

3.13 RECREATION

3.13-1 INTRODUCTION

This Chapter discusses existing and proposed recreational activities/opportunities at Heavenly Mountain Resort. The Analysis Area for recreation resources includes Heavenly's SUP area and surrounding NFS lands.

This analysis focuses on summer and year-round (non-skiing) recreational opportunities on NFS lands within Heavenly's SUP area and throughout the South Lake Tahoe region. The effect of these activities on winter recreation is also analyzed.

3.13-2 ENVIRONMENTAL SETTING

Interest in outdoor recreation on National Forests has consistently increased throughout the last decade, as evidenced by National Visitor Use Monitoring (NVUM) results.¹ There were approximately 160,973,000 National Forest visits nationwide in 2012, of which approximately 86 percent of visits were for the purpose of recreation. The importance of recreational resources on NFS lands is articulated throughout Forest Service regulation and planning documents. The Forest Service Framework for Sustainable Recreation defines visions and guiding principles to expand and enhance recreational opportunities on National Forests, while recognizing the positive effects of outdoor recreation on the health of users and their interest in natural resource protection.²

Twenty-five million people live within a six-hour drive of Lake Tahoe, including the San Francisco bay area, Sacramento, Carson City and Reno, as well as the communities within the Lake Tahoe Basin. User demand for the trail and other recreation facilities is increasing as both outdoor tourism and the surrounding population grow, as indicated by the most recent data available (city-data.com).³

In the Lake Tahoe Basin and the City of South Lake Tahoe in particular, recreation is an important resource both culturally and economically. The scenic quality of Lake Tahoe and its surrounding landscape make visiting the Lake Tahoe Basin a one-of-a-kind experience, which attracts large numbers of recreationalists, many of whom recreate on public lands. The Lake Tahoe Basin is composed of approximately 200,000 acres, of which approximately 150,000

1 USDA Forest Service, 2012. National Visitor Use Monitoring Results, National Summary Report, Data collected FY 2008 through FY 2012

http://www.fs.fed.us/recreation/programs/nvum/2012%20National_Summary_Report_061413.pdf

2 Forest Service Framework for Sustainable Recreation, United States Forest Service, USDA, Recreation, Heritage and Volunteer Resources, June 25, 2010

3 Tahoe Rim Trail Management Plan, p. 4.

acres are managed by the LTBMU.⁴ The LTBMU receives over 5.8 million visitors every year, and is one of the most visited forests in the Pacific Southwest Region of the Forest Service, which includes all of California.⁵ Visitation has steadily increased from approximately 3.4 million annual visits in 2005.⁶ Approximately 83 percent of visitors to LTBMU engage in recreation during their stay.⁷ The Lake Tahoe Basin's economy is driven largely by recreation and tourism. The LTBMU plays an important role in providing outdoor recreation opportunities (about 75% of the land in the Tahoe Basin is managed by the LTBMU) and preserving the scenic quality of the Tahoe Basin's lands and waterways.

General increased interest in outdoor recreation combined with a growing population in the greater Lake Tahoe area (including Carson Valley, Reno, and the western slope of the Sierra) creates a demand for recreation in the Lake Tahoe Region as well as appropriate management to protect the integrity of natural resources. Between 2000 and 2010, the population of the greater Lake Tahoe Area increased by 25 percent, placing a higher day-use demand on recreation opportunities in the Lake Tahoe Basin.⁸ The gaming/casino industry also declined during this time period, thereby increasing the economic importance of tourism and recreation.⁹

Given the prominence of recreation in the economy and culture of the Lake Tahoe Region, numerous management frameworks are in place to protect recreational opportunities and the integrity of the natural environments upon which they depend. Local and regional management authorities alike recognize the need for effective management of natural resources, recreation, and economic interests in this area. In their General Plan, the City of South Lake Tahoe recognizes that outdoor recreation and tourism associated with Lake Tahoe is the primary economic engine of South Lake Tahoe.¹⁰ Growth in recreational tourism and environmental sensitivity are central to the goals presented in the General Plan. In 2011, the LTBMU developed An Approach to Sustainable Recreation for the South Shore Corridor, which further defines a regional plan for enhanced recreation in the South Lake Tahoe area.¹¹ This plan similarly highlights the increasing demand for and benefits of outdoor recreation, while acknowledging

4 Socio-economic Survey of the Lake Tahoe Region, pg. 1.

5 USDA Forest Service, 2011. An Approach to Sustainable Recreation, South Shore Corridor, Lake Tahoe Basin Management Unit, October 2011.

6 National Visitor Use Monitoring Results for Lake Tahoe Basin Management Unit, September 2006, Data collected FY 2005, USDA Forest Service, Region 5

7 Visitor Use Report, Lake Tahoe Basin Management Unit, USDA Forest Service, Region 5, National Visitor Use Monitoring Data collected FY 2010, last updated 23 May 2012

8 Socio-economic Survey of the Lake Tahoe Region, pg. 15

9 Socio-economic Survey of the Lake Tahoe Region, pg. 15

10 City of South Lake Tahoe, 2011. General Plan Policy Document. Recreation and Open Space Element. ROS-1

11 An Approach to Sustainable Recreation, South Shore Corridor, Lake Tahoe Basin Management Unit, October 2011.

the importance of maintaining and improving the conditions of the natural environment. On a yet broader regional scale, the Tahoe Regional Planning Agency's Regional Plan outlines additional goals for the management of resources, including recreation, in the Lake Tahoe Basin.¹² The goals of the Regional Plan regarding recreation focus on the preservation and enhancement of high quality recreational experiences. The Regional Plan discusses the "efficient use of outdoor recreation resources," including specifically the use of ski area infrastructure during the summer (Goal R-6.2).¹³ The LTBMU Forest Plan further establishes goals and policies for the management of recreational resources within this area.

There is a demonstrated need for the maintenance and enhancement of recreational resources within the Lake Tahoe Basin, along with responsible management of increased use.

Existing Activities at Heavenly Mountain Resort

The current range of recreational activities available at Heavenly Mountain Resort is designed to provide guests a variety of opportunities to enjoy outdoor recreation within Heavenly's SUP. In particular, many visitors to the Lake Tahoe area are looking for activities that the whole family can enjoy, which can complicate meeting the group's diverse needs.

Recreation at Heavenly Mountain Resort has historically focused on winter activities within its SUP area—primarily skiing and snowboarding; however, in recent years the resort has become increasingly interested in providing summer and year-round (non-skiing) recreational activities, as described in the Heavenly Master Plan Amendment adopted in 2007 (MPA 07). As described in the Purpose and Need for Action (refer to Chapter 1), public interest in summer recreation at ski areas has increased recently, and the Forest Service sees ski area special use permit boundaries as opportunities for engaging users who are new to outdoor recreation on NFS lands.

Existing summer and non-skiing recreational opportunities at Heavenly Mountain Resort are currently located in the vicinity of the Gondola Top Station. The Heavenly Gondola is the only summer access route to these activities. This area, known as Adventure Peak, first opened during the 2000/01 ski season. The location of activities in the vicinity of the Heavenly Gondola and Tamarack Lodge capitalizes on the presence of existing infrastructure while not interfering with winter activities. Additionally, the location of summer and non-skiing activities in one centralized area facilitates easy transitions between activities. Adventure Peak currently encompasses a number of non-skiing and family-oriented activities, including:

- Hiking on existing roadways (summer)
- The Blue Streak zipline (winter and summer)
- Three ropes challenge courses (winter and summer)
- Tubing (winter and summer)
- Rock climbing wall (summer)
- Scenic Gondola rides (winter and summer)

¹² TRPA Regional Plan, 2012.

¹³ TRPA Regional Plan, 2012. Pg. 5-8

Activities offered at Heavenly Mountain Resort are designed to offer structured interactions with the environment suitable for a diverse range of guests. Prior to participation in the zipline, challenge courses, or tubing, users are educated and instructed about the difficulty and risk of the activity. By design, the activities currently offered at Adventure Peak require minimal prior experience, physical fitness, and familiarity/comfort with the outdoors while providing unique opportunities to enjoy the natural environment.

- The 3,300 foot long Blue Streak zipline, open year-round, offers guests an exciting experience and expansive views of Lake Tahoe. The zipline requires minimal training and is accessible for nearly all guests, regardless of outdoor experience. Most available launch times for the zipline are typically filled with advanced reservations, and walk-in times are generally only available during non-peak hours, demonstrating the popularity of this activity. Demand for this activity currently exceeds supply.
- The ropes challenge courses, comprised of ladders, bridges, nets, and other climbing features, are similarly accessible activities requiring little outdoor experience and training. The ropes courses provide a variety of routes for users of all ability levels, are open during the summer season, and are particularly engaging for younger visitors.
- The tubing hill, open during both winter and summer seasons, is 500 feet long with a 65 foot vertical drop. This activity offers family-friendly recreation in a unique mountain setting.

Wait times for the ropes courses, tubing lift, and rock climbing wall can reach 15-20 minutes. All existing activities have “essential eligibility requirements” including age, height, weight, and physical ability restrictions that limit who can participate in these activities in accordance with Forest Service accessibility standards. These restrictions are defined by the manufacturer based on the engineering limitations of each specific activity and are based solely on safety requirements for that activity.

In addition to these activities at Adventure Peak, there is also a network of hiking trails (mostly on resort maintenance roads), an observation deck at the gondola mid-station, and food and beverage service at Tamarack Lodge. The Heavenly Gondola currently runs year-round (during winter and summer operations) to transport guests to these on-mountain activities.

In contrast to the activities offered at Adventure Peak, hiking at Heavenly requires some physical fitness and familiarity with outdoor recreation. There are approximately 9 miles of hiking trails accessible from the Gondola Top Station and Tamarack Express chairlift. Users who do not wish to purchase a lift ticket are also able to access the trails by hiking up from the Stagecoach or California Lodge base areas. However, the hiking trails to the Gondola Top Station area are steep and relatively long and are not often used. Trails range in difficulty level and length to provide a variety of opportunities for individuals and families, as well as those looking for a more physically challenging and/or technical experience. These less-structured recreational opportunities provide guests an opportunity to explore the area independently and experience the natural environment. Hiking trail maps depicting difficulty levels are available. Hiking and

mountain biking trails on surrounding NFS lands can be accessed through Heavenly's SUP area (refer to the Recreation Context Figure 3.13-1, below).¹⁴

There is an identified need for an increased variety of summer and year-round activities at Heavenly Mountain Resort. Surveys conducted by Heavenly Mountain Resort indicate that summer visitors at the top of the Gondola view the current range of activities as insufficient.¹⁵ Refer to Chapter 1 – Purpose and Need, for more information.

The Recreational Experience

In general, the activities currently offered at Heavenly Mountain Resort are designed to provide a family-friendly, outdoor-based recreation experience in the unique setting of Heavenly's SUP area, which is well-known as a managed and developed recreational area. The experience of flying through the trees on the zipline, climbing amongst the canopy on a ropes course, and/or tubing on snow or a synthetic surface are defined by both specialized infrastructure and the unique features of the immediate and surrounding natural environment.

The unique scenic attributes of Heavenly's SUP are central to the overall recreation experience. Existing infrastructure – including the lift network, lodges, and operational facilities – contribute to the visual, recreational and natural characteristics of the Heavenly Valley Management Area (from the 1988 Forest Plan), which is managed for downhill skiing. As discussed in the visual resources Chapter 3.10, the landscape at Adventure Peak has been modified over the decades and has a Visual Quality Objective of "Partial Retention." In addition to the scenic attributes of this area, the audible environment is important to recreational users. In general, typical sounds associated with chairlifts and infrastructure operation does not detract from the atmosphere of Heavenly's SUP area.

Historic Summer Visitation to Heavenly Mountain Resort

Annual summer visitation at Heavenly for the last six years is included in Table 3.13-1.

Summer visitation at Heavenly Mountain Resort has remained relatively constant over the past six years, averaging almost 109,000 visits. As can be expected for a ski area, annual winter visitation levels are consistently much higher than summer, averaging 900,000 annual winter visitors since the 2000/01 season. Thus, while summer activities are an important component of the recreational offerings at Heavenly Mountain Resort, it is, and will remain, primarily a winter use facility.

14 Mountain biking is a popular and established use of NFS lands—both within, and outside of, ski area special use permits.

15 Heavenly Summer 2013 Data Findings

Existing Activities Throughout the Analysis Area

The Lake Tahoe Basin is a popular year-round regional, national, and international tourist destination. The scenic values of Lake Tahoe and the wide variety of recreational opportunities attract large numbers of visitors to the Lake Tahoe Basin annually, throughout the winter and summer. Representing approximately 75 percent of the land base in the Lake Tahoe Basin, National Forest System lands host much of the region's recreational activity. The 2010 NVUM survey estimated that over 5.7 million people visited the LTBMU in 2010, and the trend is increasing.¹⁶

Table 3.13-1

Annual Summer Visitation

Year	Visits
2013	109,879
2012	114,620
2011	110,547
2010	96,904
2009	111,636
2008	108,710
<i>Average</i>	<i>108,716</i>

Source: Heavenly Mountain Resort 2014

Beyond the activities at Heavenly Mountain Resort discussed above, summer recreation opportunities within the Lake Tahoe Basin include water activities, hiking, mountain biking, rock climbing, and numerous cultural and special events.

In the immediate vicinity of Heavenly Mountain Resort are a number of hiking and mountain biking trails, discussed below. Access to these trails is maintained through Heavenly's SUP, and while some users may choose to pay for a lift ticket to access the trails from the Gondola Top Station, free access is available by riding up existing roads and trails from the base area and surrounding trailheads.

¹⁶ USDA Forest Service, 2012. National Visitor Use Monitoring Results, National Summary Report, Data collected FY 2008 through FY 2012
http://www.fs.fed.us/recreation/programs/nvum/2012%20National_Summary_Report_061413.pdf

Mountain Biking and Hiking Trail Network

The South Lake Tahoe Region contains an extensive network of mountain biking and hiking trails—some of which traverse, or are adjacent to, the Heavenly Mountain Resort SUP area. The trail network in the vicinity of Heavenly Mountain Resort includes the following trails (refer to the Recreation Context Figure 3.13-1): Van Sickle Trail; Tahoe Rim Trail; Power Line Trail; Cold Creek Trail; Star Lake Trail; Corral Area Trails, including Sidewinder Trail, Cedar Trail, and Armstrong Connector; Armstrong Trail; Railroad Trail; Cold Creek Trail; and Mr. Toads Wild Ride/Saxon Creek Trail. These trails provide a range of opportunities suitable for primarily intermediate to advanced riders. Trails are typically narrow single-track with natural obstacles such as rocks and trees. Refer to Photos A and B, below, for examples of these trails. Also contributing to the difficulty of these trails is the elevation gain necessary to access them. Star Lake, a popular destination accessed via the Tahoe Rim Trail and Star Lake Trail, is approximately 3,000 vertical feet higher than the trailheads located in South Lake Tahoe. Thus, riding these trails requires technical skill as well as physical stamina. These factors serve to limit use on many trail segments, thereby minimizing user conflicts.

Mountain biking in this area is popular due to the large variety of trails and numerous opportunities to create loops (i.e. riders can ascend on one trail and descend another, as opposed to going out-and-back on the same trail). Heavenly Mountain Resort is situated in the midst of the existing mountain biking trail network; the Van Sickle Trail and Tahoe Rim Trail traverse Heavenly's SUP. The existing conditions on these trails are discussed specifically, below.



Photo A - Cold Creek Trail



Photo B - Star Lake Trail

Tahoe Rim Trail

The 168 mile-long Tahoe Rim Trail (TRT) is a long-distance trail and designated National Recreation Trail encircling Lake Tahoe on the ridges that define the Lake Tahoe Basin in northern Nevada and northern California. It is managed by a number of different federal, state, and local agencies, governments and stakeholders under the direction of the Tahoe Rim Trail Management Plan (2010). According to the Tahoe Rim Trail Management Plan, survey results indicate that the TRT receives more than 100,000 visits per year. The TRT is primarily designed as a 24-to-36-inch-wide dirt, semi-primitive, non-motorized public trail. The TRT is a shared-use trail; open to foot and equestrian traffic, with portions open to mountain bikes. It is closed to motorized vehicles. The TRT is primarily designed and managed for summer (snow-free season) use, due to low demand in the winter and high demand in the summer. Bicycles are permitted on the section of the TRT through Heavenly Mountain Resort. In the South Lake Tahoe area, the Tahoe Rim Trail is a link connecting numerous other trails thereby creating loop opportunities on trails open to mountain bikes.

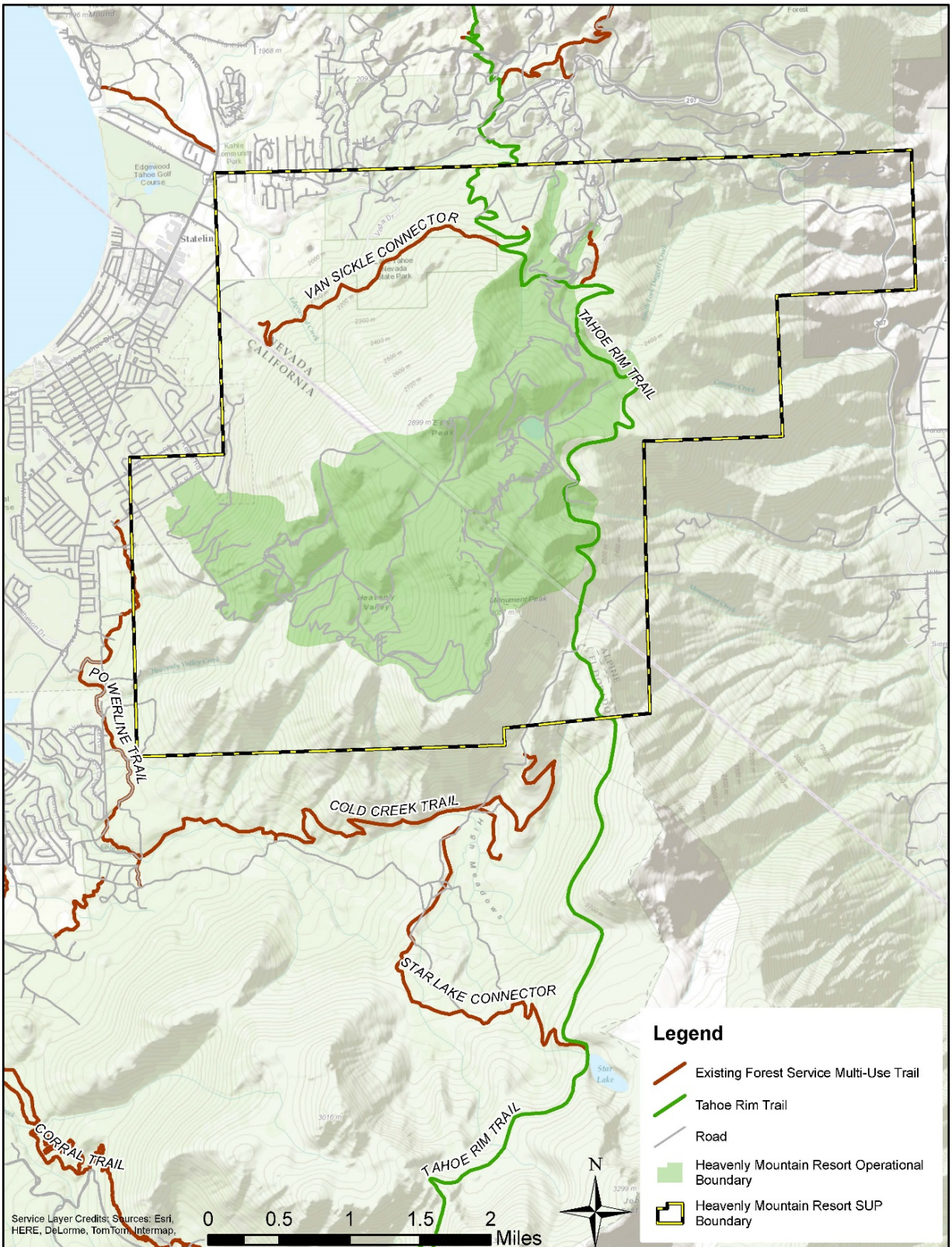


Figure 3.13-1: Recreation Context

The TRT segments near Heavenly Mountain Resort are open to hikers, mountain bikers, and equestrian users. Use numbers on the TRT in the vicinity of the Kingsbury North and Kingsbury South Trailheads are currently being gathered and will be incorporated into the Final EIR/EIS/EIS. The Kingsbury South Trailhead is located at the base of Heavenly Mountain Resort's Stagecoach chairlift. Between the Kingsbury South Trailhead to Big Meadow Trailhead, the TRT experiences moderate to heavy hiking and mountain biking use, and low equestrian use. This section of trail is difficult and very strenuous with little available water. This section traverses the highest part of the range, and is located along the transition from the alpine to sub-alpine zone. From the Stagecoach side, use from the trailhead for the first 0.5 mile is moderate. From this point on, use is low to the Saxon Creek Trail (Mr. Toads Wild Ride), approximately six miles from the Big Meadow Trailhead. Mountain bike use from the Big Meadow Trailhead to Saxon Creek Trail is moderate to high because the Big Meadow section of TRT is used as a feeder for the Saxon Creek Trail.

Van Sickle Trail

The Van Sickle Trail connects the South Lake Tahoe community to the Tahoe Rim Trail on the Nevada side of Heavenly Mountain Resort. This newly-constructed trail was opened in 2012 and incorporates rest areas and overlooks to allow users to enjoy lake views. As a connection to the Tahoe Rim Trail, the Van Sickle Trail provides access to the greater trail network in South Lake Tahoe and creates loop opportunities. The proposed Panorama Trail would connect from East Peak Lake and the Tahoe Rim Trail to the Van Sickle Trail which terminates on Montreal Road near the Gondola base.

Recreation Opportunity Spectrum (ROS) Class

As defined in the LTBMU Forest Plan, "the ROS system is a means of classifying recreation experiences by the kind of facilities and degree of contact with visitors. The system is used to assign a variety of existing and potential recreation activities and opportunities to NFS lands."¹⁷ ROS classes are defined in terms of access, remoteness, naturalness, facilities and site management, social encounters, visitor impacts, and visitor management. The classes include (listed from most to least developed): Urban, Rural, Roaded Natural, Semi-Primitive Non-Motorized, Semi-Primitive Motorized, and Primitive. Within Heavenly's SUP area, lands are currently designated as Rural (approximately 4,100 acres), Roaded Natural Area (approximately 3,390 acres), Semi-Primitive Motorized (approximately 1,340 acres), and Urban (approximately 261 acres)¹⁸. The majority of existing ski area operations are located within the Rural ROS class.

¹⁷ LTBMU Forest Plan, III-15

¹⁸ While designated as Urban, the LTBMU Forest Plan states that these lands will be managed as Rural.

3.13-3 REGULATORY SETTING

Most of the 122 ski areas operating on NFS lands in the United States are authorized under special use permits per the National Forest Ski Area Permit Act of 1986.¹⁹ As originally enacted, the 1986 Act authorized Nordic and Alpine skiing at ski areas on NFS lands. In November 2011, Congress enacted the Ski Area Recreational Opportunity Enhancement Act (SAROE), which amended the 1986 Act to clarify the authority of the Secretary of Agriculture regarding additional recreational uses of National Forest System land subject to ski area permits, and for other purposes.

The LTBMU Forest Plan incorporates specific forest-wide standards and guidelines for Dispersed Recreation Management – Summer, including:

7(b): Minimize adverse resource impacts from concentrated dispersed use by developing resource or social carrying capacity limits as needed.

7(e): Enhance the opportunities by building and maintaining where appropriate, trails, trailheads, and other support facilities to provide for multiple kinds of dispersed recreational activities.

Refer to the Land Use Chapter (3.12) of this document for a detailed description of relevant management direction regarding Heavenly Mountain Resort.

The 2010 Tahoe Rim Trail Management Plan, required by the LTBMU Forest Plan, provides additional management direction for the TRT. The Plan outlines goals, objectives, and management direction for the entire TRT system, as well as specific direction for individual trail segments. The overall objective of the plan is to protect and enhance resource values, visual characteristics, and the recreational experience on the TRT.

The Forest Service Built Environment Image Guide informs changes within the built environment (FSM 7310). The built environment refers to the administrative and recreation buildings, landscape structures, site furnishings, structures on roads and trails, and signs installed or operated by the Forest Service, its cooperators, and permittees. The elements of the built environment constructed on national forest lands and grasslands—to the extent practicable—incorporate the principles of sustainability, reflect their place within the natural and cultural landscape, and provide optimal service to our customers and cooperators. Refer to the discussion of environmental impacts in Chapter 3.10 – Visual, for more information.

Accessibility on national forest system lands is incorporated through universal design principles. Using universal design principles is Forest Service policy, as stated in Forest Service Manual (FSM 2330.3). The Architectural Barriers Act (ABA) became law in 1968. The act mandates that all facilities designed, built, altered, bought, rented, or leased by, for, or on behalf of a Federal agency must be accessible. The Forest Service Outdoor Accessibility Guidelines (FSORAG) and Forest Service Trail Accessibility Guidelines (FSTAG) must be used for the

¹⁹ 16 USC 497b

design, construction, alteration, purchase, or replacement of recreation sites, facilities, constructed features, and trails that meet FSTAG requirements on the National Forest System (FSM 2330 and FSM 2350).

3.13-4 EVALUATION CRITERIA

The following criteria are taken from the CEQA checklist, TRPA Regional Plan, and the LTBMU Forest Plan.

Table 3.13-2

Evaluation Criteria and Points of Significance - Recreation

Evaluation Criteria	As Measured By	Point of Significance	Justification
1. Is the Project consistent with Forest Service objectives for summer recreation at ski areas as authorized by SAROE? How well do the alternatives respond to the criteria of SAROE?	a. Consistency with existing use and characteristics (including winter use) b. Encourages outdoor recreation and the enjoyment of nature c. Access d. Utilization of existing infrastructure e. ROS class f. Impacts to adjacent and connecting Forest Service lands	a. Projects are inconsistent with Forest Service policy for seasonal and year-round recreation b. Change in ROS class	SAROE
2. Would the Project result in decreased availability or degradation of a high quality recreational experience?	a. Decrease in available recreation b. Degradation of high quality recreational experience.	a. Loss of available recreation opportunities b. Overcrowding or deterioration of facilities (e.g., trails).	CEQA Guidelines TRPA Thresholds TRPA Goals and Policies, Recreation Supplement LTBMU Forest Plan
3. Would the Project conflict with an established recreational use in the area?	a. Conflict with existing recreational uses	a. Greater than 0 use conflicts b. Displacement of an existing user group c. Changing the design standard for a trail	CEQA Guidelines TRPA Initial Environmental Checklist LTBMU Forest Plan

Table 3.13-2

Evaluation Criteria and Points of Significance - Recreation

Evaluation Criteria	As Measured By	Point of Significance	Justification
4. Would the Project result in the need for new or expanded parks or recreational facilities?	a. Number of new parks or recreational facilities.	a. Greater than 0 parks or recreational facilities.	CEQA Guidelines TRPA Initial Environmental Checklist

3.13-5 ENVIRONMENTAL IMPACTS

Table 3.13-3

Comparison of Alternatives

Alternative	Overview of Recreation Impacts
No Action Alternative	Because the No Action Alternative does not include any additional projects, there would be no effects to the recreational experience at Heavenly Mountain Resort.
Proposed Action	The Proposed Action would improve the variety of recreation opportunities offered at Heavenly Mountain Resort. All projects would be consistent with Forest Service Manual (2340) criteria for summer recreation projects.
Alternative 1	Alternative 1 would improve the variety of recreation opportunities offered at Heavenly Mountain Resort. All projects would be consistent with Forest Service Manual (2340) criteria for summer recreation projects. The Sky Meadows Mountain Coaster would have increased adverse impacts on winter recreation, when compared with the Proposed Action. In particular, the Sky Meadows Mountain Coaster would have impacts on tree skiing above the Sky Meadows Basin.
Alternative 2	Alternative 2 would improve the variety of recreation opportunities offered at Heavenly Mountain Resort to a lesser degree, compared with the Proposed Action and Alternative 1. Without the Sky Meadows Challenge Course there would be fewer activities in the Sky Meadows Basin, likely reducing the use of this area compared to other Action Alternatives.

Source: SE Group, 2014

IMPACT: REC-1: Is the Project consistent with Forest Plan Standards and Guidelines and objectives for summer recreation at ski areas as authorized by SAROE A?

Throughout the analysis of this evaluation criterion, projects are discussed in categories defined by similarities in infrastructure and user experience. Some of these activities would only operate during the summer while others would operate year-round in both the summer and winter operating periods (reference the alternatives descriptions in Chapter 2 for more information). The categories are defined as follows:

- *Mountain Bike Park:* the mountain bike park located in the East Peak Basin (summer use only)
- *Mountain Coasters:* the Forest Flyer and Sky Meadow (Alternative 1) coasters (year-round)
- *Cable-based Activities:* the mid-station zipline canopy tour, sky cycle canopy tour, East Peak zipline canopy tour, Sky Meadows zipline canopy tour, and Sky Meadows challenge course (year-round)
- *Hiking and Connecting Trails:* the East Peak Lodge hiking trail and Panorama Trail (summer use only)
- *Infill Activities:* the infill activities at Adventure Peak (e.g., disc golf, kid's zipline, mountain bike skills park), mountain excursion tour, East Peak Reservoir water activities (summer use only)
- *Lookout Tower:* the Ridge Run lookout tower and observation deck in Sky Meadows Basin (year-round)
- *Gondola Evacuation Route:* emergency gondola snow cat evacuation route (winter use only)

All proposed projects and activities have been screened against criteria for additional seasonal or year-round recreation activities and associated facilities found at Forest Service Manual 23423.14. The screening matrix is provided in Appendix 3.13-A.

The REC-1 Evaluation Criteria is analyzed according to the "As Measured By" column, presented in Table 3.13-2 under the following headings.

Consistency with Existing Uses and Characteristics of Heavenly's SUP Area

As discussed above, Heavenly Mountain Resort has attracted an average of approximately 109,000 annual summer visitors over the past six years. In contrast, winter visits average approximately 900,000 annually. While full implementation of proposed projects would be expected to eventually increase summer visitation by approximately 50,000 users annually (see discussion below under REC-3), snow sports would remain the primary purpose of Heavenly Mountain Resort. All proposed activities would supplement existing summer visitation, increasing

visitation by a small amount when compared to winter sports. The proposal represents an amendment to the USFS Master Development Plan (MDP) and TRPA Ski Area Master Plan and establishes USFS zoning for these additional seasonal and year-round recreational activities. There would be no need for development of additional chairlifts, lodges, or parking lots to support these proposed activities.

The Proposed Action includes a variety of projects that are natural resource-based at their foundation, specifically designed to be interdependent with the unique environmental features of Heavenly's SUP area and surrounding landscape. All proposed projects and activities would be located within the current operational boundary at the ski area, with the exception of portions of the proposed Panorama Trail. By design, the Panorama Trail was developed to provide connectivity between proposed activities and the existing trail network, as discussed below.

Proposed activities are generally grouped into three "zones" connected by hiking trails and the mountain excursion tour. Refer to Figure 2-1 in Chapter 2. The layout provides a combination of concentrated, developed recreation (at Adventure Peak, for example), and more remote recreation (on connecting hiking and mountain biking trails).

The proposed projects would not change the overall natural or winter recreational characteristics of Heavenly's SUP area. The developed SUP area is managed for alpine skiing, and as such, the recreational experience in this area is partially defined by trails and infrastructure to support developed winter recreation. The construction and operation of additional summer and year-round recreational activities would be consistent with management direction for the SUP area per the 1988 Forest Plan and the 1986 National Forest Ski Area Permit Act (as amended by the 2011 SAROE).²⁰ Refer to Chapter 3.12 (Land Use) of this Draft EIR/EIS/EIS for additional information on SAROE. The setting of the ski area, characterized by developed infrastructure interspersed throughout a forested environment, would be maintained.

The 2011 SAROE specifically prohibits certain additional or year-round recreation activities at ski areas including, but not limited to: tennis courts, waters slides, swimming pools, golf courses and amusement parks. As defined in the Forest Service Manual (2340.5) an amusement park is:

"A developed recreation area consisting primarily of: facilities or activities that are not natural resource-based; do not harmonize with the natural environment; and contain rides and other amusements that are not typically found in a natural resource-based environment, such as water slides and water parks, Ferris wheels, bumper cars, and miniature golf courses."

²⁰ 16 USC 497b.

Visitors to Heavenly Mountain Resort generally recognize the area as a developed and managed recreational site, and expect to encounter infrastructure and other visitors throughout their day. A portion of visitors may in fact visit because it is a developed and managed facility (e.g., first-time visitors). The recreational experience offered within Heavenly's SUP area is expected to be different from the more natural/remote experience associated with dispersed recreation on NFS lands outside of the SUP area. The presence of additional people and specific infrastructure (e.g., towers, cables, etc.) related to the Proposed Action throughout Heavenly's SUP area would result in minimal/incremental changes to the natural and recreational setting within Heavenly's SUP area. Final designs of all proposed projects would be coordinated with the Forest Landscape Architect. Due to the management direction for the Heavenly Valley Management Area, combined with the type, intent, location, and design of the proposed activities, implementation of the Proposed Action would not transform the setting of Heavenly's SUP area into one similar to an amusement park.

Many of the proposed activities would be guided by specialized Heavenly employees, which would differentiate them from amusement park activities. Challenge course and Canopy Zipline tour users, for example, would be guided by Heavenly employees who would integrate education, environmental themes, and safety into the activity. The guided/interpretive element combined with the unique perspectives and natural setting inherent with the proposed activities would distinguish the recreational experience from an amusement park.

In particular, the layout of proposed activities throughout Heavenly's SUP area would prevent a critical massing of noise and activity which is a characteristic of an amusement park. Proposed activities would be spread out between the Adventure Peak, East Peak, and Sky Meadows areas. The noise and visual impacts of individual activities would be screened from each other by trees, and users would travel between each activity area via dirt roads or hiking trails, which would preserve the overall character of the SUP area.

These activities are dependent on a change in elevation and engagement with a mountain forest setting; all of the proposed activities allow the user to have a personal experience with the mountain forest setting. The unique flora and fauna of the mountain setting make the experience unique. These activities remove a barrier of interaction by providing a unique perspective and engagement with aspects of the forest that are not easily accessible to the majority of the public without these activities.

Generally, additional noise and visual impacts associated with proposed projects would not change the current character of the ski area, and these would be incremental impacts that visitors expect when at a developed recreation area. Vegetation removal would be minimized, to the extent possible. Refer to Chapters 3.8 (Vegetation) and 3.10 (Visual Resources) for more information. Additional noise would result from construction and operation of additional infrastructure, but the noise would not likely have a negative impact on the background noise levels of the project area. Construction noise would have a limited duration, and operational noise, primarily from the ziplines and mountain coasters, would

typically be punctuated (refer to Chapter 3.6 – Noise). Noise from users (shouting and talking) could also increase due to the proposed activities, particularly from users of the thrill-based activities such as ziplines and mountain coasters. Increases in noise on nearby hiking and mountain biking trails would not be expected to change noticeably due to the proposed projects. None of the anticipated noise sources in summer are expected to be notably different from existing winter uses.

The following analysis discusses each category of proposed projects in the context of existing use and characteristics of the project areas and Heavenly's SUP area.

Mountain Bike Park

Construction of the proposed mountain bike park would be consistent with existing use and characteristics of the Heavenly SUP and East Peak Basin in particular. Because the mountain biking trails would be covered with snow and unused in the winter, snow sports operations and the winter recreation experience would not be impacted.

The proposed mountain bike park would be located in a zone designated for "Four-Season Recreation" in the MDP. The mountain biking trails would require limited vegetation removal and ground disturbance and would not noticeably change the visual characteristics of the landscape – particularly in the middleground and background distance zones (refer to the Visual Resources Chapter 3.10). Mountain bike trails would be designed and implemented to avoid tree removal unless necessary, and would incorporate natural rock outcroppings and appropriate BMPs. The integration of these trails with the topography and environment is important to the recreational experience they provide.

The location of the mountain bike park in East Peak Basin is easily accessible from other existing and proposed activities in the East Peak Basin and nearby Adventure Peak. While the proposed park would be easily accessible via a short, proposed hiking and mountain biking trail, its location would be physically and visually removed from most other summer recreation infrastructure. Some segments of the East Peak zipline would traverse over the mountain bike park, but overall, the park would be contained in a forested setting.

Mountain Coasters

Coasters would be designed to incorporate similar materials to existing ski area infrastructure (e.g. colored metal) and would be situated in discrete locations on the periphery of existing snow sports infrastructure. Coasters would be designed and implemented to avoid tree removal unless necessary and incorporate natural rock outcroppings.

The proposed Forest Flyer at Adventure Peak (included in the Proposed Action and Alternative 2) would be located away from existing snow sports infrastructure. The coaster would operate year-round. As discussed in Chapter 3.10 – Visual Resources, the Forest Flyer would be visible in the area

immediately surrounding the top terminal, the southern portion of the Adventure Peak area, a small portion of the Skyline Trail and the Canyon Express lift area in Sky Meadows Basin due to their similar elevation. The coaster would not cross any ski trails, and the area near the Forest Flyer is not used for tree-skiing. However, an area of approximately 6 acres surrounding the coaster track would be fenced off and closed to skiing for the safety of skiers (see Figure 3.13-2). Because the Forest Flyer location is not used for tree-skiing, impacts to the winter recreational experience would be minimal. The Forest Flyer coaster would be located in a zone designated for “Intensive Four-Season Recreation” in the MDP.

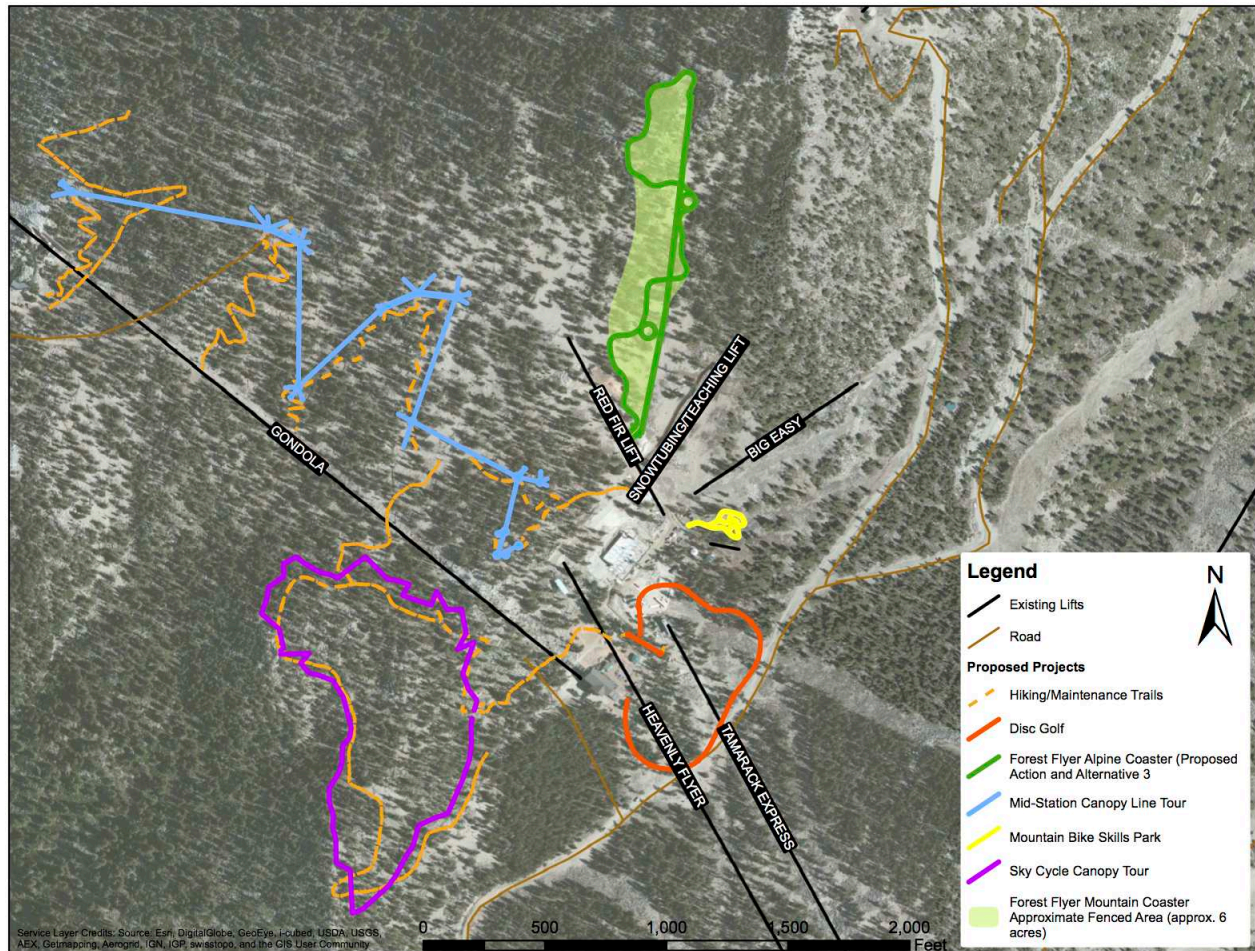


Figure 3.13-2: Forest Flyer Fencing

The design and location of the Forest Flyer mountain coaster is well-integrated with the natural features of the area, and will be informed by the Forest Service BEIG where applicable (e.g., loading/unloading station) including color, use of natural materials where practical, and blending with the natural environment. The alignment of the Forest Flyer incorporates and capitalizes on existing natural features within Heavenly’s SUP area such as trees, topography, and rocky outcroppings and would require minimal vegetation removal and ground disturbance for construction and operation. The infrastructure would utilize natural-appearing materials and colors to the extent possible, and the surrounding

vegetation would screen the infrastructure in many places. The setting and layout of the Forest Flyer would provide a recreational experience that has elements of tree skiing: users would descend through natural topography and vegetation at moderate speed, thereby participating in an activity and experience for which Heavenly is renowned. The project would be expected to generate some noise during operations, including the sound of individual sleds rolling on the tracks (typically of short-duration) and exclamations of participants.

Impacts of the Sky Meadows mountain coaster (Alternative 1), would generally be similar to those discussed above for the Forest Flyer coaster. The Sky Meadows coaster would offer a longer and more exciting recreational experience when compared with the Forest Flyer. The Sky Meadows mountain coaster would include more vertical drop, more turns and loops, and would be approximately twice as long as the Forest Flyer mountain coaster. However, the Sky Meadows coaster would cross one ski trail. The coaster would traverse the ski trail on overhead bridges, thereby minimizing conflicts with snow sports infrastructure and users. Areas currently used for tree-skiing in the Sky Meadows Basin would be impacted by this coaster location. The area surrounding the coaster track would be fenced off and closed to skiing for the safety of skiers. An area of approximately 22 acres would be fenced off and closed to skiing (see Figure 3.13-3). The coaster infrastructure would be visible to winter recreationalists at the start and finish platforms. Tree-skiers could also encounter the coaster track itself. The location and design of the Sky Meadows mountain coaster would result in a reduced level of consistency with the BEIG and harmonization with the natural environment, when compared with the Forest Flyer mountain coaster. The increased track length, loops, bridges, and other design features would not blend as well with the surrounding environment because it would be located in a more visible part of the mountain and would be approximately twice as long as the Forest Flyer coaster.

Additionally, the proposed Sky Meadows zipline canopy tour would be located in close proximity to this mountain coaster. The zipline would traverse the coaster a number of times. The Sky Meadows coaster would be located in a zone designated for “Four-Season Recreation” in the MDP. As with the Forest Flyer coaster discussed above, vegetation and natural topography would define the recreational experience. Construction and operation of the project would require minimal vegetation removal and ground disturbance.

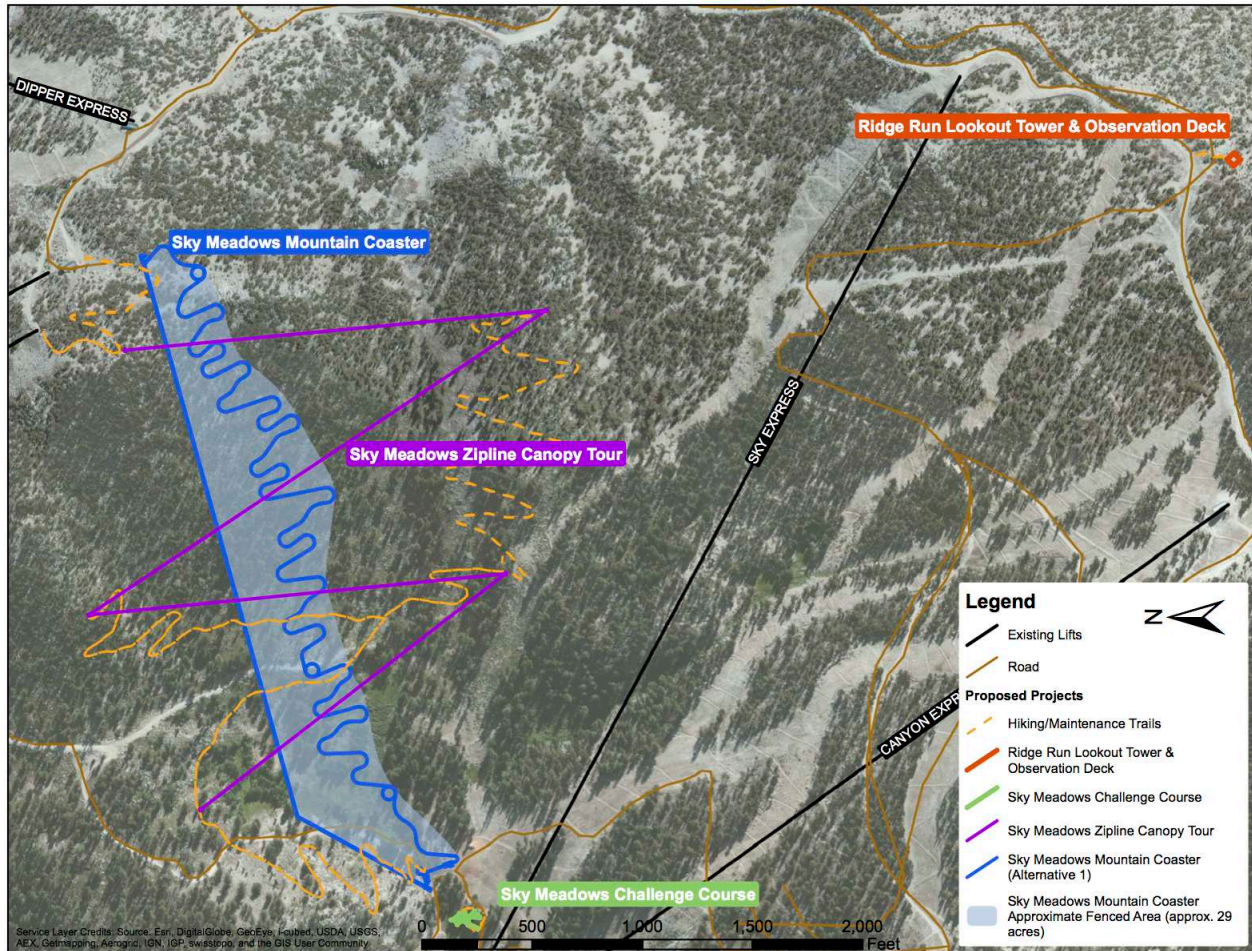


Figure 3.13-3: Sky Basin Coaster Fencing

Cable-Based Activities

Proposed cable-based activities would have minimal physical interference with snow sports infrastructure or operations. Canopy tour towers (including trees used as towers) would be secured to the ground with guy wires, which could interfere with tree skiing. As is common throughout the ski industry (Heavenly is no exception), ropes and signage would be used to alert descending skiers to the presence of infrastructure that might pose a safety risk. This would apply to guy wires and other types of infrastructure necessary for the zipline canopy tours and mountain coaster tracks. Where guy wires would be anchored to the ground at towers for canopy tours, the Sky Cycle, or ropes courses, an area surrounding the tower would be fenced off and closed to skiing. The area immediately surrounding new towers where trees are not used would similarly be fenced off. While these activities would operate during the winter, projects would generally be located outside of existing ski trails or would traverse over existing infrastructure. In this respect, the proposed projects represent a minimal impact to the existing recreational experience at Heavenly. Because melting ice falling onto ski terrain can pose safety concerns, clearing the ice from zipline cables would be

performed while the resort is closed to public use. However, in general, these activities would operate during periods of clear weather when snow and ice are not concerns.

Direct conflicts with winter operations resulting from the Sky Cycle, Mid Station, and East Peak Canopy Tours would be minimal because the locations of these activities do not overlap with existing ski terrain. The East Peak zipline would cross over two ski trails, but the infrastructure would not impact winter operations. The Sky Meadows zipline is located in an area which is currently skied, and signage and ropes would be used to alert skiers to the presence of infrastructure while minimizing impacts to tree-skiing experience in this area.

The Sky Meadows canopy tour would traverse over one ski trail. There would be no direct impacts to winter recreation opportunities underneath the zipline cable segments because the cable segments would be high enough off the ground (average approximately 30 to 40 feet above grade) that a safe buffer of vertical separation would be maintained between the zipline user and skier (or snowmobile, snowcat, and other vehicles), even in a high snow year.

These cable-based activities would generally utilize existing trees for support, and would thus require minimal new infrastructure. Because construction and operation of these projects would require minimal vegetation removal and ground disturbance, there would be minimal visual impacts (refer to the Visual Resources Chapter 3.10). The cables would be difficult to see at most distances. Start and finish platforms, as well as participants, would be the most visible components of these projects. Noise associated with these projects would be minimal. As discussed in Chapter 3.6 – Noise, the primary noise sources associated with zip lines are people yelling and metal-on-metal sounds from the cable and sheave wheel. This noise would not likely impact the recreational experience for other users in the area or detract from the natural setting as both are short duration. Some vegetation clearing would be required to maintain a safety clearance zone, but the recreational experience of these activities depends on the integrity of the forest canopy and natural topography thus vegetation removal and ground disturbance would be minimized.

The Sky Cycle canopy tour, Mid-Station canopy tour, and Sky Meadows challenge course would be located within a zone designated for “Intensive Four-Season Recreation” in the MDP, and the East Peak and Sky Meadows canopy tours would be located within a zone designated for “Four-Season Recreation” in the MDP.

With the exception of the Sky Cycle, the proposed cable-based activities require equipment (harnesses) similar to that required for other common activities on NFS lands such as rock climbing.

Hiking and Connecting Trails

The East Peak Lodge hiking trail and Panorama Trail would not conflict with snow sports operations and functions because they would be snow-covered and unused in the winter. These trails would require minimal vegetation removal and

ground disturbance, and would not change the overall characteristics of the landscape.

Infill Activities and Mountain Excursion Tour

The infill activities located at Adventure Peak would be located in the vicinity of existing snow sports infrastructure but would generally not interfere with winter operations or functions. These activities would only be open during the summer. Skiers could encounter the infrastructure associated with the kids' zipline and the disc golf course. However, the immediate project area surrounding these activities already contains infrastructure to support for both winter and summer recreation, and the new projects would not likely change the overall characteristics of Adventure Peak. Additionally, these projects would require minimal vegetation removal and ground disturbance. The Adventure Peak area is designated for "Intensive Four-Season Recreation" in the MDP.

Because the mountain excursion tour would utilize existing mountain roadways and pullouts and would not operate in the winter, it would not interfere with any snow sports operations or require modifications to the landscape. The two small temporary vehicle pullouts proposed with this project would be covered with snow in the winter and would thus not impact snow sports operations. The tour would be contained within areas designated for "Intensive Four-Season Recreation" and "Four-Season Recreation" in the MDP. The mountain excursion tour would be similar in nature to motorized recreation opportunities commonly found on NFS lands and would utilize the same routes currently used by Heavenly during the summer to conduct maintenance activities. Some noise would be associated with the vehicles, but since the activity would not operate during the winter it would not impact the winter recreational experience.

East Peak Reservoir water activities would require a small dock for summer operations. Proposed water activities would not impact snow sports infrastructure or operations. The activity would resemble water sports activities which are popular and widespread on NFS lands, and nearby on Lake Tahoe. This project would be located in a zone designated for "Four-Season Recreation" in the MDP.

Lookout Tower

The proposed lookout tower would be located adjacent to an existing ski trail and would thus not physically interfere with snow sports operations or functions. Winter recreationalists would be able to see the tower from ski trails. The facility would not require significant vegetation or ground disturbance for construction and operation, but due to its size and height, it would be highly visible. It would, however, be designed and constructed consistent with BEIG guidelines. The use of wood materials for the tower would reduce the prevalence of the structure, but it would be visible from locations around Lake Tahoe, particularly at distance from the west shore. In general, the tower would increase the appearance of man-made landscape, but would not result in degradation of scenic quality within Heavenly's SUP area or surrounding areas. Refer to the Visual Resources Chapter 3.10 for more information. The views and interpretive activities associated with

the lookout tower would enhance the recreational experience for both winter and summer guests. Such viewing facilities are common on NFS lands. The tower would be located in a zone designated for “Four-Season Recreation” in the MDP.

Gondola Evacuation Route

The gondola evacuation route would only be utilized in the winter in cases of emergency evacuation of the gondola. While vegetation clearing would be required for the construction of this project, it would not interfere with existing winter or summer recreational opportunities. The evacuation route alignment would be visible from offsite and the gondola. This project is proposed for safety reasons only and would not have any other impacts on the recreational experience.

Outdoor Recreation and Enjoyment of Nature

FSM 2340.5 defines *natural resource-based recreation* as:

“A proposed or existing recreation activity that occurs in a natural setting where the visitor’s experience is interdependent with attributes such as mountains, forests, geology, grasslands, water bodies, flora, fauna, and natural scenery.”

As described in Chapter 1 of this EIR/EIS/EIS, the proposed projects were designed to encourage outdoor recreation and engage participants in natural resource-based recreation. As such, all of the proposed projects are interdependent with the natural environment within Heavenly Mountain Resort’s SUP area and capitalize on the unique topography and views of the Lake Tahoe Basin. All proposed projects respond to the Forest Service’s acknowledgement of the growing role that ski areas play in providing summer recreation.

When considered collectively, the proposed projects provide a range of recreational opportunities that have been designed with the unique natural setting that the Heavenly SUP area provides. The proposed projects offer a range of outdoor experiences, from structured activities such as mountain coasters to dispersed recreation such as mountain biking and hiking. These additional activities would enhance the user experience and provide more opportunities for visitors to engage with the natural environment. A discussion of each individual activity as it relates to this definition follows.

Mountain Bike Park

The mountain bike park would allow participants to move at their own pace throughout the Alpine environment of Heavenly’s SUP area. Through active participation at the mountain bike park, as well as during rest stops, users would be able to interact with their natural surroundings at their own pace. Thus, the proposed mountain bike park at Heavenly Mountain Resort could serve as an introduction for novice mountain bikers, who may then feel encouraged to

participate in further outdoor recreation on NFS lands (both locally, and on a larger scale).

Mountain biking is a popular activity in the Lake Tahoe area. Numerous scoping comments were received in support of the proposed mountain bike park and other connecting trails as they would diversify and increase the supply of mountain biking opportunities in the region. The beginner to intermediate level trails in the proposed mountain bike park would also engage a new user group that may not be able to enjoy the current supply of more advanced trails currently available in the vicinity of Heavenly Mountain Resort.

Mountain Coasters

The proposed mountain coasters have been designed to integrate with Heavenly's topography and forest canopy. By design, this activity would allow for limited direct, physical interaction with the natural setting. Participants would follow a set track through the forest, and could control their own speed throughout their descent. The speed of descent and integration with the topography and forest canopy combine to create a sense of thrill for the user. The Forest Flyer, in particular, was designed to capitalize on the natural rock outcroppings and forest openings in this area and would provide an experience similar to tree-skiing and mountain biking. The coasters would follow the contours of the landscape which would allow the user to have a gravity sports experience. Users would be exposed to foreground, middleground and background views of a forested environment.

These activities require no prior skill, and would provide an introduction to outdoor recreation from which new users could progress to other activities. Users would walk along dirt trails through forested areas to reach these activities, thereby exposing them to the natural environment and the variety of other activities available. They would provide opportunities for non-skiers to enjoy the NFS lands and Heavenly Mountain Resort.

As part of the overall program of natural resource-based, outdoor recreation at Heavenly Mountain Resort, the proposed mountain coasters could help generate interest in further exploration of NFS lands.

Cable-Based Activities

The proposed cable-based activities would provide opportunities for participants to directly engage with the natural environment in unique ways. Challenge course users would be traversing between trees in close proximity to the forest canopy. As with the mountain coasters, the forested setting defines the recreational experience of these activities. All of these activities offer opportunities for environmental education and close contact with the natural environment. Strategically located viewing platforms and zipline landing platforms would allow users to take in the features of the environment (including views of Lake Tahoe) throughout the duration of the activity.

As discussed above, the harnesses used in most of the cable-based activities are similar to equipment required for rock climbing. An introduction to this

equipment, combined with the heights at which participants would be engaging, could encourage interest in rock climbing and other recreational activities on NFS lands. Additionally, the exposure to the natural environment gained through the proposed cable-based activities could build a deeper appreciation for the outdoors and the value of natural resources, leading to a more environmentally aware population.

Hiking and Connecting Trails

Users of the East Peak Lodge hiking trail and Panorama Trail would be able to engage directly with the natural setting. Hiking and mountain biking allow users to travel at their own pace, and stop at any time to observe or otherwise interact with their surroundings. The recreational experience of these trails would be similar to that on hiking and mountain biking trails found throughout NFS lands, and could lead to further exploration beyond Heavenly Mountain Resort. The East Peak Lodge hiking trail would be located in the vicinity of the East Peak canopy tour. While the proximity of the proposed canopy tour to the proposed hiking and connecting trails could detract from the naturalness of the recreational experience, it is assumed that most users of the Heavenly SUP area would expect to encounter other users and activities throughout their day.

Infill Activities and Mountain Excursion Tour

The infill activities at Adventure Peak would permit participants to engage with the natural setting at a relatively intimate level. For example, users of the mountain bike skills park would ride through native terrain and vegetation on dirt trails, and disc golfers would walk slowly through the forest as they make their way from hole to hole. These activities would generally be of a relatively short-duration within a larger context of outdoor recreation. The family-friendly nature of these activities could help engage younger visitors with the natural environment, fostering future interest in outdoor recreation (consistent with the Purpose and Need for Action).

The mountain excursion tour would provide limited opportunities for direct engagement with the natural setting, as visitors would be confined to a vehicle as they explore the area. However, the tour would provide access to a larger area of Heavenly's SUP for those who are not physically able to hike long distances or have accessibility needs. The periodic stops along the route would provide guests with an opportunity to walk around, sightsee, and generally engage more directly with the landscape. The tour would also include an educational commentary which could lead to further interest in outdoor recreation and natural resource management topics on NFS lands.

The water activities proposed at East Peak Reservoir would allow for direct interaction with the natural setting. These unstructured activities would allow users to explore the reservoir at their own speed. Participation in these water activities could lead to a greater interest in water-based recreation (e.g. kayaking and fishing) elsewhere on NFS lands.

Lookout Tower

The recreational experience of the lookout tower is dependent on the natural setting, primarily the views of High Meadows, Freel Peak, and Lake Tahoe. The views afforded from the proposed lookout tower could encourage visitors to pursue outdoor activities such as hiking in the future. An educational theme focused on forest management and fire activities could also enhance the recreational experience for users.

Gondola Evacuation Route

The gondola evacuation route was not proposed to provide any recreational experience, and is not expected to impact the recreational experience of other proposed or existing activities. This project would improve the safety of winter gondola operations.

Access

Proposed projects would increase access to recreation on NFS lands. By adding to the supply of recreational activities at Heavenly Mountain Resort, the proposed projects increase the capacity for year-round visitors. The activities that would be open year-round would add to the variety of winter recreational opportunities for visitors to Heavenly Mountain Resort who do not desire to participate in snow sports.

With full build-out of proposed activities (anticipated to be phased over multiple years), the Proposed Action is anticipated to result in approximately 50,000 new summer visitors to Heavenly Mountain Resort. Refer to Table 3.13-4.

Table 3.13-4

Projected Summer Visitation to Heavenly Mountain Resort (based on Heavenly Gondola use)

	2015	2016	2017	2018	2019
Annual Visitation	110,000	122,100	135,531	150,439	159,466
Percent Growth	0%	11%	11%	11%	6%

Source: Heavenly Mountain Resort, 2014

Adverse impacts due to increased capacity would be minimized by hourly capacity limits of most proposed activities. For example, use would be managed through reservations, and guided activities would have specific capacities and time limits.

As discussed in the Chapter 3.12 (Land Use), the Proposed Action would include the addition of 475 summer day use PAOTs for Heavenly Mountain Resort, and the Alternative containing the Sky Meadows mountain coaster would include an additional 10 summer day use PAOTs (because its capacity is 75 PAOTs compared to 65 PAOTs for the Forest Flyer coaster).

All proposed activities would have associated “essential eligibility requirements” similar to those applied to existing activities. These requirements establish age, height, and weight restrictions defined by manufacturers which limit use of activities.

Utilization of Existing Infrastructure

Some of the proposed activities (e.g., coasters, canopy tours, and ropes courses) would require additional, specialized infrastructure. No additional parking lots, lifts, or lodges would be required for any of the proposed activities. The primary access for all activities would be through the existing Gondola. Proposed activities would utilize existing lodges including Tamarack Lodge, Sky Deck, and the ski school building. Proposed activities would also utilize the existing Tamarack and Comet lifts. No new permanent roads would be constructed. The proposed projects would not conflict with snow sports activities.

ROS Class

All proposed activities would be consistent with existing ROS classifications for the Heavenly SUP area. The majority of projects would be located in areas classified as Rural. Some portions of the mountain bike park could extend into areas classified as Semi-Primitive Motorized, and the gondola snow cat evacuation route would extend into an area classified as Roaded Natural.

Impacts to Adjacent and Connecting National Forest System Lands

Construction of the Panorama Trail would improve connectivity between Heavenly’s SUP area and surrounding NFS lands. This trail would provide an additional access point to the Tahoe Rim Trail and the network of mountain trails surrounding Heavenly’s SUP and would create lift access and numerous loop opportunities, thereby increasing use of existing recreational resources. It is a stated goal of the TRT Management Plan to improve connecting trails and loops on the TRT. The proposed projects would enhance the position of Heavenly Mountain Resort as a “hub” for mountain biking trail access. As a central access point from which a vast network of trails radiate, the improvement of trail resources at Heavenly Mountain Resort would likely have a positive impact on recreation in this area so long as monitoring, maintenance and operations adjust to address the additional use.

While the improved access to surrounding recreational opportunities would benefit the recreational experience (making it more diverse and potentially exposing people who might never have used the Tahoe Rim Trail), it could also result in increased use and more frequent user interactions on the Tahoe Rim Trail and other connecting trails. The proposed projects would not jeopardize the TRT’s designation as a National Recreation Trail.

The proposed mountain bike park could lead to increased use on the Tahoe Rim Trail and other nearby connecting trails. The proposed mountain bike park would attract riders to Heavenly Mountain Resort, where they would then be able to access a larger network of mountain biking trails on surrounding NFS lands. The

heaviest increase in use resulting from Gondola mountain bike access is expected south of Kingsbury Grade by hikers and bikers. A large volume of local use is anticipated. The greatest increase for mountain bike use is anticipated on the proposed Panorama Trail and existing Van Sickle Connector Trail. This is the most direct route from the top of the Gondola to the base of the Gondola and nearly entirely downhill. Trails outside of the resort that have an increase in use as a result of using the Gondola to access the mountain will have the potential for increased use conflicts. Use conflicts occur for many reasons: difference in technology between uses, perceived environmental degradation from uses, trail impacts, and uses affecting ability to achieve desired experiences.

While the proposed activities could result in increased use on surrounding trails, the difference in difficulty level between the trails in the proposed mountain bike park and the surrounding trails would likely limit this overflow use. The trails in the proposed mountain bike park would be geared towards beginner and intermediate level riders and families, providing opportunities for downhill riding. The surrounding network of mountain bike trails are more appropriate for intermediate to advanced riders with the skills and fitness necessary to ride narrow, single-track, cross-country trails with natural obstacles. However, there would likely be an increase in use on the surrounding trails because riders who previously were deterred by long uphill climbs could instead ride the gondola to access this larger network of mountain biking trails. Nevertheless, while the proposed projects would facilitate access to surrounding NFS trails, the surrounding network of trails requires a level of skill that would somewhat limit the amount of use depending upon the level of effort required to access these trails. The proposed Panorama trail and the existing Van Sickle Connector Trail, Monument Trail and Cold Creek Trail would require very little uphill or cross country riding to access and are anticipated to have the greatest increase in use.

Increased use of the Van Sickle Connector Trail is anticipated as many intermediate to advance riders in the proposed mountain bike park would likely choose to ride down to Heavenly Village via this trail rather than downloading in the Gondola. Most of these riders would likely be cross-country riders, but increased bike traffic on this trail could conflict with other users on this multi-use trail. For example: 1) a hiker might not expect to encounter bikers during their recreational excursion, and a deviation from this expectation could impact their experience, 2) trail conditions could degrade as a result of increased use if corresponding increases in maintenance does not occur, causing use conflicts, or 3) increases in traffic could cause congestion in steep and narrow areas of existing trails, causing use conflicts. Lift access to the top of the Van Sickle Connector Trail could also attract downhill mountain bikers. Because downhill mountain bikers travel at much higher speeds than most other users, an increase in downhill bike traffic on the Van Sickle Connector Trail could lead to use conflicts. However, because the proposed projects within Heavenly's SUP area would be designed for cross-country mountain biking rather than downhill, the supply of downhill-appropriate trails in this vicinity would remain small. Educational signage on use etiquette would be used around the bike park and within the resort

to encourage trail sharing and appropriate trail behavior. Thus while the Van Sickle Connector Trail could theoretically be utilized by downhill mountain bikers, there would be no other trails in the vicinity and it is not likely that many downhillers would choose to ride laps on the Van Sickle Connector Trail. However, because downhill bike use on this trail could create significant use conflicts on the Van Sickle Connector Trail, user experience would be monitored. Additionally, extensive signage would be installed at the top of the proposed Panorama Trail and existing Van Sickle Connector Trail to alert riders of the shared-use nature of this trail segment, along with proper right-of-way guidance.

Increased use of these trails could lead to use conflicts and trail degradation. However, any additional use of the Tahoe Rim Trail and/or Van Sickle Connector Trail resulting from the proposed projects would be operated consistent with the intended use and management of these trails. As documented in Chapter 2 (Section 2.3.5), Heavenly Mountain Resort would be responsible for monitoring the trails and providing an additional “fair share” (either monetary or in kind) support to operate and maintain the trail to the Trail Management Objectives. Fair share would be established by establishing a baseline prior to the project and monitoring after the project.

While these trails would continue to be managed as shared-use, trail design specifications (e.g. tread width, obstructions, and clearing limits) would relate directly to the experience of each use group on a trail, and may serve to effectively encourage or discourage certain use types on that trail. Key to mitigating use conflict is appropriate signage for each trail, and the proposed projects would include signage throughout the project area. Trail signs would inform all users of the designed and recommended uses for each trail at a minimum, and may include other information such as trail name, length, available destinations, and available services. Trailhead information promoting trail etiquette and encouraging positive interaction would be included, and has been documented to help set appropriate expectations for all use types and reduce use conflict.²¹

Monitoring protocols would be implemented to ensure that the recreational experience on the Van Sickle Connector and Tahoe Rim Trails would not be adversely impacted (as required by the TRT Trail Management Plan). Monitoring of the trails before and after proposed Gondola access will set a baseline for use. Seasonal and annual monitoring of conditions on the affected trails will indicate where maintenance is needed and if there are operational or route changes needed.

These Chapter 2 monitoring protocols include:

The recreational experience (including user numbers, conflicts, and other criteria) on the Van Sickle Connector and Tahoe Rim Trails would be monitored prior to, during, and following

21 Moore, 1994. Conflicts on Multiple-Use Trails: Synthesis of the Literature and State of the Practice. Federal Highway Administration.

implementation of the proposed projects. Monitoring could include user surveys, collection of user numbers, and other metrics. If adverse impacts to recreation on these trails are identified, mitigation would be developed to restore and/or maintain a high quality recreational experience. Mitigation could include education, additional signage, maintenance, and management in partnership with non-profits, etc. Maintenance could include: drainage repair, tread repair, surface armoring, trail narrowing, sign repair, and other similar items. Operational changes could include: trail closure, restricting access, increased education, trail patrol program, etc. Route changes could include: trail reroutes to reduce grade or increase sight lines, additional signage, access trails or other trail connections, and other similar actions.

The monitoring and resulting actions would maintain trails to the Trail Management Objectives and preserve the quality of the recreation experience while accommodating additional use. This program would mitigate impacts of additional use of the trail system and potential use conflicts.

Monitoring would establish baseline levels of use prior to Gondola access for hikers and mountain bikers. Actual use levels will be used to establish the fair share that Heavenly Mountain Resort will contribute to monitor, operate and maintain the greater trail system to preserve high quality trail recreation and improving access to National Forest System Lands.

TRPA and CEQA

Analysis: *Not Applicable; All Action Alternatives*
SAROEAs does not apply to CEQA or TRPA review.

NEPA

Analysis: *No Adverse Effects; All Action Alternatives*

No Action: Under the No Action Alternative there would be no new projects. Thus this alternative would technically be consistent with Forest Service objectives, but would not meet the Purpose and Need (refer to Chapter 1) or the goals of SAROEAs to enhance recreational opportunities at ski areas.

Proposed Action: Activities contained in the Proposed Action would be consistent with Forest Service objectives for summer recreation at ski areas as authorized by SAROEAs. All proposed projects would adhere to the criteria outlined in FSM 2343.14 (refer to Appendix 3.13-A for more information about consistency with FSM criteria for summer recreation projects). The Proposed Action would meet the Purpose and Need, as stated in Chapter 1.

In general, the design, location, and nature of proposed activities are consistent with existing use characteristics at Heavenly Mountain Resort, would encourage outdoor recreation and the enjoyment of nature, would improve access to recreation, utilize existing infrastructure where possible, are consistent with ROS class, and do improve connectivity with adjacent and connecting Forest Service lands. The projects would be consistent with the overall atmosphere at Heavenly Mountain Resort as a developed recreation facility.

The proposed mountain bike park and connector trails, could result in additional use of the Tahoe Rim Trail and Van Sickle Connector Trail in the vicinity of Heavenly Mountain Resort. Increased use on these trails could result in user conflicts and other impacts to the existing recreational experience. However, any additional use of the Tahoe Rim Trail and/or Van Sickle Connector Trail resulting from the proposed projects would be consistent with the intended use and management of these trails and is not anticipated to degrade the recreational experience.

Additionally, the recreational experience on these trails would be monitored as proposed in Chapter 2 (Section 2.3.5), and if a reduction in the quality of the experience or degradation of the facility were observed, improvements would be required.

Alternative 1: As with the Proposed Action, activities contained in Alternative 1 would be consistent with Forest Service objectives for summer recreation at ski areas as authorized by SAROE. All proposed projects would adhere to the criteria outlined in FSM 2343.14 (refer to Appendix 3.13-A for more information about consistency with FSM criteria for summer recreation projects). Alternative 1 would meet the Purpose and Need, as stated in Chapter 1.

Impacts from activities in Alternative 1 would be identical to those described above under the Proposed Action, except for the mountain coaster. Under Alternative 1, the Forest Flyer would be replaced with the Sky Meadows Mountain Coaster. The Sky Meadows Mountain Coaster would be located in closer proximity to other recreation infrastructure (including the proposed Sky Meadows zipline), would be more visible, and would have more impacts on the winter recreational experience. The Sky Meadows Mountain Coaster would be located in an area often used for tree-skiing. The area immediately surrounding the coaster track would be fenced-off and closed to skiing (an area of approximately 22 acres).

Alternative 2: Projects contained in Alternative 2 would be consistent with Forest Service objectives for summer recreation at ski areas as authorized by SAROE. All proposed projects would adhere to the criteria outlined in FSM 2343.14 (refer to Appendix 3.13-A for more information about consistency with FSM criteria for summer recreation projects). Alternative 2 would meet the Purpose and Need, as stated in Chapter 1.

Impacts from activities in Alternative 2 would be identical to those described under the Proposed Action, except for the Sky Meadows Challenge Course. Under Alternative 2, the Sky Meadows Challenge Course would not be

constructed. Without the Sky Meadows Challenge Course, there would be fewer opportunities for outdoor recreation and enjoyment of nature in the Sky Basin area.

IMPACT: REC-2: Would the Project result in decreased availability or degradation of a high quality recreational experience?

In general, the proposed projects and activities included in all of the action alternatives would expand the variety of recreational opportunities available to visitors to South Lake Tahoe and, specifically, at Heavenly Mountain Resort. However, the degree to which the variety of recreational opportunities would expand depends on the Action Alternative selected. While on-mountain summer and year-round recreational activities at Heavenly Mountain Resort represent one component of the many opportunities that are available throughout South Lake Tahoe, providing additional activities within the SUP area could provide incentive for guests to participate in additional activities on NFS lands.

Additionally, the continued development of more managed natural resource-based recreation opportunities within developed portions of Heavenly's SUP area could expose people to new perspectives and be a gateway to get them interested in the many unstructured activities that National Forests have to offer. A combination of new and traditional recreational activities, combined with interpretive opportunities, would create a unique experience and reach the widest range of visitors at Heavenly Mountain Resort.

As discussed above in the analysis of REC-1, the proposed projects would increase the availability of recreational resources and enhance the recreational experience available at Heavenly Mountain Resort and on surrounding NFS lands. Potential impacts to the recreational experience on the Tahoe Rim Trail and Van Sickle Connector Trail resulting from the proposed mountain bike park (included in all action alternatives) are discussed above, and would be monitored and addressed as necessary.

CEQA and TRPA

Analysis: *Less than Significant; All Action Alternatives*

No Action: The No Action Alternative contains no new projects, and thus there would be no decreased availability or degradation of a high quality recreational experience.

Proposed Action: The Proposed Action would not result in a decreased availability or degradation of a high quality recreational experience. The mountain bike park and connector trails, included in all action alternatives, could result in additional use of the Tahoe Rim Trail and Van Sickle Connector Trail in the vicinity of Heavenly Mountain Resort. Increased use on these trails could result in user conflicts and other impacts to the existing recreational experience.

However, any additional use of the Tahoe Rim Trail and/or Van Sickle Connector Trail resulting from the proposed projects would be consistent with the intended use and management of these trails and is not anticipated to degrade the recreational experience.

Additionally, the recreational experience on these trails would be monitored, and if a reduction in the quality of the experience or degradation of the facility were observed, improvements would be required.

Alternative 1: Alternative 1 would not result in a decreased availability or degradation of a high quality recreational experience. Potential impacts from the mountain bike park are discussed above under the Proposed Action.

Alternative 2: Alternative 2 would not result in a decreased availability or degradation of a high quality recreational experience. Potential impacts from the mountain bike park are discussed above under the Proposed Action.

NEPA

Analysis: *No Adverse Effects; All Action Alternatives*

No Action: The No Action Alternative contains no new projects, and thus there would be no decreased availability or degradation of a high quality recreational experience. The No Action Alternative would not improve the recreational experience at Heavenly Mountain Resort, and would not meet the Purpose and Need stated in Chapter 1.

Proposed Action: The Proposed Action would improve the range and variety of available recreation in the study area and improve the recreational experience at Heavenly Mountain Resort. Proposed activities would provide outdoor, natural resource-based recreation designed to appeal to a wide variety of users. The Proposed Action would meet the Purpose and Need stated in Chapter 1.

Specifically, the Proposed Action would provide a range of additional summer and year-round activities suitable for users of different abilities, interests, and familiarity with outdoor recreation. Activities such as the Forest Flyer and zipline canopy tours would require minimal skill and be suitable for guests who are less comfortable with outdoor recreation. The mountain bike park and connecting trails would provide improved access and variety for more skilled and physically fit guests.

The mountain bike park and connector trails, included in all action alternatives, could result in additional use of the Tahoe Rim Trail and Van Sickle Connector Trail in the vicinity of Heavenly Mountain Resort. Increased use on these trails could result in user conflicts and other impacts to the existing recreational experience. However, any additional use of the Tahoe Rim Trail and/or Van Sickle Connector Trail resulting from the proposed projects would be consistent

with the intended use and management of these trails and is not anticipated to degrade the recreational experience.

Additionally, the recreational experience on these trails would be monitored, and if a reduction in the quality of the experience or degradation of the facility were observed, improvements would be required.

Alternative 1: The recreational impacts of Alternative 1 would be similar to those described above under the Proposed Action. The Sky Meadows Mountain Coaster would replace the Forest Flyer, but would provide a similar recreational experience. Alternative 1 would meet the Purpose and Need stated in Chapter 1.

Alternative 2: The recreational experience under Alternative 2 would be similar to that of the Proposed Action, except the removal of the Sky Meadows challenge course would reduce the variety of activities provided in the Sky Basin area. Challenge courses require minimal physical exertion while providing exciting outdoor recreation experiences. Without this activity, the range of activities available to families or people with less familiarity with the outdoors would be reduced. Under Alternative 2, the Sky Meadows zone would be less of a destination for guests at Heavenly Mountain Resort because the only activities in this area would be the Mountain Excursion Tour and the Sky Meadows zipline.

Alternative 2 would less effectively meet the Purpose and Need stated in Chapter 1, when compared with the Proposed Action and Alternative 1.

IMPACT: REC-3: Would the Project conflict with an established recreational use in the area?

As discussed above, the proposed activities would not conflict with snow sports operations at Heavenly Mountain Resort. The Panorama Trail would improve access to surrounding NFS lands. Potential increased use on the Tahoe Rim Trail and Van Sickle Connector Trail could impact the recreational experience on those trails, but design features included in Chapter 2 (Section 2.3.5) would require the quality of the experience to be monitored and maintained. As discussed above, criteria such as user experience and the number of users would be monitored with particular attention given to potential user conflicts. Maintenance or other improvements would be required to address any degradation of the recreational experience due to the proposed projects.

The proposed projects could lead to increased use on NFS lands surrounding Heavenly Mountain Resort. The impacts of this increased use would be monitored to ensure that the trail design standards do not change.

Within Heavenly's SUP area, the proposed projects would enhance the variety of activities available to existing user groups, and would not displace any particular group of users.

CEQA and TRPA

Analysis: *Less than Significant; All Action Alternatives*

The mountain bike park and connector trails, included in all action alternatives, could result in additional use of the Tahoe Rim Trail and Van Sickle Connector Trail in the vicinity of Heavenly Mountain Resort. Increased use on these trails could result in user conflicts and other impacts to the existing recreational experience. However, any additional use of the Tahoe Rim Trail and/or Van Sickle Connector Trail resulting from the proposed projects would be consistent with the intended use and management of these trails and is not anticipated to degrade the recreational experience.

Additionally, the recreational experience on these trails would be monitored, and if a reduction in the quality of the experience or degradation of the facility were observed, improvements would be required.

NEPA

Analysis: *No Adverse Effects; All Action Alternatives*

The mountain bike park and connector trails, included in all action alternatives, could result in additional use of the Tahoe Rim Trail and Van Sickle Connector Trail in the vicinity of Heavenly Mountain Resort. Increased use on these trails could result in user conflicts and other impacts to the existing recreational experience. However, any additional use of the Tahoe Rim Trail and/or Van Sickle Connector Trail resulting from the proposed projects would be consistent with the intended use and management of these trails and is not anticipated to degrade the recreational experience.

Additionally, the recreational experience on these trails would be monitored, and if a reduction in the quality of the experience or degradation of the facility were observed, improvements would be required.

IMPACT: REC-4: Would the Project result in the need for new or expanded parks or recreational facilities?

The proposed activities would provide new and expanded recreational facilities. Neither the Proposed Action nor Action Alternatives would result in an increase in the approved buildout capacity of Heavenly Mountain Resort. The MP 96 Final EIR/EIS/EIS and MPA 07 Final EIR/EIS/EIS did not identify the need for new parks or recreational facilities as a result of the MP buildout. Therefore, new or expanded park facilities would not be required to serve new direct or indirect population growth for the Proposed Action or Action Alternatives.

CEQA and TRPA

Analysis: *Less than Significant; All Alternatives*

None of the Action Alternatives or the No Project Alternative would result in the need for new parks or expanded recreational facilities. Therefore, this impact is considered less than significant.

NEPA

Analysis: *No Adverse Effects; All Alternatives*

None of the Action Alternatives or the No Project Alternative would result in the need for new parks or expanded recreational facilities.

IMPACT: **REC-C1: Will the project result in cumulative impacts to recreational uses or resources?**

Since its inception in 1955, Heavenly Mountain Resort has evolved into a premier ski resort. The focus of the resort has traditionally been snow sports recreation, but within the past decade has begun to offer a larger variety of year-round and summer recreation opportunities. Opening in the 2000/01 season, the Adventure Peak area is the center of year-round and non-skiing activities at Heavenly. The activities offered at Adventure Peak supplement the existing snow sports infrastructure throughout Heavenly's SUP area, and provide some diversity of opportunities to appeal to a broader group of visitors. As discussed above, Heavenly's SUP area is still dominated by snow sports infrastructure, and skiing is still the primary focus of the resort.

The recreational experience under the Proposed Action is discussed in the analysis above. When considered cumulatively with other existing recreational opportunities in the analysis area (e.g., hiking and biking trails), the proposed projects would improve the variety of year-round and non-skiing recreational opportunities at Heavenly Mountain Resort. The activities would not conflict with the winter recreational experience, as all projects would be consistent with the management of the SUP area as a developed recreation facility.

CEQA and TRPA

Analysis: *Less than Significant; All Alternatives*

The project would improve the recreational experience at Heavenly Mountain Resort and throughout the analysis area by improving access to outdoor recreation on NFS lands and providing a larger variety of recreational activities. The proposed projects and activities would complement and enhance the existing summer and year-round recreation program at Heavenly and on nearby NFS lands.

NEPA

Analysis: *No Adverse Effects; All Alternatives*

The project would improve the recreational experience at Heavenly Mountain Resort and throughout the analysis area by improving access to outdoor recreation on NFS lands and providing a larger variety of recreational activities. The proposed projects and activities would complement and enhance the existing summer and year-round recreation program at Heavenly and on nearby NFS lands.