. Terrain Specifications – Upgrade Plan

Trail Area/1995 MDP Map Reference	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
The Bad/1U	9,235	8,748	487	1,062	1,177	203	5.5	46	77	Expert
The Ugly/1V	9,076	8,623	453	955	1,062	268	6.5	47	67	Expert
The Eastwoods/1W	8,983	8,429	554	1,252	1,377	299	9.5	44	62	Expert
Rock Garden/1Q	9,662	9,307	356	1,136	1,194	128	3.5	31	44	Intermediate
Headwall/1S	9,609	9,103	505	1,026	1,145	508	13.4	49	59	Expert
Chief Joseph Bowl/3B	9,393	8,091	1,303	4,221	4,437	189	19.2	31	41	Intermediate
Middle Earth/NA	8,958	8,307	651	3,423	3,509	98	7.9	19	39	Intermediate
Palmer's Way/1Y	8,329	8,039	289	1,538	1,574	173	6.3	19	33	Low Intermediate
Big Horn/2A	8,324	7,980	344	1,717	1,755	153	6.2	20	28	Low Intermediate
Exhibition/2B	8,301	7,921	380	2,025	2,063	121	5.7	19	27	Low Intermediate
Little Bighorn/2C	8,324	8,179	144	817	832	126	2.4	18	25	Novice
The Meadow/2D	8,265	7,947	317	1,859	1,890	156	6.8	17	29	Low Intermediate
Bobsled Run/2E	8,238	8,028	209	1,103	1,125	158	4.1	19	25	Novice
North Pole Park/2E	8,242	8,051	191	1,006	1,028	127	3.0	19	28	Low Intermediate
Little Beaver Traverse/2E	8,040	7,927	113	1,593	1,599	50	1.8	7	18	Novice
Up. Blackfoot Traverse/3A	9,292	9,095	197	1,163	1,183	27	0.7	17	26	Intermediate
Low. Blackfoot Traverse/3A	9,101	8,962	139	1,018	1,030	35	0.8	14	18	Adv. Intermediate
Fallen Timber/NA	9,254	9,001	253	549	605	341	4.7	46	51	Adv. Intermediate
Arrowhead/3D	9,226	8,100	1,126	2,723	2,957	143	9.7	41	55	Adv. Intermediate

Table 6-2. Terrain Specifications – Upgrade Plan

Trail Area/1995 MDP Map Reference	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
Steam Vent/3C	9,074	8,601	473	1,165	1,261	120	3.5	41	52	Adv. Intermediate
Floyd's Fantasy/3E	9,293	8,387	906	2,012	2,213	201	10.2	45	53	Adv. Intermediate
Williamson Bowl/3F	9,135	8,095	1,040	2,579	2,788	205	13.1	40	49	Intermediate
Raven Wood/3G,H	9,035	8,173	862	2,118	2,304	214	11.3	41	62	Expert
Lost Warrior/3I	8,964	8,283	681	1,392	1,550	225	8.0	49	55	Adv. Intermediate
Powder Cache/3J	8,960	8,320	641	1,406	1,551	289	10.3	46	59	Expert
North Boundary/3K	8,970	8,378	592	1,556	1,682	130	5.0	38	60	Expert
N. Boundary Traverse/3L	8,375	8,140	234	2,874	2,889	42	2.8	8	18	Adv. Intermediate
Blackfoot Egress/3M	8,117	8,040	78	1,230	1,235	36	1.0	6	10	Intermediate
Snowdancer/5A	8,876	7,597	1,279	4,979	5,164	244	29.0	26	41	Intermediate
Bird Woman/5C	8,870	8,022	848	2,220	2,386	282	15.5	38	53	Adv. Intermediate
Shaman/5B	8,798	7,973	826	1,951	2,125	247	12.1	42	55	Expert
Powwow/5D	8,532	8,226	306	820	878	281	5.7	37	52	Adv. Intermediate
Dreamweaver/5F	8,876	7,601	1,275	6,160	6,333	105	15.3	21	46	Intermediate
Shadow Woman/5G	8,230	7,627	603	1,514	1,633	181	6.8	40	51	Adv. Intermediate
Northern Lights/5I	8,303	8,047	257	2,162	2,187	132	6.6	12	25	Intermediate
Northern Lights Lower/5I	8,047	7,702	344	868	937	169	3.6	40	48	Adv. Intermediate
Das Boat/NA	8,850	8,511	339	596	699	682	10.9	57	89	Expert
B1	8,396	8,047	349	1,932	1,996	45	2.0	18	60	Novice

Table 6-2. Terrain Specifications – Upgrade Plan

Trail Area/1995 MDP Map Reference	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
B2	7,934	7,894	40	594	596	70	1.0	7	13	Novice
B3	7,916	7,847	69	873	877	70	1.4	8	12	Beginner
B4	7,973	7,915	58	832	837	52	1.0	7	12	Beginner
B5	7,915	7,896	19	274	274	43	0.3	7	9	Beginner
B6	7,915	7,895	20	285	286	57	0.4	7	11	Beginner
D1	9,531	8,580	952	2,207	2,422	131	7.3	43	77	Expert
D2	9,585	8,892	693	1,707	1,875	130	5.6	41	62	Expert
D3	8,845	8,729	116	848	863	341	6.8	14	29	Adv. Intermediate
D4	8,423	8,309	114	305	327	71	0.5	37	44	Adv. Intermediate
D5	8,465	8,258	207	333	395	111	1.0	62	71	Expert
D6	8,416	8,230	186	431	473	101	1.1	43	60	Expert
D7	8,389	8,210	179	375	418	86	0.8	48	51	Adv. Intermediate
D8	8,307	8,175	132	306	337	90	0.7	43	54	Adv. Intermediate
F1	8,334	8,089	245	817	855	141	2.8	30	37	Intermediate
F2	8,410	7,908	502	2,297	2,375	138	7.5	22	45	Intermediate
H11	8,303	8,137	166	916	932	117	2.5	18	22	Intermediate
H12	8,262	8,155	107	524	536	156	1.9	20	25	Intermediate
M1	8,455	7,280	1,175	6,203	6,358	141	20.6	19	50	Adv. Intermediate
M2	8,448	7,630	818	2,148	2,313	163	8.7	38	52	Adv. Intermediate

Table 6-2. Terrain Specifications – Upgrade Plan

Trail Area/1995 MDP Map Reference	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
M3	8,455	7,286	1,169	4,412	4,613	142	15.1	26	52	Adv. Intermediate
M4	8,302	7,300	1,002	3,429	3,604	148	12.2	29	49	Adv. Intermediate
M5	8,405	7,280	1,124	3,908	4,096	145	13.6	29	43	Intermediate
M10	8,442	8,024	418	3,839	3,866	79	7.0	11	20	Intermediate
M11	8,237	7,984	252	2,637	2,651	31	1.9	10	13	Intermediate
M12	7,800	7,370	430	4,381	4,406	28	2.8	10	15	Intermediate
N1	7,961	7,897	64	494	499	58	0.7	13	16	Novice
Colter's Run	9,688	7,859	1,829	7,086	7,378	159	26.9	26	45	Intermediate
Tangle Foot	9,184	7,992	1,192	2,851	3,104	279	19.9	42	60	Expert
Bufflerwood	9,366	7,896	1,471	3,202	3,567	366	30.0	46	61	Expert
Paint Brush	8,310	7,871	439	1,373	1,445	125	4.1	32	37	Intermediate
Booshway	9,051	7,870	1,181	2,458	2,751	123	7.8	48	67	Expert
Poudrerie	9,523	7,932	1,591	3,879	4,222	151	14.6	41	66	Expert
Pierre's Hole	9,596	7,993	1,603	3,973	4,310	127	12.6	40	68	Expert
Powderhorn	9,668	8,645	1,023	3,136	3,317	109	8.3	33	45	Intermediate
Corncracker	9,665	8,012	1,653	5,248	5,532	128	16.2	32	44	Intermediate
Rendevous	9,685	8,088	1,597	5,835	6,084	165	23.0	27	46	Adv. Intermediate
PRT – Realigned	8,400	7,985	415	5,450	5,476	88	11.1	8	17	Intermediate
R1	8,586	7,842	744	3,026	3,141	107	7.7	25	59	Expert

Table 6-2. Terrain Specifications – Upgrade Plan

Trail Area/1995 MDP Map Reference	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
R2	8,373	7,868	504	1,719	1,796	122	5.0	29	43	Adv. Intermediate
R3	8,344	7,898	446	1,526	1,595	122	4.5	29	40	Adv. Intermediate
R4	8,296	7,937	359	1,349	1,400	120	3.9	27	38	Intermediate
R5	8,269	7,996	272	1,079	1,115	152	3.9	25	35	Low Intermediate
R6	8,368	8,102	266	928	970	156	3.5	29	38	Intermediate
R7	8,320	7,849	471	5,066	5,095	45	5.3	9	17	Intermediate
R8	8,114	8,065	49	323	328	135	1.0	15	20	Intermediate
R9	8,109	8,048	61	473	478	65	0.7	13	15	Intermediate
R10	8,797	8,111	686	1,594	1,741	120	4.8	43	54	Intermediate
S1	8,231	7,843	388	3,040	3,076	66	4.7	13	28	Low Intermediate
S2	8,760	8,310	450	1,017	1,132	88	2.3	44	80	Expert
S3	8,439	7,890	549	1,408	1,515	94	3.3	39	47	Adv. Intermediate
S6	8,022	7,950	71	581	588	80	1.1	12	20	Intermediate
S7	8,329	8,260	68	1,074	1,079	53	1.3	6	14	Intermediate
S10 – Realigned Millcreek	7,880	7,700	180	1,450	1,467	48	1.6	12	21	Intermediate
S12	9,068	8,838	231	1,220	1,243	131	3.8	19	25	Intermediate
T1	7,915	7,896	20	169	172	70	0.3	12	12	Beginner
TVT – Realigned	9,837	8,290	1,547	10,400	10,572	74	17.9	15	41	Intermediate
SB_01	9,418	8,226	1,192	3,385	3,661	149	12.5	35%	61%	Expert

Table 6-2. Terrain Specifications – Upgrade Plan

Trail Area/1995 MDP Map Reference	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
SB_02	9,526	8,611	915	1,790	2,018	179	8.3	51%	70%	Expert
SB_03	9,684	8,258	1,426	3,106	3,454	169	13.4	46%	63%	Expert
SB_04	9,707	8,249	1,458	3,096	3,456	150	11.9	47%	78%	Expert
SB_05	9,455	8,299	1,157	2,312	2,607	168	10.1	50%	80%	Expert
SB_06	9,649	8,235	1,414	3,177	3,531	165	13.4	45%	75%	Expert
SB_07	9,714	9,451	263	2,676	2,705	57	3.5	10%	20%	Expert
SB_08	9,562	8,725	837	1,376	1,625	137	5.1	61%	91%	Expert
SB_09	9,533	8,515	1,019	2,160	2,441	141	7.9	47%	80%	Expert
SB_10	9,449	8,233	1,216	3,187	3,494	137	11.0	38%	97%	Expert
SB_11	8,888	8,297	591	2,268	2,368	118	6.4	26%	50%	Adv. Intermediate
SB_12	8,825	8,747	78	591	599	104	1.4	13%	24%	Expert
SB_13	8,230	8,089	141	1,534	1,547	53	1.9	9%	18%	Expert
SB_14	9,185	8,230	955	4,071	4,221	113	11.0	23%	47%	Adv. Intermediate
SB_15	8,732	8,027	705	1,922	2,078	108	5.2	37%	70%	Expert
SB_16	9,026	8,062	963	2,483	2,701	142	8.8	39%	73%	Expert
SB_17	8,955	8,128	826	1,805	1,998	142	6.5	46%	65%	Expert
SB_18	8,603	8,083	520	1,382	1,484	120	4.1	38%	51%	Adv. Intermediate
SB_19	9,120	8,319	801	1,727	1,922	142	6.3	46%	80%	Expert
SB_20	9,185	8,405	780	1,803	1,992	127	5.8	43%	75%	Expert

Table 6-2. Terrain Specifications – Upgrade Plan

Trail Area/1995 MDP Map Reference	Top Elevation (ft)	Bottom Elevation (ft)	Vertical Rise (ft)	Plan Length (ft)	Slope Length (ft)	Average Width (ft)	Slope Area (acres)	Avg. Grade (%)	Max Grade (%)	Ability Level
SB_21	9,175	7,966	1,208	4,347	4,566	130	13.7	28%	58%	Expert
SB_22	9,123	8,101	1,022	3,791	3,954	124	11.3	27%	48%	Adv. Intermediate
TOTAL					**302,887**		**1,047.2**			

Source: SE Group

Terrain Distribution by Ability Level

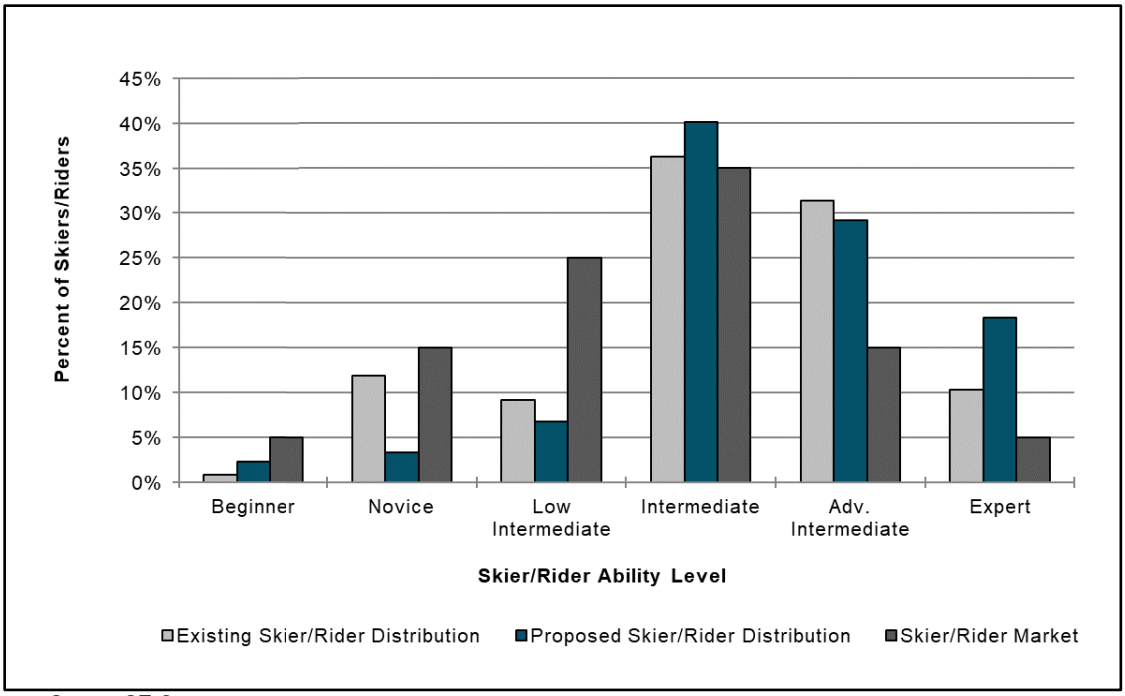
The ideal breakdown of trail capacity by ability level should align with percentages of skiers by ability level, based on the regional destination skier market. The terrain classification breakdown of the Upgrade Plan is set forth in the following table and chart. The last column in this table represents what can be considered the ideal skill level distribution in the relevant market and provides a comparison with the planned conditions.

Table 6-3. Terrain Distribution by Ability Level – Upgrade Plan

Skier/Rider Ability Level	Trail Area (acres)	Skier/Rider Capacity (guests)	Skier/Rider Distribution (%)	Skier/Rider Market (%)
Beginner	3	99.8	2%	5%
Novice	12	143.9	3%	15%
Low Intermediate	36	291.8	7%	25%
Intermediate	288	1,725.2	40%	35%
Adv. Intermediate	313	1,253.9	29%	15%
Expert	394	788.9	18%	5%
TOTAL	1,047	4,303	**100%**	**100%**

Source: SE Group

Chart 6-1. Terrain Distribution by Ability Level – Upgrade Plan



Source: SE Group

As Table 6-3 and Chart 6-1 illustrate, the planned changes generally improve the overall terrain distribution at GTR. A notable increase in beginner area will address that existing deficiency. Increases in low-intermediate terrain will help address that need. As stated in Chapter 4, since the existing distribution is generally close to the market, the expansions have been designed to generally match the overall market, with planned terrain throughout all ability levels.

Gladed Terrain

As discussed in Chapter 4, a distinguishing characteristic of GTR is that the resort is literally skiable "wall-to-wall" due to the open areas and naturally gladed tree stands. The Upgrade Plan includes expanding and improving existing glades throughout the resort, as well as creating new gladed areas on Peaked Mountain, some of which will be groomable. Groomable glades were discussed previously under "Developed Alpine Trails." Under the Upgrade Plan, improvements to existing glades, combined with additional glade areas will result in approximately 550 acres of gladed areas across the resort. This glading program will help GTR further enhance its reputation for offering expansive terrain variety.

Once a formal proposal is submitted to the CTNF to begin site-specific analysis of individual projects, GTR will work with Forest Service staff to assemble a glading plan that is responsive to both the resort's operational/recreational needs and to any forest health objectives deemed important by the CTNF. The glading plan will address elements such as, but not limited to, preservation of White Bark Pine, species and size selection, tree mortality (i.e., targeting dead/dying trees), percent removal, habitat characteristics and grizzly bear and Canadian lynx management plans.

3. Planned Trail Grading

Planned trail grading within the Upgrade Plan amounts to approximately 149 acres. Areas planned for grading are identified on Figure 6.2. Notable planned grading projects include:

- The Village snow-front area at the base of the Dreamcatcher Lift is planned for a major re-grade to create a larger, flat milling area. This project would include removing the large knoll at the south edge of the Dreamcatcher return slope and extending the grading to the south to create positive grade past the existing Teewinot Lodge into a realigned and re-graded *Mill Creek Traverse* trail. This grading includes grading of the lower *Sweetwater* trail.
- Terrain between Targhee Village and the planned Shoshone Lift mid-terminal is scheduled for grading to create a skiable connection from the Village to the middle and bottom terminals of Shoshone Lift, as well as to create reconfigured teaching slope platforms for the realigned Papoose carpet and new Carpet 2.
- In conjunction with the relocation of the Shoshone Lift top terminal, the area surrounding the top terminal is planned to be re-graded. As part of this project, the terrain around existing *Blackfoot Access* and *The Funnel* is scheduled for re-grading to blend lower *Wild Turkey* into lower *Chief Joseph Bowl*. This project will ameliorate congestion conditions that currently plague the area.
- Grading at Shoshone involves separate projects that will be staged over time. First, grading will be completed around the existing terminal to improve skier circulation. Later, when the Shoshone top terminal is relocated, additional grading will be required to incorporate the new terminal structure into the surrounding topography. Accordingly, the ground around the Shoshone top terminal will be disturbed more than once over multiple years, but this is necessary to "stage in" the overall plan.
- The road and Nordic skiing/hiking/biking trail to Rick's Basin will be realigned and re-graded to eliminate the steep pitch, thus improving Nordic skier access into Rick's Basin.
- The existing Nordic trail and Alpine ski-out trail connecting the bottom terminal of the Blackfoot Lift with *Little Beaver Traverse* will be graded to make the slope more consistent and to widen the trail for dual-use by Alpine and Nordic skiers.
- The *Upper* and *Lower Blackfoot Traverse* from the top of *Chief Joseph Bowl* to *North Boundary* will also need to be improved to provide the width and grades necessary to access this terrain. By increasing the width of these trails, grooming and trail maintenance can be increased, allowing for better circulation and utilization of the terrain. In addition, the below North Boundary lift will require grading on *R1, North Boundary and North Boundary Traverse*.

- As described earlier, the top portion of the existing *Dreamweaver* trail includes a steep, narrow pitch that is difficult to maintain and often becomes icy. This trail segment is proposed to be graded to a skiable width of 100 to 120 feet and contoured to improve snow retention, as illustrated on Figure 6.2. Also in the Sacajawea Lift pod, the milling area at the base of the Sacajawea Lift is in need of re-grading to create a flat surface that requires minimal snow coverage and eliminates the uphill slope to the lift loading area.
- The new and/or realigned circulation routes between Fred's Mountain, Peaked Mountain and Mono Trees pod (*Teton Vista Traverse*, *Powder Reserve Traverse*, and planned trails) all require various levels of grading, as illustrated on Figure 6.2.

As discussed in Section C in this chapter (Terrain Network, Developed Alpine Trails), areas not identified as requiring grading may still require the use of heavy machinery for construction.

4. Terrain Parks

As described in Chapter 4, GTR has historically built terrain parks—most recently between the Shoshone Lift and Dreamcatcher Lift—to offer skiers and riders of all abilities the chance to hone their freestyle skills. The resort plans on continuing this practice as demand warrants, in locations that are appropriate based on the varying and evolving needs of park users.

D. CAPACITY ANALYSIS

1. Comfortable Carrying Capacity

As discussed previously in Chapter 2, ski area planning involves the establishment of a "design capacity," which represents the 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.

GTR's existing CCC has been calculated at 2,980. As described in Chapter 5, after implementation of currently approved projects (i.e., the Peaked Lift), the resort's CCC will be 3,720. The lift and terrain projects described in this chapter will add an additional 3,210 to the CCC for a total of 6,930, as detailed in Table 6-4.

Table 6-4. 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 Stoppages (%)	Adjusted Hourly Capacity (guests/hr)	VTF/ Day (000)	Vertical Demand (ft/day)	Daily Lift Capacity (guests)
Dreamcatcher *DC-4*	6,302	1,865	2,280	7.00	5	5	2,052	26,790	24,581	1,090
Shoshone Upgrade *DC-4*	2,130	430	1,800	7.00	10	5	1,530	4,602	8,151	560
Papoose Realigned *C*	434	60	400	7.00	0	5	380	160	1,242	130
Blackfoot *C-4*	3,236	1,200	1,800	6.50	5	10	1,530	11,934	23,156	520
Sacajawea *DC-4*	4,182	1,281	2,040	6.75	10	5	1,734	14,992	22,162	680
Mono Trees *DC-4*	4,406	1,174	1,800	6.50	0	5	1,710	13,050	17,947	730
Peaked *DC-4*	4,861	1,829	2,000	6.50	0	5	1,900	22,589	28,988	780
Beginner Carpet 1	148	26	400	7.00	0	5	380	69	1,338	50
Beginner Carpet 2	243	21	400	7.00	0	5	380	55	709	80
North Boundary *C-3*	4,298	1,309	1,200	6.50	0	10	1,080	9,187	17,455	530
Ricks Basin Access *C-3*	1,757	45	1,200	6.50	100	0	-	0	877	-
Crazy Horse *DC-4*	4,197	1,670	1,800	6.75	0	5	1,710	19,276	33,491	580
South Bowl West *C-4*	3,705	1,522	1,800	6.00	0	10	1,620	14,794	26,037	570
South Bowl East *C-4*	3,824	1,210	1,800	6.00	0	10	1,620	11,761	20,118	580
South Bowl Connector *C-4*	1,745	258	1,200	6.00	100	0	-	0	0	-
Palmer Platter	790	389	600	7.00	50	15	210	572	10,850	50
TOTAL	**46,259**		**22,520**				**17,836**			**6,930**

Source: SE Group
Notes: The CCC for Shoshone is calculated for the upper section only, as that is the section that will continue to serve the available terrain. Virtually all skiers repeat-skiing on the Shoshone terrain will load the lift at the mid-terminal.
C = carpet; *C-3* = fixed-grip triple chairlift; *C-4* = fixed-grip quad chairlift; *DC-4* = detachable-grip quad chairlift

2. Density Analysis

As discussed in Chapter 4, 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 the Table 6-5.

Table 6-5. Density Analysis – Upgrade Plan

Map Reference	Daily Lift Capacity	Guest Dispersal				Density Analysis				Density Index
		Support Facilities/ Milling (guests)	Lift Lines (guests)	On Lift (guests)	On Terrain (guests)	Terrain Area (acres)	Terrain Density (guests/ac)	Target Trail Density (guests/ac)	Diff. (+/-)	(%)
Dreamcatcher *DC-4*	1,090	273	103	227	487	209	2	4	-2	58%
Shoshone Upgrade *C4*	560	140	51	72	297	42	7	9	-2	78%
Papoose Realigned *C*	130	52	6	55	17	1.7	10	30	-20	34%
Blackfoot *C4*	520	130	51	183	156	72	2	4	-2	54%
Sacajawea *DC-4*	680	170	87	142	281	125	2	5	-3	45%
Mono Trees *DC-4*	730	183	57	126	364	101	4	5	-1	74%
Peaked *DC-4*	780	195	95	154	336	170	2	4	-2	53%
Beginner Carpet 1	50	20	6	19	5	0.3	18	30	-12	62%
Beginner Carpet 2	80	32	6	31	11	0.4	30	30	0	99%
North Boundary *C3*	530	133	18	155	224	60.5	4	4	0	101%
Crazy Horse *DC-4*	580	145	57	120	258	86.3	3	4	-1	85%
South Bowl West *C-4*	570	143	54	222	151	106.8	1	2	-1	67%
South Bowl East *C-4*	580	145	54	229	152	72.6	2	3	-1	77%
Palmer Platter	50	13	7	23	7	2.7	3	3	0	97%
TOTAL	**6,930**	**1,774**	**652**	**1,758**	**2,746**	**1,047**	**3**	**5**	**-2**	**66%**

Source: SE Group

Table 6-5 shows a very slight increase to the overall density, meaning that the existing uncrowded feel of the resort will remain. The planned upgrades create a significant improvement in density balance in the Dreamcatcher and Blackfoot areas (represented by an increased "Density Index" factor). This is the result of the installation of the Crazy Horse and, to a lesser degree, the North Boundary Lift. Since both of these lifts access existing terrain that is underutilized, the utilization, and therefore density, will increase.

3. Lift and Terrain Network Efficiency Analysis

As discussed in Chapter 4, 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.

Lift Network Efficiency

As discussed in Chapter 4, Section D – Existing Capacity Analysis, this MDP 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 GTR, at 708, is above average. With the planned addition of five aerial lifts and the replacement of the Blackfoot and Shoshone lifts, GTR is planning a net increase of five lifts, with corresponding increases to CCC. As a result, the average CCC per lift in the Upgrade Plan would decrease slightly to 684. A primary reason for this decrease is that the planned lifts generally have low hourly capacities, contributing to relatively low CCC ratings. This decreases the overall rating. While there is a decrease in lift network efficiency resulting from the planned upgrades, it is not a significant decrease and the calculation will remain above average. Furthermore, a consequential benefit of the additional lifts is that circulation around GTR will be significantly improved.

Terrain Network Efficiency

As discussed in Chapter 4, Section D – Existing Capacity Analysis, 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 in Chapter 4, an effective way to review terrain efficiency is to interpret the density analysis. Since the overall "Density Index" figure will remain essentially the same, the planned trail improvements will have no impact on Terrain Network Efficiency.

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

1. Guest Services Locations

GTR will continue to function with a single base area staging portal under the Upgrade Plan. While no on-mountain guest service facilities currently exist, the Upgrade Plan calls for a total of five on-mountain facilities to meet guests' needs. In addition, two warming cabins are planned—one in Rick's Basin and one on Lightning Ridge.

Fred's Mountain Restaurant

A full-service on-mountain guest service facility is planned for the summit of Fred's Mountain, at the top of the Dreamcatcher Lift. This is a central on-mountain location that is designed to primarily serve guests skiing/riding within the Dreamcatcher and Blackfoot pods, and eliminating the need to descend to Targhee Village for basic services. The location of this facility capitalizes on views from the summit of Fred's Mountain. This facility will include a restaurant, bar, restrooms and ski patrol. It is planned to offer between 6,800 and 7,000 square feet of interior space. Additionally, decks and other outdoor space are planned.

Sacajawea Restaurant

A full-service on-mountain guest service facility is planned at the top terminal of the Sacajawea Lift, to serve the southern side of the resort, including the Sacajawea, Peaked and Mono Trees pods. This facility will include a restaurant, bar, and restrooms. It is planned to offer between 5,000 and 6,500 square feet of interior space. Additionally, decks and other outdoor space are planned.

On-Mountain Cabins

Two on-mountain cabins are planned to be constructed—one in Rick's Basin, within the Nordic trail system, and the other at the top of Lightning Ridge. These facilities will be outfitted with basic cooking supplies, wood stoves, and vault toilets.

Blackfoot, Peaked, and South Bowl Restrooms and Warming Huts

Basic warming huts, with limited food service (i.e., outdoor grill and cold sandwiches, snacks, beverages, etc.) and vault toilets, are planned at the bottom terminals of the Blackfoot Lift, Peaked Lift, and South Bowl East Lift. Each warming hut is estimated to be 1,000 to 1,500 square feet.

Shoshone Yurt

A simple yurt at the top of the Shoshone Lift, with food service, is planned. The facility will offer service to guests during the day, and also the potential for evening winter sleigh rides or summer horseback rides to a dinner destination.

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 GTR's planned CCC of 6,930 guests per day.

The following tables and text address the Upgrade Plan space use needs at GTR's planned base area and on-mountain facilities. The space recommendations are directly related to the distribution of the resort's capacity to various guest service facilities located in the base area and on-mountain. The tables show planned size ranges for the facilities, based on industry averages for space use by service function.

Base Area

A thorough assessment and master planning process is ongoing for the GTR base area. This process identified a series of buildings within the Village core that may (in some cases) replace existing facilities and house guest service functions, as specified below. While any site-specific description of Targhee Village and base area components is not within the scope of this document, the following table shows recommended space use programming for the future facilities.

Table 6-6. Industry Average Space Use, Base Area – Upgrade Plan

Service Function	Recommended Range	
	Recommended Low Range	Recommended High Range
Ticket Sales/Guest Services	4,050	4,950
Public Lockers	4,680	5,720
Rentals/Repair	11,090	12,470
Retail Sales	3,180	3,890
Bar/lounge	4,770	5,830
Adult Ski School	2,490	3,050
Kid's Ski School	7,480	9,150
Restaurant Seating	23,480	28,700
Kitchen/Scramble/BOH	21,130	25,830
Rest rooms	4,700	5,740
Ski Patrol	1,880	2,300
Administration	3,210	3,930
Employee Lockers/Lounge	1,280	1,570
Mechanical	4,200	6,220
Storage	4,200	6,220
Circulation	12,610	18,670
TOTAL SQUARE FEET	**114,430**	**144,240**

Source: SE Group

On-Mountain Facilities

As previously discussed, planned restaurants at the summit of Fred's Mountain and at the Sacajawea Lift will constitute GTR's on-mountain guest service facilities with full implementation of the Upgrade Plan.

Table 6-7 shows the planned indoor size range and programming for the facility on Fred's Mountain.

Table 6-7. Industry Average Space Use, Top of Dreamcatcher – Upgrade Plan

Service Function	Recommended Range	
	Recommended Low Range	Recommended High Range
Ticket Sales/Guest Services	-	-
Public Lockers	-	-
Rentals/Repair	-	-
Retail Sales	-	-
Bar/lounge	-	-
Adult Ski School	-	-
Kid's Ski School	-	-
Restaurant Seating	1,800	2,200
Kitchen/Scramble/BOH	1,620	1,980
Rest rooms	600	700
Ski Patrol	400	500
Administration	-	-
Employee Lockers/Lounge	-	-
Mechanical	200	300
Storage	200	300
Circulation	600	900
TOTAL SQUARE FEET	**5,420**	**6,880**

Source: SE Group

Table 6-8 shows the planned indoor size range and programming for the facility on Peaked Mountain, near the top of the Sacajawea Lift.

Table 6-8. Industry Average Space Use,
Top of Sacajawea – Upgrade Plan

Service Function	Recommended Range	
	Recommended Low Range	Recommended High Range
Ticket Sales/Guest Services	-	-
Public Lockers	-	-
Rentals/Repair	-	-
Retail Sales	-	-
Bar/lounge	-	-
Adult Ski School	-	-
Kid's Ski School	-	-
Restaurant Seating	3,840	4,690
Kitchen/Scramble/BOH	3,450	4,220
Rest rooms	770	940
Ski Patrol	310	380
Administration	-	-
Employee Lockers/Lounge	-	-
Mechanical	380	560
Storage	380	560
Circulation	1,130	1,690
TOTAL SQUARE FEET	**10,260**	**13,040**

Source: SE Group

Table 6-9 shows the planned indoor size range and programming for the Blackfoot and Peaked warming huts and the Shoshone yurt.

Table 6-9. Industry Average Space Use,
Warming Huts and Yurt – Upgrade Plan

Service Function	Recommended Range	
	Recommended Low Range	Recommended High Range
Ticket Sales/Guest Services	-	-
Public Lockers	-	-
Rentals/Repair	-	-
Retail Sales	-	-
Bar/lounge	-	-
Adult Ski School	-	-
Kid's Ski School	-	-
Restaurant Seating	1,820	2,220
Kitchen/Scramble/BOH	550	800
Rest rooms	-	-
Ski Patrol	-	-
Administration	-	-
Employee Lockers/Lounge	-	-
Mechanical	50	100
Storage	100	200
Circulation	200	300
TOTAL SQUARE FEET	**2,720**	**3,620**

Source: SE Group

3. Food Service Seating

Food service seating will be provided in new restaurants within Targhee Village, in addition to the two planned on-mountain restaurants.

Table 6-10 summarizes the seating requirements at GTR, based on a logical distribution of the CCC to each service building/location.

Table 6-10. Recommended Restaurant Seating

	Base Area	Top of Dreamcatcher	Top of Sacajawea	Warming Huts/Yurt	Total Resort
Lunchtime Capacity (CCC)	5,217	401	853	598	7,069
Average Seat Turnover	3.5	4	3.5	3.5	
Required Seats	1,491	100	244	171	2,005
Existing Seats	448	--	--	--	448
Difference	-1,043	-100	-244	-171	-1,557
Proposed seating capacity	**5,217**	**401**	**853**	**598**	**7,069**

Source: SE Group
Notes: Existing Seats = Branding Iron Grill 65 seats; Trap Bar 130 seats (includes bar stools); Snorkels 43 seats; Wild Bill's Grill 120 seats (South) 90 seats (North).

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 will prefer to dine at the facility closest to the area they are using. To allow for this convenience, it is important to provide restaurant seating to accommodate the lunchtime capacity requirement of the area. Restaurant seating should be supplied per the recommendations in the above table. As shown, a total of 1,557 seats will be required at the completion of the Upgrade Plan. The majority of these seats will be needed in the base area with the remaining be on-mountain seating

F. PARKING CAPACITY

Table 6-11 analyzes GTR's day skier parking capacity and needs under the Upgrade Plan. Day parking lots will eventually be incorporated into the overall Base Area Master Plan. Chapter 9 of the County Master Plan provides a detailed description of "Parking Generation" (Section 9.B) and "Parking Management Plan" (Section 9.C). These sections are based on the Socioeconomic Analysis and visitation projections presented in Chapter 13 of the same document. According to the detailed analysis contained in the County Master Plan, the peak number of day skiers projected at build out of the Resort is estimated to be 2,364 guests per day; of this total number, 710 guests (30%) are projected to arrive via transit, resulting in 1,654 day skiers arriving by car. At 2.6 average guests per car, that translates to 636 parking spaces required for day skiers. As summarized below in Table 6-11, GTR will maintain 636 parking spaces based on the County Master Plan, dedicated for day skiers, as a part of the future Village development.

Table 6-11. Recommended Parking at Staging Portals – Upgrade Plan

	Total
CCC + other guests	7,069
Skiers using on-site lodging, other transit or drop-off	3,214
Net parking requirement	**3,855**
Average Vehicle Occupancy	2.6
Required skier car parking spaces	1,483
Required employee car parking spaces	120
Total required spaces	1,603
Existing parking spaces	1,130
surplus/deficit	-473
Upgrade parking capacity (guests)	7,069

Source: SE Group
Note: Average vehicle occupancy, employee parking requirements, and existing number of parking spaces from County Master Plan. On-site lodging, other transit and drop-off assume 20 percent of guests are using alternative transportation (1,414 guests) and buildout of the base area has occurred, resulting in 450 lodging units (1,800 guests).

Since the County Master Plan analysis was completed, GTR's planned CCC has increase to 6,930. As GTR develops the base area and implements on-mountain projects, GTR will need to address parking and transit needs of its guests. This could include, but is not limited to, additional base area parking and on-site lodging, off-site parking and transit, investment in local transit to the resort or incentivize carpooling.

G. ALTERNATIVE WINTER AND NON-WINTER ACTIVITIES

1. Winter

Guided SnowCat Tours

As discussed in Chapter 6, Section C.2 , the proposed development of the Peaked Mountain portion of the SUP area with lifts and trails will displace existing guided SnowCat tours that are currently offered there. With the Upgrade Plan, GTR's guided SnowCat and backcountry offerings would continue to be offered but would shift to the South Bowl area before construction of the proposed South Bowl lifts. The South Bowl interim cat skiing operation is depicted on Figure 6.8. Select vegetation removal may be needed to enhance the experience of the SnowCat operation in places were future ski trails would be located. The proposed South Bowl Development (depicted on Figure 6.9) would displace the interim SnowCat tours.

Snow Tubing

The Upgrade Plan calls for developing a permanent, dedicated snow tubing facility located to the west of the Sioux Lodge. The planned snow tubing facility includes lighting for night operation and snowmaking infrastructure sufficient to ensure quality construction and maintenance of tubing lanes. Planned snowmaking coverage for the tubing facility totals approximately 2 acres.

Snowshoeing and Nordic Skiing

Under the Upgrade Plan, GTR intends to expand Nordic trails and improve access between Targhee Village and Rick's Basin. As described above, the existing, steep trail segment from the base terminal of Blackfoot Lift into Rick's Basin is planned to be realigned and re-graded to eliminate the steep pitch, thus facilitating Nordic skier access into Rick's Basin. Additionally, the existing Nordic trail and alpine ski-out trail connecting the bottom terminal of the Blackfoot Lift with *Little Beaver Traverse* will be graded to make the slope more consistent and improve the width of trail for dual-use by alpine and Nordic skiers. New Nordic trails will be established on private lands and near the tubing center to tie Nordic skiing into the new Targhee Village and introduce additional trail variety. A guest cabin with vault toilets will be located within the Rick's Basin trail network.

Approximately 1.4 miles of Nordic trails will be constructed to improve connectivity with the Rick's Basin trails. At completion of the Upgrade Plan, the Nordic trail network will consist of 9.2 miles of track. The reader is referred to Figure 6.1 for more information.

As is currently the case, snowshoe trails will continue to be established throughout the base area, using a combination of Nordic and other recreation trail corridors.

2. Summer

Scenic Chairlift Rides

The Dreamcatcher Lift will continue to be operated throughout the summer for scenic chairlift rides and access to summer recreation trails and the proposed aerial adventure/canopy tour.

Summer Recreation Trails

GTR's existing network of summer recreation trails will be supplemented with previously-approved trails and additional planned trails, as conceptually depicted on Figure 6.4a and 6.4b. The planned trails will be strategically implemented, with selected segments of the trail network built and introduced over time to promote anticipation for new trail opportunities at GTR each year. All Forest Service trails through the SUP area will be retained. Note that trails depicted on Figure 6.4a and 6.4b are conceptual in nature. Final implementation alignments may vary to some degree due to final layout and ground-truthing.

The summer recreation trail network has been conceived to provide a comprehensive program of excursion opportunities. The programmed outings including a variety of cross country and downhill mountain bike trails, easy loops for both biking and hiking, hiking programs for 0.25-mile and 0.5-mile loops as well as half- and full-day excursions, equestrian trails for one-hour, two-hour, and half-day rides, trail networks accessing key viewpoints and destinations, and many other attractive ventures.

Table 6-12 presents the mileage of existing, previously-approved, and planned summer recreation trails at GTR. With implementation of the Upgrade Plan, GTR's summer recreation trails network will total approximately 89 miles.

Table 6-12. Summer Recreation Trails

Trail Type	Status			Total
	Existing	*Previously-Approved*	*Upgrade Plan*	
Downhill Biking	11 miles	9 miles	2 miles	**22 miles**
Hiking	4 miles	--	2 miles	**6 miles**
Hiking/Equestrian	5 miles	1 mile	--	**6 miles**
Multi-Use	32 miles	10 miles	13 miles	**55 miles**
TOTAL	**52 miles**	**20 miles**	**17 miles**	**89 miles**

Source: SE Group
Note: Due to rounding, the total length may not equal the sum of its parts.

Summer Activity Zone

The Summer Activity Zone (refer to Figure 6.5), is a highly developed zone in which features such as a mountain bike skills park (described below), zip lines, canopy tour, Fly Line, aerial adventure course, and summer tubing would be appropriate. Refer to Section J.1 of this chapter (Seasonal and Year-Round Activities and Facilities Zone Concept, Zone 1) for a more detailed description.

The Shoshone Lift will continue to be operated throughout the summer to access the trail network and other summer activities located within the Summer Activity Zone.

Mountain Bike Skills Park

In addition to the multi-use trail network described above, GTR will also continue to offer a mountain bike skills park, for the practice and improvement of mountain biking skills and technique. This park will be expanded from the existing 0.9-acre size to the previously-approved total of 11 acres, as described in Chapter 5. The park is located in the Summer Activity Zone and will include numerous mountain biking routes of varying skill level, options, and features that will branch off of, and merge back into, the existing single route.

Note that construction of some of the multiple-use trails, most notably the mountain bike trails, will require the use of small machinery. Additionally, features such as bridges and ramps will be constructed where appropriate. Such features will be located so as to avoid any possible conflict with skiing. Typical trail widths will be between 2 to 3 feet. However, certain circumstances, such as bermed corners or beginner trails, will require wider widths.

Disc Golf

GTR's 18-hole disc golf course may be relocated as part of the on-going base area master planning.

H. SKI AREA OPERATIONS

1. Wastewater System

Chapter 10.B of the County Master Plan provides a detailed description of the proposed wastewater system for GTR. The increased number of overnight guests and day skiers resulting from the proposed base area and on-mountain developments will increase wastewater flow at GTR to a projected average daily flow rate of 65,200 gallons per day (GPD) and a peak daily flow rate of 122,170 GPD at full build-out of the resort.

According to the County Master Plan, the existing wastewater treatment plant has the capability to process 90,000 GPD. The plant was designed for an ultimate capacity of 135,000 GPD without the need for major modifications (i.e., the modifications would be contained within the existing building and would not affect the building footprint). Accordingly, the ultimate build-out capacity of the existing wastewater treatment plant will meet projected peak wastewater flows at build-out of the resort.

When the on-mountain buildings (at the top of Dreamcatcher and top of Sacajawea) are constructed, it is currently anticipated that wastewater treatment at each facility will be handled in one of two ways: 1) via an on-site septic tank/leach field system, or 2) an installed sewer line from each restaurant location to the base area collection system. Both techniques have been successfully implemented at other ski resorts on NFS lands in the Rocky Mountain and Intermountain regions.

2. Water Supply and Storage

Chapter 10.C of the County Master Plan provides a detailed description of the proposed culinary water system for GTR. The increased number of overnight guests and day skiers resulting from the proposed base area and on-mountain developments will increase the rate of culinary water consumption at GTR to a projected average daily flow rate of 65,200 GPD and a peak daily flow rate of 122,170 GPD at full build-out of the resort.

According to the County Master Plan, two new wells will need to be established and tied into the existing distribution system. The new wells are projected to produce a combined capacity of 400 gallons per minute, or 576,000 GPD. This projected flow rate will be adequate to handle the culinary water peak day demand of 122,170 GPD, as well as snowmaking water recharge requirements. An Application for Permit to Appropriate Ground Water (Form U.W. 5; submitted to the State Engineer's Office) is required to obtain ground water rights in the State of Wyoming.

Additional water storage will be needed to accommodate both fire flow (120,000 gallons) and the average daily flow for culinary uses at build-out (65,200 Gallons). Therefore, a minimum of 185,200 gallons of storage capacity will ultimately be required. The existing three storage tanks at GTR have a holding capacity of 82,000 gallons and are located at the 8,100-foot elevation on NFS land. New storage tanks will be built uphill of the current location (also on NFS lands) at an elevation of 8,250 feet in order to provide adequate water pressure for the base area development.

The proposed wells and storage tanks will be tied into the existing base area water distribution system. When the on-mountain buildings (at the top of Dreamcatcher and top of Sacajawea) are constructed, it is anticipated that water pipes and pump stations will be installed to supply these restaurants from the base area water system.

There is a potential the existing wastewater treatment storage lagoon could be converted to a snowmaking water storage. The existing storage lagoon is no longer an active part of the wastewater treatment system. It has been fully remediated and presently holds clean water in a lined pond. The existing lagoon would need to be refurbished, as necessary, and potentially increase capacity by increasing lagoon depth rather than surface area. The location of the lagoon is identified as Upgraded Wastewater Treatment Plan on the Proposed Upgrade Plan Figure.

3. Ski Patrol/First Aid

With the introduction of lift-served skiing on Peaked Mountain and Lightning Ridge, ski patrol duty stations will be established adjacent to the top terminals of the Peaked and Mono Trees lifts. These new duty stations will provide full downhill ski patrol access to the expanded terrain. With the introduction of the Peaked Mountain patrol duty station, the Sacajawea facility will no longer be necessary (the existing Sacajawea ski patrol building may be relocated to Peaked summit).

Additionally, the avalanche control explosives magazine will be relocated to NFS land.

4. Snowmaking Coverage

Refer to Figure 6.3 for the location of trails that are planned to receive snowmaking coverage. In addition to the existing 10 acres of snowmaking on *Big Horn* and lower *Exhibition*, planned snowmaking coverage on lower-mountain circulation routes totals approximately 94 acres. Of the 104 acres of existing and proposed snowmaking, 2 acres of snowmaking will be located at the planned snow tubing facility. Water for this increased coverage will come from additional groundwater wells (as described above), and through the use of two planned surface storage reservoir(s), or a combination of both.

5. Maintenance Facilities

GTR's maintenance facility is planned to be relocated and reconstructed on NFS lands. The facility will be approximately 10,000 square feet in size and will include about 0.5 acre of shop yard and employee parking, as well as diesel and gasoline storage tanks and pumps. A recycling facility will be constructed adjacent to the maintenance facility. The County Master Plan calls for the maintenance facility to be relocated to where the wastewater treatment storage lagoon currently exists (the existing storage lagoon is no longer an active part of the wastewater treatment system). In the event that the wastewater treatment storage lagoon is converted to a snowmaking reservoir or is not a viable site for other reasons, the maintenance building would be located to the northeast of the existing wastewater treatment plant, on the opposite side of the existing access road.

6. Mountain Roads

An important component of the Upgrade Plan is a comprehensive Mountain Roads Rehabilitation Program. Portions of the existing mountain roads at GTR are very steep and as a result cause erosion and are very difficult to maintain. The roads rehabilitation program involves reclaiming road segments that are too steep or no longer necessary for construction and/or maintenance access, and creating new roads to bypass steep gradients and improve mountain circulation. The primary components of the Mountain Roads Rehabilitation Program are the realignment and reconstruction of the Teton Vista Traverse road and the Powder Reserve Traverse Road.

In addition to the Rehabilitation Program, new or upgraded road segments are required to access the top and bottom terminals of the Peaked Lift, the top and bottom terminal of the North Boundary, the bottom terminal of the Mono Trees Lift, the South Bowl Lifts, and realigned road along the *Teton Vista Traverse*.

The mountain road Upgrade Plan, including new, upgraded, and reclaimed road sections, is depicted on Figure 6.6. Approximately 1.7 miles of the existing road network is planned to be reclaimed. New and upgraded road construction identified in this MDP totals 11.4 miles (1.6 miles of the 11.4 miles is proposed in South Bowl; refer to Figure 6.9). Therefore, under the Upgrade Plan, the road network at GTR will total approximately 18.2 miles. Road upgrades, reconstruction, and reclamation would not displace existing multi-use trails that utilize the road network.

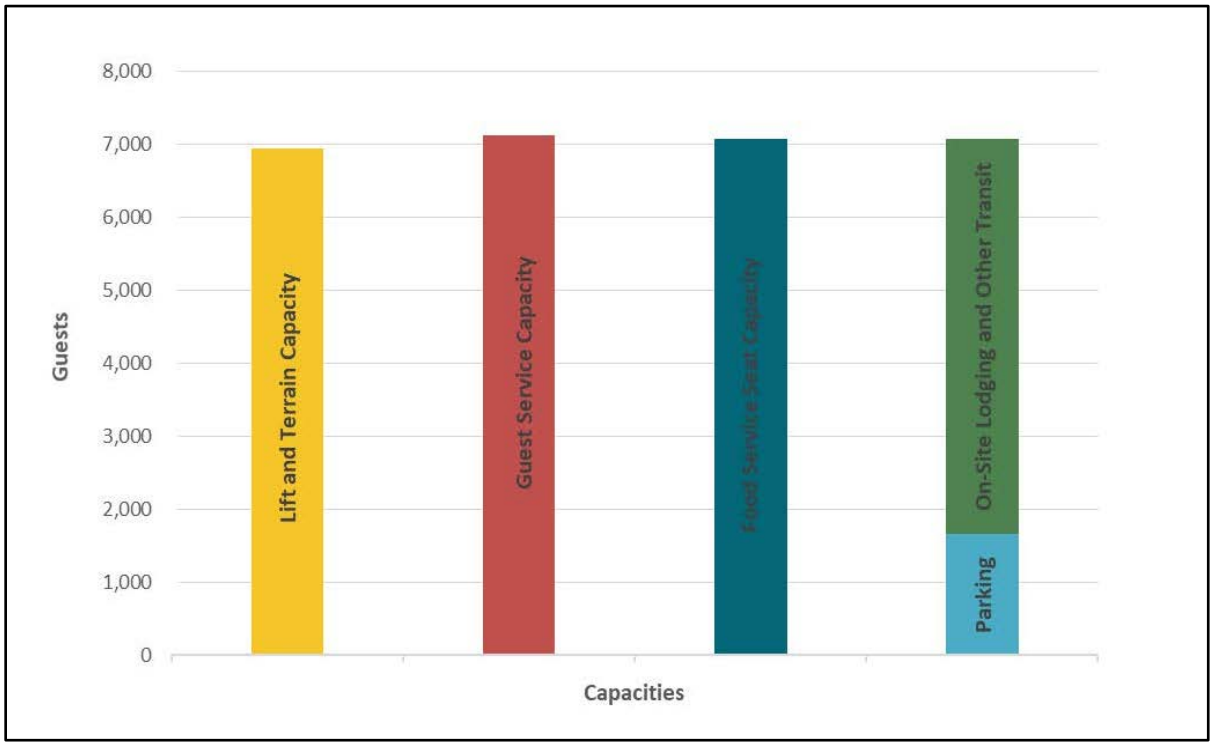
7. Alpine Terrain Lighting

Alpine terrain lighting is planned in the Shoshone pod. Lighting on Palmer's Raceway and in the terrain park at the bottom of Sweetwater will allow for youth to use these trails for training and recreation for longer periods in the winter. In conjunction with the planned Palmer Platter, the lights could be operated to service both groups and take demand away from the Shoshone Lift. Additional lighting is also planned on Bighorn to allow for repeat skiing on Shoshone Lift in the afternoon and evening.

I. RESORT CAPACITY BALANCE AND LIMITING FACTORS

The overall balance of the Upgrade Plan 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 6-2.

Chart 6-2. Resort Balance – Upgrade Plan



Source: SE Group

The mountain master planning process emphasizes the importance of balancing recreational facility development. The sizes of the various skier service functions are designed to match the CCC of the mountain. Projects described in this Upgrade Plan for improvements to GTR have been configured to match the capacities of key resort operations, including lifts, terrain, guest services, food service seating, and parking with the resort CCC of 6,930 skiers.

As Chart 6-2 indicates, the lift and terrain capacities (CCC) will increase. Food service capacity will be increased with the new facilities and brought in line with CCC. The addition of on-mountain restaurant facilities will be a significant addition to the guest experience. Parking capacity will be satisfied as approved in the County Master Plan. As GTR develops the base area and implements on-mountain projects, GTR will need to address parking and transit needs of its guests. This could include, but is not limited to, additional base area parking and on-site lodging, off-site parking and transit, investment in local transit to the resort or incentivize carpooling.

J. SEASONAL AND YEAR-ROUND ACTIVITIES AND FACILITIES ZONE CONCEPT

Zone designations were developed utilizing four characteristics (access, remoteness, naturalness and infrastructure) to define the setting and guest experience within different landscapes across the SUP area. Zones designations at GTR are illustrated in Figure 6.5, and Tables 6-13 and 6-14 provide additional details regarding zone characteristics. The first step in the zone designation process was a careful consideration of the setting and the proximity to infrastructure to support snow sports and other multi-season recreation activities. 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 second step in the zone-designation process was applying a score for each characteristic on a scale of 1 to 3, with 1 being the most disturbed setting and 3 being the least disturbed.

1. 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.

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. The guest visiting Zone 1 will utilize it as access to, and from adjacent private land.

Compatible Activities and Facilities

Services and activities either existing or proposed on private lands adjacent to Zone 1 could include food and beverage operations, shelter and emergency services, restroom facilities, landscaped plazas, climbing walls, bungee/trampolines, and other activities.

2. Zone 2

Setting

The existing 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. Constructed features should blend with the natural surroundings, but may be more visually dominant. 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.

Desired Experiences

Zone 2 will offer a wider variety of experiences in a more controlled and concentrated setting, as compared to Zones 3, 4, and 5. The experience within Zone 2 would continue to feel relatively developed with activities and facilities that surround guests at the core of Zone 2.

Compatible Activities and Facilities

Zone 2 utilizes existing and proposed lift infrastructure and guest service facilities. Services and activities could include food and beverage operations, shelter and emergency services, restroom facilities, group functions, satellite ticketing, and staging for activities such as zip line and canopy tours. Passive activities could include educational/interpretive opportunities, sightseeing and light hiking, or simply visiting with friends and family. Zone 2 will provide enhanced sightseeing opportunities compared to Zone 1. Active offerings include access to zip lines and canopy tours, extended hiking trails, mountain biking trails, challenge courses, climbing walls, and other yet-to-be defined natural resource-based activities.

The goal of Zone 2 is to provide satellite facilities in a less developed setting than Zone 1. These satellite facilities will provide an outpost for natural resource-based activities and be the second portal to the National Forest. These locations occur at the tops of existing/proposed lifts with facilities and the visual experience being similar to what a guests experience at these locations in the winter season.

3. Zone 3

Setting

The existing setting of Zone 3 contains disturbance from ski trail and lift development, but guests can find a greater degree of remoteness and naturalness depending on the location of the area. Generally speaking, Zone 3 includes areas where existing lifts 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 as compared to Zones 1 and 2;
- 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.

Desired Experience

The desired experience will be achieved through the activities and facilities. Guests will enjoy nature hiking and biking trails through forested and open settings. Visitors in Zone 3 may encounter small groups of other users including hikers, mountain bikers, and the overhead passing of guests on lifts, zip lines, or canopy tours. Although users will experience more solitude than in Zone 2, the sights and sounds of people will be greater than Zones 4 and 5.

These experiences will promote the National Forest as a recreationally, biologically, and geographically diverse landscape.

Compatible Activities and Facilities

Activities could include developed and maintained mountain biking trails, scenic chairlift rides, hiking trails, multi-use trails, overlook/viewing structures, zip lines, canopy tours, off-highway vehicle tours, tubing, and other similar natural resource-based activities. Select activities such as canopy tours and zip lines may be utilized on a year-round basis. Activities within Zone 3 will not require substantial modifications to the natural topography to facilitate construction of activities. Zone 3 will utilize existing lift infrastructure for additional chairlift rides to expose guests to unique areas of the SUP area and to provide amazing sightseeing opportunities. Existing ski area development (ski trails and lifts) 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.

4. Zone 4

Setting

The setting of Zone 4 is more remote and provides a great degree of naturalness. Ski area development is limited and larger tree islands are prevalent when ski trails are present. 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 of remoteness;
- The area is completely natural or has limited disturbance; and
- Infrastructure, including chairlifts and small buildings, are present.

Desired Experiences

In Zone 4, guests will connect with the more natural setting in a relatively undisturbed environment. 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 an even greater degree of environmental education and exposure to unique environments. These activities include hiking, biking, and equestrian trails with increased signage and interpretation. 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.

5. Zone 5

Setting

The setting of Zone 5 is currently undisturbed by ski area activities. Very few people recreate in these areas of the SUP boundary. No ski area roads or infrastructure are present in Zone 5. Within the context of the overall SUP area, the following summarizes the setting in Zone 5:

- No ski area roads are present;
- Human activity (people recreating and/or resort operations) is predominantly out of sight, so one would feel completely remote;
- Area is undisturbed by ski area activity; and
- Ski area infrastructure is only visible at a distance.

Desired Experiences

Zone 5 represents the most remote sectors within the SUP. The desired experience is remote and more natural. Guests within this zone would not expect to encounter many other guests.

Compatible Activities and Facilities

The areas with the Zone 5 designation should be left as is with no developed seasonal or year-round activities or facilities.

Table 6-13. Zone Characteristics

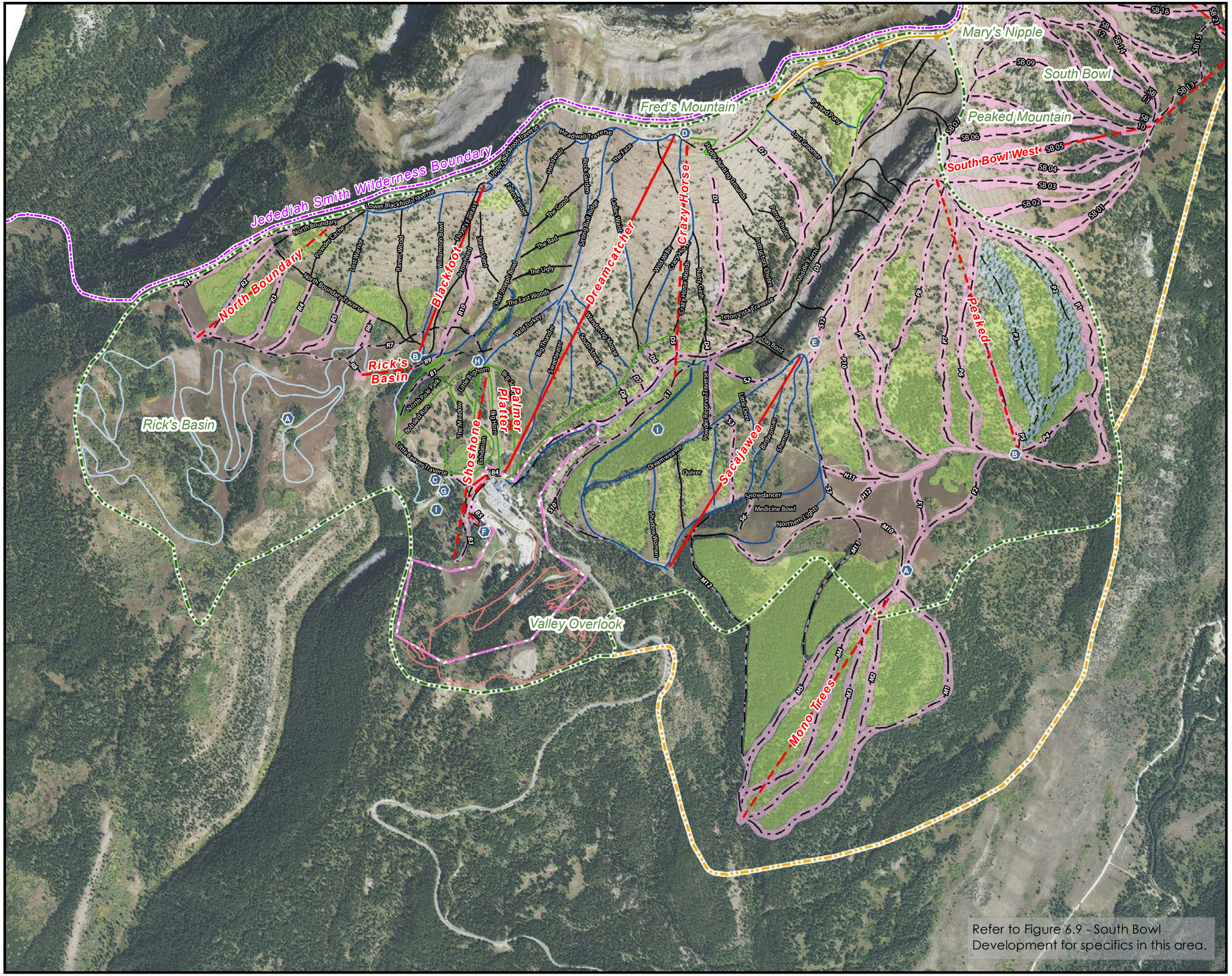
Zoning Characteristics	Scores
Access	
Road Access within Area	1
Limited Road Access/Trails	2
No Road Access	3
Remoteness	
Proximate to Human Activity	1
Distant Sight of Human Activity within SUP	2
Out of Sight of Human Activity within SUP	3
Naturalness	
Heavily Disturbed by Ski Area Activity	1
Moderately 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 6-14. Area Boundaries and Zone Designation

Area Boundaries	Scores	Zone Designation
Base Area		
Access	1	
Remoteness	1	
Naturalness	1	
Infrastructure	1	
Total Score	**4**	**Zone 1**
Top of Dreamcatcher		
Access	2	
Remoteness	1	
Naturalness	1	
Infrastructure	1	
Total Score	**5**	**Zone 2**
Top of Mono Trees/Lighting		
Access	2	
Remoteness	2	
Naturalness	1	
Infrastructure	1	
Total Score	**6**	**Zone 2**
Fred's Mountain/Frontside		
Access	2	
Remoteness	2	
Naturalness	2	
Infrastructure	2	
Total Score	**8**	**Zone 3**
Peaked		
Access	2	
Remoteness	3	
Naturalness	2	
Infrastructure	2	
Total Score	**9**	**Zone 3**
Sacajawea		
Access	2	
Remoteness	3	
Naturalness	2	
Infrastructure	2	
Total Score	**9**	**Zone 3**

Area Boundaries	Scores	Zone Designation
Entrance/Valley Overlook		
Access	2	
Remoteness	3	
Naturalness	2	
Infrastructure	2	
Total Score	**9**	**Zone 3**
Rick's Basin		
Access	3	
Remoteness	2	
Naturalness	2	
Infrastructure	2	
Total Score	**9**	**Zone 3**
Blackfoot		
Access	2	
Remoteness	2	
Naturalness	2	
Infrastructure	2	
Total Score	**8**	**Zone 3**
Mono Trees/Lightning Pod		
Access	2	
Remoteness	3	
Naturalness	2	
Infrastructure	2	
Total Score	**9**	**Zone 3**
South Bowl		
Access	2	
Remoteness	3	
Naturalness	3	
Infrastructure	3	
Total Score	**11**	**Zone 4**



GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 6.1

Proposed Upgrade Plan

LEGEND

- *Previously Approved Lifts*
- *Existing Lifts*
- *Planned Lifts*
- *Existing Expert Trail*
- *Existing Intermediate Trail*
- *Existing Novice Trail*
- *Planned Trail Centerline*
- *Existing Nordic Trail*
- *Planned Nordic Trail*
- *Planned Fat Bike Trail*
- *Existing Permit Boundary*
- *Proposed Permit Boundary*
- *Wilderness Boundary*
- *Private Lands*
- *Planned Glades*
- *Planned Trails*
- *Interconnect*
- *Hike-To Access Route*

Resort Facilities

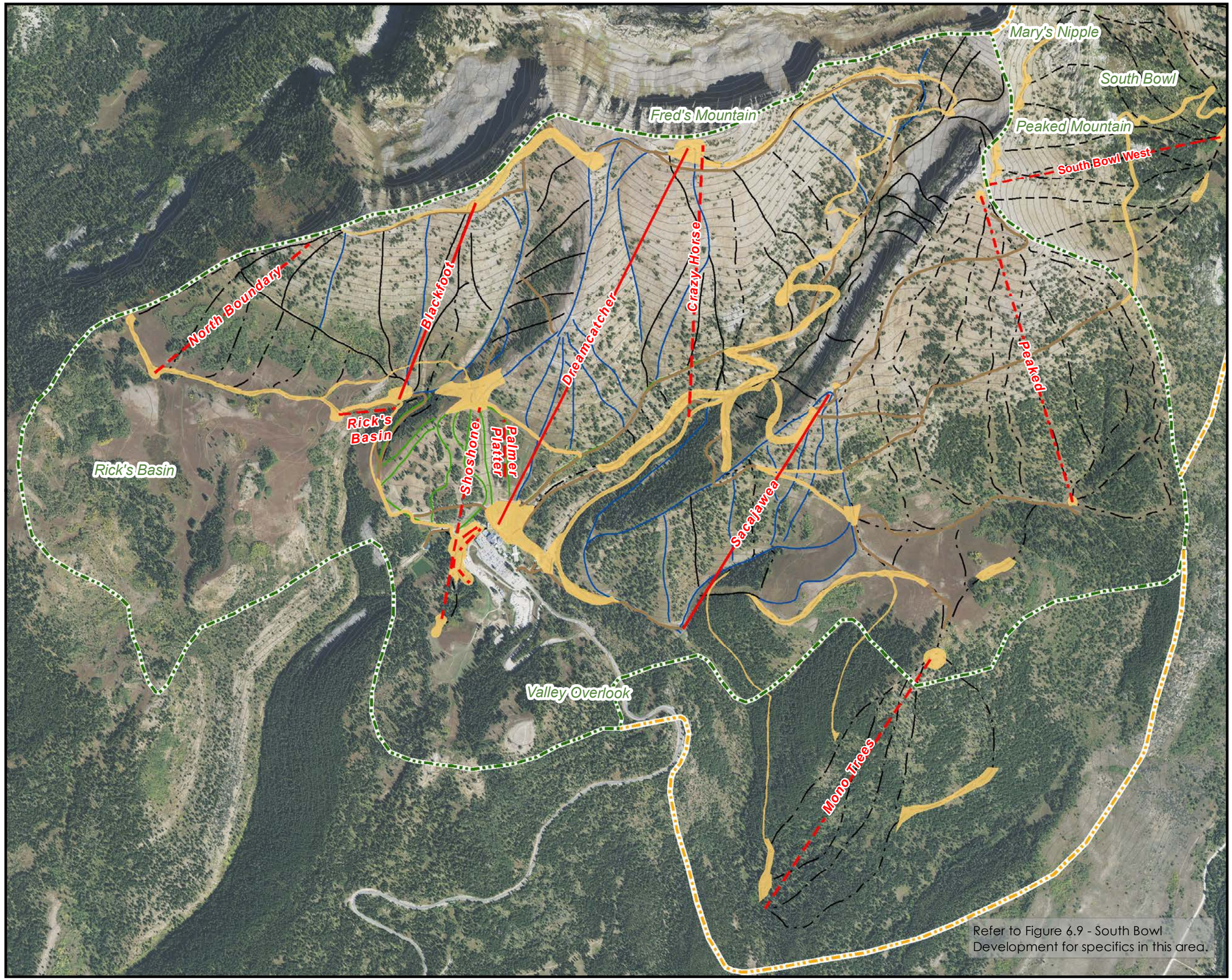
- A *Planned Guest Support Facility*
- B *Planned Guest Support Facility*
- C *Planned Maintenance and Recycling Facility*
- D *Planned Fred's Mountain Top Guest Facility*
- E *Planned Sacajawea Restaurant and Guest Facility*
- F *Planned Tubing Area*
- G *Upgraded Wastewater Treatment Plant*
- H *Planned Guest Yurt*
- I *Planned Reservoirs*

DATE: November 2018

0 500 1,000 2,000 Feet

Graphic Scale: 1 Inch = 1,500 Feet
Contour Interval: 50 Foot

PRODUCED BY: SE GROUP



GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 6.2

Grading Plan

LEGEND

- Previously Approved Lifts
- Existing Lifts
- Planned Lifts
- Planned Grading
- Existing Expert Trail
- Existing Intermediate Trail
- Existing Novice Trail
- Planned Trail Centerline
- Existing Permit Boundary
- Proposed Permit Boundary
- Existing Mountain Road

DATE: November 2018

0 500 1,000 2,000

Feet

Graphic Scale: 1 Inch = 1,300 Feet
Contour Interval: 50 Foot

PRODUCED BY: SE GROUP

GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 6.3

Existing and Planned Snowmaking

LEGEND

- Previously Approved Lifts
- Existing Lifts
- Planned Lifts
- Existing Snowmaking
- Planned Snowmaking
- Existing Expert Trail
- Existing Intermediate Trail
- Existing Novice Trail
- Planned Trail Centerline
- Existing Permit Boundary
- Proposed Permit Boundary
- Existing Mountain Road

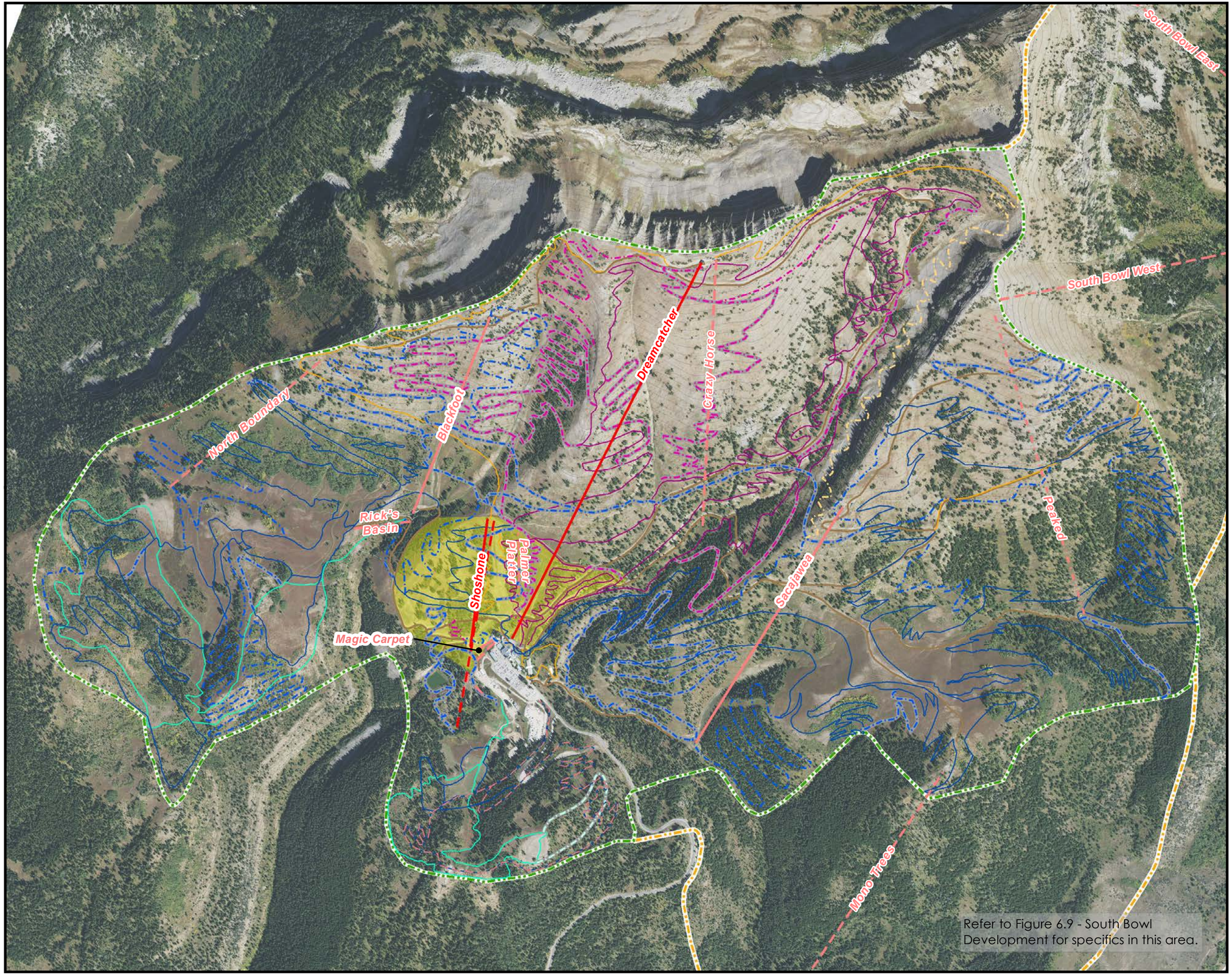
DATE: November 2018

0 500 1,000 2,000 Feet

Graphic Scale: 1 Inch = 1,300 Feet
Contour Interval: 50 Foot

PRODUCED BY: SE GROUP

Refer to Figure 6.9 - South Bowl Development for specifics in this area.



GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 6.4a

Summer Recreation Plan: Existing, Previously-Approved, and Planned Trails

LEGEND

- Existing Summer Lift Operations
- Existing Lift Infrastructure
- Previously Approved Lifts
- Planned Lifts
- Planned Lift Summer Operations
- Existing Downhill Biking Trail
- Existing Hiking Trail
- Existing Horse/Hiking Trail
- Existing Multi-Use Trail
- Previously-Approved Downhill Biking
- Previously-Approved Horse/Hiking Trail
- Previously-Approved Multi-Use Trail
- Planned Downhill Biking Trail
- Planned Hiking Trail
- Planned Multi-Use
- Summer Activity Zone
- Existing Mountain Road
- Existing Permit Boundary
- Proposed Permit Boundary

DATE: November 2018

0 500 1,000 2,000 Feet

Graphic Scale: 1 Inch = 1,300 Feet
Contour Interval: 50 Foot

PRODUCED BY: SE GROUP

GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 6.4b

Summer Recreation Plan: Planned Trails*

LEGEND

- Existing Summer Lift Operations
- Existing Lift Infrastructure
- Previously Approved Lifts
- Planned Lifts
- Planned Lift Summer Operations
- Planned Dowhill Biking Trail
- Planned Hiking Trail
- Planned Multi-Use Trail
- Summer Activity Zone
- Existing Mountain Road
- Existing Permit Boundary
- Proposed Permit Boundary

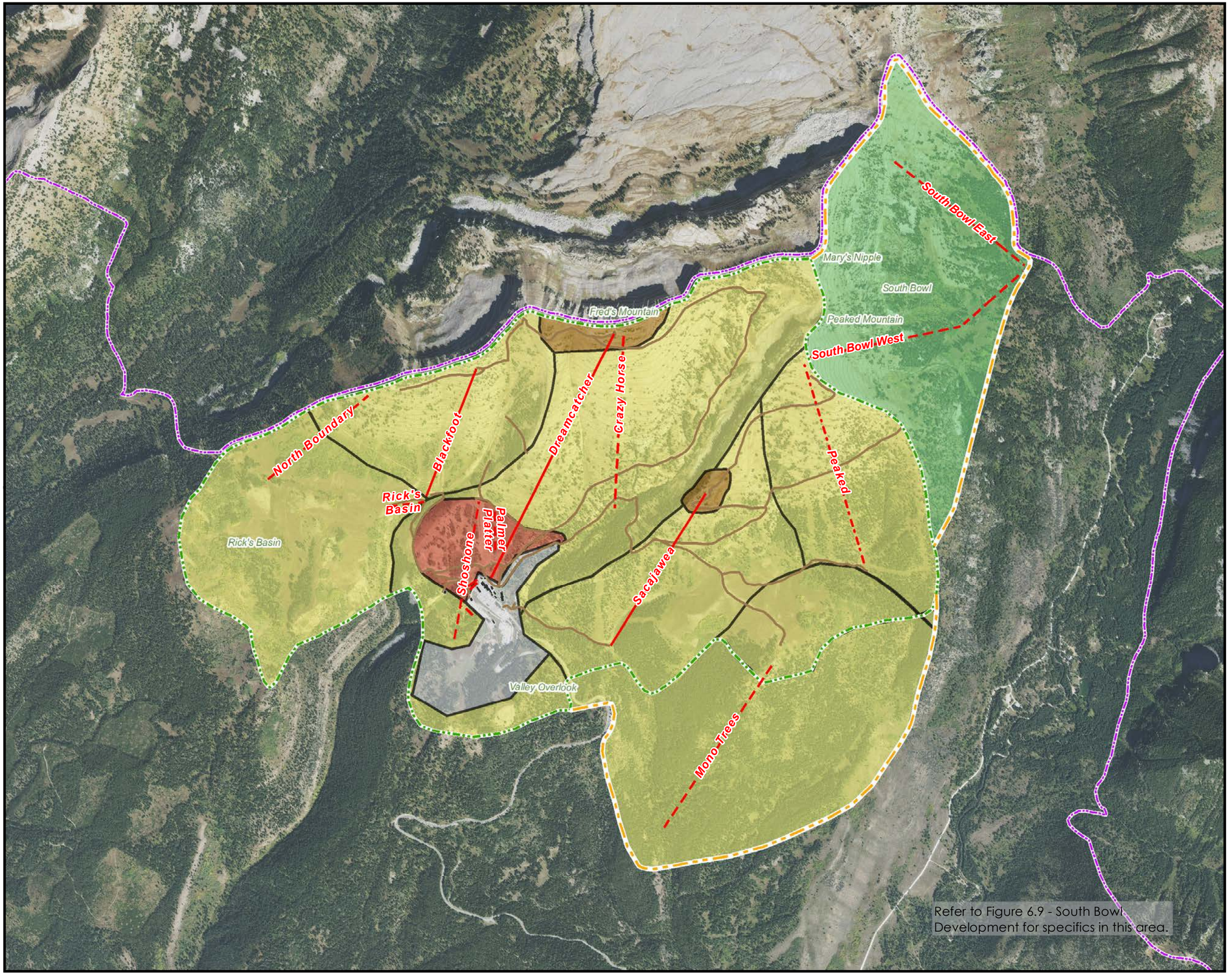
* Refer to Figure 6.4a for existing and previously-approved summer trails.

DATE: November 2018

0 500 1,000 2,000 Feet

Graphic Scale: 1 Inch = 1,300 Feet
Contour Interval: 50 Foot

PRODUCED BY: SE GROUP



GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 6.5

Summer Recreation Zones

LEGEND

- Existing Lifts
- Previously Approved Lifts
- Planned Lifts
- Existing Mountain Road
- Existing Permit Boundary
- Proposed Permit Boundary
- Wilderness Boundary

Zone Designation

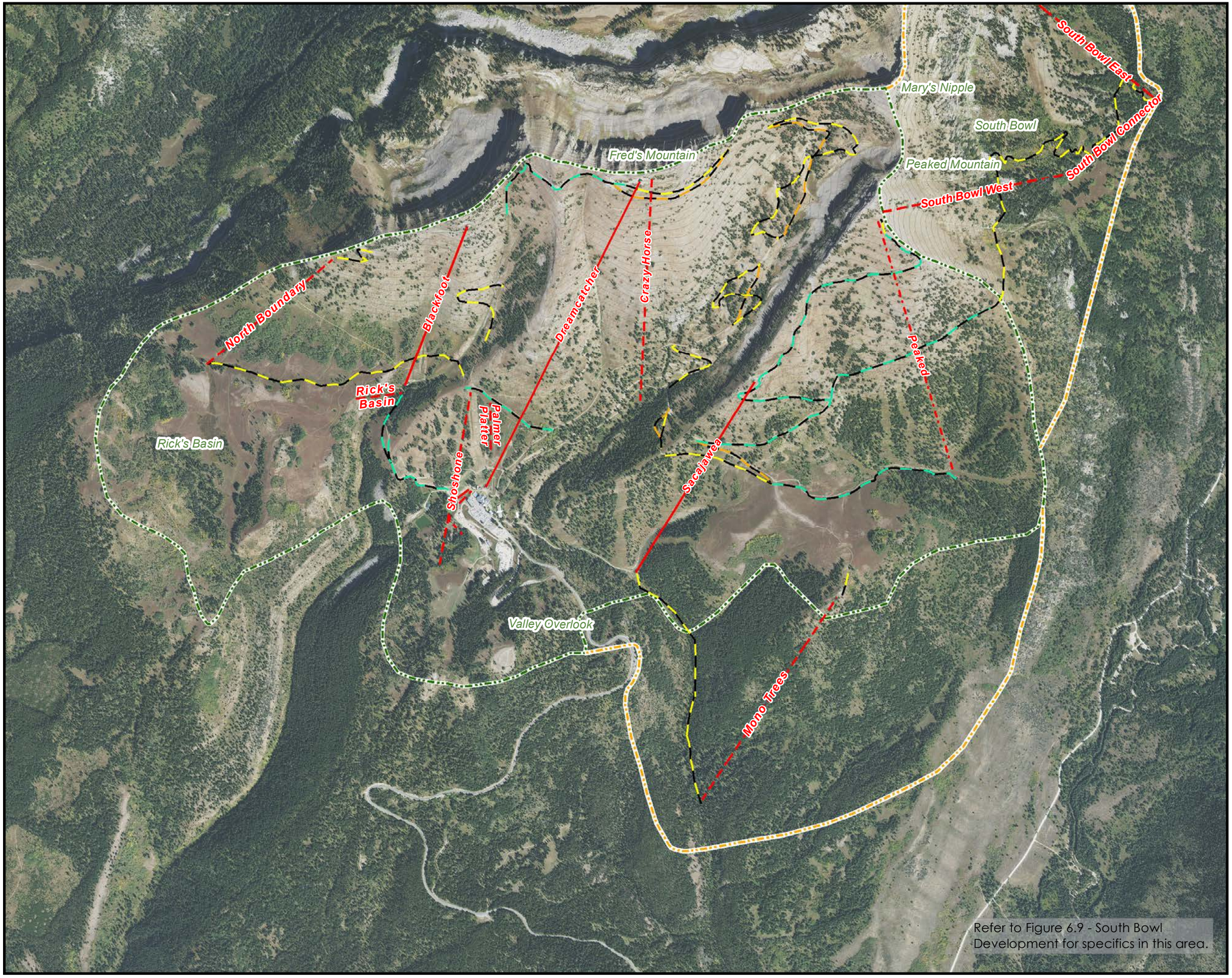
- Private Land
- Zone 1
- Zone 2
- Zone 3
- Zone 4
- Zone 5
- Zone Boundary

DATE: Novermber 2018

0 1,000 2,000 4,000 Feet

Graphic Scale: 1 Inch = 2,000 Feet
Contour Interval: 50 Foot

PRODUCED BY: SE GROUP



GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 6.6

Road Upgrade Plan

LEGEND

- *Previously Approved Lifts*
- *Existing Lifts*
- *Planned Lifts*
- *Existing Mountain Road*
- Planned Road
- Upgrade Existing Road
- Road to be Reclaimed
- *Existing Permit Boundary*
- *Proposed Permit Boundary*

DATE: November 2018

0 500 1,000 2,000

Feet

Graphic Scale: 1 Inch = 1,500 Feet
Contour Interval: 50 Foot

PRODUCED BY: SE GROUP

Refer to Figure 6.9 - South Bowl Development for specifics in this area.

North Boundary
Blackfoot
Rick's Basin
Dreamcatcher
Crazy Horse
Peaked
Shoshone
Palmer
Platter
Sacajawea
South Bowl East
South Bowl Connector
South Bowl West
Mono Trees

GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 6.7

Proposed Boundary Development & Forest Plan Management Prescriptions

LEGEND

- *Previously Approved Lifts*
- *Existing Lifts*
- *Planned Lifts*
- *Existing Permit Boundary*
- *Proposed Permit Boundary Development*

Targhee National Forest Management Prescriptions

- *1.1.6, 1.1.7 and 1.1.8: Designated Wilderness*
- *4.1 and 4.3: Developed Recreation and Dispersed Camping*
- *2.3: Eligible Wild River*
- *2.7(a) and 5.4(c): Elk and Deer Range*
- *3.2(d): Semi-Primitive Motorized*
- *4.2: Special Use Permit Recreation Site*
- *2.1.2: Visual Quality Maintenance*

DATE: November 2018

0 1,000 2,000 4,000 Feet

Graphic Scale: 1 Inch = 2,000 Feet
Contour Interval: 40 Foot

PRODUCED BY: SE GROUP

GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 6.8

South Bowl Interim Cat Skiing

LEGEND

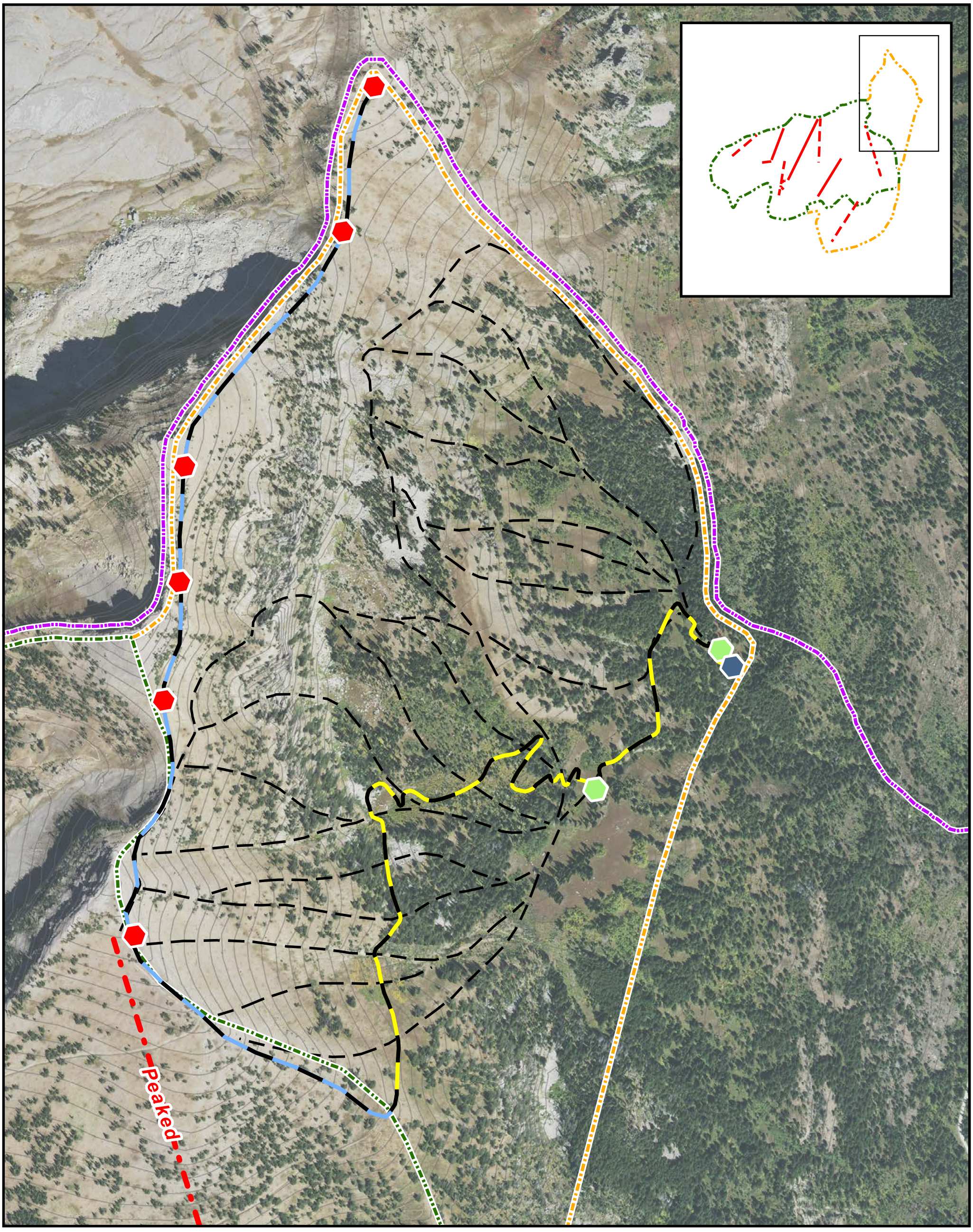
- Existing Lifts
- Previously Approved Lifts
- Existing Permit Boundary
- Proposed Permit Boundary
- Wilderness Boundary
- Planned Road
- Planned Over Snow Only Road
- Approximate Skiing Terrain Opportunities
- Cat Skiing Drop Off
- Cat Skiing Pick Up
- Planned Guest Support Facility

DATE: November 2018

0 400 800 1,600 Feet

Graphic Scale: 1 Inch = 800 Feet
Contour Interval: 50 Foot

PRODUCED BY: SE GROUP



GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 6.9

South Bowl Development

LEGEND

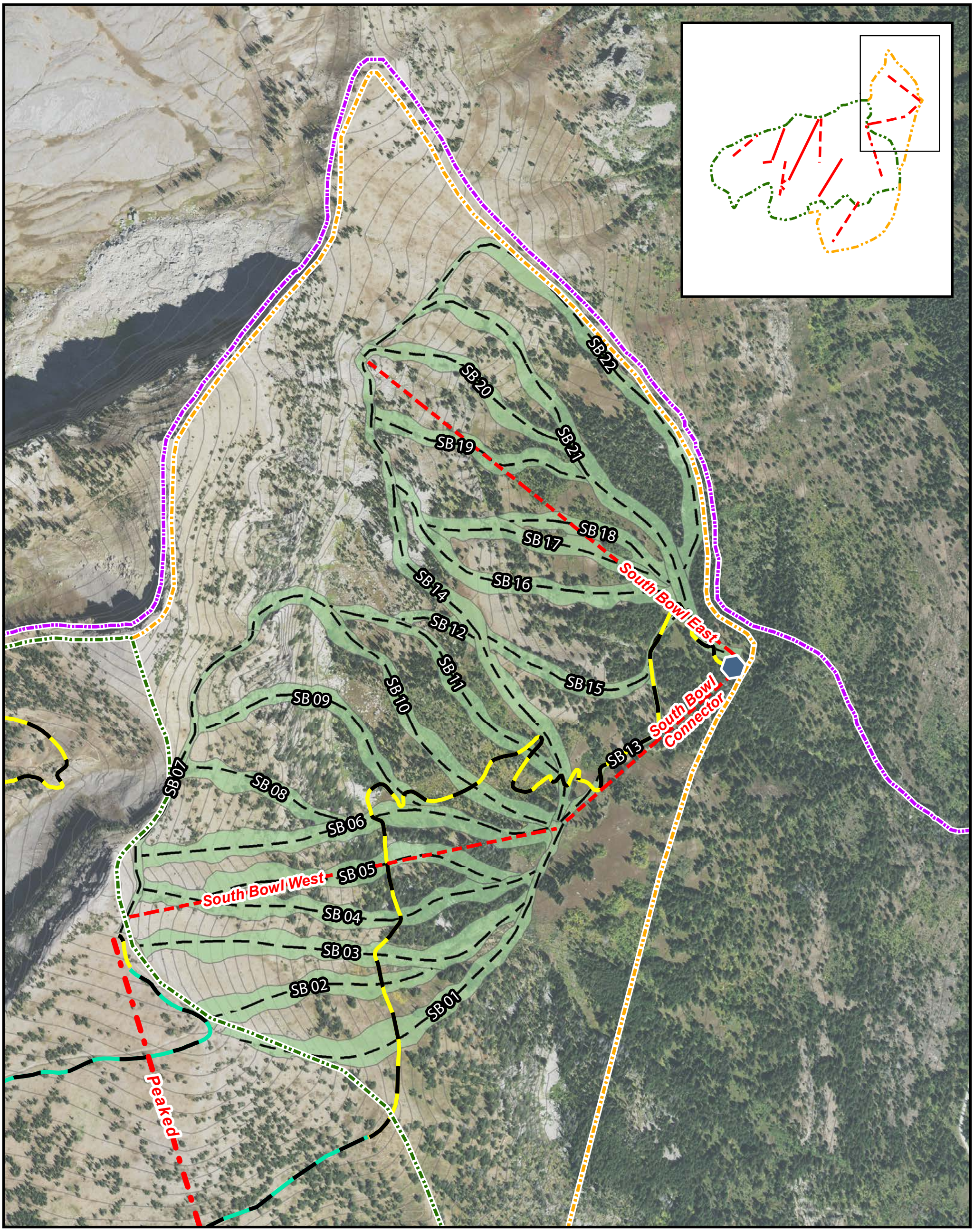
- Existing Lifts
- Previously Approved Lifts
- Proposed Lifts
- Planned Trail Centerline
- Planned Trail Areas
- Planned Road
- Upgrade Existing Road
- Existing Permit Boundary
- Proposed Permit Boundary
- Wilderness Boundary
- Planned Guest Support Facility

DATE: November 2018

0 400 800 1,600 Feet

Graphic Scale: 1 Inch = 800 Feet
Contour Interval: 50 Foot

PRODUCED BY: SE GROUP



GRAND TARGHEE RESORT

MASTER DEVELOPMENT PLAN

FIGURE 6.10

South Bowl Grading Plan

LEGEND

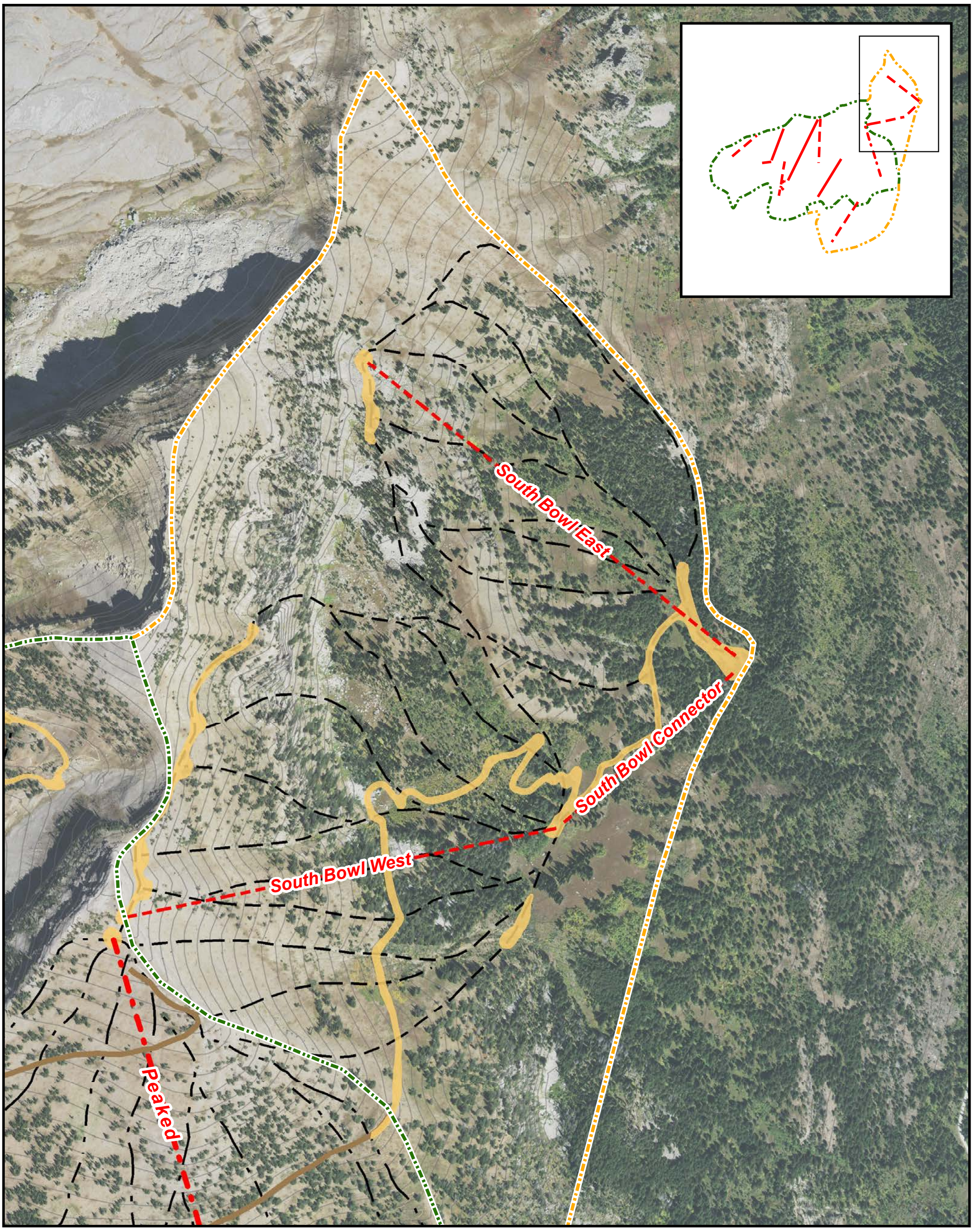
- Existing Lifts
- Previously Approved Lifts
- Proposed Lifts
- Planned Grading
- Planned Trail Centerline
- Planned Trail Areas
- Existing Permit Boundary
- Proposed Permit Boundary
- Existing Mountain Road

DATE: November 2018

0 400 800 1,600 Feet

Graphic Scale: 1 Inch = 800 Feet
Contour Interval: 50 Foot

PRODUCED BY: SE GROUP



CHAPTER 7. GLOSSARY

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

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

Acre foot: The amount of water necessary to cover 1 acre to a depth of 1 foot, equals 43,560 cubic feet or 325,851 gallons.

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

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

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

Comfortable Carrying Capacity (CCC): Comfortable Carrying Capacity is a planning tool used to determine the optimum level of utilization that facilitates a pleasant recreational experience. This is a planning figure only and does not represent a regulatory cap on visitation. CCC is used to ensure that different aspects of a resort's facilities are designed to work in harmony, that capacities are equivalent across facilities, and sufficient to meet anticipated demand. CCC is based on factors such as vertical transport and trail capacities.

Conveyor Lift: A conveyor is a type of surface lift used to transport passengers in a standing position. Passengers slide onto the belt at the base of the conveyor and remain standing on the moving belt to the top, where they slide off the belt onto the snow. They are the easiest, least threatening form of lift, and as such are ideal for first-time beginner skiers or snowboarders, children's ski school, and tubing. Typically installed at snow level, the machinery and return belt are located below the surface. Options

include covers or enclosures and raised sections. Maximum speed is 200 feet per minute and maximum (practical) length is around 1,000 feet.

Cubic Foot Per Second (cfs): The unit used to measure stream flow or similar discharge. One cfs is equivalent to 449 gallons per minute, or approximately 2 acre feet per day.

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

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

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

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

Express Lift: A chairlift that is comprised of detachable grip technology and the rope typically moves at a faster speed than fixed grip chairlifts. Also see Detachable Grip Chairlift.

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

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

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

Forest Plan: A comprehensive management plan prepared under the National Forest Management Act of 1976 that provides standards and guidelines for management activities specific to each National Forest.

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

Glades: are trees stands that have been thinned specifically in varying degrees to improve the skiing experience by increasing the spacing between individual trees. Stands with less thinning are sometimes described as "Tree Skiing" areas. Stands with tree clearing to the extent that they can be groomed are described as "Groomable Glades."

Glading: The removal of up to 10 percent to 40 percent of a slope's trees, which enables a tree stand to be skied or rode by a larger percentage of a resort's guests.

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

Grooming: The preparation and smoothing of the developed trail network's snow surface, using large over-the-snow vehicles (commonly referred to as "snow cats" or "grooming machines"). Grooming machines are equipped with front-mounted blades to push snow and a rear-mounted implement to flatten and/or till the snow to an improved consistency.

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

Halfpipe: A channel constructed in the snow, ranging from 75 to 400 feet long, with consistent 6- to 12-foot walls on both sides. The walls of the channel are contoured from horizontal to vertical and the bottom of the channel is generally flat.

Management Area: Used by the Forest Plan to define where different management activities may be carried out and to show where different kinds of public uses occur.

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

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

Morning Access Capacity: The resort's capacity to carry skiers and snowboarders to other, up-mountain lifts within an acceptable time frame. By comparing the aggregate staging requirement for each access lift to the access lift's uphill access capacity, the length of the access period for each access lift can be determined. Per industry standards, a destination resort should have dedicated access lifts (with sufficient hourly capacities) that supply the resort's up-mountain lifts with guests (numbers commensurate with lift hourly capacities) within an access period ranging from 90 to 120 minutes.

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

National Environmental Policy Act of 1969 (NEPA): A law enacted by Congress in 1969 that requires federal agencies to analyze the environmental effects of all major federal activities that may have a significant impact on the quality of the human environment.

National Forest System (NFS) lands: National Forests, National Grasslands, and other related lands for which the Forest Service is assigned administrative responsibility.

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

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

Peak Day Carrying Capacity (PDCC): The anticipated visitation for holiday periods and for winter weekends with optimal snow and weather conditions (i.e., powder days). PDCC is estimated after a resort has established its Resort Comfortable Carrying Capacity (RCCC) threshold. In addition to RCCC, PDCC must reflect historic visitation records (i.e., the frequency with which attendance exceeds RCCC and the magnitude by which peak visitation exceeds RCCC). PDCC typically exceeds RCCC by anywhere from 105 to 150%.

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

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

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

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

Rider: A commonly used term for a snowboarding guest.

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

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

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

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

Skiway: A trail that allows skiers and snowboarders to traverse the mountain and avoid additional chairlift rides. Skiways, or traverses, are also used in pods of intermediate, advanced intermediate, and expert terrain to provide an appropriate descent for guests of beginner and novice ability levels. A skiway is typically designed to maintain an average slope gradient of 10%.

Special Use Permit (SUP): A legal document, similar to a lease, issued by the U.S. Forest Service. These permits are issued to private individuals or corporations to conduct commercial operations on National Forest System lands. They specify the terms and conditions under which the permitted activity may be conducted.

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

Surface Lift: A lift on which passengers are propelled by means of a circulating overhead wire rope while remaining in contact with the snow surface. Connection between the overhead wire and the passenger is by means of a towing device (e.g., T-bar, J-bar, platter, etc.) attached and circulating with the lift's haul rope. (Note: For definitional purposes, conveyor and belt lifts are considered surface lifts.)

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

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

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

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

Vertical Demand: The vertical demand of a lift is the by-product of the lift's vertical rise, the average round-trip interval (i.e., number of runs per hour), and the number of hours the lift is used by an average

skier or snowboarder. In short, vertical demand is the product of the lift's vertical rise and the number of runs skied/rode in a day of typical operation.

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