

Appendix C

**Squaw Valley | Alpine Meadows
Base-to-Base Gondola Final Visitation
and Use Assessment**

**SQUAW VALLEY | ALPINE MEADOWS
BASE-TO-BASE GONDOLA
FINAL VISITATION AND USE ASSESSMENT**

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BACKGROUND

Squaw Valley Ski Holdings, LLC (SVSH) has applied to the U.S. Forest Service and Placer County, California for permission to construct a gondola connecting the Squaw Valley and Alpine Meadows ski areas.¹ The U.S. Forest Service and Placer County are analyzing the potential environmental impacts of this project through a joint Environmental Impact Statement (EIS)/Environmental Impact Report (EIR).

The EIS/EIR will analyze direct and indirect effects of the Proposed Action and alternatives to the Proposed Action that would occur on both National Forest System (NFS) lands as well as private lands within Placer County, California. Past, present, and reasonably foreseeable future activities that could affect, or could be affected by, implementation of the Proposed Action and alternatives will be analyzed cumulatively.

This assessment is designed to inform the analysis of potential direct impacts of the proposed Base-to-Base Gondola by evaluating the anticipated changes to annual snowsports visitation at Squaw Valley | Alpine Meadows as a result of the proposed project. This analysis evaluates the anticipated impact on total snowsports visits (i.e., skier visits) and potential changes in the Squaw Valley | Alpine Meadows market share expected to specifically result from the installation and operation of the proposed Base-to-Base Gondola.

METHODOLOGIES AND DATA

Amenities and Attractions

At the root of this assessment is the consideration of whether the proposed Base-to-Base Gondola would principally provide an added amenity at Squaw Valley | Alpine Meadows or if the added resort connectivity that it would provide would be sufficiently unique to act as an attractant to increased visitation. As detailed within this analysis, the ski industry is an extremely competitive market with multiple resorts vying to maintain (or improve) their share of a market – which has been relatively stagnant for the past two decades. Resorts often look to broaden their range of recreational offerings which individually may not specifically increase visitation but collectively may improve the overall attractiveness of the resort. An example of this would be the addition of a golf course in the resort base area. Due to the abbreviated season length and declining participation rates, golf is infrequently profitable for resort operators if assessed individually. However, golf frequently serves as an important added amenity to the resort offerings and is beneficial to lodging occupancy and conferences.

Representative Lift Systems

Initial methodologies considered for this analysis included the examination of other North American resorts which have implemented gondolas (or other lift systems) which interconnect two resorts or portions of two resorts. Projects initially reviewed included: The Peak 2 Peak Gondola at Whistler-Blackcomb, The Quicksilver Gondola interconnecting Park City Mountain Resort with The Canyons Resort, and the BreckConnect Gondola connecting the Town of Breckenridge with Breckenridge Ski Resort's Peak 7 and 8 base areas. An additional constraint in assessing these potentially representative projects is the

¹ Squaw Valley Ski Area and Alpine Meadows Ski Area are owned and operated by Squaw Valley Ski Holdings, LLC. (SVSH). SVSH purchased, and began operating, Alpine Meadows in September 2011.

lack of data available. Year-over-year comparative visitation data is not made publicly available for individual resorts. This data is considered business confidential and is closely protected by the individual resorts. Upon more detailed review, none of the reference examples provided an adequate anecdote. A brief description of each project and reason for its inadequacy is provided below:

Whistler Blackcomb: The Peak 2 Peak Gondola interconnects the upper portions of the two mountains rather than base areas. Installed with a 1.8 mile free-span between primary towers, it is 1,430 feet above the ground at the highest point to provide a thrill element rather than being strictly transportation oriented. Additionally, the Peak 2 Peak was not initially constructed to connect the two resorts, as a complete skiing connection between both resorts already existed at the time of construction. The Peak 2 Peak provides an upper-mountain connection that allows users to move between resorts without having to return to the lower portion of the mountain. Because of the dramatic height and span of the Peak 2 Peak Gondola, this facility possesses a strong “amusement” character which contributes to its ability to function as an attraction.

Park City-Canyons: The Quicksilver Gondola provides a simple on-mountain connection between skiing terrain at Park City and the skiing terrain at The Canyons. The Quicksilver Gondola connected the two resorts in the same season that they became available under one lift ticket/season pass product and the same year that Vail Resorts (owner) added both resorts to their nationally popular Epic Pass season pass product. Because of these additional factors, there is no effective method to isolate the data and filter for only the added effect of the new connectivity.

Breckenridge: The BreckConnect Gondola replaced the majority of rubber tire buses which previously connected in-town parking with the ski area’s base area. Guests wishing to access the ski area have little choice but to ride the gondola to/from the resort. This gondola system did not provide any new access or connectivity when it was constructed, but rather offered an alternative to the existing bus/transit system.

Data Based Analysis

Having determined that other industry projects would not provide the level of objective or quantifiable analysis necessary to evaluate the proposed Base-to-Base Gondola, extensive quantifiable data, collected annually by the ski industry, became the focus of this assessment.

Sources of data for this analysis are the National Ski Areas Association² (NSAA) Kottke End of Season Study, the NSAA National Demographic Report, the NSAA Economic Analysis of U.S. Ski Areas, SVSH, RRC Associates,³ and SE Group.⁴ The operational, financial, and demographic information in the referenced NSAA reports is submitted directly from ski areas across the U.S. The actual data for individual ski areas is

² The National Ski Areas Association is the trade association for ski area owners and operators. It represents 313 alpine resorts that account for more than 90 percent of the snowsports visits nationwide.

³ RRC Associates is the recognized leader in consumer intelligence and strategic market research for the tourism and recreation industries, with a specialized practice specific to the North American Ski Industry. RRC Associates provides a broad range of market research, customer satisfaction, media/ communications research and market analysis services. RRC was retained for this analysis specifically to evaluate the market and visitor use implications of the proposed Squaw Valley | Alpine Meadows Base- to-Base Gondola

⁴ SE Group is a specialty consulting firm with principal focus on the ski industry in the areas of planning, design, business and economic analysis, and Federal permitting. With 60 years of ski industry experience, SE Group is regularly engaged with the majority of ski resorts throughout North America and numerous resorts internationally.

confidential and proprietary; however, the results are amalgamated in the reports by region of the country in which the ski resort operates and further subdivided by the size group of the reporting ski resorts. Therefore, while resort-specific data cannot be published, the regional amalgamations provided are very representative. Squaw Valley | Alpine Meadows is categorized in the Pacific South Region as a large resort—this group includes Squaw Valley | Alpine Meadows, Heavenly Mountain Resort, Kirkwood Mountain Resort, Mammoth Mountain, and Northstar California.⁵ RRC Associates collects this proprietary data from ski areas and prepares these three reports under contract to NSAA and, therefore, has access to the extensive raw data, which comprises these reports. The data from these reports was customized for this analysis to present specific information relevant to this project, particularly breaking out Lake Tahoe regional area information; this level of detail is not presented in the published NSAA reports.

Definitions

Snowsports Visit: A person using the lift system to access a ski area for downhill skiing or snowboarding for one day. Synonymous with “skier visit,” which is an older term used prior to the advent of snowboarding. Note that one individual might ski ten days during the course of a winter season, which would be considered ten snowsports visits.

Active Participant: A single individual person who either downhill skis or snowboards at least once per winter season. The number of active participants in downhill snowsports in the U.S. is approximately 8.4 million⁶ each winter.

Market Share: The proportion of the overall regional market that one resort supplies. Calculated as a percentage by dividing the snowsports visits of one resort by the total snowsports visits for the region/market within which the resort operates.

PROJECT DESCRIPTION

The following is a brief description of the project (additional detail will be provided in the EIS/EIR). The EIS/EIR will analyze the impacts of the Proposed Action (the project as proposed by SVSH), the No Action Alternative (which represents a continuation of the existing condition), as well as other action alternatives. For the purposes of this visitation evaluation, the potential changes to visitation would not differ between the action alternatives because the main purpose of the project would not vary between alternatives. All action alternatives would provide a gondola to move visitors between the Squaw Valley base area and the Alpine Meadows base area. Additionally, cumulative impacts to visitation will be assessed separately in the EIS/EIR.

Alternative 2 – Proposed Action

SVSH would install, operate, and maintain an aerial gondola connecting the Squaw Valley and Alpine Meadows base areas. The proposed lift would be configured as an eight-passenger gondola and have a design capacity of approximately 1,400 persons per hour in each direction. Both base terminals would be primary drive stations for the lift. Two mid-stations are proposed—one on the Squaw Valley side near the top terminal of KT-22 and one on the Alpine Meadows side near *The Buttress*. Travel time between the ski

⁵ Data for the Pacific South Region includes 21 total ski areas/resorts operated in California, Nevada and Arizona, with six of these areas/resorts classified as a “large resort.”

⁶ National Ski Areas Association (NSAA) Kottke End of Season Study, 2016/17.

areas is estimated at approximately 16 minutes. The existing shuttle bus system between Squaw Valley and Alpine Meadows would not operate when the gondola is open.

The proposed gondola would transport guests in both directions during the winter season only, thus providing a ready transportation connection between the two ski areas. The gondola would typically operate each day from just before the Alpine Meadows and Squaw Valley ski areas open until just after closing. During the winter season, guests would embark or disembark at both base terminals and/or either of the mid-stations. The portion of the gondola between the Squaw Valley base terminal and the Squaw Valley mid-station would be capable of operating independently if the other portion of the gondola were closed due to weather or other conditions. This would allow this segment of the gondola to operate as a supplemental ski lift (if needed). The only operation during the non-ski season would be for short periods associated with maintenance and testing, including occasionally moving individual cabins, or small numbers of cabins, across the system. There would be no guest use of the gondola system during the summer months.

Alternatives 3 and 4

Changes to the project under Alternatives 3 and 4 include the alignment of the gondola and specific locations of the two mid-stations. Both alternatives move the alignment of the gondola to the east and still include two mid-stations, although there may be potential differences in the ability of guests to load/unload at the mid-stations. The gondola under these alternatives would meet the same general need as the Proposed Action—to connect the base areas of Squaw Valley and Alpine Meadows. The gondola capacity and operating times/seasons would be the same as the Proposed Action under these alternatives.

ANTICIPATED USAGE OF THE BASE-TO-BASE GONDOLA

The proposed Base-to-Base Gondola is anticipated to be used primarily as transportation between the base areas of the two ski resorts, functionally replacing the shuttle bus service currently provided. Some guests could unload at the mid-stations to access skiable terrain in the KT-22 area at Squaw Valley or *The Buttress* area at Alpine Meadows, but this use is expected to be limited.⁷ With the installation and operation of the planned Base-to-Base Gondola, SVSH plans to cease the daily operation of the current shuttle bus service between the two resort base areas. The shuttle bus service would continue to be offered only during poor weather conditions when the gondola is inoperable.

It is anticipated that guests of the two resorts would utilize the gondola for the following purposes:

- ❖ To park at the base of one ski area and ride the gondola to the base of the other ski area to access the additional terrain offered at the other resort.
- ❖ Guests lodging in accommodations located within one base area would have access to the other resort without the need to shuttle or drive to the other base area.

⁷ It is anticipated that the Base-to-Base Gondola would serve almost exclusively in a skier transport capacity, as opposed to providing lift capacity for round-trip skiing. On the Squaw Valley side, the skiing terrain would remain much more conveniently served by the existing KT-22 Express which loads more proximally to the terrain served and unloads at a higher elevation providing access to additional terrain areas (*Chute 75, Moseley's, West Face*). At Alpine Meadows, only a limited portion of *The Buttress* terrain would be accessible for skiing via the gondola's mid-station. This terrain is advanced level skiing and is only open when snow/avalanche conditions permit. Access to *The Buttress* terrain would only be possible under the alignment/configuration proposed within Alternative 2.

- ❖ To ski/snowboard one mountain for part of the day, and then ski/snowboard the other mountain for the other portion of the day.
- ❖ To access the base area of the other mountain for services, such as dining/shopping.
- ❖ Ski-school lessons gathering at Squaw Valley may ride the gondola to access a higher concentration of suitable teaching terrain currently offered at Alpine Meadows.
- ❖ Non-skiers/riders in a travel party could use the gondola for transportation between the two base areas.
- ❖ Guest may wish to ride the gondola from the Squaw Valley base area to the top of KT-22 (rather than the existing chairlift in the same location) during periods of weather when the comfort of an enclosed cabin is preferable.
- ❖ When snow and skiing conditions permit, guest may disembark at the Alpine Meadows mid-station to gain lift access to the existing skiing terrain area known as *The Buttress* which is presently only accessible from the summit of Alpine Meadows via an extensive hike/traverse.⁸

Inter-Resort Shuttle Service and Current Usage of Both Resorts

The need for a more convenient method of transportation between the resorts is evidenced by very low utilization of the existing inter-resort shuttle bus system, which currently operates during the winter season to transport guests between the Squaw Valley and Alpine Meadows base areas. The shuttle bus service currently picks up (8:30 a.m. to 4:30 p.m.) at each base area approximately every 20 minutes and requires roughly 30 to 45 minutes to transfer between the two base areas, depending on traffic/weather conditions. This inter-resort access is considered inconvenient, as it requires skiers/riders to exit the mountain, walk with their equipment to the shuttle stop, wait up to 20 minutes for the shuttle, then travel approximately 30-45 minutes to the shuttle stop at the other ski area.

A review of inter-resort shuttle bus ridership data for the past five winter seasons indicates that, on average, 41,675 persons rode the shuttle one-way each season. The majority of guests using the shuttle need to return to their original starting place and, therefore, ride the shuttle roundtrip. When accounting for this roundtrip ridership, the average over five seasons is approximately 21,880 riders per season. This figure represents about 2.7 percent of Squaw Valley | Alpine Meadows's total snowsports visits during a given season. When considered with accompanying survey information, this particularly low shuttle usage is an indicator that guests do not presently find it convenient and/or effective to shuttle between the two resorts.⁹ During the 2014/15 winter season, a survey of over 700 Squaw Valley | Alpine Meadows guests was conducted to understand resort usage patterns and preferences.¹⁰ When guests were asked "*How likely would you be to use the Base-to-Base Gondola to ski both mountains in a single day?*," 43 percent of respondents stated they would use the gondola "most of the time" or "all the time," an additional 33 percent responded "sometimes," 14 percent answered "infrequently," and 9 percent responded "never."

To further assess current guest usage of the two resorts, data was analyzed to determine the quantity of total tickets used on a given day that were scanned at both resorts—indicating that the guest had skied/ridden both resorts on that particular day. Ticket scan data was analyzed from ten representative days during the 2015/16 winter season. The data indicates that, on average, less than 1 percent (0.95 percent) of the total number of guests at both resorts utilized their ticket to visit both ski areas on a given

⁸ Access to *The Buttress* terrain would only be possible under the alignment/configuration proposed within Alternative 2.

⁹ Data 2011/12 through 2015/16 provided by SVSH, LLC.

¹⁰ LSC Transportation Consultants, Inc., 2015. Total survey respondents >700.

day.¹¹ Similar to the low utilization of the inter-resort shuttle, when compared to the gondola use survey, this data is an indicator that the time and effort required for guests to visit both resorts on a given day is an inhibition to them doing so more frequently.

ANALYSIS

Isolating changes in snowsports visits to a single factor is not practical given all the inter-related dynamics that influence the number of visitors to a ski area. Therefore, projections of changes in snowsports visits must rely on a combination of statistical evidence, experience, and professional judgement.

In general, factors most notably influencing snowsports visits include:

- ❖ Snowfall: attracting increased participation and frequency
- ❖ Snowfall: attracting increased total participants to the sport
- ❖ Resort Capacity and Amenities
- ❖ Ticket/Season Pass Pricing
- ❖ Overnight Accommodations
- ❖ Demographics
- ❖ Market Competition
- ❖ Marketing and “Curiosity Factor”

To understand the potential changes to snowsports visitation resulting from the Base-to-Base Gondola, this assessment considers how the project may impact, or be impacted by, any of the above-listed variables. To the extent practicable, this report attempts to isolate the anticipated impact of the Base-to-Base Gondola project, holding other factors constant.

Snowfall (Participation and Participants)

The number of snowsports visits at Lake Tahoe area resorts (Kirkwood, Boreal, Heavenly, Sierra-at-Tahoe, Mt. Rose Ski Tahoe, Diamond Peak, Homewood, Northstar California, Sugar Bowl, and Squaw Valley | Alpine Meadows) has witnessed increased variability over the past four-to-five seasons, primarily due to snowfall. As displayed in Figure 1, snowfall and visitation are highly correlated¹² (statistical correlation of 0.80).¹³ The number of active snowsports participants skiing/riding in the Lake Tahoe area (see Figure 2) demonstrates this variability, and are strongly correlated to snowfall (correlation 0.72).

Interestingly, data indicates that there is very little year-to-year variation in the average days participated. The regional data evaluated indicates that over the past six seasons, each snowsports participant averaged 5.3 *days* of skiing/riding per winter. For example, the 2015/16 winter season data indicates that snowsports visitation rose by approximately 1.6 *million visits* over the prior season, and that active

¹¹ Data 2015/16 provided by SVSH, LLC. Representative data evaluated for week day, weekend day, peak day and the holiday period. Only ten days were assessed due to limitations in the SVSH database and the manual process/calculations required to extract this specific information.

¹² As the data in Figure 1 indicates, there is a strong positive correlation between snowfall and skier visitation. However, macroeconomic factors can affect this correlation in certain instances. For example, the 2008/09 season experienced increased snowfall over the prior season, but visitation declined. Notably, 2008/09 was the first full winter during the “Great Recession.”

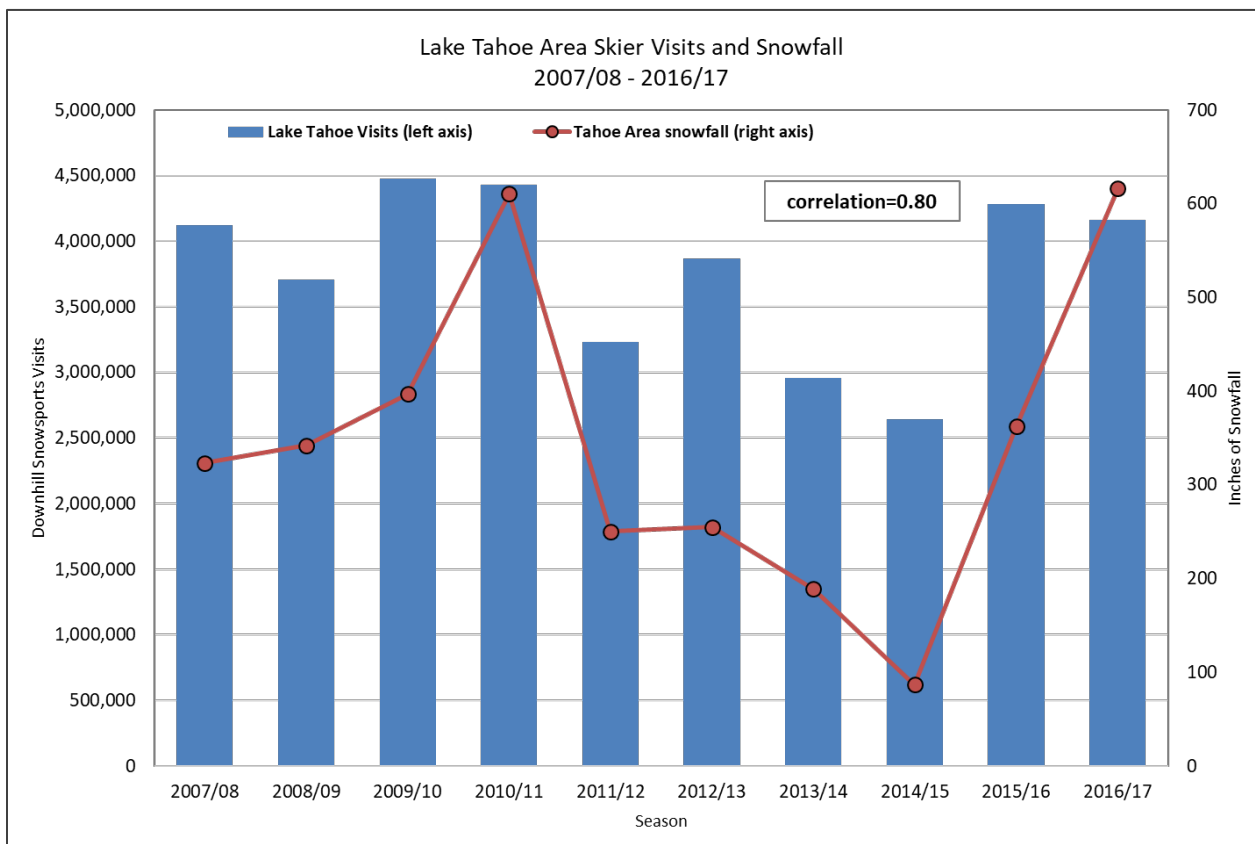
¹³ Statistical correlation is a single number that describes the degree of relationship between two sets of variables. A value of +1.0 represents a perfect correlation. Values above +0.7 generally indicate a strong positive correlation signifying that the two sets of variables possess a strong relationship.

participants increased by roughly 368,000. If these additional participants each engaged 5.3 days that season, it would more than account for the 1.6 million additional snowsports visits. The extent of variation in active participants principally accounts for the variation in total annual visitation.

This indicates that when total snowsports visits rise, or fall, at the Lake Tahoe area resorts, it is primarily attributable to an increase in the overall number of active participants being enticed by abundant snowfall to get out to ski/ride. The data does not indicate that enthusiasts actually ski/ride more, or fewer, days per season as a function of snowfall.

The notably strong correlation between snowfall and visitation/participation is an indicator that abundant snow and good skiing conditions remain the most significant influence to resort visitation and overall participation in the sport.

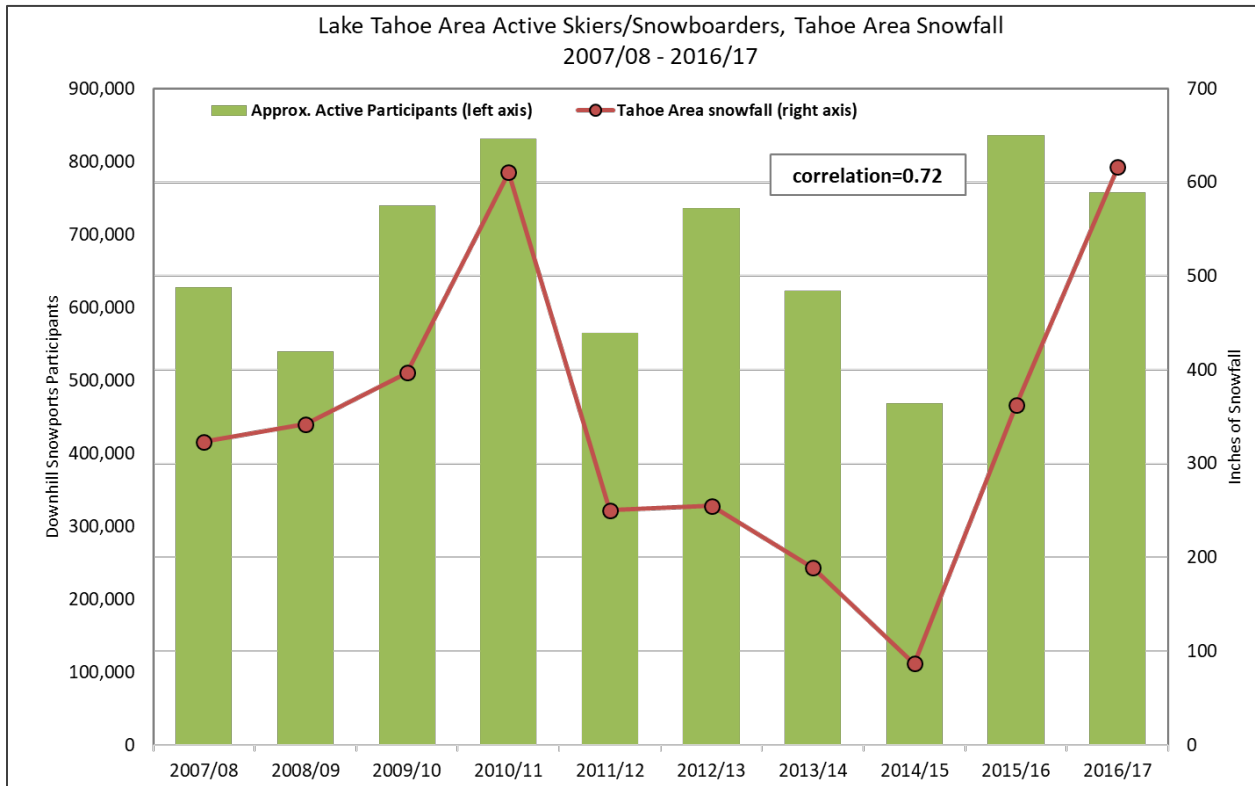
FIGURE 1



Source: NSAA Kottke End of Season Study custom analysis

Note: The Lake Tahoe area, as used in the analysis, is defined as: Kirkwood, Boreal, Heavenly, Sierra-at-Tahoe, Mt. Rose, Diamond Peak, Homewood, Northstar, Sugar Bowl, and Squaw Valley | Alpine Meadows.

FIGURE 2



Source: NSAA Kottke End of Season Study custom analysis

Resort Capacity and Amenities

It is important to note that “demand” for skiing is both quantitative and qualitative. Similar to all industries that offer activities to, and compete for, the recreation/leisure guest, facilities that continually improve the quality of their infrastructure tend to maintain or improve market share compared with those that do not. However, simply providing increased capacity does not translate to increases in snowsports visitation (refer to the section on Demographics below).

From the quantitative perspective, the proposed Base-to-Base Gondola would not specifically provide access to any new skiing terrain; however, it would qualitatively improve the convenience of access to the existing terrain at Squaw Valley and Alpine Meadows. While some guests could use the Base-to-Base Gondola to access KT-22 or *The Buttress* terrain, they would primarily board the gondola at the base of one mountain, with the intent of accessing the base area (and existing skiable terrain) of the other mountain. As briefly discussed above, on the Squaw Valley side, the skiing terrain would remain much more conveniently served by the existing KT-22 Express, which loads more proximally to the terrain served and unloads at a higher elevation, thus providing access to additional terrain areas (*Chute 75*, *Moseley’s*, *West Face*, *GS Bowl* and the Olympic Lady Lift). Additionally, guests would not need to remove their skis/boards at the bottom of each run to board a gondola cabin and put them back on again at the top (the KT mid-station). At Alpine Meadows, only a limited portion of *The Buttress* terrain would be accessible for skiing via the gondola’s mid-station (under Alternative 2). This terrain is advanced- to expert-level terrain with predominant slope gradients greater than 70 percent. Additionally, *The Buttress* terrain is east/southeast aspect, which frequently poses challenging snow conditions due to solar exposure. As a result of these conditions, *The Buttress* terrain is only open when snow/avalanche conditions permit. The location of the Alpine Meadows

mid-station under alternatives 3 and 4 would not provide access to any skiing terrain – nor would gondola riders be permitted to disembark at this location.¹⁴

Existing Resort Utilization and Evaluation of Physical Capacity

To evaluate whether the proposed Base-to-Base Gondola would lead to an increase in snowsports visitation, or would principally serve as an added amenity for current guests, an assessment of the current capacities and utilization of both resorts was conducted. This analysis was completed to determine if one or both of the resorts presently has additional physical capacity to host an increase in snowsports visitation and within which periods of the operating season additional capacity may be present. Within this assessment, the proposed Base-to-Base Gondola was included in capacity calculations for its ability to provide out-of-base access to surrounding existing lifts and terrain. The proposed project would not provide access to any new skiing/riding terrain and is not anticipated to receive measurable repeat use from guests making repeat runs within the area served by the Base-to-Base Gondola due to the fact that surrounding, readily accessible lifts would be more convenient.

Contemporary ski area planning frequently evaluates, and compares, peak day usage against what would be considered a more typical or “comfortable day.” For efficiency, ski area infrastructure is not developed to comfortably accommodate the “peak day.” By design, it is assumed that several days, across the course of a winter season, will present a more crowded experience. Resorts are therefore planned to provide a comfortable guest experience on a more typical day, which is moderately busy. To quantify the comfortable level of visitation, the 10th busiest day of the season is often used as an indicator.¹⁵ Assessing daily snowsports visitation data from the previous six winter seasons (2011/12 through 2016/17), peak day, average weekend/holiday day, and average weekday visitation was compared as a percentage of the calculated 10th busiest day for the same data period (Table 1 below).

Table 1.
Squaw Valley | Alpine Meadows Snowsports Visitation Expressed as a Percentage of the 10th Busiest or “Comfortable” Day

	Squaw Valley	Alpine Meadows
Peak Day	135%	136%
Weekends + Holidays	66%	63%
Weekdays	24%	27%

Source: SVSH, LLC. and SE Group

As detailed above, each resort’s peak day runs approximately 35 to 36 percent above the “comfortable day.” For the average weekend and holiday, utilization is roughly 63 to 66 percent of the 10th busiest day, which is quite typical for most ski areas in the western United States. As would be expected, the average weekday for both ski areas remains relatively under-utilized at approximately 24 to 27 percent of the 10th busiest day.¹⁶

¹⁴ Under Alternatives 3 and 4, the Alpine Meadows mid-station would be located within the private Caldwell property. Presumably, some accommodation would be made for guest/residents of the private properties there to embark/disembark at this mid-station.

¹⁵ In ski area planning and analysis, SE Group frequently calculates a “Comfortable Carrying Capacity (CCC) for a resort. The calculation of CCC contains numerous key assumptions and by its nature is partially subjective. The calculation of CCC is generally approximated by the 10th busiest day for a resort. For this analysis, rather than relying upon CCC, and its inherent partial subjectivity, the 10th busiest day was selected for evaluation as a fully objective analysis metric.

¹⁶ This analysis expresses the Peak day, Weekend/holiday day and Weekday as a percentage of the 10th busiest or comfortable day. Use of a percentage calculation to convey this information was necessary to avoid presenting the actual values for these days which

Parking availability is an additional capacity constraint on peak days. Parking capacity is limited at both Alpine Meadows and Squaw Valley. This constraint is generally present on peak days and a few weekend/holidays. During the 2016/17 winter season, Squaw Valley reached full parking capacity approximately 40 days and was therefore unable to accommodate any additional guests. This constraint was present approximately 75 percent of the weekend/holiday days during the 2016/17 season.¹⁷ Except for these periods, parking capacity does not present a capacity constraint.

An additional analysis of both daily and total annual snowsports visitation to Squaw Valley | Alpine Meadows indicates that Squaw Valley hosts approximately 70 percent of total combined visitation with Alpine Meadows accounting for 30 percent.

To summarize the relevant points of the utilization analysis, 18 percent of weekend/holiday operating days at Squaw Valley | Alpine Meadows are presently experiencing visitation above the comfortable day visitation level. Usage on weekends and holidays comprises roughly one third of the total operating days in the winter season but, accounts for 58 percent of total annual visitation to Squaw Valley, and 59 percent at Alpine Meadows. Squaw Valley | Alpine Meadows tends to operate near “comfortable capacity” on most weekends and holidays.

Capacity to accommodate additional snowsports visitation is limited on peak days, is constrained on weekends/holidays, and is high on non-holiday weekdays. This utilization analysis identifies that Squaw Valley | Alpine Meadows presently has limited/constrained capacity to absorb additional visitation on peak days and weekends/holidays, and that future increases in snowsports visitation at Squaw Valley | Alpine Meadows are most probable to be accommodated during non-holiday weekdays.

Ticket/Season Pass Pricing

Lift ticket and season pass pricing have only a limited effect on snowsports visitation and guests as they choose which resort to visit. While an increased price for a day ticket may incentivize a guest to patronize a resort offering a lower price, skiers are more strongly influenced to visit the resort(s) they are most familiar with and/or those facilities that their friends or family members are familiar with. The nationwide trend within the ski industry over the past decade of offering more modestly priced season passes has promoted the commitment/loyalty of the season pass holder to an individual resort (or resort collective offering access to multiple resorts on one pass product). Additionally, the more moderately priced season pass has attracted many typical day ticket purchasers to acquire season passes. During the 2016/17 season, season pass usage accounted for approximately 43 percent of snowsports visitation in the Pacific South Region, with each season pass holder participating an average of 9.7 days.¹⁸ During the 2016/17 season an average day ticket in the Pacific South Region was \$94 and the average season pass was \$607. Therefore, a participant would need only to use a season pass 6.5 times to warrant the selection of a season pass over purchasing day tickets.¹⁹

Specific to the Lake Tahoe area, season pass usage accounts for 45.7 percent of total snowsports visitation, with each pass holder participating an average of 9.2 days. During the 2016/17 season an

was determined to be business confidential/proprietary information that cannot be disclosed in a public document.

¹⁷ Notably, the 2016/17 winter season additionally experienced record snowfall. Snow removal and snow storage within parking areas has a pronounced impact of available parking capacities.

¹⁸ NSAA and RRC Associates. 2017. Kottke National End of Season Survey 2016/17, Final Report.

¹⁹ NSAA and RRC Associates. 2018. 2016/17 Economic Analysis of United States Ski Areas.

average day ticket in the Lake Tahoe region was \$110 and the average season pass was \$683.²⁰ Within the Lake Tahoe area, a participant would need to ski/ride slightly more than six days in a given season to benefit more from the purchase of a season pass than from a day ticket.

By improving access between the two resorts, the proposed Base-to-Base Gondola would improve the overall quality of the recreational experience at Squaw Valley | Alpine Meadows. This could potentially allow SVSH to increase pricing of day tickets and season passes, but only modestly. Given the competitive environment of the Lake Tahoe area, the installation of a single lift does not necessarily afford the resort operator the ability to measurably alter pricing. More probably, the benefits of improving the amenities and resort experience would be realized in the ability to enhance the overall attractiveness of the two mountains as a combined resort offering and the opportunity to increase occupancy rates for lodging properties.

Sophisticated resort operators, such as SVSH, continually assess their performance based on total revenue per visitor. Rather than exclusively focusing on lift ticket/season pass prices or ticket/pass revenue per skier, the metric that best captures the overall resort performance is total revenue per visitor. This calculation includes the full range of resort offerings such as lodging, food and beverage, snowsports lessons, equipment rental, retail, and non-skiing activities. For example, during the 2016/17 season, within the Pacific South Region, average ticket/pass revenue per skier was \$59, but total resort revenue amassed to \$118 per visitor.²¹

Finally, the consideration of ticket/pass prices at Squaw Valley | Alpine Meadows is very speculative with SVSH retaining the ability to change prices at any time, independent of the Base-to-Base Gondola project.

Overnight Accommodations

The proposed Base-to-Base Gondola would not change the supply of overnight accommodations. Present plans to increase lodging capacity within the Squaw Village are a known factor, and it is assumed that there is, and will continue to be, sufficient overnight accommodations in the Squaw Valley base area.

This analysis specifically attempts to evaluate changes in snowsports visits attributable to the proposed Base-to-Base Gondola independent of future changes in lodging capacity or utilization. The potential cumulative impacts related to the Squaw Village and other improvements at Squaw Valley | Alpine Meadows, including potential cumulative impacts to lodging and visitation, will be addressed separately in the EIS/EIR.

Demographics

Overall, demographics, including population, are key factors defining the number of potential snowsports visits at Squaw Valley | Alpine Meadows.

Total snowsports visits for the U.S. over the past 20 winter seasons are generally within the range of 53 and 57 million visits annually, with a peak of 60.5 million visits during both the 2007/08 and 2010/11 seasons.²² These data show that national snowsports visitation generally remains constant. Within the Pacific South Region, total annual snowsports visitation has averaged 6.8 million skiers/riders over the

²⁰ RRC Associates

²¹ NSAA and RRC Associates. 2018. 2016/17 Economic Analysis of United States Ski Areas.

²² NSAA and RRC Associates. 2017. Kottke National End of Season Survey 2016/17, Final Report.

previous ten seasons. The data indicates a peak of 8.4 million visits in 2009/10 and a low of 4.8 million guests in 2014/15—also tightly correlated to regional snowfall (data correlation 0.86).

Since 2000, NSAA and resorts nationwide have implemented several programs specifically intended to increase total national snowsports visitation.²³ While many of these programs have been individually quite successful, cumulatively they have only had the net effect of preventing national snowsports visitation from declining. In general, ski resorts now compete with an increasing variety of other recreational and leisure opportunities for visitors.

- ❖ Day Visitors. Day users comprise 44 percent of overall snowsports visitation within the Pacific South Region. This compares to the national average of 48 percent for the same data set. Customers from the regional area (Reno, Sacramento, and San Francisco Bay Area) tend to factor in driving convenience in determining which resort they ski or ride. Depending on which ski area they choose, customers will take different highways. Those who live in Sacramento or the Bay Area and visit South Lake Tahoe ski areas such as Sierra-at-Tahoe or Heavenly Mountain Resort access those ski areas via U.S. Route 50. Customers from the same markets who want to ski/ride in the North Lake Tahoe area (such as Boreal Mountain Ski Resort, Sugar Bowl Resort, Northstar California, or Squaw Valley | Alpine Meadows) access the region by way of Interstate 80. Mt. Rose Ski Tahoe and Diamond Peak Resort are generally most convenient for residents of Reno, particularly those that live in the southeastern portions of the city. Additionally, the northern and western portions of Reno enjoy close proximity to Northstar California and Squaw Valley | Alpine Meadows via Interstate 80.

These convenience factors make it less likely that customers will shift to a different location for their skiing or snowboarding, especially once they are already in the Lake Tahoe area. Additionally, local and regional customers tend to establish patterns of familiarity with the ski resorts, including knowing how to find the type of terrain they like, where to park, the food and beverage options, and other factors that tend to affect brand loyalty and keep customers returning to the same ski area over time. As detailed above, regional season pass usage (42.5 percent of visitation) strongly influences visitation patterns as passholders select a resort by purchasing a season pass in the fall and tend to focus their snowsports visitation where they hold a pass.

- ❖ Overnight Visitors. Within the Pacific South Region, overnight visitors comprise 56 percent of total visitation (compared to 51 percent nationally).²⁴ The proposed Base-to-Base Gondola would make it easier for visitors staying overnight at either Squaw Valley or Alpine Meadows to ski/ride the other mountain as part of their visit. This may result in longer trip length, reflected in the average number of nights stayed and days skied/ridden on the trip. Typically, overnight lodging occupancy is highest on weekends, and the ability to ski/snowboard more easily at another mountain may entice more weekend guests to extend their stay into the mid-week period. Similarly, the ability to easily access both resorts may represent added value and intrigue to destination guests causing them to select Squaw Valley | Alpine Meadows over other destinations.

²³ <http://www.nsaa.org/growing-the-sport/model-for-growth/model-for-growth-detailed/>

²⁴ Average four seasons, 2012/13 through 2015/16. NSAA and RRC Associates. 2016. Kottke National End of Season Survey 2016/17, Final Report.

- ❖ Country of Origin. Visitation within the Pacific South Region is principally domestic with U.S residents comprising 96.5 percent of the visitation over the past four seasons. It is expected that Squaw Valley | Alpine Meadows attracts a higher percentage of international visitors that the remainder of the Pacific South Region due to its international notoriety. Length of stay for foreign visitors is longer than for domestic destination guests.

Market Competition

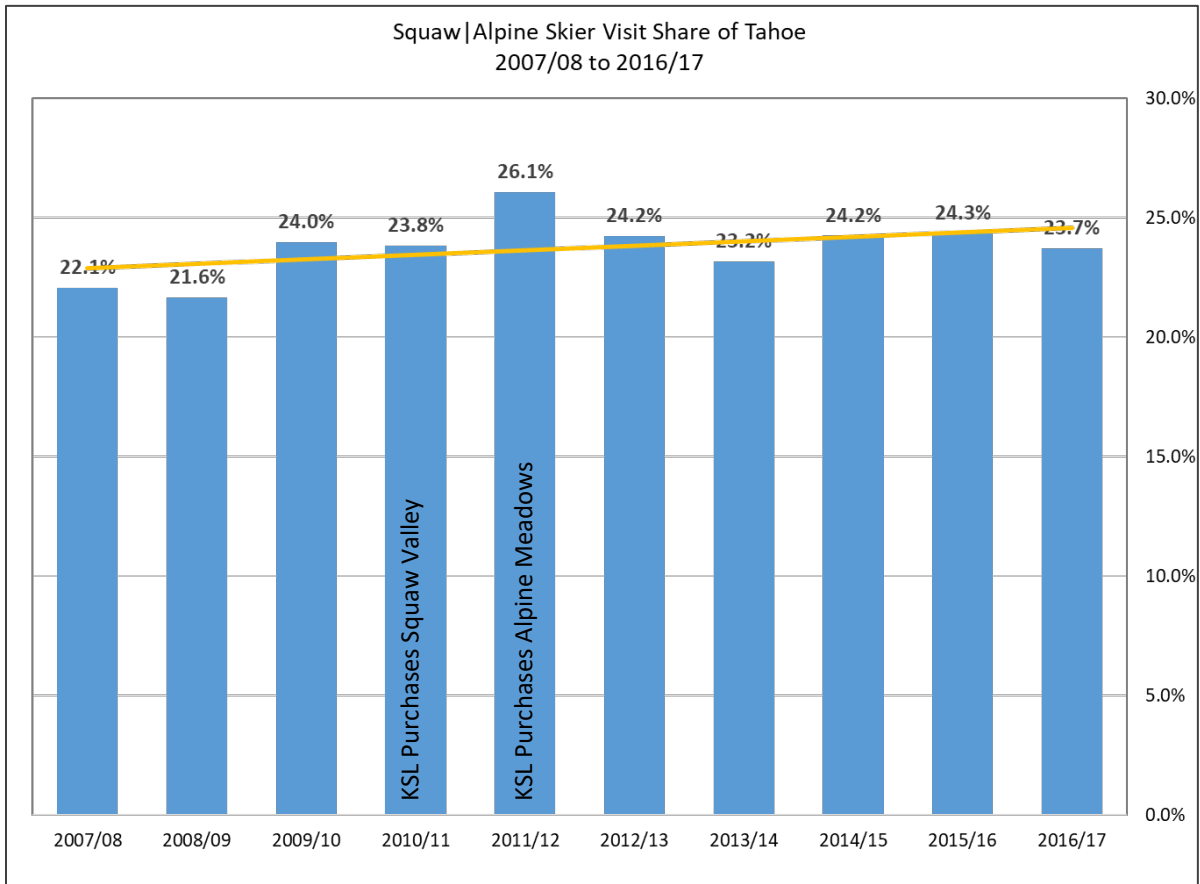
Within competitive markets where guest have multiple resorts from which to choose, the quality and variety of the amenities offered at a particular resort become the key differentiation. For much of the skiing populous, the activity of skiing/riding itself is fairly homogeneous as they lack the sufficient skill/experience to differentiate the experience of skiing/riding one trail from another, or one resort from another.

There is substantial competition for snowsports visits within the Lake Tahoe market. With ten resorts in the Lake Tahoe area (Kirkwood Mountain Resort, Boreal Mountain Ski Resort, Heavenly Mountain Resort, Sierra-at-Tahoe, Mt. Rose Ski Tahoe, Diamond Peak Resort, Homewood Mountain Ski Resort, Northstar California, Sugar Bowl Resort, and Squaw Valley | Alpine Meadows), guests have numerous choices. As described in the “Demographics” discussion, regional visitors tend to favor some resorts over others due to accessibility and convenience, or generally establish loyalties to a particular resort and are unlikely to change.

As shown in Figure 3, Squaw Valley | Alpine Meadows witnessed a slight increase in their overall share of Lake Tahoe area snowsports visits over the past ten seasons. Squaw Valley | Alpine Meadows experienced an increase in market share between 2007/08 and 2011/12, followed by two seasons of decline. The seasons 2014/15 and 2015/16 were relatively stable, although the Squaw Valley | Alpine Meadows market share was not as large as the previous peak experienced in 2011/12. Notably, the 2011/12 season was characterized by low/moderate snowfall (refer to Figure 1) but was the season in which SVSH purchased and began operating Alpine Meadows as an aligned resort.

Despite slight variability in Squaw Valley | Alpine Meadows market share over the previous ten seasons, the two resorts combined command almost a quarter (ten-year average of 23.7 percent) of the overall Lake Tahoe area market, indicating they are established as a relatively stable entity with a loyal customer base. The trendline included in Figure 3 depicts a modest upward tendency likely reflecting the improvements to amenities and facilities that SVSH has continued to implement.

FIGURE 3



Source: NSAA Kottke End of Season Study, Squaw Valley | Alpine Meadows

Note: The yellow line in Figure 3 above represents a linear trend line over the 10-year period

- ❖ **Market Share Considerations.** The data provided within this report depicts the status of the ski industry nationally, regionally, and locally for the Lake Tahoe area. Total annual snowsports visitation exhibits year-to-year variability but is principally flat over the long term. Participation in the sport fluctuates predominantly as a function of snowfall.

While the market share of a particular resort is affected by many of the same factors, where participants choose to ski/ride is also influenced by the quality, convenience and value of the resort offering. Operators that engage in regular maintenance and sequential enhancement of the facilities provided tend to maintain or slightly improve their share of the overall market. Operators who neglect maintenance and/or seldom augment their facilities frequently witness an erosion of market share.

Additionally, relevant to considerations of regional market share are the competitive forces within the local market. The Lake Tahoe area market hosts several large/multi-resort operators including Vail Resorts (which operates Heavenly Mountain Resort, Kirkwood Mountain Resort, and Northstar California), Alterra Mountain Company (Squaw Valley | Alpine Meadows) and Och-Ziff (Northstar California and Sierra-at-Tahoe), as well as numerous, well-established individual operators such as Mt. Rose Ski Tahoe, Sugar Bowl Resort, and Diamond Peak Resort. Each of these competitive operators are also engaged in sequential improvements to their facilities, striving to maintain their respective market shares.

Following these considerations, the proposed Base-to-Base Gondola is anticipated to maintain or slightly increase the Squaw Valley | Alpine Meadows market share within the Lake Tahoe area. The gondola will most likely keep Squaw Valley | Alpine Meadows competitive in the marketplace. However, it is not anticipated that the overall trend depicted in Figure 3 will be measurably altered as a result of the proposed Base-to-Base Gondola.

Marketing and “Curiosity Factor”

An interconnected Squaw Valley | Alpine Meadows would be the largest ski area (by acreage) in California and the second largest in the U.S.—bigger than Vail, Big Sky Resort, or Heavenly Mountain Resort. (Park City would remain the largest ski area in the U.S., and Whistler-Blackcomb would remain the largest in North America.) This factor would give Squaw Valley | Alpine Meadows a notable marketing benefit, potentially drawing more business from the local and regional area, as well as increased notoriety nationally and internationally.

Ski areas that make large infrastructure improvements and are able to garner national/international media coverage typically see a slight increase in business as a result. Squaw Valley | Alpine Meadows might see increased interest from destination visitors as a result of press coverage, particularly among those who might want try skiing/snowboarding at Squaw Valley | Alpine Meadows for curiosity reasons.

With the larger connected ski area, Squaw Valley | Alpine Meadows may also experience an increase in season pass sales. Even though season pass unit sales have not changed significantly in the past few years (both in the Lake Tahoe area and nationally), the proposed Base-to-Base Gondola may be sufficiently intriguing to entice some customers to purchase a season pass to the interconnected ski areas. It has become increasingly challenging to sell season passes in the Lake Tahoe area market; customers have become more cautious due to the increasingly variable snow conditions, and surrounding competitors (such as Vail Resorts) are offering season pass products which provide access to multiple resorts regionally and nationally. Clearly, the pricing and availability of ticket and season pass products that offer access to multiple resorts are more impactful on marketing and visitation than the implementation of infrastructural projects at any given resort. In January 2018, Alterra Mountain Company (parent company to SVSH) announced the coming availability of the “Ikon Pass,” a season pass product which will provide the holder with access to 23 resorts across nine states and three Canadian provinces, including Squaw Valley | Alpine Meadows.²⁵

Analysis of Other Resort Capital Improvement Projects

To quantify the potential impact on snowsports visitation resulting from implementation of the proposed Base-to-Base Gondola project, other ski resorts that have undergone substantial terrain expansion or implemented new lift upgrades/installations over the past five seasons were examined.²⁶ While these projects are not all specifically analogous to the proposed Base-to-Base Gondola, they provide insight into the range of impacts that infrastructure projects may have on snowsports visitation. Snowsports visitation changes at each resort were compared to the region in which the resort operates to determine incremental changes, beyond what would be expected without the improvements. The range of incremental change was wide, supporting the assertion that each project is unique and forecasts for general infrastructure upgrades remain challenging.

²⁵ See www.ikonpass.com for additional details.

²⁶ As described above, the proposed Base-to-Base gondola project does not include any new skiable terrain, but would improve accessibility to existing terrain.

Overall, 52 general ski resort improvement projects were initially analyzed over the recent five-year period. The incremental snowsports visit changes (beyond the performance of the region) ranged from -11 percent to +29 percent. Clearly, some improvements did drive snowsports visit growth, and others did not contribute to snowsports visit growth at all.

To further refine this analysis, the aforementioned resort projects were reviewed to select only those projects that involved lift replacements or new lift installations. Among the overall resort projects, 22 involved lift replacements/new installations costing \$4 million or more. The expenditure level of \$4 million was selected to separate simple lift upgrades (a gearbox, new haul rope, etc.) from more representative lift replacements and new installations. The data was further refined to evaluate eight lift projects costing more than \$6 million, which would signify a new or replaced lift with high-speed, detachable equipment. Additionally, an examination of these eight projects reveals that they are predominantly destination-orientated resorts.²⁷

Table 2:
Significant Lift Replacements/New Lift Installations at Other Resorts²⁸

Incremental Visitation Changes	Projects >\$4 million	Projects >\$6 million
Minimum	-14.8%	-2.6%
Maximum	9.0%	6.6%
Average	-0.8%	1.4%

Source: RRC Associates

In evaluating this data, the range of effect to changes in snowsports visitation narrows considerably from the 52 overall projects (range of 40 points) to the more focused set of lift projects costing over \$6 million (range of 9.2 points, Table 2). Notably, only one of the eight lift projects assessed was also associated with the provision of access to new skiing/riding terrain or significant ski terrain expansion. This is the project that produced the high of 6.6 percent, shown in the data range. The remaining seven projects were new lift installations or lift upgrades that did not provide access to additional/new skiing terrain. Of these seven, remaining lift projects not associated with terrain expansions, the average Incremental Visitation Change was 0.6 percent.

As detailed above, for those projects which were not associated with the addition of new skiing terrain, the average incremental visitation change (0.6 percent) was lower than the overall average where the one project with new skiing terrain was included. Although the proposed Base-to-Base Gondola would be a singular lift project without providing access to additional skiing/riding terrain, the mean of the data range for all eight projects (1.4 percent) was selected as a conservative value for this analysis. In reviewing the evaluated projects, use of the 0.6 percent average would likely be more representative in evaluating the anticipated effects of the proposed Base-to-Base Gondola, however, the higher value of 1.4 percent was selected in order to assess a more conservative perspective.

As detailed above, precise quantification of anticipated changes in visitation are not possible. The referenced eight similar lift projects present the most representative data for evaluation without undue speculation.

²⁷ Project included: Vail Mountain (two installations), Beaver Creek Resort, Jackson Hole Mountain Resort, Breckenridge Ski Resort, Mount Snow, Okemo Mountain Resort, and Stowe Mountain Resort.

²⁸ In order to assess the impact of the individual lift project, calculations specifically exclude the relative performance experienced within each respective region in the season following the project installation.

CONCLUSIONS

As detailed above, the improved access between the two resorts, fluctuation in total participants, and the potential for marketing interest could generate a modest increase in snowsports visitation to Squaw Valley | Alpine Meadows. It is anticipated that this potential is limited by national/regional demographic trends, and the competitive market. The data clearly indicates that both total snowsports visits, as well as total active participants, are most strongly influenced by annual snowfall. A singular lift project or infrastructural improvement is unlikely to substantially affect snowsports visitation or market share.

Relying upon the analysis of the eight replacement/new lift projects detailed above, the average of 1.4 percent increase in annual snowsports visitation was selected to be the most reliable proxy for projecting the anticipated impact of the proposed Base-to-Base Gondola. To conclude this analysis, an anticipated increase in annual snowsports visitation of 1.4 percent was modeled as the anticipated average incremental change.

As depicted in Figure 1, average snowsports visitation over the five most recent seasons has been substantially affected by snowfall. In order to project snowsports visitation anticipated as a result of the development of the proposed Base-to-Base Gondola, average snowsports visitation over the previous ten seasons (885,698 visits) was selected as the basis. Each season's percentage change was applied to the base-year snowsports visits, and then added to the prior year's snowsports visits to determine total snowsports visits projected for that season.

As depicted in Table 3 (below), in the first season of operation (Year 1), the incremental increase in snowsports visits would be approximately 12,400. By Year 5, the cumulative incremental visits associated with the Base-to-Base Gondola would total to roughly 36,856.

After Year 1, each subsequent season's projected increase is slightly lower than the season prior (due to an anticipated diminishment of returns on the market impacts of the improvement). The installation of a new lift, or other facility, simply does not have a long-lasting impression on the market and rapidly becomes normalized to the overall facility. An anecdote to this would be the 1998 installation of the Gold Coast Funitel at Squaw Valley. The funitel remains the only lift of its kind in North America, yet it has become a normalized component of the existing infrastructure at Squaw Valley and is not thought to currently be individually attracting measurable, additional snowsports visits to Squaw Valley.

Table 3.
Squaw Valley | Alpine Meadows Snowsports Visits Projections Incremental Visits
Attributable to the Proposed Base-to-Base Gondola*

	Basis*	Year 1	Year 2	Year 3	Year 4	Year 5	Total Increase Over Basis Year
Percent Change in Visits Over Prior Year		1.4%	1.2%	1.0%	0.5%	0.0%	4.0%
Incremental Visits		12,400	10,777	9,089	4,590	0	
Total Annual Snowsports Visits	885,698	898,098	908,875	917,964	922,553	922,553	36,856

* Basis = 10-Year Average (2007/08 through 2016/17)

Note: These projections are summary in nature and not a guarantee of future visits.

Over the previous ten winter seasons, Squaw Valley | Alpine Meadows has experienced significant variation in annual snowsports visitation. Total annual visits to both resorts have ranged from a low of 770,000 to a peak of 1.06 million (a range of 367,000 visits). As detailed above, this variation is a function of multiple factors with the strongest influence being snowfall.

While it is anticipated that the proposed Base-to-Base Gondola would slightly increase visitation to Squaw Valley | Alpine Meadows, the anticipated increase – as projected five seasons into the future after the project’s implementation – represents just 10 percent of the existing range of season-to-season variability for total annual snowsports visitation.

The proposed Base-to-Base Gondola is anticipated to maintain or slightly increase the Squaw Valley | Alpine Meadows market share within the Lake Tahoe area. The gondola will serve to keep Squaw Valley | Alpine Meadows competitive in the marketplace, thus protecting Squaw Valley | Alpine Meadows’s Lake Tahoe market share, and perhaps increasing it slightly. However, it is not anticipated that the overall trend depicted in Figure 3 will be measurably altered as a specific result of the proposed Base-to-Base Gondola.

The data and conclusions reached above lead to the intuitive question as to why SVSH would undertake a project such as this, and how it could be economically feasible. While SVSH’s internal analyses presumably exist, they were not sought or provided for this assessment. The answer to this question lays in understanding that the added base-to-base connectivity which would be provided by the proposed project would allow SVSH to:

- ❖ Dramatically improve resort connectivity, affording the feeling that Squaw Valley | Alpine Meadows is one cohesive, interconnected, skiable resort.
- ❖ Maintain or slightly improve Squaw Valley | Alpine Meadows market share within an incredibly competitive market.
- ❖ Expand convenient access to a broader range of skiing terrain and terrain ability levels.
- ❖ Improve not only ticket/pass revenue per skier, but total resort revenue per visitor. Even a modest increase in revenue per visitor (\$2-\$5), as a result of the proposed project, would be multiplied by total annual winter visitors (ten-year average of 885,698), potentially yielding overall revenue increases on the order of \$1.7 to \$4.4 million annually.