

# BRIDGER BOWL SKI AREA MASTER PLAN UPDATE 2015 - 2020

#### INTRODUCTION

This Master Plan update is a continuation of the Bridger Bowl Board of Directors and General Manager's direction for having a forward looking plan to provide the "best possible skiing experience at a reasonable cost to local, regional and destination skiers."

Planning has been continuous since 1968. The most significant recent planning accomplishments include the 1979 and 1991 approvals by Gallatin County of the base area P.U.D. and Zoning Amendments and 2005 U. S. Forest Service Record of Decision and NEPA documentation approving expansion of the ski area to the north and south and revising Forest Service land management designations to accommodate the ski area improvements. These actions paved the way for the construction of the Saddle Peak Lodge, addition of the Schlashman's Lift and skiing and two new lifts replacing the previous Alpine Lift.

The purpose of this Master Plan update is to compile the improvements to the ski area and facilities since the last update in 2002, identify the most pressing issues going forward and assess the practical operating capacity of the ski area for the next five years or 2015 through 2020. As always, improvements are linked to weather conditions, snowfall and market conditions.

### SUMMARY OF PREVIOUS PLANS AND ACCOMPLISHMENTS

Annual skier visits at Bridger Bowl vary with weather and snow conditions. For this reason a five-year running average is used to report annual skier visits to represent trends and for planning purposes. The five-year running average skier visits was 164,080 in 2001, 180,724 in 2010 and 192,253 in 2014. In general terms these skier visit number represent a relatively constant 1.06% per year growth rate 2001-2014, and a 1.36% per year growth rate from 2010-2014.

To accommodate this growth in skier visits, the 2002 master plan and 2005 approval of the planning on National Forest system lands laid out a series of lift and base area improvements. The foundation for the improvements was the installation of the Powder Park (now named Sunnyside) quad in 1995 and shortening of the Bridger and Alpine lifts. Deer Park Chalet was replaced in 1996, and installation of the Snowflake beginner area and lift in 1999 along with expanded parking.

# Major projects completed 2001 – 2014

2001 – Pierre's Knob lift upgraded to triple chair and upgrade Base Area Wastewater System

2002 - New Ski Patrol, Eagle Mount and BSF building

2004 - Saddle Peak constructed

- 2008 Schlasman's Lift and new ski terrain to the south opened
- 2009 Install loading carpets of Sunnyside and Pierre's Knob
- 2010 New Bridger triple chair replaces Deer Park and Bridger lifts
- 2013 New Alpine and Powder Park triple chairs replace existing Alpine lift and increase access to intermediate terrain.
- 2014 New parking areas and a new beginner ski run constructed on lands acquired in 2012

A key element of the new Bridger, Alpine and Powder Park lifts is the use of loading conveyors which improve lift loading efficiency and reduce stops due to mis-loads.

# **Summary of Recommendations 2015 - 2020**

A discussion of market factors and projected skier market growth is presented in subsequent sections of this document. The recommendations below are also described in more detail. They are based upon several site observation visits during the 2013 – 2014 ski season and detailed planning meetings with the General Manager and skier services representatives.

The conclusion of this effort identified key factors to be addressed in this Master Plan update:

- A significant shortage of indoor and outdoor space to accommodate a growing Snowsports / ski school program
- A continued demand for additional parking spaces
- The need to reduce congestion in the base area between Jim Bridger Lodge and Saddle Peak Lodge

## 2015 – 2020 Key Recommendations

- 1. Relocation of Snowflake Lift to new beginner area
- 2. Installation of 2 surface conveyor lifts in the new beginner area
- 3. Replace Virginia City Lift with relocated lower terminal
- 4. Construct addition to Saddle Peak Lodge to adequately respond to Snowsports and rental operation needs
- 5. Installation of facilities for ski school warming areas, restrooms, eating areas and viewing areas
- 6. Construct remaining parking areas
- 7. Plan infrastructure improvements based on anticipated increase to 5,000 Skiers at One Time
- 8. Acquire sufficient land in base area to allow possible future growth to 6100 Skier Visits

### **Key Longer Range Recommendations**

- 1. Construct Bradley Meadows lift
- 2. Replace JBL with building to East of current location

#### MARKET AND SKIER VISITS

Bridger Bowl patrons are primarily from Gallatin County, including Bozeman, the Gallatin valley and surrounding communities. Skiers will travel from other areas of Montana and Idaho to take advantage of good snow conditions or participate in race events. Skiers also travel from Canada and other US states. Bridger Bowl competes in this marketplace with Big Sky Resort / Moonlight Basin and with other western Montana ski areas.

The consistent growth in skier visits over the 2001 through 2014 period from five-year running average skier visits was 164,080 in 2001, to 192,253 in 2014. In general terms these skier visit number represent a relative constant 1.06% per year growth rate 2001-2014, and a 1.36% per year growth rate from 2010-2014. The ability to support this growth rate is in the face of growth and development by competitors and annual variations of weather. This growth rate also reflects constant improvement of Bridger Bowl facilities.

One of the key factors in the growth rate has been the Snowsports program, which delivers new skiers and snowboarders to the market place and builds loyalty to Bridger Bowl.

The Census and Economic Information Center, MT Department of Commerce published updated population growth projections in 2013 for all Montana counties. From this report, the following for Gallatin County is derived.

**Table 1. Gallatin County Population growth** 

Period	Annual Growth
2010 – 2014 (annual average)	1.2%
2014 – 2015 (projected)	1.7%
2015 – 2020 (projected annual average)	1.6%

Source: Montana Department of Commerce, 2013

Population in Gallatin County is predicted to increase by approximately 8% in the period 2015 to 2020 (2015 – 95,470 population to 2020 - 105,569 population). Population growth in surrounding counties continues but at lower rate. If Bridger Bowl maintains a constant market share and the rate of skiers in the market area, Bridger Bowl can expect an increase in five-year average skier visits in the 1.2% to 1.3% annual range through the period.

The Snowsports program is a very important element in the growth of skier populations and in the revenue stream to the ski area. For these reasons, population growth in the primary age groups served by the Snowsports program was reviewed, using the same database as overall population predictions.

Table 2. Population Projections Ages less than 5 years to 14 year of Age

	2010-2014	2014 - 2015	2015 – 2020
Total Population	1.2%	1.7%	1.6%
Aged < 5 years	1.5%	0.7%	- 0.5%
Ages 5 to 10 years	1.8%	3.8%	1.8%
Ages 10 to 14 years	1.7%	3.4%	2.6%

Source: Montana Department of Commerce, 2013

The table illustrates that growth rates for these age groups exceeds the total population growth rate and has in the previous five year period of 2010 - 2014. Based on the information from the Census and Economic Center report, the table illustrates the movement of the population aged less five years through the 5 to 10 and 10 to 14 years age group.

The shape of the Bridger Bowl mountain terrain provides the ski area a significantly larger area of existing and potential terrain for Snowsports operations. Few competing ski areas have this advantage. The 2014 expansion of beginner terrain in conjunction with new parking further improves the potential in this market segment.

The age group population information and shortage of current space is the reason for the 2015 – 2020 emphasis on Snowsports operations and building functions.

# 2015 – 2020 MASTER PLAN UPDATE RECOMMENDATIONS

The field work, observation of current peak operation conditions and detailed discussions with Bridger Bowl operating leadership have resulted in the following Master Plan recommendations. The recommendations are organized into four key areas – Ski area Capacity, Base Area buildings, Snowsports (outdoor operations), Parking, and new Lifts.

### A. Ski Area Capacity

The "capacity" of a ski area calculations continue to evolve over the past decade. Capacity is no longer a fixed expression of skiers-at-one-time that all other facilities and ski runs need to be balanced against. While capacity is still a calculation of skiers-at-one time, as ski areas move forward, the individual ski area plan can adjust capacities to accommodate market demands and physical constraints. The recommendations through 2020 for Bridger Bowl are based on the skier-at-one time calculation for reference and adjusted for the specific market demands, capital budgets and physical layout of the area.

The following table shows the existing lift system and the hourly capacity. Capacity assumes a steady state of operations with skiers distributed across the ski area.

**Table 3. Summary of Lift Capacity** 

	Туре	Loading Conveyor	Constructed	Installed Capacity (riders	
		Comreyor		per hour)	
Snowflake	Fixed Triple	No	1999	1,000 / hr.	
Virginia City	Fixed Double	No	1978	1,200 / hr.	
Sunnyside	Fixed Quad	Yes	1995	1,800 / hr.	
Bridger	Fixed Triple	Yes	2010	1,800 / hr.	
Alpine	Fixed triple	Yes	2013	1,800 / hr.	
Powder Park	Fixed Triple	Yes	2013	1,500/ hr.	
Pierre's Knob	Fixed Triple	Yes	2001	1,750 / hr.	
Schlasman's	Fixed	No	2008	500 / hr.	
Ridge Patrol	Platter	No	2000	Patrol only	
TOTAL				11,000 / hr.	

The uphill capacity does not include the Deer Park Tow surface lift. This capacity of this surface lift is entirely dedicated to access between the Deer Park area and ski terrain to the north.

The loading conveyors on Sunnyside, Bridger, Pierre's Knob, Alpine and Powder Park are very effective in reducing mis-loads and allow the lift to be operated at closer to full speed. This helps maintain lift capacity without the added costs of a high-speed lift. Snowflake and Virginia City serve beginners so their capacity is reduced due to missed chairs and mis-loads. Both Sunnyside and Virginia City serve as access lifts to the remainder of the ski area. This reduces the effective capacity for repeat skiers.

Previous Bridger Bowl Master Plan studies have used the National Ski Areas Association formula to calculate the Skiers-At One Time capacity of the mountain. This formula is very similar to models used by US Forest Service and is used here as the predictions are reasonable for the Bridger Bowl operations.

Using the above information the calculated skier at one time capacity of Bridger Bowl is **4,000** to **4,500**. The range in skier capacity is due to projections of lift line times. At a zero lift wait time, capacity is at the 4,000 level. With a 3 to 5 minute lift line on Sunnyside and Pierre's Knob, the capacity is approximately 4,500. This is consistent with actual peak day visits over the past five years. Peak visits occur on powder days, holidays and events. Peak visits can exceed the calculated capacity by 10% or greater depending on specific circumstances. Capacity planning should allow for peaks visits, but should be balanced against operating conditions when daily skier visits are low such as mid-week.

The Bridger Bowl ridge terrain and Schlasman's lift are a relatively unique feature in calculation of capacity. These features disperse skiers across a large area of expert slopes. Accessing these slopes and downhill line and route finding, in effect, takes skiers out of the circulation on other

lifts for a longer period of time and thereby reduces demand on ski area capacity. Hiking to the ridge also contributes to this "reduction" of demand on other lifts during powder conditions.

Overall ski area capacity is a balance between lift and run capacity, parking and skier service areas. As shown in the following discussions, parking capacity can be increased to support a capacity of 5,000 to 6,000 skiers. Skier Services have a calculated capacity of approximately 3,500 skiers. Based on actual observations, skier services function well at approximately 3,000 skiers at one time. Key deficiencies are noted in restaurant seating and particular in Snowsports / ski school programs. Snowsports are a key driver of ski area revenues and the source of growth in the market place. For these reasons, improvements to the Snowsports facilities are the highest priority and presented first in this Master Plan update.

## **B.** Base Area Buildings

The 2002 Bridger Bowl Master Plan developed a model, based on staff recommendations, for the rough size of various services needed in ski area skier services buildings. Square footage projections were prepared for support space from 3,500 skier capacity through to 7,500 skiers at one time capacity.

**Table 4. List of Skier Service Building Space 2002 Master Plan** 

Space	Space		
Food Service	Ski School		
Kitchen / Scramble	Public Lockers		
Bar / Lounge	Day Care		
Restrooms	Employee Space		
Ticketing	First Aid /Ski Patrol		
Ski Rental / Retail	Administration		
Ski School	Storage / Mechanical		
	Circulation areas		

Prior to the 2002 analysis, the Deer Park Chalet was replaced (1996), which added approximately 15,000 square feet to the available space. Saddle Peak lodge was constructed, along with a new ski patrol building and space for the Eagle Mount and Bridger Bowl Foundation uses in 2004. This added an additional 35,000 square feet to the total space for skier services.

Bridger Bowl predicted a total required skier services requirement of 53,375 square feet for a 3,500 skier capacity, expanding to 76,543 square feet for 5,000 skier capacity at service standards in 2002. Prior to the construction of Saddle Peak Lodge, Bridger Bowl had a deficit of approximately 10,824 square feet at the 3,500 skier capacity. The addition of Saddle Peak Lodge brought the total skier service square footage to 77,551 square feet or roughly equivalent to the predicted 76,543 square feet required for a skier capacity of 5,000 skiers at

one time. These calculations were used in the 2005 Forest Service approval process. The addition of the Alpine Cabin (2014) added approximately 2,500 square feet to the total or 80,051 square feet.

Based on the gross analysis, the buildings area appears to be consistent with predicted requirements and the space per skier of capacity, remains approximately 15 to 16 square feet per skier.

Several market conditions have changed since the 2002 calculations. First, Jim Bridger Lodge is 26 years old. Remodeling has maintained a quality guest experience. Back of the house functions and Snowsports and technology spaces are considerably undersized. Kitchen space and kitchen storage is in short supply, and food service and seating for Snowsport programs participants is lacking.

Second, the growth in skier visits and growth in Snowsports participants has generated a significant number of parents and non-skiing visitors that use parts of both Jim Bridger Lodge and Saddle Peak Lodge. This use adds space and seating demands.

Third, the Snowsport Program has grown nearly 57% in the last 10 years. At the current time, more than 500 ski school participants meet with the instructor team in the area between Saddle Peak Lodge, Snowflake loading area and Ski Patrol building. The area is very crowded during this time causing Snowsport supervisors to focus on managing the congestion.

An analysis of the space needs and uses by the Snowsport program reveals a significant under sizing of space for current operations and a major constraint on growth. This space limitation puts additional pressure on staff and inconvenience for children and parents.

The Director of Snowsports has provided a set of operational comments and needs for the indoor spaces needed for the operation to be brought current and prepared for the next 5 to 7 year period. Building space needs are excerpted here:

- Snowsports offices and sales area with 4 sales stations. Office Space for Director, sales staff, office manager, several supervisors
- Meeting place for first timer retail lessons in separate indoor area
- Places for all day kids programs ages 4-6 / ages 7-12 to meet, have lunch, warm up, dismiss
- More restrooms
- Instructor locker room(s), lunch and meeting area
- Snowsports rental shop
- Indoor meeting place and viewing area for parents
- Additional child care area(s)

The following Table illustrates the existing building uses and current deficits in spaces. Only major space elements are shown, other elements shown in the previous table need to be reviewed as a secondary matter. It then illustrates the spaces needed to provide for skier

capacity increases to 5,000 skiers at one time. The building space demand of an increase in skier capacity to 6,100 a permitted by the Forest Service Special Use Permit is shown for information. Any increase to the 6,100 skier capacity level is beyond the time period of this update and space requirement projections will likely be greater than predicted here. The Jim Bridger Lodge would need to be replaced with a larger and more efficient building for Bridger Bowl to operate at a quality level at the 6,100 capacity level, notwithstanding a peak day which could add an additional 10% or greater, number of skiers on that day.

Industry guidelines are a combination of Bridger Bowl specific ratios of space uses and blend of ski area planning guidelines from outside consultants as used at other ski areas. These guidelines are used as a general reference.

Table 5. Building Space Guidelines from Existing to 6,100 Skiers Capacity

	Existing 2014	Industry Guidelines 4,000 capacity	Deficit from Existing to 4,000 capacity	Industry Guidelines 5,000 capacity	Deficit from Existing to 5,000 capacity	Industry Guidelines 6,100 capacity
Snowsports (sq.ft.)	654	1,533	-879	1,917	-1,263	2,338
Rental (sq.ft)	3,180	3,093	87	3,867	-687	4,717
Retail (sq.ft)	528	1,320	-792	1,650	-1,122	2,013
Seasonal Lockers (sq.ft)	3,984	2,653	1,331	3,317	687	4,046
Food Service Seating (sq.ft)	12,632	13,467	-835	16,883	-4,201	20,537
Bar (sq.ft)	1,224	1,747	-523	2,183	-959	2,664
Employee Lockers (sq.ft)	1,184	787	397	983	201	1,200
Playcare (sq.ft)	1,200	1,960	-760	2,450	-1,250	2,989

Food service seating includes 1,000 square feet of the new Alpine Chalet.

The building space needs are planning guidelines. For example any expansion of food service seating requires additional planning of food preparation areas and storage spaces. Restrooms are required in all expansion planning.

The industry estimates for Snowsports building space at the 4,000 and 5,000 levels underestimates the specific nature of the Bridger Bowl market and the revenues that could be derived from the program if more, and more functional space, could be provided. The recommendations below reflect the need for additional space than the guidelines would suggest.

More restrooms are required in any projection of space needs. These need to be programed specifically as location of the restrooms is as important as size.

Seasonal lockers are also underestimated in the guidelines for the market. Seasonal Lockers are a good revenue source. Given the Bridger Bowl market, more lockers will be filled as they are provided. Lockers can also play a role in making car-pooling and transit more effective by having equipment stored at the mountain rather than transporting skis and snowboard back and forth on cars or busses.

While employee lockers areas appear to be adequate, the current lockers are not adequate to support the Snowsports Programs; additional space needs to be located efficiently for instructor use.

**Table 6. Building Space Program Recommendations** 

	Current Needs (including existing) up to 4,000 capacity	Net Increase from Existing to Current Needs (Rounded) up to 4,000 capacity	5,000 capacity Program above Current Needs
Snowsports (sq.ft)	1,600	1,000	1,500
Rental (sq.ft)	3,500	500	1,000
Retail (sq.ft)	0	0	500
Seasonal Lockers (sq.ft)	5,000	1000	1,000
Food Service Seating	14,000	1,400	4,000
Bar (sq.ft)	2,000	800	1,000
Employee Lockers (sq.ft)	2,000	800	500
Playcare (sq.ft)	2,000	800	500
Totals (Rounded) (sq.ft)		6,300	10,000

Some of the Snowsports needs can be accommodated in the existing Saddle Peak Lodge after remodeling and relocating sales positions. Snowsports program rentals and indoor meeting spaces would be accommodated in an expansion of Saddle Peak to the south. Lower level building space in the expansion can meet either employee locker space or seasonal lockers depending on final program requirements.

Playcare would be relocated to the expansion area and a new outside play area, with snow access would be provided.

Food Service expansion needs to be programmed with the new beginner area operations and existing space remodeling. Seating options need to consider daily visit fluctuations so that space is used efficiently during lower skier visit days.

Nearly any expansion that affects culinary water and waste water demand will need to factor in adequate water storage and upgrades to the septic system.

#### C. Base Area lifts and Terrain Recommendations

Over the next 5 year period, several changes in lift configurations are proposed to better serve the potential skier growth and reduce congestion in the ski area. The key focus in this period is the improvement of the beginner / low intermediate / ski school experience.

The Snowflake lift serves the ski school and beginner skiers. The location of the lower terminal of the lift is a major contributor to the congestion in the base area adjacent to Saddle Peak Lodge. The area between Saddle Peak and the lift terminal and the ski patrol building is used to separate various school classes, test participants to determine appropriate class level and as a meeting point for certain lesson groups.

The director of the Snowsports department has provided a list of changes needed to bring the Snowsports Program in to line with current and future requirements. As noted in the Market section of this Master Plan Update potential participants aged 5 to 15 years may grow at rate nearly double seen in the previous period 2010 to 2014. Excerpts from the Director of Snowsports regarding outside space needs are listed below.

- FLATS (nearly level snow area(s))
  - Meeting and class organization
  - Mogul Mice and Mitey Mite ski and snowboard practice
  - Group areas for Children and Adult
  - Private Child and Adult lessons
  - Programs For Women Only, Wednesday Workshops, Montana State University (MSU)
  - Parent and visitor viewing area(s)
  - Area for tired children to sit out
- BERM AREA
- BEGINNER TERRAIN GARDEN
  - Vertical rolls
  - Mini pipe
  - Sun KID devices for play learning

The first steps in updating the Snowsports outdoor facilities was accomplished in 2014 in conjunction with construction of new parking to the south and East of Saddle Peak Lodge. An approximately 2 acre area was graded to a constant, near ideal, slope of 10%. To provide skier access to this slope a 300-foot long conveyor would be installed on the skiers' left. Provisions for future snowmaking would be made on skier's right, near the toe of the slope.

The Snowflake lift would be relocated slightly south of the main conveyor lift and directed in a westerly alignment. The new location is out of the base area congestion and accessible from the conveyor and other facilities described following. Snowflake is ideally suited to explaining and demonstrating lift riding skills for beginners.

Relocation of the Snowflake lift would free up the current beginner area for use by advanced beginners and ski schools using the Virginia City Lift. With the Snowflake terminal removed, the staging and group meeting area will at least double in size at the key location near the exit doors of Saddle peak and parking lot access.

Continued development of the beginner area will be an iterative process, assessing user comfort, and program efficiencies. One of the considerations unique to ski areas like Bridger Bowl is the number of parents and non-skiing observers watching the children learn to ski. As facilities are completed at the top of the beginner area, non-skiers may use the conveyor (when not in conflict with ski class movement) to access a viewing area. In the future two additional short conveyors will be installed. Other children's' learning equipment may also be installed in the upper area.

The development process of the beginner area could be accomplished in phases with the use of "temporary" buildings such as yurts or SPRUNG type structures. These structures are used successfully through the ski industry. "Manufactured" buildings could also be used to reduce capital costs and provide for warming areas in the new beginner area.

This change to a new beginner area will significantly reduce congestion in the base area. To further improve circulation space in snow-side areas of Saddle Peak Lodge and the south end of Jim Bridger Lodge. The Virginia City lift will be replaced with a fixed-grip triple with loading carpet. The bottom terminal will be moved to the north, close to the south wall of Jim Bridger Lodge which will move all skier traffic to the south side of the lift away from the food service loading dock and garbage area. This change will also add several hundred square feet to the ski spaces in front of Saddle Peak Lodge.

#### D. Other Lifts

The Schlasman's lift provides lift-served high quality expert terrain. Skiers using this terrain reduce pressure on Ridge hiking routes. To maintain a similar low density skier experience, the Bradley Meadows lift would be constructed, likely after the Snowflake and Virginia City lift changes. As skier preferences are identified, a second platter lift, (P-3) for patrol access and a hiking route, similar to the existing ridge hike, in the Forest Service permit and 2002 master plan, would be constructed.

### E. Parking

Skier visits have increased as population in the local and regional market has increased. Consistent with the Bridger Bowl Mission Statement and Gallatin County land use regulations, Bridger Bowl has continued to make improvements to the ski area and support services

including parking. The ski area continues to see growth in the ski and snowboard school programs serving over 20,000 participants in 2014 up from 13,000 in 2004, an approximately 57.6% increase. Bridger Bowl provides for transit service from the County Fairgrounds and strongly promotes car-pooling on websites and public information. Daily skier visits are highly dependent on new snow and day of the week or holidays. Demand on a daily basis and not readily predictable due to snow and wind conditions. The proximity of Bridger Bowl to the residents of Bozeman and surrounding areas make it attractive to drive to the ski area, especially during good snow conditions where waiting for busses and transit reduce opportunities for the desired ski experience. During the 2013-2014 season, numerous cars were parked along the highway, leading to traffic problems and a safety hazard for persons walking along or crossing the highway. To continue to serve the local and regional markets additional parking is needed. Additional parking will reduce parking on peak days along the highway and access road, and allow for additional efforts toward car –pooling and high occupancy vehicle use.

Prior to July, 2014, the parking area at Bridger Bowl was limited by zoning and other approvals to 1,500 cars. In 2012, Bridger Bowl acquired additional property south and east of the existing base area. In 2014, Bridger Bowl requested and received a change to Gallatin County land use document to increase parking by 6 acres. Four acres were allowed to proceed in 2014 and the remainder after a 2 year period expiring in 2016.

While Bridger will continue to support and promote mass transit for employees and guest and heavily promote car-pooling, additional parking is needed. The previous assumptions regarding on-site lodging and skier visits derived from accommodations at the ski area have proved to be optimistic.

Parking lot vehicle counts occur on a regular basis at Bridger Bowl. Comparing the number of cars in the parking lot to the number of skiers on a given day will yield a skiers per car ratio. This ratio is variable depending on snow conditions, school group bus use and day of the week. In general, Bridger Bowl achieves a ratio of approximately 2.5 skiers on the mountain for each car in the parking lot. This takes into account the effect of Bridger Bowl provided bus service, bus transportation for employees and car-pooling efforts. 2.5 skiers per car is generally consistent with other ski areas with similar market and access as Bridger Bowl. For example, destination ski areas, with municipal bus service and destination beds near the skiing can achieve ratios up to 7 skiers on the mountain to 1 parked car. Ski areas without bus services and a dispersed market can have lower ratios than 2.5.

The ability to expand bus service to Bridger Bowl is very limited. The market area is dispersed over a wide area and convenient collection areas are not apparent. Quality bus service depends on a frequent schedules. Bridger Bowl skier visits are highly variable on snow conditions and day of the week. It is nearly impossible to predict a constant bus user demand. For these reasons, Bridger Bowl will continue to support individual car-pool efforts. Sharing rides is efficient for the user as ski equipment can be easily transported and scheduling is flexible.

Actual cars parked at the ski area vary according to snow clearing, parking efficiencies, and vehicle size.

Using the 2.5 skier per car ratio, Bridger Bowl could provide parking for between 3,750 and 4,000 skiers, depending on the above factors. With the expansion of the 2014 four-acre parking lot, Bridger can provide approximately 400 new parking spaces or approximately 5,000 skiers. 10% of the new parking spaces are to be reserved for car-pool visitors by county zoning.

Land acquisition in the base area could resolve vehicle circulation issues around and below Jim Bridger Lodge. The need for a second ingress and egress point to the highway should remain a planning consideration for discussions with adjacent property owners.

## F. Future Ski Area Capacity

Previous planning studies have postulated up to 7,500 skiers at one time capacity. The Forest Service approvals in 2005 limit the capacity to 6,100 skiers at one time (with allowances for peak day operations). The Master Plan update 2015 -2020 considers a capacity of up to 5,000 skiers at one time, while maintaining the current skier experience of uncrowded slopes. Lifts constructed in 2014 have added uphill capacity which will reduce lift lines and should maintain a low lift line time to near the 5,000 skier capacity. New and revised lifts in the 2015-2020 period will continue to better distribute skiers and manage lower lift line times to the 5,000 level.

With the current and proposed infrastructure, a capacity of 6,100 skiers at one time would result in lift lines at most lifts of five to seven minutes. Major changes to base lodges and septic system would be required to serve a capacity of 6,100 skiers of capacity. These changes will require major capital expenses that will very likely exceed the revenues produced for the foreseeable future.

#### G. Summer Uses

Dispersed and non-developed recreation uses, such as mountain biking and hiking, are popular activities in and around Bridger Bowl lands and Forest Service lands during non-ski months. Over the past several years, Bridger Bowl has been approached with various proposals and ideas to develop additional summer recreation. In particular, various mountain biking activities such as "flow trails" and lift-served downhill trails have been suggested. These activities take place at a number of ski areas and resorts nationwide. Several of the suggestions were reviewed for inclusion into future planning. Gravity flow trails and downhill mountain biking require trail and feature construction at a larger scale than traditional cross-country bike trails. Potential routes intersect summer roads, including maintenance, and current hiking and biking activities. Lift operations require a change in staffing requirements and additional power and maintenance of the lift, while reducing lift life span due to increase operation hours. With this information, Bridger Bowl will continue to cooperate and encourage non-developed summer

recreation, biking and hiking, and remain consistent with the Bridger Bowl Mission Statement to provide the skiing experience at a reasonable cost.

This Bridger Bowl Master Plan Update has been prepared by Four MTN Advisors under an agreement with Bridger Bowl.

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# **Four MTN Advisors**

Science and Art for Ski Mountain Resorts

