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POMERELLE SKI AREA MASTER DEVELOPMENT PLAN

December 1996



SAWTOOTH NATIONAL FOREST
BURLEY DISTRICT

EXHIBIT 3



Acknowledgments

Woody and Sandy Anderson purchased Pomerelle in the fall of 1973. In 1985 Jody and John Burrows joined the management team. This integral management group is the heart of the Pomerelle Ski Resort. During the last 2 years, the creation of the Pomerelle Master Development Plan has taken place in an open, interactive atmosphere focusing on the upgrading and expansion of a successful ski area operation while addressing specific areas of concern with the resources managed by the Sawtooth National Forest.

At Pomerelle this atmosphere of cooperation has produced master development plan document that has been well received. The following individuals and agencies have contributed ideas to this document

The Sawtooth National Forest, Burley Ranger District staff includes: Donald (Pete) Peterson, district ranger, Zeke Zimmerman, winter sports specialist, Dave Bassler, silviculturalist, Terry Fletcher, landscape architect, Jim Chard, range conservationist, Ed Waldapfel, public affairs specialist, and many others.

Staff of the Idaho Division of Environmental Quality: Greg Misbach (DEQ-Twin Falls) and District Health administrators: Dan Kriz and Scott Arnell (DH-Twin Falls) and Bob Erickson (DH-Hailey).

Water Engineering Technologies, Bozeman, Montana: Scott Benowitz, P.E., consultant for water and sewer systems pre-design report.

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Alpentech, Inc. Salt Lake City, Utah: Beat vonAllmen, P.E., master plan project manager, Greg Ries, tech. assistant and Stephen Schuler, L.A., planner.

Participants to numerous public discussions: : Participant names and correspondence are on file with the USFS and approximately 98% of the comments received are extremely favorable to the proposed Master Development Plan.



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EXECUTIVE SUMMARY

The primary shortcoming of Pomerelle is the constraints associated with skier congestion in the base area. To provide the best possible experience for today's users of the slopes, whether they are on conventional or shaped skis, snowboards, or adaptive equipment, a dramatic increase in the space for staging is needed. Therefore, two primary projects are proposed: (1) widening of ski trail arrivals near the existing day lodge, and (2) creation of a new Learning Center dedicated largely to teaching and a more diversified and higher level of service. In addition to these projects, the 1996 Master Development Plan proposes to add new lifts and trails to Pomerelle, giving the ski area the ability to comfortably accommodate additional skiers and add new interest to terrain offered.

This master plan proposes a series of measures to make the ski area more user-friendly. The first measure is to widen or re-route trails to improve skier circulation. The proposed trail modifications offer an opportunity for Pomerelle to work with the Forest Service to improve forest stands in Howell Canyon.

The second measure is to move teaching slopes approximately 250 vertical feet uphill from the existing base, offering significantly larger gentle slopes, complementing the existing ski area. Since that terrain is located above the existing base, a new parking and staging area is needed. It will be much easier, particularly for the physically challenged skiers, to access the ski area from the new parking lot. The return to the upper lot is possible from the top of, all 3 lifts and 2 tows, and is the first element to be constructed for operation, as early as Winter 1997/98. The lifts will have in-kind ability utilization: for example kids will find a play area, isolated from skier traffic, just next to the lodge. A gentle bowl will serve those that graduate from the first gliding experience. Skiers and snowboard riders will be able to glide to their appropriate ability slopes and disperse to the 3 chair lift terminals. The popular Milk Run will be served by a small new triple chair lift, almost duplicating the line of a chair lift retired in 1973. The insertion of new lifts, trails and lodge involves minimal vegetative change; however the doubling of site capacity to 2000 skiers can be achieved by a much better organized mountain traffic pattern. It was found that the new wind-sheltered parking lot could be built large enough to also accommodate other winter sports parties, i.e., cross country skiers and snowmobile users destined beyond the ski area boundary. With proper management, this joint parking venture may resolve user conflicts, save operating costs and provide better services to non-skiers.

Skier services will be consolidated in a new day lodge, called the Learning Center, accessed by a new entry off the Howell Canyon Road scheduled for paving during Summer 1997. The Learning Center will overlook the existing ski area from a sunny location. Broad-based programming recognizes the opportunity for multi-lingual teaching, racing and night skiing, and will be accompanied by a substantial increase in snowmaking coverage. The location advantage and timing of the new Learning Center with the Howell Canyon Road improvements is expected to elevate Pomerelle to a four seasons resort. The master plan includes summer uses, such as, lift-carried mountain biking, interpretive forest trails, outdoor concerts, workshops, seminars, arts, family reunions, weddings and corporate functions, offering a multi-seasonal facility use.



INTRODUCTION

In February 1995 Pomerelle embarked on the master planning process leading to this formal submittal of the 1996 Master Development Plan (MDP). The process started with an assessment of the current ski area resources, facilities, operation and desires of Pomerelle Ski Area to remain up-to-date and expand with the market. Based upon conclusions reached in this examination, Andrwood Inc. set forth the goals included in this submittal. Prior to Forest Service scoping in March 1996, many aspects of the development intent were investigated, involving Idaho Department of Health and Welfare, Division of Environmental Quality, Fish and Wildlife. The concept of "front-loading" was employed to seek resolution of issues of concern to the public and jurisdictional agencies prior to the formal submission of the MDP to the Forest Service. Front-loading has been a strong component in the preparation of this MDP.

Location

Pomerelle lies entirely within the Sawtooth National Forest and is comprised of a 521.5 acre Special Use Permit issued by the United States Forest Service. Pomerelle is located 12 miles southwest from Albion, in the Burley District of the Sawtooth National Forest, in Cassia County of southern Idaho. The ski area can be reached via the Howell Canyon Road running south from State Highway 77. Most ski area bound automobile traffic passes through Declo coming off Interstate Highway I-84 between Twin Falls and Snowville, Utah. Pomerelle is 2.5 miles from the top of Mount Harrison (9265) and 1.5 miles from Lake Cleveland and the Brackenbury Campground. Other towns in the area are Albion, Rupert, Burley, Malta, and Twin Falls. The City of Rocks National Reserve is located approximately 26 miles to the South, shown on Figure 1.

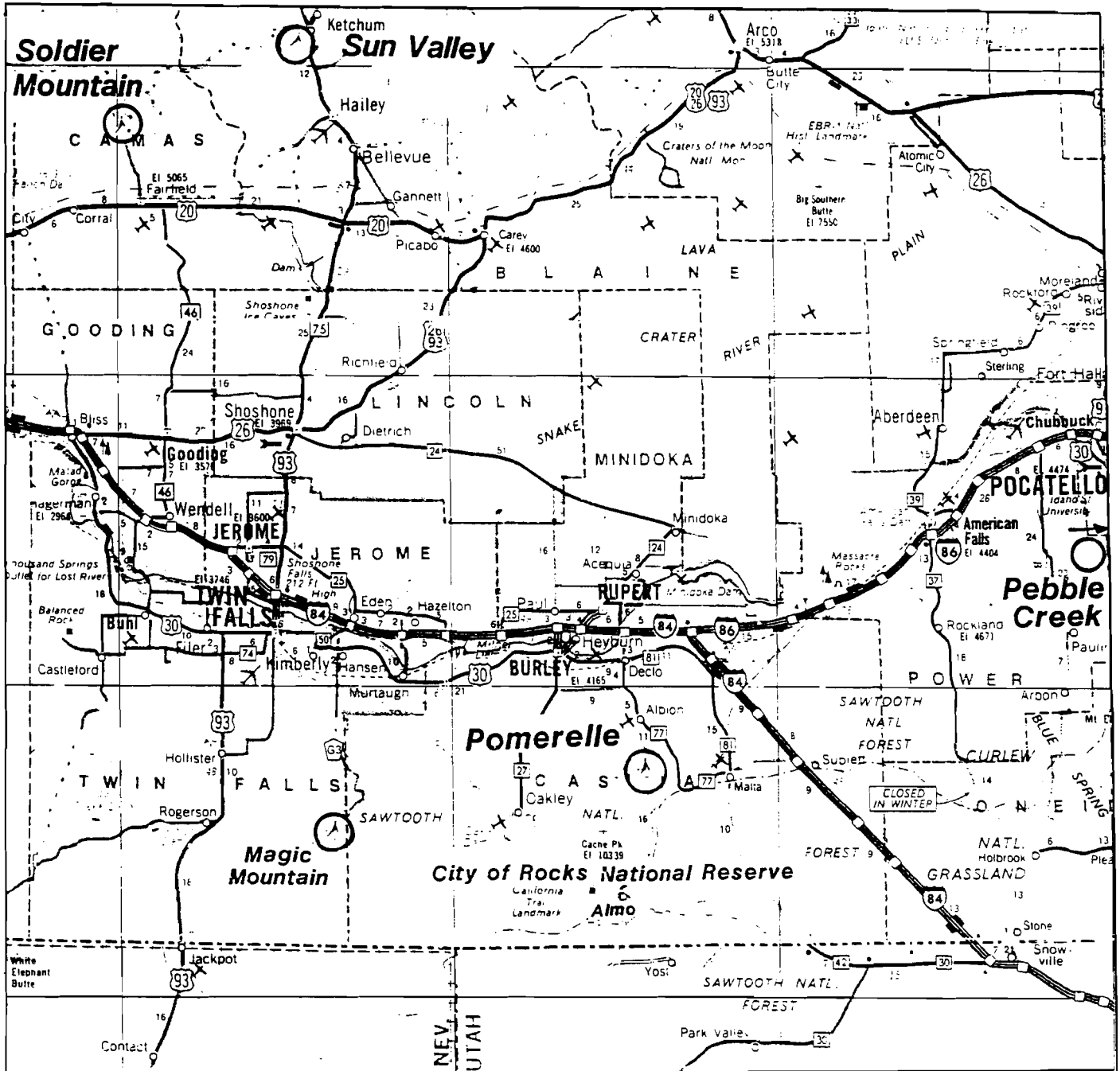
The ski area and surrounding mountains serve as a vital stimulant for the small town of Albion and has become a meeting place for winter sports enthusiasts in the region. As the local communities look to summer recreation in the mountains, Pomerelle is well positioned. The mountain resort is located near Mount Harrison, and is proximate to The City of Rocks National Reserve. The City of Rocks draws international rock climbers as well as hikers, mountain bikers, and out-of-state tourists to the region. Pomerelle seeks to build upon the unique attributes offered in this part of Idaho and become a year round hub and staging area for various recreational activities in the region.

Ownership

Andrwood, Inc. owns the existing ski area assets and is the permittee of the current ski area special use permit from the Sawtooth National Forest.



Figure 1
Location Map



Map Credit: Idaho Official Highway Map, 1991

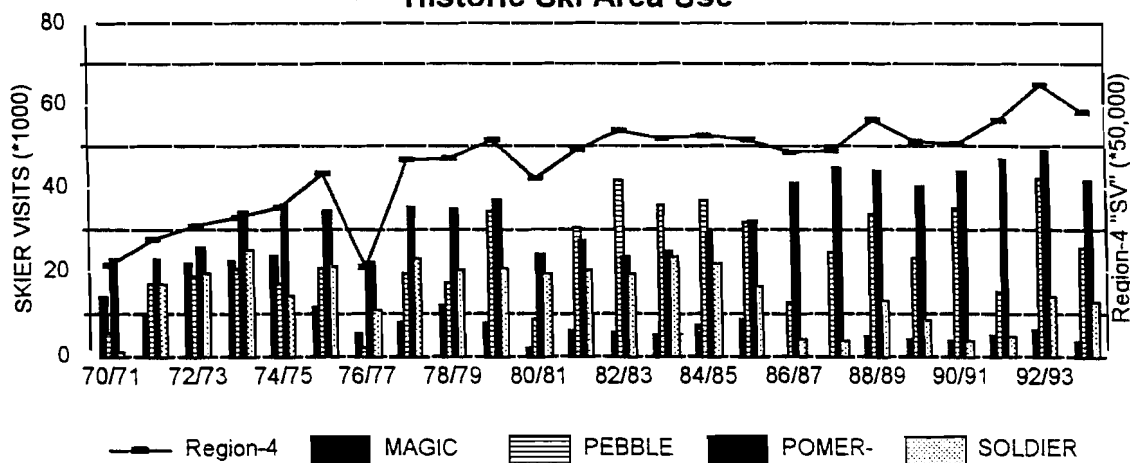


Historic Context and Market Position

Skiing began in the area in the 1930's at the Albion Grade and in the early 1940's at the Mount Harrison ski area, the predecessor of Pomerelle. The Mount Harrison ski area closed during World War II. It re-opened for a short period of time before the rope tow and the cabin were moved to the present site of Pomerelle. In 1963 Pomerelle Inc. replaced a platter tow with a double chair lift. Most of the runs cleared in 1960 have seen little physical change. The existing day lodge was built in 1961 and has been renovated several times. Andrwood Inc. purchased the ski area from Pomerelle Inc. in 1973. Night skiing has been offered since 1976. In 1987 Andrwood, Inc. installed a triple chair. In the fall of 1993, an airless snow gun was purchased, providing spot-snowmaking to ramps at the lower lift terminals ensuring timely opening of facilities. Since 1983, the ski area has been open 7 days a week during the season(usually from mid-November through mid-April).

Present lifts include a triple and a double chair lift, a rope tow and a handle tow. Pomerelle offers 1000 vertical feet over approximately 300 acres of ski slopes within an east facing bowl terminating at 7700 feet altitude. The timbered bowl shelters approximately 140 acres of ski slopes with mostly easy to moderate gradients. The bowl is delineated by a large cornice late into the Spring. Thanks to nearly 500 inches of snowfall per season, Pomerelle is known for dependable snow cover in the region. Abundant natural snowfall, combined with strong personal services to the skiing guest has allowed Pomerelle to build a steadily increasing clientele. Pomerelle's strong market position is evident from Figure 2. Further information about market and utilization is found in Appendix 1.

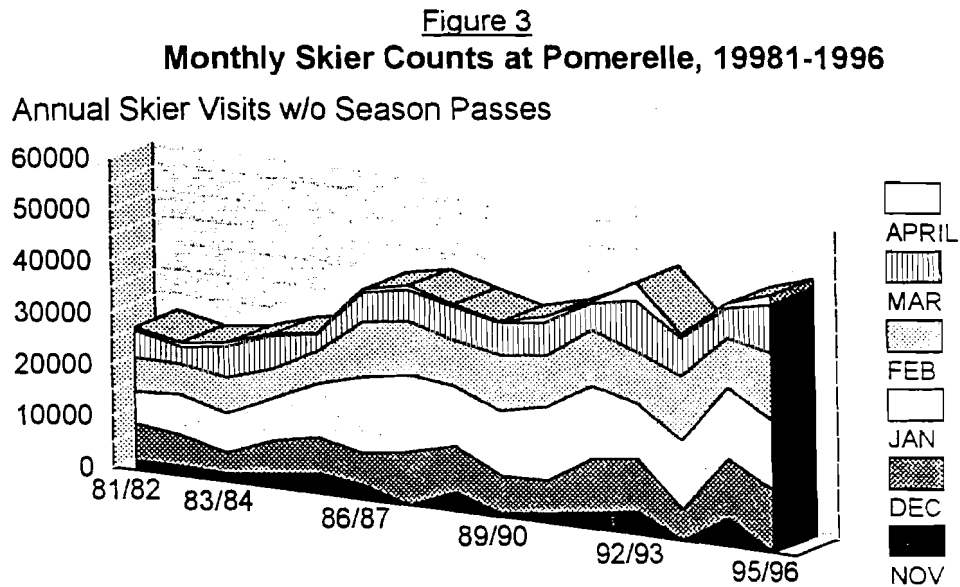
Figure 2
Historic Ski Area Use



The comparison with Magic Mountain, Pebble Creek and Soldier Mountain, above, shows that Pomerelle has been able to enjoy consistent growth in the number of skier visits. This is partly due to a higher base elevation than the other day ski areas in the market. During the past 15 years, skier visits doubled, season duration slightly increased, and January has historically been the strongest month. In the last few years, December and February visits have grown, and with an



early opening in November, the ski area normally sees very good monthly winter use, as shown in Figure 3.



The data for this chart is from updated Pomerelle files, summarized in Appendix 1. During the last 5 year, the length of season was averaging 140 days, up 14 % from the 15 year mean.



Business and Design Philosophies

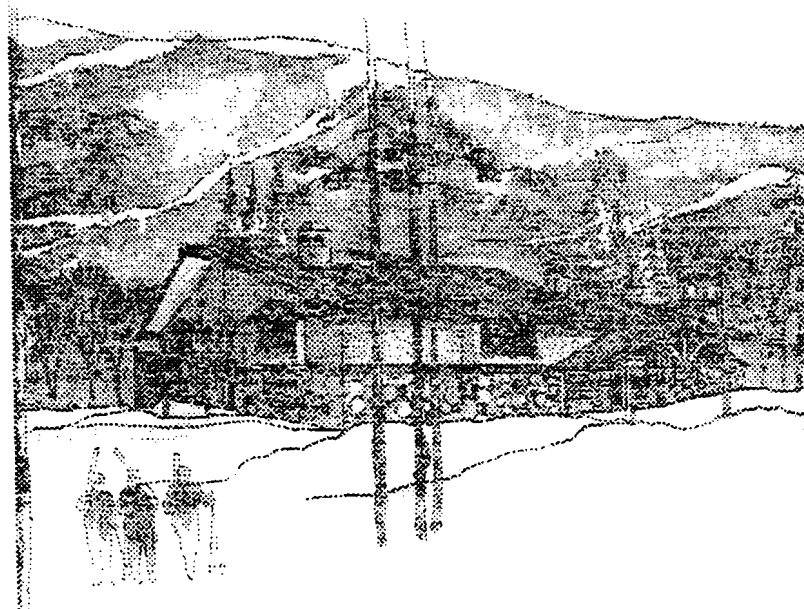
The Pomerelle business philosophy is based on some 40 years of Andrwood, Inc. ski industry experience. The varied expectations of guests has prompted Pomerelle's continual improvement and has prompted the request for a more diversified use of the ski area. Pomerelle's philosophy is not to remain static; much to the contrary, it seeks to accommodate the changing market and customer desires. While growth in the ski industry has been somewhat static, the skier visits to Pomerelle have continued to increase. The primary reason for this MDP is to relieve congestion at the base area, create better proportioned teaching slopes and enhance skier/ snowboarder enjoyment of the mountain facilities.

Pomerelle wishes to continue their family tradition of providing an outstanding experience to all who visit the beautiful mountains in the Sawtooth National Forest; be they young or old beginner to advanced skiers, winter or summer users. The primary goals are to provide educational opportunities for all levels of skiing abilities during the winter, and for summer visitors as well. In support of this Pomerelle seeks to make available;

1. an affordable outdoor recreation experience in a healthy mountain environment for everyone;
2. educational opportunities for all levels of skiing abilities and summer visitors;
3. clean, healthy and safe food services at a reasonable cost;
4. efficient operation of all aspects of the resort.

An example of the design philosophy driving this MDP is epitomized by the efforts of Pomerelle to provide an aesthetic, somewhat understated, yet modern mountain lodge, that will expand the horizons of all who visit.

Figure 4
Artist Rendering of Learning Center





Pomerelle is interested in applying proven ideas for creating an aesthetic and comfortable skiing environment for all types, and ages, of visitors. A relevant idea file is found in Appendix 5.

PURPOSE AND NEED

The Purpose and Need for the upgrading and expansion of Pomerelle Ski Area are set forth below. They form the basis for the Master Development Plan and include:

- To upgrade and expand the existing ski facilities in order to provide a quality ski experience and maintain a competitive position in an increasingly competitive market.
- To ensure that a balance exists between lifts, trails, parking and skier services.
- To provide a wider range of ski terrain and experiences.
- To provide compatible year round recreation opportunities while maintaining the outstanding qualities of the area.

A number of objectives have been drafted to guide the future direction of Pomerelle in attaining the stated goals. They are:

- Build upon the unique qualities of Pomerelle to maintain a strong competitive position in southern Idaho.
- Provide upgraded facilities in order to improve the quality of the skiing/ snowboarding experience.
- Develop a greater variety of ski terrain tailored to market characteristics as best as possible, with a strong focus on new and beginner skiers/ snowboarders.
- Design a lift and trail network to maximize skiing/ snowboarding opportunities.
- Balance the needs of winter and summer season users, while preserving the scenic qualities of the environment. Coordinate summer and winter recreation opportunities with those in the region and so better serve the general public.

In essence, the purpose and need for the upgrading and expansion at Pomerelle is to offer well-planned commercial ski development for the enjoyment of people of all ages and cultural backgrounds at a competitive price.

Special Use Permit Amendment

In order to facilitate the upgrading and expansion of the Pomerelle Ski Area, the Special Use Permit area will need to be increased. The current permit covers 521.5 acres. The area required for the ski area expansion would be an additional 64.6 acres, for a new Special Use Permit area total of 586.1 acres. The expanded permit area would not be for on-mountain improvements, rather, the expansion is needed for new base area access and parking, and for a new snowmaking reservoir. The proposed permit area adjustment is shown in the rear foldout maps.



NATURAL RESOURCES

The U.S. Forest Service manages the land in its jurisdiction, including Pomerelle's Special Use Permit area, under the "multiple use" concept. In addition to allowing skiing in the Special Use Permit area, current management direction is to allow for the grazing of cattle. Over time, the construction of the ski trails has created additional open grazing land that is used by cattle.

Vegetation Management Plan

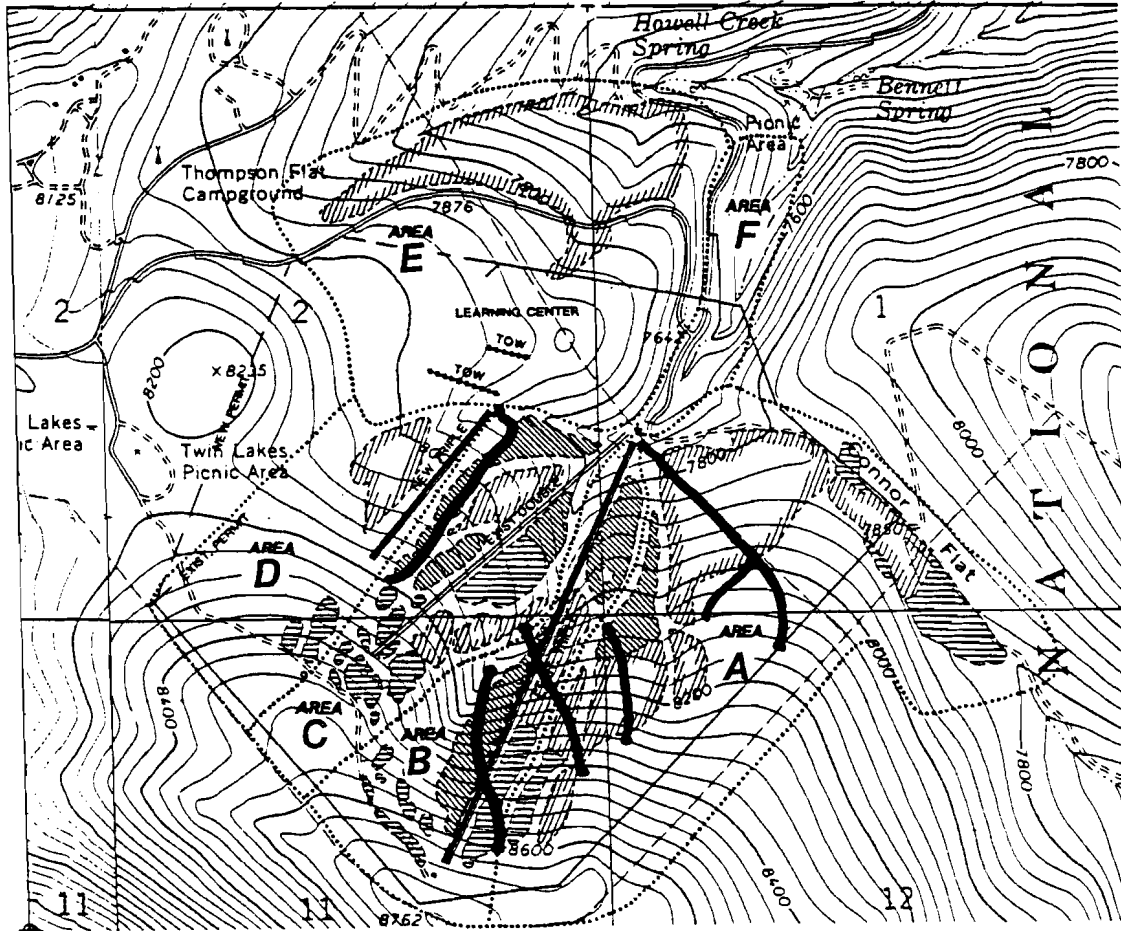
The Forest Service has prepared a Forest Vegetation Management Plan within and surrounding the Pomerelle Special Use Permit Area. The Forest Service and Pomerelle Ski Area anticipate embarking on a long term management plan to facilitate the establishment of healthy stands of forest cover within the Howell Canyon area. The Vegetation Management Plan also seeks to integrate the goals and objectives of the ski area in a manner which supports Forest Service objectives to improve conditions of the forest stands within the Pomerelle Special Use Permit Area.

The objective of the Vegetative Management Plan is to move towards a Desired Future Condition (DFC) in which a mosaic of tree species and sizes are created which will resist catastrophic insect and disease infestations while maintaining a suitable forest cover for winter sports operations and other forest uses. Currently, the conditions of the forest stands in the area suffer from a variety of insect and disease infestations, lack diversity, and are susceptible to forest fires as a result of a build up of fuels inventory.

The Forest Service has sub-divided the Vegetation Management Plan into six Work Areas A through E. This chapter explains the proposed changes to ski facilities in each Work Area and how these facilities work to support the Vegetation Master Plan, see Figure 5 below.



Figure 5
Forest Vegetation Management Zones



Work Area A

Dispersed, off piste skiing is proposed in the open terrain east of the existing Bull Run trail. A return trail will need to be constructed to bring skiers back to the base area by widening the Fence Line trail and opening the stand above Fenceline. This would increase the width of the opening currently in this stand by an additional 20 feet and increase the size of the opening by about six acres.

A new fall-line trail is proposed between the Stampede and Steer Run trails. This would create about 8.5 acres of terrain through a High Priority and Moderate Priority sub-alpine fir stand, allowing for the removal of undesirable trees and creating more light, to facilitate growth of smaller and immature tree species. This would create a trail, much like the Instructor, between Stampede and Bull. As forest vegetation management is also applied to the existing run, lodgepole pine species will become healthier.



Both Spring Creek and Cottontail trails are proposed to be widened; however, this would not have any significant impacts on forest stand vegetation management in the area.

Work Area C

The Milk Run trail is proposed to be widened in anticipation of increased skier traffic associated with the new triple chair. Widening of the Milk Run and clearing of the new triple chair will create opportunities to feather the eastern edge in this the High Priority subalpine fir stand adjacent to the Milk Run. Proposed clearing will be about 80 feet in depth and 1300 in length, for a total of 2.4 acres. This will allow the blending of existing healthy trees into a new undulating forest boundary. By reaching into the forest along the boundary, removal of unhealthy sub-alpine fir will create pockets for the regeneration of lodgepole pine in this area.

Work Areas D and E

Several ski facilities are proposed for this work area. A Terrain Park comprising 5.5 acres is proposed in and around the Yahoo trail. The nature and design of the terrain park will allow for significant flexibility in creating various sized openings in the High Priority sub-alpine fir stands in this area. This, in turn, should allow for flexibility in meeting DFC objectives of removing undesirable trees and creating habitat for the establishment of healthy vegetation.

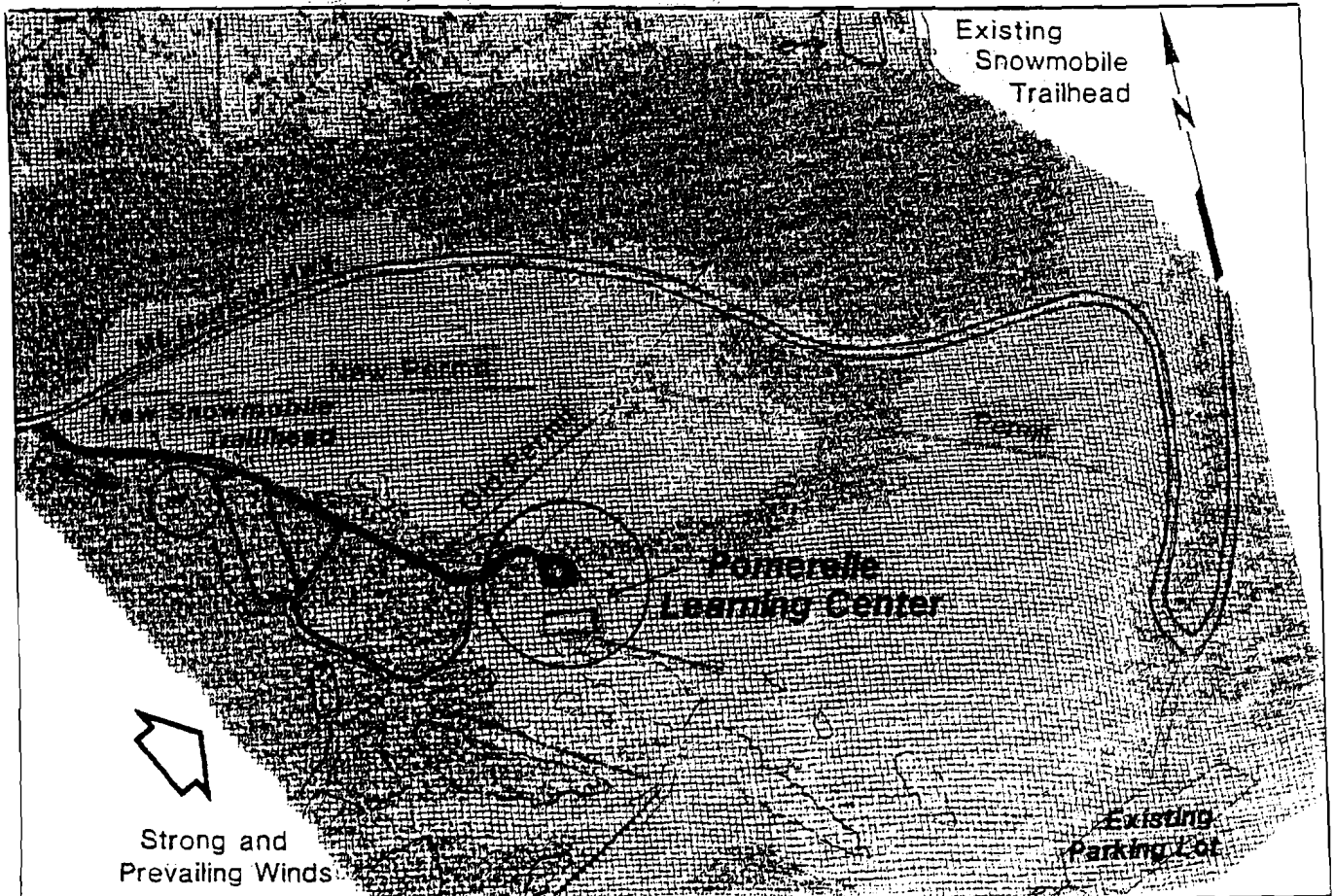
A new Learning Center comprising 6.3 acres of beginner terrain, a new base building, and about 3.0 acres of clearing for additional parking, is proposed. The disposition and layout of these facilities will create numerous opportunities to open stands in ways that can meet the vegetation management objectives. The design of the beginner trails creates several large islands of trees that will allow for removal a much dead, dying and unhealthy trees. Design and implementation of the facilities can incorporate reforestation objectives, meeting Forest Service objectives for establishing snowbreaks, while at the same time create a visually appealing staging area for the new Learning Center.



Digital Resource Inventories and Aerial Photo Coverage

A digital terrain model (20'-cell size) vegetation inventory of this base area has been produced to illustrate proposed changes to surrounding vegetation. This was done from a new five-contour map obtained in 1995. The area covered by the digital terrain model is consistent with the 1"=100' drawing of the base area (see foldout in rear). Vegetation modifications proposed around the Learning Center and the existing day lodge have also been inventoried with 20-foot cell resolution. Black and white aerial photography was obtained by Olympus Aerial Surveys on August 2, 1995, at a 1:3600 scale. Aerial color photos of a USDA flight, dated 8-18-93, were utilized to further analyze the site. The color photo site was scanned and entered into a resource evaluation computer program called ER-mapper making it possible to drape the vertical elevation grid over a corrected photo image. This program was used by Alpentech on an experimental basis only and has not been published.

Figure 6
Digital Map encompassing both Base Sites



Wind

Strong winds limit the use beyond Pomerelle's crest for commercial ski development. It is paramount that ski trail clearing is kept as narrow as possible near the wind crest.

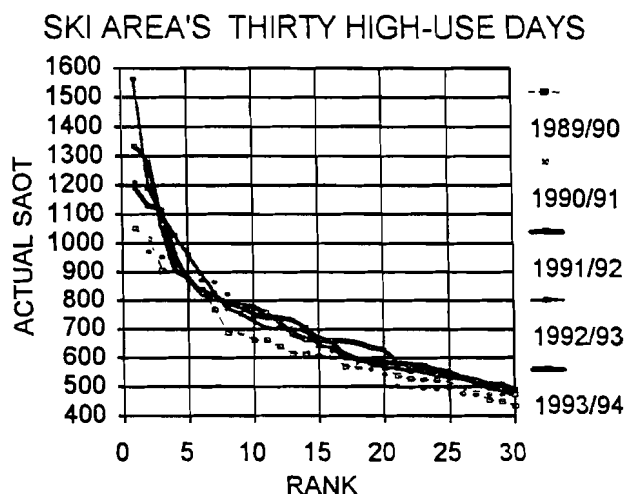


DESIGN PHILOSOPHY

Considering the proper identification of the mountain's true capacity, all other related skier service facilities can be planned, such as base lodge seating, mountain restaurant requirements, sanitary facilities, parking, and other skier services.

In an existing ski area the objective measurement of SAOT is important, because skiers will find other less crowded ski areas when the comfortable ski area capacity is exceeded. Pomerelle daily ticket counts have been plotted for the 30 peak days for 5 seasons beginning with 1989/90. The definition of a Design SAOT has been attempted by many consultants. Alpentech is basing the overall measure of acceptable crowding by plotting the peak days for several years. This will show a curve that has a more or less sharp drop from the peak and will level out normally around the 7th highest peak day. The visitors and market fluctuations together, establish an SAOT figure applicable for design. The design point on the curve of a day ski area is assumed to be at the 7th highest day, or where a distinct break of the peak attendance curve occurs. See Figure 7 below. The existing comfortable ski area capacity estimate is identified as 850 SAOT.

Figure 7
Peak Use



Both 1991/92 and 1993/94 peak attendance curves are similar and show 900 skier visits on the 5th highest peak day. The peak day has exceeded SAOT in 1992/93 1.8 times, in 1993/94 1.6 times, in 1990/91 and in 1991/92 1.4 times and in 1989/90 1.2 times. By providing a balance of facilities, the skier market will recognize that the experience is enhanced on the slopes, on the lifts, in the day lodge and in the parking area. Visitors will respond by coming to Pomerelle more frequently and increase the skier visits.

The current Forest Service listing of Pomerelle's SAOT in the Intermountain Region is 983 SAOT. This listing was arrived at by taking the lowest of the physical carrying capacity estimates for the overall ski acres, the day lodge and the parking capacity. In terms of SAOT, 3300 slope and 1620 parking capacity is noted in the Intermountain Region inventory. The current restaurant size is 170 seats, suggesting that the turn around of seats would be 5.8 times to serve all 983 skiers. Alpentech estimates the SAOT of 850 with a 5 times turn around



of restaurant seating to be a real limitation for Pomerelle. Note that as a rule, seat turn around of 3 to 4 is found in ski areas that offer average levels of off-slope services.

At Pomerelle, the hierarchy of congestion during peak days is first felt on the lower slopes near the existing day lodge as a result of the narrow, converging trails. This is followed by longer lift lines due to the limited uphill capacity of the lifts. Finally, the day lodge is unable to accommodate the numbers of skiers at or near the mountain SAOT. Depending on the arrival pattern of skiers, in private automobiles versus by bus, parking can also become a limitation. Should the ski trails near the existing day lodge be widened as a stand-alone project, SAOT of the existing area would increase to approximately 1000. Once the proposed Learning Center exists, a new triple chair lift is built, and two additional tows disperse beginner skiers, Pomerelle expects to achieve 2000 SAOT. In analogy with Figure 7, it can be expected that peak days would see ticket counts 600 to 1000 skiers above 2000, unless it was decided to cut off tickets sales in the future at a determined number. Normally, unexpected bus loads of skiers cause excessive peak use. This can be avoided by insisting on bus reservations.

The acceptable density for any given lift and trail system is a function of the skier ability level served by that terrain. Appendix 4 includes capacity estimates for the existing and the 1996 MDP development. In a nutshell, comparison of existing and future capacities are as follows: Easy access of more low angle ski terrain will multiply specific demands differently: Lift generated SAOT will double from 1000 to 2000; inactive skiers will increase 2.18 times from 275 to 600; active skiers will increase 1.72 times from 815 to 1400; skiers on trails will increase 1.65 times from 267 to 440. The overall trail SAOT density is 850 SAOT/132 acres or 6.5 now and is forecast as $2000/180=11.1$. The normally groomed area SAOT density is approximately $850/85=10$ and forecast as $2000/110=18.2$. The required minimum ski trail calculation shows 72 versus 111 acres needed and the active skier density expected to move up from 15 to 18 skiers per acre. The assessment of mountain capacity is complex and most of the Western ski areas are not matching National average standards. The character of Pomerelle's ski experience will hardly change with the implementation of the 1996 MDP. However, the level of service, both on and off the slopes, will greatly improve.

The Learning Center will address the day lodge seating deficiency. The inactive skier number, forecast to be 2.18 times larger by doubling SAOT at Pomerelle is given appropriate attention. Inactive skiers (those that are not utilizing the slopes actively), include those waiting to obtain any service (except waiting in the lift line), those congregating off-slope, or on the ski school congregation area, or those found on the fringe of the parking lot or day lodge. This group requires better space allocation that could be accommodated at the existing day lodge site. Obviously, as a result of building the Learning Center, the lodge resident time for each skier is likely to increase and pay back the investment.

Design parameters applied to Pomerelle must be particularly flexible. Some averaged and globalized requirements representing National surveys may not apply here. The evaluation of the existing skiing facilities at Pomerelle involves an inventory and analysis of the current ski area operation. Inventory is the first step in the evaluation process and consists of compiling of data pertaining to the existing ski area facilities including the ski lifts, ski slopes, snowmaking equipment, snow grooming equipment, the base area structures and facilities, parking lots, and any additional facilities that are directly related to ski area operations. This MDP is a result of many site visits, much data collection, many ideas, and more site visits verifying them.



EXISTING AND PROPOSED MOUNTAIN FACILITIES

The upgrading and expansion plans resolve a series of important operational and management issues at Pomerelle, while achieving the goals and objectives outlined initially.

The recommendations described in the upgrading and expansion program result from the examination of the existing facilities at Pomerelle, in conjunction with the assessment of market conditions that will influence further development of the ski area. Throughout the implementation it is essential that any planned expansion be considered in the context of the existing ski terrain, base area facilities, parking, surrounding resources, and year-round use patterns. In addition, to ensure continued success, all future upgrading and expansion will need to be marketed to the specific groups that may not have considered Pomerelle because of a lack of these services.

Terrain suitable for ski expansion has been identified within Pomerelle's current Special Use Permit Area boundary. A wind protected, fairly level area suitable for skier support services has been identified outside of the current special use permit boundary. Additional lifts and ski terrain are proposed due west of the current ski operation. The lifts will be complemented by new base facilities that interface well with the existing development, as shown in two foldout maps in the rear of the report. Original drawings of the foldout maps are available at 1"=100' and 1"=400' scale.

Ski Trails

Pomerelle offers a vertical descent of approximately 1000 feet. The existing 22 trail configuration is shown in Figure 8 with trail numbering being compatible with the official trail map. The trail system accounts for about 132 acres of terrain now including a considerable amount of tree and open ski opportunities available on the side of the formalized trails.

The majority of the trails at Pomerelle properly follow the natural fall line. In the context of the ski industry, the area would be identified as a beginner and novice to intermediate level mountain. Pomerelle has ample terrain to accommodate the seventy five percent of market demand that is typically represented by beginner to intermediate skiers. While Pomerelle is lacking in advanced to expert slopes, the 1996 MDP classification breakdown corresponds with the marketing strategy for the Learning Center. Pomerelle intends to introduce more young people to skiing and become known for outstanding teaching programs bringing new skiers to the ski area and to the sport of skiing.

Historically the ideal skier market is considered a bell shaped curve with the bulk of the skier population being of intermediate ability level with fewer skiers at either extreme of lower or advanced ability level. Today a rapid transition from beginner to advanced is noted because of technology advances made with skis and snowboards. For example, snowboarders advance more quickly from low to high angle slopes. This implies that at Pomerelle, much larger teaching areas, for the various forms of gliding and turning on snow, are needed.

Pomerelle's new emphasis on teaching is realized by adding flatter terrain to Pomerelle's ski trail inventory. This will change the ability distribution and therefore Alpentech has analyzed how the skiers would be distributed on a design day (when crowding levels are considered to be comfortable). The Comfortable Capacity Estimates of SAOT are found in Appendix 4.



Changing Ability Distribution

By widening existing trails, and making new additions, it is proposed that the existing 132 acres of ski trails be augmented by about 48 to 180 acres. With such an addition of new skiing acreage will be increased by 36 %. The intended doubling of SAOT from approximately 1000 to 2000, is achieved by adding 36 % more easy slope. The average lift gradient of the area is reduced from 20.9 to 19.4 % slope. The snowboard component is estimated to remain 30%. The remaining 70 % skiers are computed from mixed ability lift uses for 1090 SAOT: 23% Beginner/41% Intermediate/26% Advanced. The projected 2000 SAOT would fall to 39% B /30% I/ 21% A. These figures are taken from Appendix 4.

Skier Density and Traffic Flow Considerations

Ski slope densities are traditionally used for verifying that ski trails can handle the projected SAOT comfortably. The ski trail inventory, Table 2, lists 132.2 existing ski trail acres subjected to the following uses:

- a) 76.7 acres are normally groomed on mountain at 18 SAOT per acre = 1380 SAOT
- b) 1.8 acres groomed rope tow area at 60 SAOT = 90 SAOT
- c) 53.7 acres, some poorly accessible and wind-exposed at 6 per acre = 330 SAOT

The calculations for the existing ski trail acreage utilization = 1800 SAOT

To verify this calculation from the lift capacities, Alpentech has computed how many skiers would be using each lift and has broken down the skier ability profile from an anticipated use per lift. In a relatively complex spreadsheet it was calculated for example, how many skiers will be riding the lift how many will be found on the ski trails and how many in the lift line. It has also been determined by assigning skier densities by user category that 72 and 111 acres would suffice for existing and future design SAOT. These minimum acres are generated by automatically applying appropriate skier densities (corresponding with the U.S. Forest Service) to lift users for each classified ability. This calculation is a reliable test of the overall skier density on trails; however, traffic flow constraints may cause problems that cannot be assessed by this analysis.

Further, it should be pointed out that the calculation of skiers per acre of any given ability has begun to lose its relevance since the mix of skiers and snowboarders must be accounted for. It has been observed more recently that intermediate to advanced snowboard riders occupy at least 1.5 times the space of conventional skiers to execute their turns comfortably.

In addition, particularly at Pomerelle, the available skiable acreage will not be uniformly used during varying conditions such as during lower snow cover or during windy conditions. Due to these circumstances, Alpentech has made a more conclusive ski trail capacity check at Pomerelle using the comfortable skier traffic flow rules of thumb:

1. *In the fall line, between 300 and 500 skiers per hour (p/h) can be applied to every 100 feet of ski trail width. The lower limit is used for steeper than 25 % slopes or infrequently groomed slopes and the upper limit is used on frequently groomed, areas with snowmaking or flatter than 25 % slope.*
2. *"Slow Skiing" may have to be posted for runs that are exceeding 600 p/h per 100 feet of width across fall lines over 15% slope.*
3. *Ski lanes, across the fall line may move up to 1000 p/h, when they are 20 feet wide and have a 8-10% continuous slope.*



Figure 8
Ski Trail Map

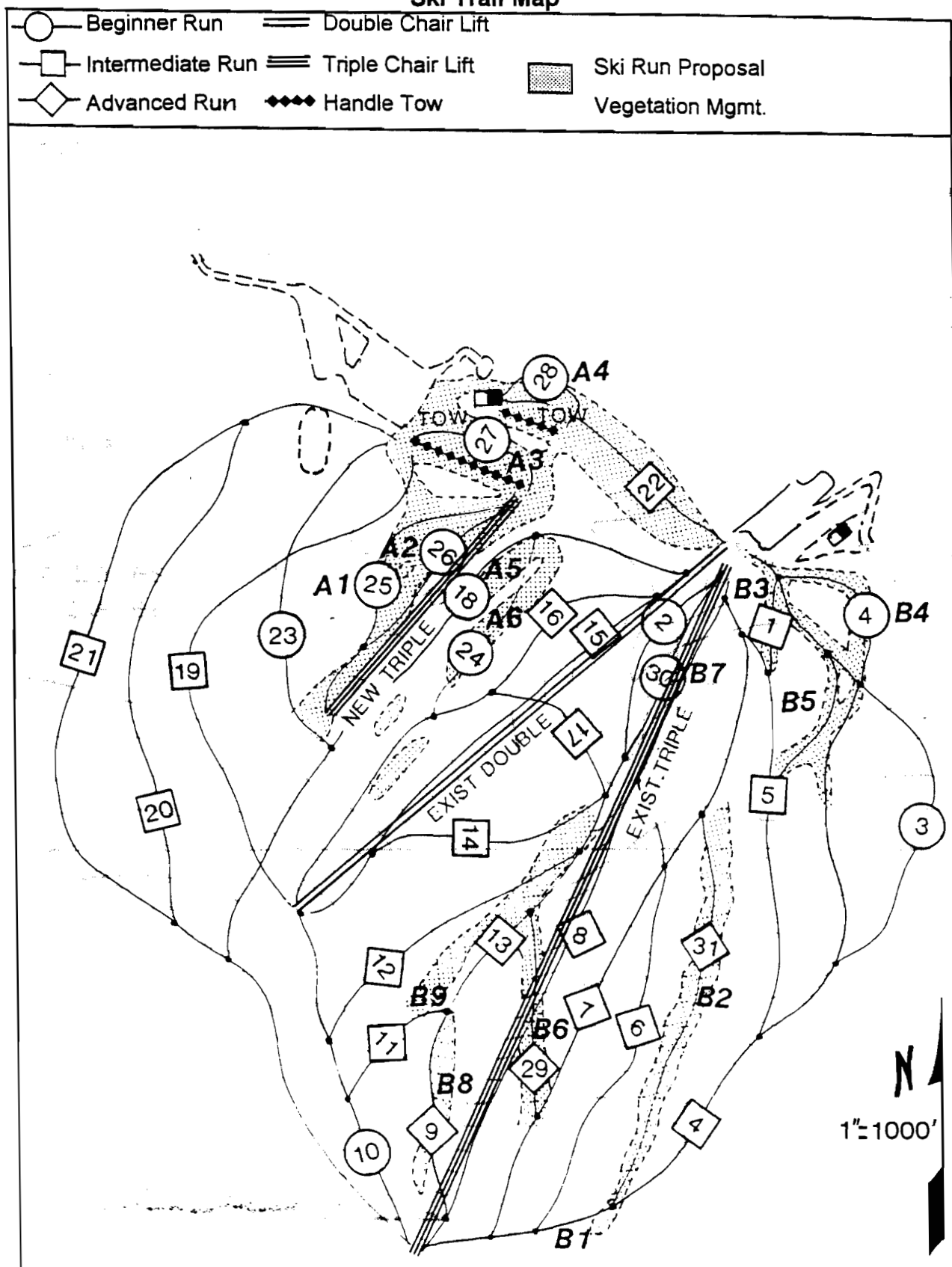




Table 2
Pomerelle Ski Trail Inventory

Pomerelle Ski Trail Inventory									Expansion		
Run		Elevation		Vert.	Horiz.	Slope	Width	Exist.	ID	New	New
Nbr.	NAME	from	to	ft.	ft.		ft.	Acres	Nbr.	Width	Acres
Triple Chair Lift											
1	Back Door	8220	7725	495	2700	18%	85	5.3			
2	Lower Spring Creek	7840	7720	120	1200	10%	80	2.2			
3	Fence Line	8100	7720	380	2100	18%	20	1.0			
4	Bull Run	8640	8040	600	3750	16%	200	17.2			
4	Bull Return (Cottontail)	8000	7730	270	1700	16%			B4	90	3.5
5	Steer Return	7970	7750	220	1200	18%			B5	80	2.2
6	Stampede	8040	7900	140	480	29%	100	1.1			
7	Instructor	8655	7725	930	4680	20%	120	12.9			
8	Lift line	8655	7725	930	4200	22%	60	5.8			
9	Chute#9	8500	8120	380	1200	32%	50	1.4			
9	Chute-9 Glading	8640	8200	440	1300	34%			B8	120	3.6
10	Meadow	8655	8480	175	1080	16%	90	2.2			
11	Punch Bowl	8440	8220	220	720	31%	300	5.0			
11	Punch Bowl Face	8250	8000	250	850	29%			B9	130	2.5
12	Bronc (night skiing)	8300	7990	310	1050	30%	80	1.9			
13	Spring Creek	8080	7720	360	3780	10%	180	15.6			
20	Cat Track/Giddy Up	8655	8330	325	2700	12%	140	8.7			
21	Twin Lakes	8460	8060	400	3600	11%	80	6.6			
29	Triple Crossing	8080	7900	180	600	30%			B6	250	3.4
30	Lower Spring Creek **	7900	7750	150	1200	13%			B7	150	4.1
31	East Bench	8640	8600	40	400	10%			B1	20	0.2
31	New Run (upper)	8600	8000	600	2400	25%			B2	140	7.7
31	New Run (lower) *	7830	7720	110	300	37%			B3	120	0.8
Double Chair Lift											
								Subtotal 1	86.8		
14	Colt (night skiing)	8360	7720	640	3450	19%	65	5.1			28.1
15	Six Shooter	8330	7800	530	3400	16%	30	2.3			
16	Spud (night skiing)	8330	7720	610	3300	18%	60	4.5			
16	Spud Cutoff (night skiing)	8180	7880	300	2000	15%			A6	150	6.9
17	Ponderosa	8060	7880	180	1000	18%	100	2.3			
18	Milk Run (night skiing)	8475	7880	595	3270	18%	140	10.5			
18	Milk Run Widening ***	8100	7900	200	1300	15%			A5	80	2.4
18	Gully	7863	7720	143	1050	14%	80	1.9			
19	Yahoo	8220	8075	145	1140	13%	135	3.5			
22	Buttermilk	7880	7720	160	1200	13%	90	2.5			
23	to be named	8260	7900	360	3120	12%	150	10.7			
24	to be named	8080	7880	200	1450	14%	130	4.3			
-	Rope Tow	7785	7730	55	780	7%	100	1.8			-1.8
								Subtotal 2	49.6	7.5	
Proposed New Ski Trails								Existing Total	136.5	35.6	
25	Ski Terrain Park	8140	7900	240	1600	15%			A1	150	5.5
26	Snowboard Park	8130	8100	30	250	12%			A2	80	0.5
27	Graduate Tow	8000	7900	100	800	13%			A3	300	5.5
28	Nursery Tow	7960	7930	30	350	9%			A4	100	0.8
								Subtotal		12.3	
Expanded Area Total											47.9

* Remove existing ticket office building and trailer, raise old tow runoff.

** At skiers' right of Reservoir, grade new entry re-contour between trees, left of Triple chair lift.

*** Milk Run widening above Half Pipe and re-contour the existing Half Pipe.



Mid Mountain Traffic Evaluation

By adding the widths of available ski trails across mid-mountain, a fairly accurate estimate of skier traffic flow is obtained. This calculation is conclusive for the double and the exiting triple chair lifts that currently dispatch 1200 p/h. Following the above rule of thumb, one should be able to measure 400 feet of ski trail width across the trails measured in the mid-section of the lift. The main continuous runs measure: Bull and Steer (200'), Instructor (120'), and Stampede (120'), totaling 420 feet. When the existing triple chair is upgraded to 1800 p/h, an addition of 180' total widening or new run creation is suggested. Snowmaking and frequent trail grooming of the existing 420 feet may be a viable alternative to adding 180' more width.

In the midsection of the double chair, following the same rule, one should also be able to accrue 400 feet across the ski trails. The measurements are: Colt (65'), Milk (150'), Spud (60') and Bunny (100'), totaling 375 feet. Here, it is acceptable to operate with less width because the terrain is largely below 25%.

Since the terrain located west of the double chair is flatter than 25% slope, the proposed small triple chair lift with 1800 p/h rated capacity is recommended. Following the same rule, one should be able to accrue 360 feet of ski trail width across the new lift pod. Skier transfer of 500 p/h per 100' width is possible here, due to low angle slopes. Skiers returning to the Learning Center will add extra traffic on the slopes to be served with the new lift; however, (1) the practical dispatch of this chair lift will be closer to 1500 p/h, and (2) skier return is possible by cat track, which can handle up to 1000 p/h. Trails to be assigned to the new triple chair must be 300 feet wide overall.

Lower Mountain Skier Traffic Evaluation

In a similar context, analyzing the lower ski slopes, it is obvious that merged trail widths are insufficient. As both the double and the triple chair lifts transport skiers out of the same general area, 2400 p/h traffic capacity should exist for returning to the lifts. Skiing here will typically be noted as "Slow Skiing Area" here 600 hourly passages per 100 feet are exceeded. A threshold of 400 feet of accumulated trail is required. The runs feeding immediately to the loading areas to the two lifts are: Spring Creek (180'), Instructor Face (60'), Back Door Arrival (40') and Gully/Buttermilk Arrival (60'), totaling 340 feet. The slow skiing space should be at least 400 feet wide. For that reason, the elimination of the existing shop, and the re-routing of Bull and Steer run arrivals are both justified for maintaining safe and pleasant skier movement.

Lifts

Pomerelle currently has a total of two chair lifts, one rope tow and one handle tow serving the available terrain. The existing chair lifts are in good operating condition and have been well maintained. The triple chair provides round trip skiing to the trails on the east side of the ski area, including, Punchbowl, Spring Creek, Lift Line, Instructor, Stampede, and Bull Run. The double chair is also for round trip skiing purposes and serves trails on the west side including Six Shooter, Spud, Milk Run and Yahoo. The existing rope tow provides lift access for the beginner trail, also called Cottontail. Lift and trail locations are shown in Figure 8 below and in the rear foldout maps.

The existing chair lifts offer low uphill capacity relative to the size of the terrain they serve. More importantly, the current lift configuration does not access the gentler terrain suitable to



meet Pomerelle's stated goals and objectives. The existing Double and Triple chair lifts will be maintained in their current locations. The existing Triple chair lift will be fitted with more chairs and brought up from the installed 1200 p/h to the originally planned 1800 p/h. All lifts will be replaced in kind, as time dictates.

Existing and proposed lifts are shown in Table 2 below. The existing handle tow is excluded from the existing list.

Table 2
Existing and Proposed Lifts

Lift Type	Existing				Proposed					
	Rope Tow	Double Chair	Triple Chair	Exist. Total	Double Chair	Triple Chair	Kids Tow	Graduate Tow	New Triple	Prop. Total
Vertical ft	50	597	943	1590	597	943	65	75	250	1930
Horizontal ft	400	3011	4210	7621	3011	4210	350	650	1600	9821
Lift Slope avg. %	13	20	22	21	20	22	19	12	16	20%
Length ft	403	3070	4314	0	3070	4314	356	654	1619	10014
Design Capacity p/h	300	1200	1200	0	1200	1800	300	400	1800	
VTF million p-ft/h	0.015	0.716	1.132	1.863	0.716	1.697	0.020	0.030	0.450	2.913
Open hours	7	12	7	0	12	7	12	12	12	
Efficiency per day	0	6	7	13	0.90	0.85	0.70	0.80	0.82	
VTF/day million	0.053	6.448	6.733	13.233	6.448	10.10	0.137	0.240	3.690	20.614
Active Skier Density	31	15	9	15	15	9	32	26	23	
Net Acre Increment	0	25	48	72	25	71	0	1	15	112
First Practice	16	0	0	16	0	0	28	41	111	180
Beginners	0	175	57	232	175	86	0	6	333	599
Intermediates	0	250	200	451	250	301	0	3	55	609
Advanced Skiers	0	25	258	283	25	387	0	0	0	412
Snowboard Users	1	6	9	0	50	86	0	9	55	200
Active Skiers (ASP)	10	375	429	815	375	644	14	35	333	1401
Inactive Skiers	7	125	143	275	125	215	14	24	222	599
SAOT	17	500	573	1090	500	859	28	59	554	2000
SAOT Change	-17					286	28	59	554	910

The proposed lifts serve the Learning Center. Boosting the existing triple chair capacity by 50 percent will reduce waiting lines at the existing base and subsequently reduce trail-end crowding.

The new lifts proposed with the Learning Center construction will disperse skiers further and thereby improve the skier experience. A small triple chair will help to keep Beginner skiers on the existing and proposed ski terrain west of the ski area. Beginner traffic segregation will increase the utilization efficiency. A new ski terrain and snowboard park will be created on the west side of the lift.



Two surface tows are proposed in close proximity to the new Learning Center. Together, these handle tows will replace the existing Cottontail rope tow. The new tows will have 5 times the SAOT capacity of the replacement. They are both shorter than 800 feet; thus will need only one operator following the American National Standards Institute B77 tramway code. The Graduate Tow will be fitted into the amphitheater-like bowl in front of the Learning Center. Fine grade adjustment will be according to the optimal sag of the new tow. On the gentle sunny grade just east of the proposed Learning Center, a First Practice slope will be equipped with the handle tow or rope tow, or a combination of the two. These actions will free up space for skier circulation in the lower base area.

In summary, the exiting comfortable mountain capacities are:

- 1) Based on the peak utilization analysis Pomerelle (page 12) 850 SAOT
- 2) From an assessment of lift uphill capacity, (Table 2 above) 1,090 SAOT
- 3) From average SAOT density allocation over ski runs, (page 14) 1,800 SAOT

The proposed comfortable mountain capacity is 2000 SAOT utilizing both ski trails and lifts at their design capacity. The peak utilization of the expanded Pomerelle is expected to reach 2000 SAOT on the 7th highest peak day.

Vegetation Management and Terrain Modifications

In conjunction with installation of snowmaking pipes, small terrain modifications will be needed. Large terrain shaping is not intended; however, grade correction will be needed in several locations subjected to high Beginner traffic. Figure 8 includes the skier focused trail modifications (shaded areas) recommended for positive forest vegetation management.

Forest vegetation efforts should be protected. Pomerelle and the Forest Service must educate the public of the potentially detrimental effect caused to young trees by cutting their fragile branches. Interpretive signs illustrating how skis, snowboards and oversnow vehicles can cripple a tree's growth should be posted. Pomerelle will locate new seedlings, and educate skiers at the Learning Center of damage to trees done at, or just under, the snow height. See also New Idea File in Appendix 5. In order to be successful with the forest vegetation management beyond the ski permit boundary, it is desirable to reduce snowmobile traffic between the existing snowmobile trailhead at Howell Canyon and the Thompson Flat campground. Pomerelle proposes that a new snowmobile trailhead parking be developed in conjunction with the Learning Center. The new trailhead will greatly reduce the need of snowmobiles to traverse the forest management zone E. This is best illustrated in Figure 6. Additional efforts for planting trees outside the ski trails will be supported by Pomerelle.

All A-labeled projects relate to the Learning Center and therefore are a high priority for Pomerelle. New teaching terrain is proposed in mixed aspen and conifer areas: **A1** through **A4** on the ski trail map, Figure 6. This includes more than six acres of terrain for first time, beginner and child skiers. Natural, gladed terrain forms will be sought for creating the Ski Terrain Park consisting of a snow-sculpted area, providing a stimulating and enjoyable ski experience for the younger generation and for accelerated learning. The existing Half-Pipe will be re-located further to the west and be re-shaped to become a part of Milk (**A5**) and Spud Cutoff (**A6**). Latest experience with Half-Pipe and Snowboard Parks will help create a new, interesting ski and snowboard play area.



Projects with a **B**-label are found along the existing triple chair lift. In order to traverse easily to the East, from the beginning of Instructor towards the fall line of Stampede and Bull Run, a 20' wide bench is proposed (**B1**). Initially, the bench will be built with snow to experiment where the bench is best located and how it should be built to get best results in its windy location. A second Instructor-type run **B2** is proposed. Location of this project will be finalized with close cooperation from the Sawtooth NF. Areas **B3** to **B5** are located at the lower (East) half of the existing triple pod on a grade of 15% to 25%. As with most projects with an **A**-label, these areas lend themselves to creative ski trail development, because the prevailing low-angle fall lines offer flexibility in trail alignment with minor, if any, grade changes.

In order to fully justify projects **B3** and **B4**, experiments should be conducted with wind fences along Bull Run (**B5**). Appropriate wind fence design can accomplish two things: (1) keep snow in the lee of the fence at a designed distance, and (2) protect planted trees for forest creation. For wind fences, consult the Idea File in Appendix 5.

Project **B6** adds needed steeper terrain in an area with dead or dying trees. The slope of the fall line crossing the triple lift are such that only good fall-line alignments will work well. Instead, the adherence to a relatively straight fall line and some grade adjustment at the lift crossing are proposed. Due to space limitations at site **B7**, located between the existing triple lift line and the 60,000 gal reservoir, there is not much room for alignment options. The objective is to gain easily groomable high traffic skiing space. This will reduce the need for Slow Skiing zones. Here, a grading concept is being proposed which would shape the entry to this run favorably near the buried water tank. After cutting trees back considerably between the existing triple chair lift and Spring Creek, material from above would be placed as a taper, turning the fall line of the run to the skiers' right instead of merging it with the creek. This modification should be constructed with the triple lift capacity upgrade. To avoid congestion of the Lower Spring Creek area **B7** should be approved prior to clearing **B6**. **B3** and **B4** would be a higher priority on the list of proposed improvements.

Chute#9 (**B8**) and Punch Face (**B9**), located at the head of Spring Creek, are highly desirable for Pomerelle's addition of steeper ski slopes. The fast progression from Snowboard Beginner to Expert and the appeal of shaped skis call for this area to be opened to more frequent skiing and eventually grooming of Punch Bowl. These two projects also seek resolution of **B7** approval as significant traffic increase is expected from upper Spring Creek. Sizable terrain modification is accompanied with project **B8**. It is proposed that the trees between Bronc and Colt be removed along the relatively gentle toe of the slope. Materials borrowed on the North side of Spring Creek would fill over selected areas of Spring Creek, after placement of an engineered drainage system (i.e., wrapped rock drain with drain pipe insertion). The cut would help to re-align the fall line away from the creek and widen the effective width particularly at the junction of Spring Creek, Colt and Ponderosa runs.

Summer Grooming Priorities

Many **A** and **B** project sites are ideal for experimentation with new plant recovery attempting to shift trails and renew and diversify forest stands. All **A** projects and at least 1/2 of **B** projects should be completed with the submitted MDP. Five-foot contour topographic maps have been produced in 1995 (see rear foldout) and will facilitate site specific grade adjustments in area **A**.



Special site specific consideration may be required in the widening of Spring Creek. The shallow ravine running down the center of the trail must be treated as a stream channel modification project and may have to be coordinated through the Army Corps of Engineers. Following the initial construction, erosion control devices and seeding, the ski area operator will continue to monitor the revegetation process, broadcasting additional seed as necessary. Pomerelle is working with Forest Service staff to follow Best Management Practices during all summer grooming projects.

Snow Grooming

Trail grooming is an important component of a quality ski experience. Pomerelle presently has three grooming vehicles. Two of these vehicles are equipped with power tillers. Considering the 85 acres of trails identified by management as routinely groomed, the groomers are sufficient to maintain the existing terrain. Employing a ratio of one grooming machine for every 25-30 acres of terrain, the present fleet can maintain approximately 75 to 90 acres of ski trails when all vehicles are in use. As Pomerelle proceeds with its upgrading, it will be grooming 110 acres and so will require at least one new grooming machine.

Night Skiing

Pomerelle has been offering night skiing as a component of its overall ski area operations since 1978. The main trails which are night lit today are those served by the double chair. They including, Bronc, Colt, Spud, Cottontail, Milk Run and Rope Tow. Total night skiing acreage is about 22 acres. Night skiing is very popular with school children and is an important component of the In School Program. Given the popularity of night skiing and how well it supports the ski school programs at Pomerelle, all of the new trails at the Learning Center will be night lit, bringing the total acreage to almost 30 acres.

Table 3

Proposed Additional Light Circuits

Lbl.	Circuit Following Snowmaking Lines	Elevation		Vert ft	Horiz ft
		fro	to		
A	Buttermilk, Race Hill, Novice Tow	772	801	28	310
B	Spring Cr., Gully, Graduate Tow	772	801	28	610
C	Parking Lot Lines 8000 and 770				60
D	Milk Run, other side	780	795	15	350
E	Reservoir to Yahoo	801	835	34	230
				Totals	1560

Snowmaking

Pomerelle has made snow since 1993 to supplement natural snow fall during the early season and to keep high traffic areas snow covered. This has paid dividends by earlier season opening. Pomerelle has a single airless snow machine, with a 10 HP compressor. This gun is used to supplement thin snow cover conditions in and around the base area. Skiers expect to find snow cover despite low snow and high skier congestion periods. A hydrant for this gun is located near the day lodge, and is connected to the same water system supplying culinary water to the ski area.



The 1996 MDP includes an aggressive snowmaking program. Good snowmaking coverage serves as insurance against poor weather and assures that significant capital investments will receive high utilization. Besides opening earlier and dependably satisfying visitors when they seek rare natural snow, snowmaking brings operational advantages. Machine made snow offers the benefit of up to 4-5 times denser than natural snow that can endure skier traffic much better than natural snow. A lighter powder snow may be more enjoyable to ski; however, denser machine made snow withstands high skier traffic over the course of a full day of skiing. As a result, most ski areas must make snow in their highest traffic areas.

Preliminary Water Requirement

(162,000 gal per acre-ft of snow produced)

Objective	SNOW			WATER	
	acres	ac-ft.	density	ac-ft.	Mio. Gal.
Opening: 1 foot of coverage	60	60	162000/325851	30	9.8
Second Pass: 0.5 foot coverage	40	20	50%	10	3.3
Maint. Pass: 0.5 foot coverage	40	20	50%	10	3.3
Total snowmaking water				50	16.3

Snowmakers in the Western U.S. have learned to make snow early in the season. With some exceptions, their objective is to open earlier and provide spot snowmaking, rather than continually make snow. At Pomerelle, 1 foot of machine made snow allows for opening, 0.5' for a second pass for augmenting early season snow, and 0.5' for trail maintenance during the season. This translates in approximately 16.3 ~~acre-feet~~ of water.

Preliminary Flow Requirement

Objective	Intend to make 1 foot of snow over 20 acres in 15 days, by running all guns during typical four day cold cycles at 10 h per day. Maximum flow during cold cycles must be sustained by inflow and storage.	
Max. Flow	To Snowmaking Guns: 8 guns at 50 gpm over 10 h x 60	<u>400.0 gpm</u>
	From Bennett Spring: assumed draw from Bennett Springs	-150.0 gpm*
	From Reservoir: 2 ac-ft stored, drawn in 40 hours	<u>-271.5 gpm</u>
Check 1	(Surplus when 8 guns draw 50 gpm average)	(21.5 gpm)
	Replenishing the 2 acre feet storage would take approximately 3 days	
Check 2	During October, November and December, snowmaking must be possible 1/3 of the time.	
	Opening and second pass equals 40 acre-feet of water, minus 2 acre-feet being stored, averaging the total to 38 acre-feet for the period of 90 days.	
	The spring must sustain an average: $38 \times 325851 / 60 / 24 / 60 = 143.3 \text{ gpm}$ (<150).	

Alpentech verified the above snowmaking requirements with Snowmax Technologies, Salt Lake City, Utah.

Snowmaking will be required for maintaining good snow conditions on the high traffic ski runs. A substantial increase of the existing snowmaking capability is needed prior to doubling the SAOT. Once the proposed lifts and trails are built, snowmaking may be installed incrementally by circuits listed in Table 5 below. The location of snowmaking lines is shown in Figure 9.



Table 4
Proposed Snowmaking Plan

Run Nbr.	NAME	Elevation from	to	Vert. ft.	Horiz. ft.	Slope	Width ft.	Net Acre
Triple Chair Lift								
2	Lower Spring Creek	7840	7720	120	1200	10%	80	2.2
13	Spring Creek	8080	7720	360	3780	10%	150	13.0
Double Chair Lift								Subtotal 1
12	Bronc	8300	7990	310	1050	30%	80	1.9
14	Colt	8360	7720	640	3450	19%	65	5.1
16	Spud	8330	7720	610	3300	18%	60	4.5
16	Spud Cutoff	8180	7880	300	2000	15%	100	4.6
18	Milk Run	8475	7880	595	3270	18%	100	7.5
18	Milk Run Widening	8100	7900	200	1300	15%	80	2.4
22	Buttermilk	7880	7720	160	1200	13%	90	2.5
23	Bunny	8260	7900	360	3120	12%	50	3.6
18	Gully	7863	7720	143	1050	14%	80	1.9
Proposed New Ski Trails								Subtotal 2
25	Ski Terrain Park	8140	7900	240	1600	15%	150	5.5
26	Snowboard Park	8130	8100	30	250	12%	80	0.5
27	Graduate Tow	8000	7900	100	800	13%	300	5.5
28	Nursery Tow	7960	7930	30	350	9%	100	0.8
								Subtotal 3
Total Coverage								60.1

Snowmaking water is proposed to be supplied primarily by Bennett Springs and will be supplemented by capturing surface run-off, which will be returned to a new snowmaking storage pond. Water from Bennett Spring will either be pumped to 8010 feet elevation to a proposed 2 acre-foot storage pond, or directly into the snowmaking system. Transmission of water between 7725' and 8010' will alternate between circuits A and B.

A new water supply pipeline, from Bennett Springs to the bottom of circuits A and B, will be required to provide sufficient water capacity to the new snowmaking system.

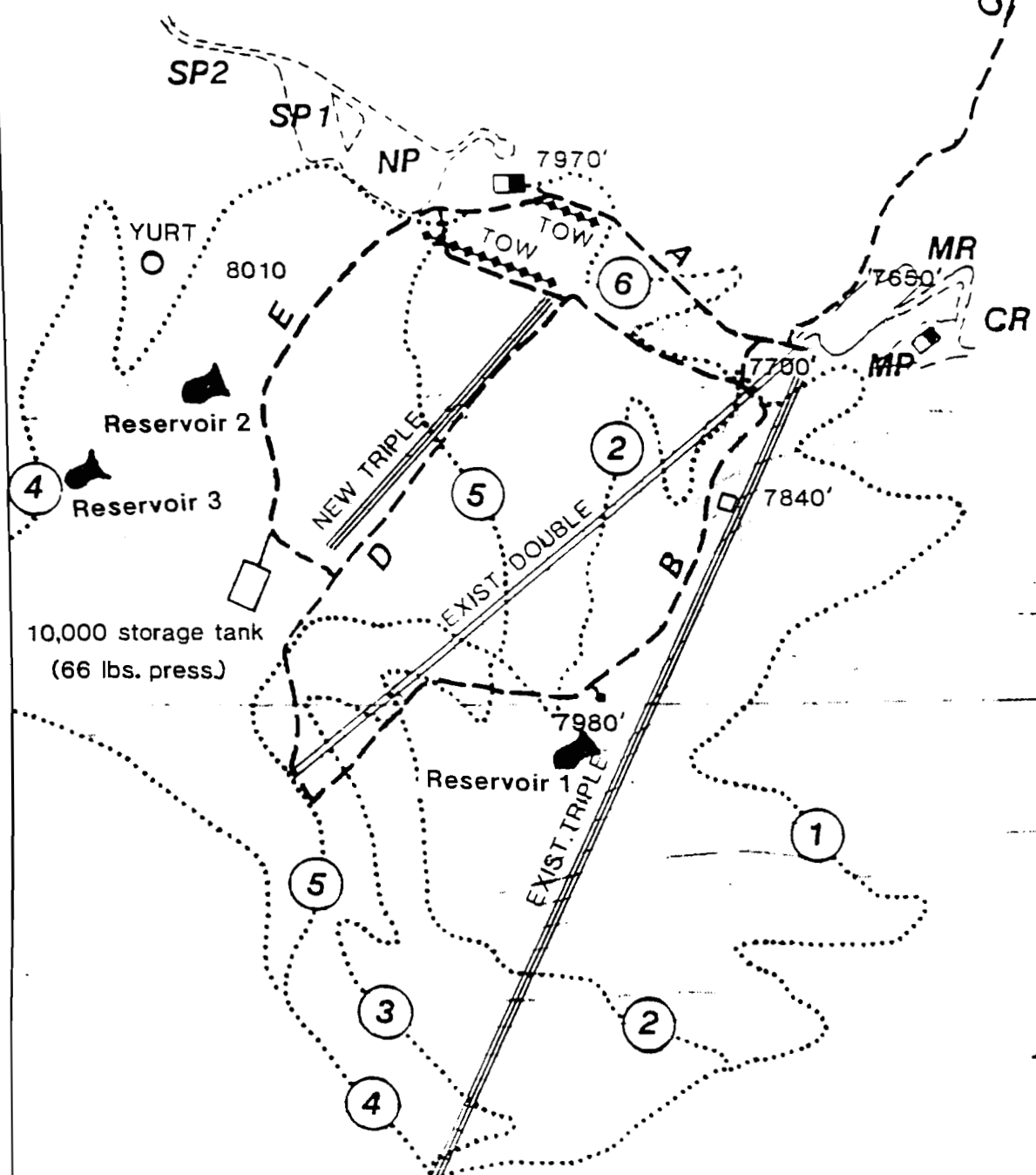
Table 5
Proposed Snowmaking Circuits

Lbl. Circuit	Elevation			Vert. max ft.	Horiz. ft.	Width ft.	Disturbed Acres
	from	to	via				
A Buttermilk, Race Hill, Novice Tow	7725	8010		285	3100	10	0.7
B Spring Creek, Gully, Graduate Tow	7950	8010	7725	285	6100	10	1.4
C New Water Supply Line	7400	7725		325	9600	10	2.2
D Milk, loop via Colt to Spring Creek	7900	7950	8400	500	6000	10	1.4
E Reservoir to Yahoo	8010	8350		340	2300	10	0.5
Totals					27100		6.2



Snowmaking Corridors and Summer Trails

- New Building Location
- New Roads, Parking
- New Mountain Bike Route
- New Snowmaking Corridor
- Snowmaking Reservoir
- Double Chair Lift
- Triple Chair Lift
- Handle Tow



AMENDED
PREVIOUS
PAGE

The snowmaking storage pond is proposed to be excavated in a near-level forested area located south-west of the Learning Center parking lot, as shown on the rear foldout. A tree buffer, at least 100 feet wide, is proposed between the parking lot clearing and the pond to resist wind. The pond would either be lined with clay, if available locally, or with a flexible membrane liner (FML).

Opinions about the impacts of snowmaking on the environment vary. Augmented runoff from snowmaking, estimated to be as much as 16.3 acre-feet, may be benefit to the local annual water budget in this rural setting. Generally, runoff from man-made snow is timed later in the runoff season than natural snow because of its density and consolidated amounts of deposit. Localized impacts from trenching and runoff increases are manageable using Best Management Practices.

Since Pomerelle plans to locate snowmaking pipes and construct summer trails, Figure 9 shows these activities together. Field location of corridors must be decided case by case to determine if it is advisable to combine projects. As a rule, disturbance of snowmaking corridors should not be combined with mountain bike trail corridors.

Avalanche Control

Pomerelle has not needed explosives for avalanche control in the past and it is not expected that the proposed expansion will change this requirement.

EXISTING AND PROPOSED BASE AREA FACILITIES

Pomerelle provides all of its skier support services in the main base area. Because of the disposition and layout of the buildings in the base area, the space for skier circulation is constrained. During peak days, excessive crowding has occurred in these areas. Pomerelle has essentially grown out of the confinement of the existing base site.

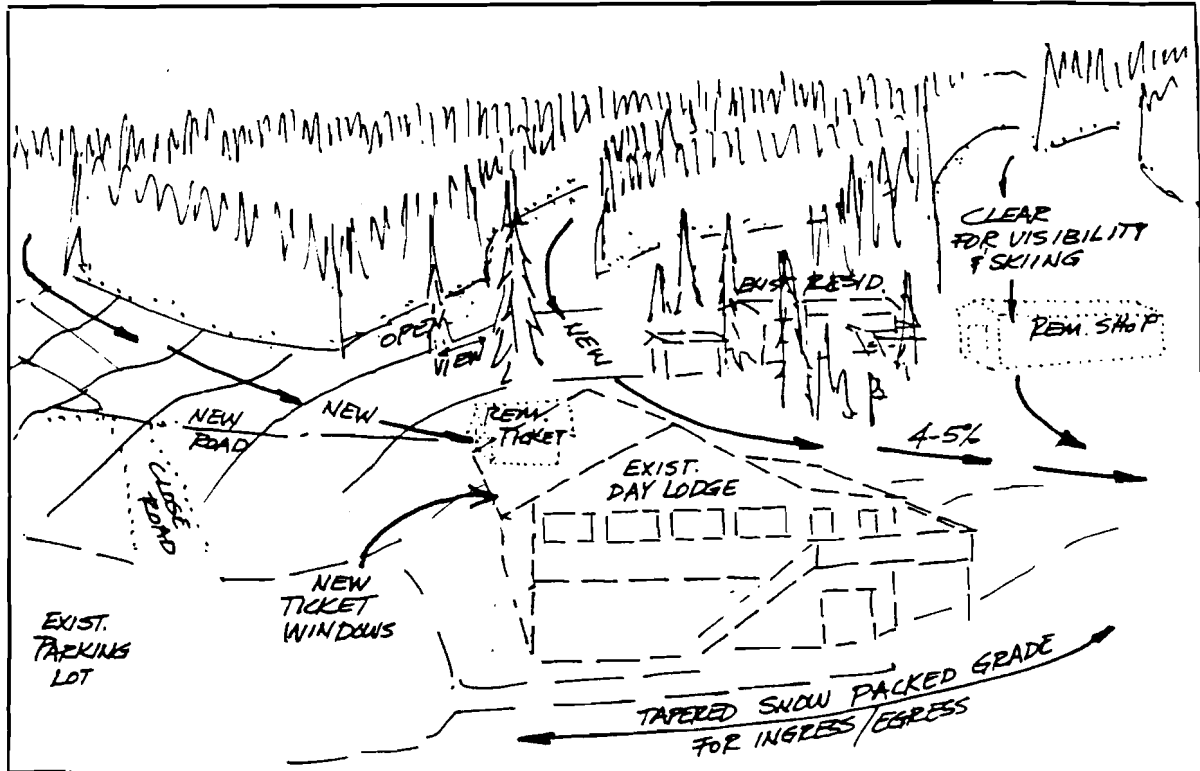
Pomerelle Day Lodge

The Pomerelle Day Lodge was built over a period of three years beginning in 1961. The present owners have made extensive remodeling and expansion improvements to the building over a number of years. This lodge provides all of the skier support services, including food service seating, food preparation, restrooms, rental and retail, ski patrol and first aid, administration, mechanical storage and circulation space. The ticket office is located in a small log cabin dating back to the Mount Harrison Ski Area. The age of these buildings and the layout of the services are not conducive to meeting Pomerelle's stated goals and objectives. Further, space and circulation constraints create difficulty for Beginners to congregate for lessons and then to find adequate space for practice. These conditions, together with increased teaching space requirement for snowboard instructions and larger number of school children in the Pomerelle market, require substantial upgrading of the base area facilities.

The Pomerelle Day Lodge will continue to play an important role at the ski area. This base will serve as a dining area for skiers providing their own food, and will be equipped with vending machines. It will also offer ticketing, restrooms, and provide needed employee lounge and locker space.



Figure 10
Renovation of Existing Base Area



Howell Canyon Road Access and Second Parking Lot

Idaho DOT is planning to pave the Mount Harrison highway during Summer 1997. Pomerelle is proposing a new ski area entry road at 8012' elevation, 3/4 miles up from existing entry. This proposed entry road construction is also scheduled for Summer 1997 and will lead to the Learning Center. The new Pomerelle entry road follows an existing utility corridor. The improvements are drawn on a 1"=100', 5-foot contour map, found in the rear foldout.

Two separate parking areas are proposed at Pomerelle. One will be the existing parking lot at the Pomerelle Day Lodge, the other a new parking area at the Learning Center. This will make skier circulation more flexible.

The Learning Center parking area is proposed to be divided into two connected parking lots: (1) a new snowmobile parking lot, located 600 feet away from the Howell Canyon Road intersection and (2) a new skier parking lot, located 1000 feet away from the intersection. These parking lots are laid out to have 4 % or less slope gradient. A drop-off and service spur, with an 85 foot diameter turn-around at the end, is approximately 350 feet long. The spur has a 7% maximum grade down toward the Learning Center. Pavement will be extended 1450 feet along the parking lots and 350 feet along the spur and will include the turn around area in front of the Learning Center. The parking lots will be topped with road base or other suitable



material. The skier parking lot measures 350 by 450 foot, holding 410 automobiles. The plan leaves a 250' green belt between the main parking lot and the day lodge, that will be used for skier congregation during winter. During winter, both pedestrian and service access will be over a 100 foot wide hard packed snow surface, maintained at level with the drop-off area.

Parking is broken into three separate sectors according to users: (1) the physically challenged skier, (2) the skier, and (3) the snowmobiler. The rounded front row will be reserved for the physically challenged as per American Disability Act (ADA) guidelines. The extra space created by the rounded front row will provide extra bus unloading space. The main lot will park 6 (double-loaded) rows measuring 300 feet and one single-loaded row from front to rear. The Learning Center parking has been designed such that all chair lifts in the ski area unload high enough to allow skiers to glide to this parking lot. Since it will be the first access point off the highway, the existing parking lot will remain popular, particularly in inclement weather.

Table 6
Parking Lot Clearing

Lbl.	NAME	Elevation from	to	Vert ft.	Horiz ft.	Slop %	Widt ft.	Acres
<i>Ski Area Parking</i>								
NP	Main Lot area	8008	7990	18	500	4%	450	5.2
-	minus existing clearings	8005	8000	5	200	3%	100	0.5
Subtotal A								5.6
<i>Snowmobile Parking</i>								
SP1	Additional Lot	8015	8008	7	500	1%	200	2.3
SP2	Snowmobile approach	8027	8010	17	700	2%	50	0.8
Subtotal B								3.1
<i>Maintenance Area</i>								
MR	Road up	7730	7693	37	700	5%	16	0.3
MP	Near Level Area	7732	7728	4	300	1%	70	0.5
CR	Road connection to Conner	7750	7720	30	400	8%	14	0.1
-	minus existing clearings	7730	7725	5	400	1%	-50	-0.5
Subtotal C								0.4
Total acreage for parking and snow storage								9.1

The Snowmobile parking lot is laid out separately. It is planned to be 150 x 450 feet in size. Snowmobile access will be on the long side of the lot. Snow storage is planned on the North of the lot, to keep snow banks low and to facilitate a broad automobile interface. The lot is intended to hold 140 oversized vehicles. A triangular tree buffer is proposed between the new skier and snowmobile lots.

Snow removal is planned by grader or dozer from West to East, following the prevailing wind. Ample snow storage areas are found along the open meadow located North along the lot. The parking lot and Learning Center are both located in the lee of a 150 foot vertical rise. Winter weather has been a critical design parameter for locating the parking lot. To take advantage of this favorable location, tree clearing is needed as shown in the Table 6 above.



Learning Center

A spacious, high quality day lodge and skier education facility with appropriate considerations for summer use is proposed. Different alternatives for locating the Learning Center were studied. The need for larger low-angle slopes did not exist in immediate proximity to the existing base. The idea of moving the Learning Center 1/2 mile down Canyon was abandoned to avoid a significant impact on springs and wetlands and to leave a riparian condition undisturbed. The proposal for access and location of the Learning Center as shown in the 1996 Pomerelle MDP has been qualified as the low-impact option by resource specialists. The proposed location of the Learning Center is on the sunny ridge overlooking the existing ski slopes.

The Learning Center will offer vastly improved access to the new and important terrain at Pomerelle while serving as a new portal onto the mountain. Concept plans for the Learning Center have been developed. The size for this facility is approximately 21,000 square feet.

Skier Support Services

(see also page 1 of Appendix 3-1)

150 seat cafeteria and kitchen

120 seat conference room to include Video area (multi media multi lingual)

Small employee room with locker and box lunch/cooler area

Ticket Office

4 ticket windows with ATM facility

Nursery and day care

Rest room facilities

Administrative offices

Retail shop

Sports and Ski Instructor desk

Ski patrol and first aid

Rental center

Small bar and lounge

Executive office

Reception area

Night Watchman Quarters

Approximate space use requirements for the above proposed skier services are based on 1500 SAOT. Preliminary, more detailed space use programs are found in Appendix 4.

Site modifications surrounding the Learning Center will be made. These modifications will ensure that the above functions interface well and that easy skier accessibility to the mountain is maintained. The inside building space will be finished over the course of 2 to 3 years. – Other improvements not noted elsewhere in the MDP include:

Power and communications corridors

Lights around buildings and in parking lots

Comprehensive signage to be updated by season

Cross country track (staging, arrival and departure areas)

Backcountry information board(s) and trailhead signs



Table 7
New Learning Center Space Breakdown

Function	Main Floor Space (ft.)	Upper Floor Space (ft.)
Food Service Seating		4,475
Food Prep.		1,800
Bar and Lounge		450
Restrooms	750	500
Ticket Office	150	
Administrative Offices	800	
Day Care	750	
Ski School Programs	150	
Ski Patrol and First Aid	700	
Lockers		1,475
Rental and Retail	2,400	
Conference	1,500	800
Mechanical/Storage	650	200
Circulation	2,650	1,300
TOTAL	10,500	10,500

ADA Considerations

Special education programs are, and will continue to be, an important component of Pomerelle's operations. At the present time, most facilities at Pomerelle are not designed for ADA accessibility. Terrain and layout of the existing day lodge make compliance prohibitively expensive. The terrain in the new Learning Center area will be more suitable for this use and therefore the new day lodge will include more functions accessible to handicapped visitors. While the design for this building has not yet been completed, it will meet all applicable county and federal codes for barrier free access. The concept plan for this new base area portrays ADA parking spaces at the top of the new parking area same grade as the lodge entrance. A pedestrian drop-off is proposed within 100 feet, on level with the lodge entrance. One oversize restrooms will be provided on both floors.

Maintenance Facility

As depicted on the rear foldout, a 1500 square foot maintenance shop exists adjacent to the triple chair lift. This building was constructed in 1969 and houses all mountain equipment, parts, fabrication, and storage. The location of the maintenance building has constrained space in the base area, and, as a result has hampered efficient skier circulation.

Pomerelle needs a new maintenance facility for servicing oversnow vehicles and other equipment. This facility is to be moved away from the skier operations thereby creating more space for skier circulation and alleviating congestion in the existing base area. The new location for this facility will be near the existing Cottontail teaching area and will be accessible by a new road beginning on the east side of the existing parking lot. Since the Cottontail teaching area is eliminated, a gentle open slope exists in front of the proposed maintenance



shop for vehicular circulation. See rear foldout and Figure 8. See Table 6 above. The road spur will also give better access to Connor Flat.

Design standards for maintenance facilities indicate that 1,000 square feet per vehicle should be provided, including 800 square feet for one modern snowgrooming vehicle with compactor bar and 200 square feet for parts, supplies and storage. Space for at least two vehicles will be provided inside the new maintenance facility. This translates into at least 2,000 square feet for snow grooming vehicles alone. A mechanical and electrical maintenance shop will be included. The maintenance facility is proposed to be 60 by 60 feet in size with provisions made for expanding the shop to the East for an ultimate building size of 120 by 60 feet. The proposed maintenance shop will be easily accessible on snow and by road and will be tucked away behind trees. Storage of snowmaking and snowgrooming equipment will be in proximity to the shop. Plows, graders and bulldozers will be stationed near the new maintenance building.

Employee Housing

A caretaker residence is located near the existing day lodge as shown on the rear foldout. It is used by management personnel. Year round occupancy of the residence is essential to the ski area operation. This building will remain in its current location and use. The proposed maintenance building will be designed to provide additional employee housing. Additional on site employee housing is needed particularly for opening the ski area after a winter storm.

Utilities

a) Water

Water is provided to the ski area by a system of springs originating at Bennett Spring, located about 3200 feet north of the base area. Water is collected from the spring to the tank where it is pumped up to a 1,200 gallon booster pump located at the east end of the parking area. From here, the water is pumped to the existing day lodge where it passes through an iodine disinfection system. Water storage consists of a 60,000 gallon concrete reservoir located 1200 feet up slope from the day lodge, buried east of the Spring Creek trail. The water system complies with all State regulations. Currently, in addition to supplying culinary water to the day lodge and residence, the water system supplies the snowmaking needs.

The size of the water supply system will have to be expanded to accommodate twice the existing number of skiers. For the purposes of estimating future water use, it is assumed that 3.5 gallons per day (gpd) per skier will be required. Of this it is assumed that 75% of the skier use will be in the New Learning Center and 25% in the existing day lodge. Based on an assumed 3.5 gpd, 5,250 will need to be delivered to the new base with 1,575 gpd delivered to the existing base. A total of 7,000 gpd will be required to meet the needs of skiers.

Snowmaking water for the expanded snowmaking capability is planned as a completely separate water supply and storage system. However fire flow requirements may warrant the combined storage capacity. A preliminary design report for the water supply system is found in Appendix 3.

**b) Sewer**

The day lodge, maintenance facility and employee residence all have sanitary facilities. The day lodge has one 1,200 gallon tank and two 1,000 gallon tanks sharing a common drain field and replacement area. The tanks are pumped on a routine basis and the drain fields perform according to design. The system complies with all local and state codes and has been adequate in meeting skier demands. The maintenance shop and residence will require a suitably sized septic tank, drain field, and replacement area. As the demand for effluent treatment is reduced at the exiting day lodge, the new maintenance building may be connected to the existing sanitary system.

Additions to the sewer system at Pomerelle will need to be implemented as part of the upgrading and expansion, including new facilities at the Learning Center, the new maintenance building and residence. A new drain field will need to be built at the Learning Center. This system will also require a grease trap and pre-treatment to get wastewater down to domestic wastewater levels. From there it would be sent to a suitably sized drain field. If additional pre-treatment is required, an anaerobic digester could be installed into the system. Drain field system location and design will be based upon soil testing of sites proximate to the Learning Center.

Preliminary investigations regarding the sanitary system have been made by Water Engineering Technologies. Their report is found in Appendix 3.

c) Power

Electric power is provided to Pomerelle by Raft River Electrical Cooperative. Power comes to the ski area via a line passing only 30 feet from the proposed Learning Center. The electrical power provided by this line will be more than adequate in meeting Pomerelle's future power requirements.

d) Fuel Storage

Propane fuel is used for cooking and heating the many facilities at Pomerelle, and is stored in tanks. Diesel and gasoline tanks for snowcats will be relocated from their old location to the new Maintenance Facility. The tanks will stand in the open, inside an emergency catchment basin.

SUMMER RECREATION

The Sawtooth National Forest Albion Division surrounds Pomerelle. With the paving of the Mount Harrison highway, to occur in 1997, increasing numbers of tourists can be expected. Many visitors come to enjoy the scenery, partake of opportunities to camp in nearby campgrounds, hunt, hike and bike on the USFS trail system, or go picnicking throughout the summer and fall months.

The 1996 Pomerelle MDP proposes to offer a variety of year-round recreational activities. In order to accommodate year-round visitors, additional services are needed at Pomerelle, not only for the ski area, but also for an increased number of other users of the Mount Harrison highway. Visitation increases to Lake Cleveland and Mount Harrison are anticipated also, as a result of positive trends for mountain recreation and because of improvements made to the ski area. Skiers tend to visit their ski areas increasingly during summer months for hiking and mountain bike tours. Together, these developments bring an opportunity for Pomerelle to stay open all year, offering summer concerts, music festivals, melodrama.

Thanks to the proximity of Lake Cleveland (1.5 miles), Mount Harrison (2.5 miles) and the City of Rocks (29 miles from Pomerelle via Mount Harrison), Pomerelle expects summer visitors to come from an ever increasing local and regional circle. The Learning Center will be open for business year round and serve as a hub for summer recreation.

A seasonally diversified use of the proposed facilities is economically prudent and can be realistically accommodated at Pomerelle. For example during summer, campground visitors are likely to visit Pomerelle, and during winter the snowmobile trailhead located at walking distance to the Learning Center will invite its users to obtain various services at Pomerelle. The intent of the MDP is to satisfy all support service needs for various users in the area.

Mountain bike programs have become popular in many ski areas. The nearby scenic attractions of Lake Cleveland and Mount Harrison, and the relative proximity of City of Rocks National Reserve are ideal mountain biking destinations. The lack of services in this portion of the mountains will make Pomerelle a popular stop. The area around Pomerelle is suitable to accommodate mountain biking and Pomerelle plans to offer a mountain bike lift ticket after the Learning Center is built. Instruction will be available at Pomerelle during summer to learn safe mountain bike practices. The summer tourism will be stimulated with mountain bike events. A number of new single track and downhill routes are proposed as outlined in Table 8.

Table 8
Proposed Mountain Bike Trails

		Elevation		Vert.	Horiz.	Slope	Width	
Nbr.	NAME	from	to	ft.	ft.	%	ft.	Acres
1	Far East	8655	7725	930	12000	8%	4	1.1
2	Tree Hugger	8500	7725	775	9500	8%	3	0.7
3	Punch Bowl	8630	8220	410	5000	8%	3	0.3
4	Twin Lakes	8655	7940	715	12000	6%	10	2.8
5	Milk	8540	7960	580	7000	8%	4	0.6
6	Interlodge	7960	7725	235	4000	6%	6	0.6
							Total	6.0

APPENDIX 1: Pomerelle 1996 Master Development Plan

MONTHLY SKI AREA USE

SOURCE: Pomerelle Ski Area

Season	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	Average
OPENING	11-25	11-23	11-22	11-10	11-15	11-14	12-4	11-18	11-25	11-21	11-16	11-20	12-11	11-11	12-11	15-years
CLOSING	4-18	4-17	4-15	4-14	4-13	4-12	4-17	4-16	4-8	4-14	4-5	4-18	4-10	4-15	5-3	
Days Open	128	128	129	137	133	133	121	133	119	128	142	144	121	150	140	123
Skier Visits																
NOV	1,822	1,868	1,587	2,702	3,868	2,761	0	3,704	584	1,811	3,192	4,425	0	5,387	0	2,247
DEC	7,110	5,992	3,951	6,311	7,015	6,164	10,497	8,960	7,540	6,466	10,566	10,475	6,061	11,858	12,221	7,264
JAN	6,293	7,745	7,717	8,143	10,344	14,821	14,859	11,677	12,481	14,379	14,007	10,641	13,455	13,598	13,595	10,677
FEB	6,580	6,126	7,001	5,893	6,296	10,617	10,432	8,769	10,865	9,788	10,786	10,154	12,486	9,767	12,979	8,371
MAR	5,144	3,390	5,907	6,308	3,519	5,684	6,090	6,487	6,234	6,557	5,081	9,727	7,268	5,604	9,365	5,533
APRIL	684	757	702	418	220	548	796	470	125	1,063	209	3,580	692	918	1,942	745
Tickets sold	27,633	25,878	26,865	29,775	31,262	40,595	42,674	40,067	37,829	40,064	43,841	49,002	39,962	47,132	50,102	34,839
Season Pass				1,380				2,550	2,910	3,780	2,940	2,040	1,680	1,830	2,160	1,274
Skier Visits	27,633	25,878	26,865	31,155	31,262	40,595	42,674	42,617	40,739	43,844	46,781	51,042	41,642	48,962	52,262	36,113

Pomerelle History

It must have been in the early 1940's that the original Mount Harrison Ski Area first had skiers. The Old Cabin, (which served as a Lodge/Warming Shelter) was built by the Civilian Conservation Corps and was used for one year before World War II broke out and it was then abandoned. It was reactivated and was operational for a period of time after the war, until the cabin and the rope tow were moved up the canyon to it's present site at Pomerelle.

Pomerelle is packed with fond memories for much of the Burley/Rupert community business people. Looking back ... old timer's talk about how they backed a big truck underneath the old log cabin, secured it to the building, hooked a farm tractor to the truck and started up the old forest service road. They knocked the bank down in places, sawed down trees to make it wide enough - practically rebuilding the road on the way for the old log building's new home up the canyon. They succeeded in getting the log cabin to it's present location and continued to work enthusiastically to organize their venture. Stopping periodically to enjoy a well deserved refreshment, they took out their "Pomerelle" wine for a moment of pleasure and thus found a name for their new undertaking.

Pomerelle's site was solid timber except for the upper bowl (Punch) and upper portion of Milk Run. The five partners got together and started the area - first with chainsaws and finally with the help of a caterpillar. The first year they managed to clear the area where the rope tow was in operation along with part of the parking lot and an area around what would eventually be the Day lodge.

The Rope tow was in operation for one year before the partners took it upon themselves to build a platter lift. The Platter lift was installed where the present existing Triple Chairlift is now operating. When they installed the Platter lift, "Lift Line" ski run was cut and "Milk Run" was widened. Both runs are presently used today, although both slopes have been extensively cleaned of downed trees during initial run clearing in the 1960's.

For many years, the only shelter available was the old small log cabin the men had originally brought to the area. In 1961-1962 the partners began construction of a day lodge which took three years to complete. During Pomerelle's formative years, memories abound by those early skiers who braved the ungroomed slopes with their bear trap bindings and 7 foot skis.

Old newspaper clippings reported the surprising achievement when "Dr. Hircher broke trail with his auto, equipped with chains, arriving within 50 yards of the warming hut at Pomerelle." Others remember snow so deep that people in the chair lift, which stood about 35 feet above the ground, could reach down and touch the snow in many places. That year the lift had to be dug out each morning and a path plowed under them in order to carry skiers to the top of the lift.

The special use permit for the present location of Pomerelle Winter Sports Site was issued by the Sawtooth National Forest on February 15, 1957. In the winter of 1959, Pomerelle Ski Area was born at the top of Howell Canyon on a site leased from the U.S. Forest Service. Dick Beeson, Charlie Norby, Con DeThomas, Dean Anderson and Harold Fredericks, (and possibly others) who were area ski enthusiasts, formed a partnership and got things underway. They put in many hours in both management and labor capacity to begin to build the area, presently known as Pomerelle Ski Resort. The old log cabin moved so many miles uphill, is still used as the Ticket Office facility to this day at Pomerelle.

Prior to August of 1964, a rope tow and a platter pull were the primary means of transporting skiers uphill. In 1964 the resort had one double chairlift and 3 ropetows. The existing Day Lodge was constructed in 1964/1965.

The Pomerelle Winter Sports Site is located in Howell Canyon on the Albion Division of the Sawtooth National Forest. The entire site is on Forest Systems Lands. The present owner, Andrwood, Inc., purchased the site from Pomerelle Inc., in September of 1973. The special use permit was transferred from Pomerelle Inc., to Andrwood, Inc., in November of 1973.

Pomerelle Ski Resort is situated in the Sawtooth National Forest among timbered slopes and open trails. The resort is a family-oriented day area (children 6 and under are free with accompanying parent) and offers a variety of ski slopes. The resort is open daily (9:30 a.m.-4:00 p.m.) and offers Night skiing 5 nights a week (Tuesday thru Saturday -4:00 p.m.-10:00 p.m.) . Night skiing usually closes mid-March.

Pomerelle is located 25 miles off I-84, via Idaho 77, (take exit #216-Decio/Albion). The Community of Albion is only 13 miles away and is presently offering a Bed & Breakfast Lodge and a new Marsh Creek Inn Motel.

The present Pomerelle Ski Area is vastly different and improved from the ski resort facilities of 1957. Resort Owners, (Andrwood, Inc.) have continually made improvements to the resort area and it's amenities. Some of the improvements are:

- 1973 Rebuild Double Chairlift to meet ANSI standards.
- 1973 Renovate Day Lodge facilities
- 1976 Water System Improvement
- 1976 Night Lighting Installed
- 1976 New Management Quarters Installed
- 1978 Rope Tow area relocated-redesigned to improve beginner skiers visits
- 1987-88 New Triple Chairlift Installed
- 1987-88 Major Expansion of Day Lodge with extensive remodeling.
- 1991 Rope Tow redesigned and expanded
- 1992 Parking Lot Facilities Expanded with extensive underground drainage installed..
- 1994 Snowmaking at Lower Base Area for early opening.
- 1973 until present date -continued ski slope clean up of dead trees on runs and adjacent run areas, which have been present since 1954.
- 1973. until present date -continual upgrading of Hill Grooming Equipment
- 1973 until present date - continual upgrading of Day Lodge facilities

Present Lift facilities include (1) triple chairlift (1) double chairlift (1) ropetow (1) surface handle tow, located on 9,200' Mount Harrison with a 1,000' vertical drop. Snow usually arrives in October and early November and remains long after the Resort April closing, which is due to lack of skier visits and is not because of lack of snow. Snow usually arrives in October and November and remains long after the April closing. The resort's seasonal operation is usually mid-November thru mid-April. Normal winter ski base at the Resort is 500". Skiers enjoy both powder and daily machine groomed ski slopes. The Resort runs out of skiers, prior to losing snow.

The day lodge offers cafeteria style food service and a large sun deck area. Ski rentals are available for both alpine and snowboard equipment. Pomerelle also has a small soft goods accessory ski shop.

Pomerelle's Ski School is a member of the Professional Ski Instructors of America. Ski School classes are available daily at 10:30 a.m. and 1:30 p.m. Private lessons are available anytime during the day.

Pomerelle has a Professional Ski Patrol in addition to some 30 National Ski Patrol volunteers.

Much to the Cross country skiers' delight, there are marked cross country trail areas available, in addition to spectacular open slopes for three-pin addicts. Conner Creek Designated Cross country trails/loops are groomed and maintained by the U.S.F.S. Cross country skiers who check with the Pomerelle Office are asked to check in after skiing on the USFS cross country ski loops, which are not patrolled.

Snowmobiling is available with a shelter and separate parking lot facility located one mile below the existing Ski resort facilities. Snowmobiler's are welcome to utilize Pomerelle's Day Lodge facilities, but are also asked to park at the lower end of our existing parking lot and walk up to Day lodge facilities. Management does have a problem with some snowmobiler's using Ski Resort groomed ski slopes during very late /early hours.

Accommodations, Restaurants and "After 5" facilities are located in Albion, Burley, Rupert, and Twin Falls. Bus Service is available weekends/holidays from Jerome, Twin Falls, Burley, Rupert, Declo and Albion.

Pomerelle Resort Office Telephone	(208) 673-5599
Pomerelle Ski Report Recording	(208) 673-5555

MARKET SUMMARY

- No ski area or resort is a single monolithic, indivisible business. Pomerelle, as other ski areas, are a collection of business's that are related and integrated. Pomerelle and ski area companies are in the hospitality business, since they provide food and beverage service. They are in the transportation business, as they offer lift service and bus transportation. They are in the education business by virtue of ski schools and lessons offered. They are in recreation business through their mountain bike trail, horseback riding, archer shoots and summer catering. Not to ignore the obvious, (which is to serve the skiing/summer customer in a mountain environment). Pomerelle must continue to coordinate and integrate their many business operations.
- The situation analysis has been developed with input from Idaho Small Business Development Center, University of Georgia, U. S. Forest Service and the Burley Area Chamber of Commerce. Data compiled is in a separate report, dated January 7, 1993.
- Customer segments have been identified and targeted by demographic, geographic profiles. Market position has been expressed as market share in percentage of skier visits. Customer satisfaction has been tracked over time and will continue to be. Growth rate has been measured by revenue and skier visits.
- The total estimated number of skier visits or days in Idaho during the 1994-1995 ski season was 1,362,400.
- Skier visits were almost equally divided between Idaho residents (52%) and nonresidents (48%).
- The overwhelming majority of residents were on day trips (89%), while many nonresidents were on overnight trips (66%).
- The total estimated expenditure for all ski parties was nearly \$81 million. All of Idaho's travel regions benefit from expenditures generated by skiers in Idaho.
- Most resident skiers devote their trips to skiing. About one-quarter dine out while on their trip. One in ten shop and limited numbers engage in other secondary winter recreation activities.
- About 1 out of 3 resident skiers take trips on the "spur-of-the-moment" and do little or no planning. Of those who plan ahead, most do so within less than one

month of their trips. Previous visits to a ski area are either because of friends /relatives and are the most commonly used information when residents choose a ski area.

- Idaho resident skiers choose ski areas on the basis of their snow conditions, proximity to home, diversity of ski runs, natural beauty of the area and lift fees. They are generally unconcerned about having commercial air service nearby, up-scale restaurants, special rentals and other winter activities. They generally rate people (lift attendants, ski patrol, instructors, etc.) as the strongest attributes of Idaho ski areas. Snow making capabilities, entertainment and on-site lodging generally receive the lowest ratings. No matter how Idaho skiers feel about the specific characteristics of the areas they ski, they are very satisfied with their trips and believe their trips are well worth the time and money spent.
- Although most Idaho resident skiers are married (76%), less than half bring children or teens. Most ski parties are comprised primarily of adults.

The State survey differs from Pomerelle surveys (USFS dated January 7, 1993) in that our age spread is (18 -24 yr = 34%), (25 -34 yr = 17%), (35 -49 yr = 33%).

Untapped Skier Markets In our Region

As a result of our market analysis and some research compiled by the Gallop poll and USIA during 1992 the following conclusions are indicated:

1. Skiing is attractive to singles (47% of skiers are single).
2. High income levels are indicative of skiers (17% have incomes over \$100,000, 52.1% have income over \$50,000).
3. Time and money are precious and people demand a quality experience for their investment.
4. If the skiing experience is affordable and accessible, lower income levels and youth segments of the population can be reached.
5. The surveys attribute the enjoyment level of skiers to such intangibles as "being close to nature"; feelings of freedom; being out in the forest etc.etc.
6. Pomerelle's In-School Ski program continues to grow each year because of the opportunity to experience winter in the forest and mountains, excellent price, superior teaching staff and excellent ski terrain to learn a life time sport.
7. The 2002 Winter Olympics in Salt Lake City, Utah, will provide additional summer and winter recreationists to the area, both prior to the games and

afterward. Also there is the possibility of providing a training area from some countries prior to the games (i.e. Slalom, Biathlon, etc.).

8. While Pomerelle does not attract a large number of out-of-state visitors (University of Idaho 1996) Pomerelle's out-of-state visitors find Pomerelle because of friends, relatives, previous residence in Idaho and word of mouth.
9. People come to learn and ski at Pomerelle because of the abundant snowfall and ski terrain that is conducive to learning and offers relaxed skiing and snowboarding.

Listed below are additional market numbers from the 1993 report to the present and projected.

	Actual			
	1992-1993	1993-1994	1994-1995	1995-1996
Skier Visits	51,042	41,642	48,962	52,262
In-School Ski programs	8,413	9,145	9,616	10,617
	Projected			
	1996-1997	1997-1998	1998-1999	1999-2000
Skier Visits	54,600	62,790	69,069	72,522
In-School Ski programs	11,000	12,558	13,814	14,505

MARKET STRATEGY

Marketing of Pomerelle will take many diverse paths with our proposed expansion and the paving of Howell Canyon. Our main focus will continue to be on our In-School ski programs. Many of these youngsters are exposed to skiing for the "first time ever" at Pomerelle. We strive to make that experience as pleasant and memorable as possible. It is an opportunity for them to learn a lifetime sport that recognizes that all students are equal, irregardless of size and physical capabilities. With the cost of the program so low, that it does not exclude anyone (the schools and Pomerelle help those that can not afford even this low price) we provide an outstanding service to the individual students, the school and the communities. The payback for Pomerelle is the building of a large reservoir of new skiers, snowboarders and nordic skiers. Our In-School ski programs help to keep the average age of our skier visits lower than most ski areas. The fantastic job done by Pomerelle's Ski School has been part of the reason for the increase in skier visits. Additionally, our snow depths, diligent snowgrooming and ski terrain make Pomerelle a great area to "learn to slide on snow".

Paid advertising has a place in our marketing options, including snow reports in various media. Some print and radio advertising is done in the Magic Valley, as well as yellow page advertising from Twin Falls to Pocatello.

Some advertising is done in northern Utah (Snowville, Tremonton and Brigham City) as well as northern Nevada (Jackpot, Wells and Elko). It is interesting that our school program has lured schools (and subsequently parents) from the three Nevada communities mentioned above.

Special events like Pomerelle's teaching Special Education students and the hosting of the Idaho Special Olympic events, (both statewide and for the region) exposes a great many people to Pomerelle. It also extends a welcome helping hand to these very special students and to their sponsors.

Management has continued to extend increased skier visits through our cooperative Season Pass program with other ski areas in Idaho. This past season, when Bogus Basin/Pebble Creek/Sun Valley were hurting on their snow skiing conditions, Pomerelle had many season pass holders and families experiencing Pomerelle for the first time. We were happy that many families continued to return to Pomerelle because they enjoyed our resort and facilities. To bring additional out-of-state visitors to Pomerelle we will inaugurate a free available postcard to send to friends and

relatives *touting* their fun adventure visiting Pomerelle. A majority of out-of-state visitors are guests/relatives of local residents.

Another option will be a skiing photographer to take pictures of Mr. & Mrs. Joe Brown and family from Tennessee on their skiing vacation at Pomerelle for their personal scrapbook as well as media publications locally .

Pomerelle does a daily parking lot survey of vehicles and is another effort to determine and target marketing efforts that may be needed or expanded.

MARKETING REFERENCES

Pomerelle Market Research January 7, 1993

Addressed to: Mr. Jack Bills, Forest Supervisor

Sawtooth National Forest

2647 Kimberly Road East

Twin Falls, Idaho 83301-7976

USDA Forest Service Participation in Downhill Skiing October 1990

Idaho Tourism & Recreation Chronicle Volume 1 Issue 1 January 1996

Idaho Winter Sports & Recreation Alpine Skiing 1994-1995

University of Idaho February 1996

Year-Round use of Ski Areas Partners in Leadership Project Richard Speegle

Customer Understanding Today's Recreation Public University of Georgia

POMERELLE SKI AREA

FOREST VEGETATION MANAGEMENT PLAN

SAWTOOTH NATIONAL FOREST
BURLEY RANGER DISTRICT

September 1996

INTRODUCTION

Many of the forested stands within Howell Canyon on the Albion Division of the Burley Ranger District have experienced insect and disease infestations at levels well above those found in healthier forests. The Forest Service and Pomerelle Ski Area propose long-term treatments to provide and maintain healthy stands within the ski area landscape by reducing competition through selective thinning of live trees, removing existing dead and dying trees, reducing conifer encroachment within the aspen type, and creating a diversity of (size) classes and species within the ski area.

PURPOSE AND NEED

The Ski Area Act of 1986 requires that vegetative management plans be developed and implemented for the ski areas. Silvicultural treatments are needed adjacent to and within Pomerelle Ski Area to move the area toward the Desired Future Condition which is a mosaic of tree species (subalpine fir, lodgepole pine, Douglas-fir, aspen, and Engelmann spruce) and sizes that provides resiliency from catastrophic insect and disease infestations while maintaining conditions favorable for winter sports operations. Current conditions are such that stands are overstocked, species diversity is lacking, and ladder and down fuels are excessive. The forested landscape is experiencing different stages of tree mortality, depending on stand composition, density, and maturity. Lack of activity, both through fire and thinning, has created these stand conditions favorable to above normal insects and disease.

Under current management direction, ski area development and use is to be integrated with other resource activities to provide healthy tree stands and vegetative diversity. Vegetative management activities should be coordinated to maintain or benefit wildlife. The forest cover types should be managed to enhance visual quality, diversity, and to provide for safety, snow deposition, recreation opportunities, and to provide for a healthy forest cover in existing and proposed sites. The developed recreation sites are to receive priority for protection from insects, disease and fire.

EXISTING CONDITIONS - FOREST VEGETATION

The forested vegetation within the Pomerelle Ski Area is comprised of subalpine fir, lodgepole, and aspen, with minor amounts of Douglas-fir and

Engelmann spruce.

Within the permit area, the subalpine fir is the predominate tree species and occurs on primarily north to northeast facing aspects. Additional pockets of pure lodgepole pine and minor amounts of Douglas-fir and Engelmann spruce occur. The aspen component (90%) is in a downward trend and is being encroached upon by conifers on most sites.

<u>Cover Types</u>	<u>Acres</u>	Total	Forested
Lodgepole Pine	16 acres	(3%)	(5%)
Mixed Conifer(AF,LP)	243 acres	(47%)	(80%)
Aspen	10 acres	(2%)	(3%)
Aspen/Conifer	36 acres	(7%)	(12%)
Subtotal	305 acres		
Non-forest	216 acres	(41%)	(---)
Total	521 acres		

The primary vegetative structure within the permit area is mature forest cover making up 85% of the area.

EXISTING CONDITIONS - INSECTS/DISEASE

Forest vegetation in the area is being affected by several insect and disease agents including, but not limited to, mountain pine beetle, dwarf mistletoe, yellow witches broom, and annosus root rot.

There are several biological factors that are common to all bark beetles (GT-INT-GTR-332). In general, beetles initially attack trees that are windthrown or stressed, due to overcrowding, drought, inadequate moisture, injury, advanced age, or climate change. Biological agents such as root and foliage diseases, dwarf mistletoes, and defoliating insects are stress agents that may be associated with the bark beetle attack.

Mountain pine beetle (MPB) activity is occurring within and adjacent to the ski area. This activity has been present since the early 1970's to present. The 1995 insect detection survey has indicated low amounts of MPB within the permit area and increasing amounts adjacent to the area.

During August 1996, an on-site survey by Forest Health Protection Personnel indicated low level of insect activity within the ski area, but three notable forest diseases are present and of widespread occurrence. About 75% of the lodgepole pine are infected with dwarf mistletoe and 95% of the subalpine fir has fir broom rust. Also, subalpine fir is displaying evidence of annosus root rot. Trees will continue to windthrow as the disease weakens the root systems of the mature to overmature trees. The best method to reduce this occurrence is to maintain younger stands with smaller average diameters.

Dwarf mistletoe is a parasitic plant which causes serious losses in lodgepole

pine. These losses are not only measured by mortality, but also growth reduction, poorer quality, less seed production, wind breakage, and predisposition to insects and decay. Infected trees do not die rapidly, but rather death results from a gradual suppression of growth.

Dwarf mistletoe cannot be eradicated from stands unless they are totally clearcut and then burned to eliminate latent infections. Where eradication is not possible, then the dwarf mistletoe management is to reduce the dwarf mistletoe rating such that it will be lower in the next entry. This is possible because dwarf mistletoe is a slow moving pathogen. Using natural barriers will prevent susceptible regeneration from becoming infested. Stands of nonhost species, ridgetops, streams, roads, ski runs, can prevent the further spread of the parasite.

Fir broom rust is caused by an airborne fungus that alternately lives on true fir trees and herbaceous plants in the chickweed family. The disease on fir is identified by perennial, bushy, upright branch proliferations called witches brooms. These brooms are not a fungus, but are trees cancerous-like response to infection by fungus. Damage due to broom rust falls under three categories: 1) timber volume loss; 2) growth loss; and 3) tree mortality, which for the recreation emphasis in the ski area, is the only applicable category. Broom rust induced mortality occurs when a large part of the crown of a mature tree is infected with as many as fifty brooms, or when a seedling or sapling-sized tree is girdled by a stem infection. Indirect mortality can occur when wind breaks trees at trunk infections or when insects attack trees weakened by multiple infections.

Control of fir broom rust has not been attempted with much success. It is impossible to control the alternate host, which can live miles from the trees they infect.

Of most concern with the fir broom rust and dwarf mistletoe are the fuel ladder fire hazard that both pests cause through the formation of the numerous witches brooms. Branch pruning could alleviate some of the fuels, but there may be no net benefit from this costly operation.

Potential pests include Western Spruce Budworm, Western Balsam Bark Beetle, and Douglas-fir Tussock Moth. All of these agents are directly proportional to stand age, diameter, and in the case of bark beetle, the amount of root disease present.

TREATMENT OBJECTIVES

Establish uneven-aged management on the ski area. There are several advantages to maintaining uneven-aged stand conditions. The main one being that future insect infestations will not kill every tree in a stand and many groups of smaller trees less desirable to the insects will remain to provide windbreaks, and skier traffic control.

The replacement of stands will take many decades to complete and the trees not

removed now need to be "bug/disease proofed" until they need replacement. By thinning out the suppressed slower growing and high-risk trees the best trees can be left to increase their growth and subsequently their resistance to insect/disease.

Areas not currently having the desired number of trees will be scheduled for restocking. These include patch cuts, windbreaks, and divisions of runs that regulate traffic and maintain skier comfort and safety.

Concentrations of slash will be utilized as personal or commercial firewood or pulled to the runs and burned.

All prescriptions will have common considerations that account for ski area use and stand management objectives. There are many other considerations and more exact guidelines will occur in the prescriptions.

1. Maintain or create healthy stands that contribute to the overall quality of the skiing experience.
2. Protect ski runs from logging damage and slash concentrations.
3. Coordinate with the Pomerelles' Master Development Plan.
4. Protect regeneration efforts by: strategically locating planting by natural obstacles (stumps, etc); plant small pockets within existing stands; plant larger stock (transplants); use existing vegetation.
5. Include routes for snow grooming machines.
6. Prioritize stands to be treated.
7. Allow for needs in skier traffic control.
8. Allow for wildlife needs such as hiding cover and snags for snag dependent species.
9. Improve snow deposition/retention.

The following treatments are proposed to occur within the stands:

1. Remove mortality.
2. Remove mountain pine beetle infested trees.
3. Thin from below/above to reduce densities and average stand diameters.
 Reduce larger subalpine fir component 16" and above.
 Reduce 10" plus lodgepole pine in pure stands.
 Openings cannot be greater than 1/2 total tree height.
 Activity must progress from center of stand outward to maintain windfirmness along edge.
4. Re-establish seral component (lodgepole, Douglas-fir, aspen) in openings.
5. Increase the aspen component (decrease encroachment).
6. Reduce the dwarf mistletoe rating.
7. Remove existing down fuels.
8. Reduce ladder fuels.

All of the above silvicultural treatments must move the landscape vegetation toward the Desired Future Condition and maintain the integrity and needs of the ski area. Treatments need to be coordinated with Pomerelles' Master Development Plan and be compatible with those objectives.

More specific direction on a stand-by-stand basis will be given in the silvicultural prescriptions.

Limiting factors which must be considered in treatments include 1) wind direction and intensity, 2) snow deposition and retention, 3) grazing, 4) mistletoe intensity, 5) ice/snow accumulation on trees and 6) frost pockets.

ALTERNATIVES FOR MANAGEMENT

1. NO ACTION ABOVE CURRENT MANAGEMENT.
2. REMOVE ONLY DEAD, DYING, AND HIGH RISK.
3. REMOVE ALL OF THE ABOVE PLUS ASSOCIATED TREES TO REDUCE DENSITIES EMPHASIZING ESTABLISHMENT OF SERAL SPECIES OVER PART OF THE AREA.
4. REMOVE CONIFERS FROM STANDS WHERE ENCROACHING UPON ASPEN.
5. REMOVE ONLY DOWN WOODY DEBRIS.

ACTION METHODS TO REACH DFC

Fuel Management

1. No Action (maintain current management)
2. Area manager skids usable slash to runs and burns under burning permit.
3. Area manager skids usable slash and down green material to parking area. Forest Service sells as commercial fuelwood. Skidding costs are added into appraised price. KV receipts to put back into ski area.
4. Earned KV receipts are used to scarify within stringers to establish conditions for regeneration and fuels are also crushed and concentrations distributed.
5. Require lop and scatter to distribute fuels in future activity (nutrients).

Stand Management

1. No Action (maintain current management)
2. Area manager removes Forest Service designated dead and high-risk trees for fuelwood at lodge. However, no revenues are generated to treat permit area.
3. Commercial timber operator removes Forest Service designated dead, high-risk, and associated green trees under Forest Service administered timber sale contract with a short-time frame. KV receipts collected to manage permit area.
4. Area manager removes Forest Service designated timber as in #2 above. Forest Service sells timber by competitive bid, with falling, bucking, and skidding charges added unto appraised value. KV receipts goes into managing ski area.
5. Forest Service utilizes salmon blade to scarify and prepare sites to regenerate to seral species, also reducing fuels.
6. Area manager utilizes ski area cat to scarify sites (with tracks) and regenerate to seral species.

7. Forest Service plants 2-0 LPP stock (Seed Lot LP14921080) within openings buffered from dwarf mistletoe infection and in Ski Area desired wind break areas. Transplants are also available.

POMERELLE WORK AREA "A"

The majority of stands in this work area are mixed stands of lodgepole/subalpine fir to pure stands of subalpine fir. Several stands have a strong aspen component. Lodgepole pine is moderately to heavily infected with dwarf mistletoe and the subalpine fir with yellow witches broom. Fuel loading is moderate to heavy in most areas. Stocking levels currently range from 80 to 200 sqftba/acre. Mountain pine beetle mortality has occurred in the area with windthrow and breakage to the subalpine fir.

The habitat types in this area include subalpine fir/elk sedge and subalpine fir/pinegrass.

Elevations range from 7800 to 8200 feet with slopes 5% to 30%. Tractor harvesting would be recommended.

Area (See Map)	Location	Acres	Cover Type	Structure	Slope	Priority
A (adjacent)	0010410045	3	ABLA		10	Low
A (adjacent)	0010410046	15	ASPEN/abla		10	Low
A (adjacent)	0010410047	10	ABLA		10	Low
A (adjacent)	0010410048	17	ASPEN/abla		10	Low
A (adjacent)	0010410049	6	ABLA		10	Low
A (adjacent)	0010410050	12	ABLA/aspen		26	Low
A (adjacent)	0010410052	16	ABLA/aspen		27	Low
A	0010410055	3	ABLA	Grass/Fb/Sh	29	Low
A	0010410056	7	ASPEN/lpp/aspen		6	Low
A	0010410057	24	ABLA/lpp/aspen		15	Mod
A	0010400051	13	ABLA		27	High
A	0010400058	30	ABLA/lpp		12	High
A	0010400059	2	ABLA/lpp		20	High

Ski Area Objectives:

Create additional ski run(s) adjacent to "stampede" and "bull run".
Plantings if any and for what purpose.

Initial Vegetation Management:

The initial vegetative treatment to be completed within the next 5 years (1997-2001) is to treat the highest priority stands in this work area. Remove dead trees and trees infested with mountain pine beetle. Also remove suppressed slower growing and higher risk trees to improve residual growth on the immature trees. Create openings no larger than 1/2 tree height and establish seral species (lodgepole) within area. Plant 2-0 lodgepole pine within existing openings where the lodgepole component has been virtually eliminated or use serotinous cones on standing dead to provide seed. Use subalpine fir and openings as natural buffers from dwarf mistletoe.

Utilize the salmon blade and concentrate slash for burning in the ski runs, crush or distribute slash for microsites, and scarify areas to assist in the

regeneration process.

In Compartment 41 Stands 46 and 48 (adjacent to the ski area), remove the subalpine fir component to encourage pure aspen and to create a green fuelbreak between sage/grass community and the conifer stands at the ski area.

Long-term Vegetation Management:

Establish lodgepole pine on 30% of the area. Maintain basal areas at 80-120 square feet with average diameters of 12" or less on the lodgepole pine and 16" and less on subalpine fir.

POMERELLE WORK AREA "B"

The majority of stands in this work area are mixed stands of lodgepole/subalpine fir to pure stands of subalpine fir. Lodgepole pine is moderately to heavily infected with dwarf mistletoe and the subalpine fir with yellow witches broom. Fuel loading is moderate to heavy in most areas. Stocking levels currently range from 100 to 200 sqftba/acre. Mountain pine beetle mortality has occurred in this area with breakage and windthrow to the subalpine fir.

The habitat types in this area include subalpine fir/elk sedge.

Elevations range from 7800 to 8640 feet with slopes 25% to 40%. Tractor harvesting would be recommended.

Area (See Map)	Location	Acres	Cover Type	Structure	Slope	Priority
B	0010400052	3	ABLA		30%	High
B	0010400053	3	ABLA		30%	Low
B	0010400055	3	ABLA/lpp		40%	Mod
B	0010400056	6	ABLA		27%	Mod
B	0010400057	8	ABLA		26%	
B	0010400094	14	ABLA	3AMS/Young	27%	Mod

Ski Area Objectives:

Initial Vegetation Management:

The initial vegetative treatment to be completed within the next 5 years (1997-2001) is to treat the highest priority stands in this work area. Remove dead trees and trees infested with mountain pine beetle. Also remove suppressed slower growing and higher risk trees to improve residual growth on the immature trees. Create openings no larger than 1/2 tree height to establish seral species (lodgepole) within area. Utilize the subalpine fir to create buffers from surrounding dwarf mistletoe.

Long-term Vegetation Management:

POMERELLE WORK AREA "C"

The majority of stands in this work area are mixed stands of lodgepole/subalpine fir to pure stands of subalpine fir and lodgepole pine. Stand 64 has a strong aspen component. Lodgepole pine is moderately to heavily infected with dwarf mistletoe and the subalpine fir with yellow witches broom. Fuel loading is moderate to heavy in most areas. Stocking levels currently range from 80 to 200 sqftba/acre. Mountain pine beetle mortality occurs in the area with windthrow and breakage to the subalpine fir.

The habitat types in this area include subalpine fir/elk sedge and subalpine fir/pinegrass.

Elevations range from 7800 to 8200 feet with slopes 5% to 30%. Tractor harvesting would be recommended.

Area (See Map)	Location	Acres	Cover Type	Structure	Slope	Priority
C	0010400063	5	LPP		40%	High
C	0010400064	24	ASPEN/abla/lpp		17%	Mod
C	0010400065	5	ASPEN/abla		21%	Low
C	0010400066	10	ABLA/asp	5ASS/Mature	30%	High
C	0010400067	12	ABLA	4AMS/Mid-Aged	29%	Low

Ski Area Objectives:

Create vegetation that will allow eventual glade skiing.

Initial Vegetation Management:

The initial vegetative treatment to be completed within the next 5 years (1997-2001) is to treat the highest priority stands in this work area. Remove dead trees and trees infested with mountain pine beetle. Also remove suppressed slower growing and higher risk trees to improve residual growth on the immature trees. Create openings no larger than 1/2 tree height to establish seral species (lodgepole) within area. Utilize the subalpine fir to create buffers from surrounding dwarf mistletoe. Due to wind events, treatments need to expand already existing openings and occur from the center of the stands outward.

In Stand 63, gradually remove subalpine fir component in the overstory/understory and revert stand back to seral lodgepole status. Remove higher risk lodgepole pine in groups. Openings should not be larger than 1/2 tree height to discourage windthrow while allowing for adequate conditions to germinate lodgepole pine.

POMERELLE WORK AREA "D"

The majority of stands in this work area are mixed stands of lodgepole/subalpine fir to pure stands of subalpine fir. Several stands have a strong aspen component. Lodgepole pine is moderately to heavily infected with dwarf mistletoe and the subalpine fir with yellow witches broom. Fuel loading is moderate to heavy in most areas. Stocking levels currently range from 80 to 200 sqftba/acre. Mountain pine beetle mortality has occurred in the area with breakage and windthrow to the subalpine fir.

The habitat types in this area include subalpine fir/elk sedge and subalpine fir/pinegrass.

Elevations range from 7960 to 8940 feet with slopes 10% to 30%. Tractor harvesting would be recommended.

Area (See Map)	Location	Acres	Cover Type	Structure	Slope	Priority
D	0010400069	18	ABLA	3AMS/Young	28%	Low
D	0010400070	3	ABLA	Grass/Fb/Sh	10%	Low
D	0010400071	17	ABLA/lpp	6BMS/Old-grth	10%	High

Ski Area Objectives:

Initial Vegetation Management:

The initial vegetative treatment to be completed within the next 5 years (1997-2001) is to treat the highest priority stands in this work area. Remove dead trees and trees infested with mountain pine beetle. Also remove suppressed slower growing and higher risk trees to improve residual growth on the immature trees. Create openings no larger than 1/2 tree height to establish seral species (lodgepole) within area. Utilize the subalpine fir to create buffers from surrounding dwarf mistletoe.

Long-term Vegetation Management:

POMERELLE WORK AREA "E"

The majority of stands in this work area are mixed stands of lodgepole/subalpine fir to pure stands of aspen. Engelmann spruce and Douglas-fir also make an appearance (?). Lodgepole pine is moderately to heavily infected with dwarf mistletoe and the subalpine fir with yellow witches broom. Fuel loading is moderate to heavy in most areas. Stocking levels currently range from 80 to 200 sqftba/acre.

The habitat types in this area include subalpine fir/elk sedge and subalpine fir/pinegrass.

Elevations range from 7640 to 8000 feet with slopes 10% to 20%. Tractor harvesting would be recommended.

Area (See Map)	Location	Acres	Cover Type	Structure	Slope	Priority
E	0010400072	19	ABLA/aspen	3BMS/Young	5%	Low
E	0010400073	16	ABLA/lpp/es	6BMS/Old-grth	5%	Mod
E	0010400074	11	LPP/abla	3CSS/Young	10%	High
E	0010400081	10	ASPEN			Low

Ski Area Objectives:

Initial Vegetation Management:

The initial vegetative treatment to be completed within the next 5 years (1997-2001) is to treat the highest priority stands in this work area. Remove dead trees and trees infested with mountain pine beetle. Also remove suppressed slower growing and higher risk trees to improve residual growth on the immature trees. Create openings no larger than 1/2 tree height to establish seral species (lodgepole) within area. Utilize the subalpine fir to create buffers from surrounding dwarf mistletoe.

Long-term Vegetation Management:

POMERELLE WORK AREA "F"

This area occupies the Howell Creek Drainage which runs from Bennett Springs Picnic Site up to ski area parking lot. Access is achieved from the old road in the drainage. The majority of stands in this work area are mixed stands of lodgepole/subalpine fir/Douglas-fir and subalpine fir/aspen. Lodgepole pine is moderately to heavily infected with dwarf mistletoe and the subalpine fir with yellow witches broom. Fuel loading is moderate to heavy in most areas. Stocking levels currently range from 120 to 180 sqftba/acre.

The habitat types in this area include subalpine fir/elk sedge and subalpine fir/pinegrass.

Elevations range from 7400 to 7640 feet with slopes 20% to 40%. Tractor harvesting would be recommended.

Area (See Map)	Location	Acres	Cover Type	Structure	Slope	Priority
F (Adjacent)	0010400075	9	ABLA/lpp/aspen	4BMS/Mid-aged (20%)		Low
F (Adjacent)	0010400076	12	ABLA/aspen	4BMS/Young (20%)		Low
F (Adjacent)	0010400077	18	ABLA/aspen/df	6BMS/Old-grth (40%)		Low

Ski Area Objectives:

No specific ski area objectives. These stands are immediately adjacent to the ski area.

Initial Vegetation Management:

Remove high risk lodgepole, subalpine fir, and Douglas-fir. Encourage the propagation of aspen and decrease conifer encroachment. Remove dead trees other than those needed for snag retention.

Long-term Vegetation Management:

 Structure Classes

6BMS - Old-growth, moderately closed canopy, multiple story
 3BMS - Young Forest, moderately closed canopy, multiple story
 3CSS - Young Forest, closed canopy, single story
 4BMS - Middle aged Forest, moderately closed canopy, multiple story
 3AMS - Young Forest, open canopy, multiple story
 4AMS - Middle aged Forest, open canopy, multiple story

Pomerelle Ski Area
Vegetation Management Treatment Schedule

Year	Area	Stand	Acres	Gross Potential Volume	Method
1997	A	0010400051	13	39 mbf 20 t/a; 3 mbf/a	Tractor
1997	A	0010400058	30	180 mbf 23 t/a; 6 mbf/a	Tractor
1997	A	0010400059	12 (?)	10 mbf 36 t/a; 6 mbf/a	Tractor
1997	C	0010400063	5	4 mbf 10 t/a 2 mbf/a	Tractor
1998	B	0010400052	3	24 mbf 45 t/a; 8 mbf/a	Tractor
1998	C	0010400066	10	60 mbf 20 t/a 6 mbf/a	Tractor
1998	D	0010400071	17	85 mbf 13 t/a 5 mbf/a	Tractor
1998	E	0010400074	<u>11</u>	<u>33</u> mbf 17 t/a 3 mbf/a	Tractor
TOTAL			101	435 mbf*	

* Does not include down woody debris

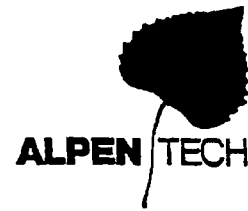
Removing 12" plus lodgepole pine and 20" plus subalpine fir.

Removing 25%-31% of volume and 20% or less of trees.

Final Volume Adjusted down for size of opening by 20%.

$435 \text{ mbf} * 80\% = 348 \text{ MBF} * 30\% \text{ defect} * 100/\text{mbf} = \$24,360.00 \text{ potential to KV/SFF}$

1999	A	0010410057	24		Tractor
1999	B	0010400055	3		Tractor
1999	B	0010400056	6		Tractor
1999	B	0010400094	14		Tractor
2000	B	0010400064	24		Tractor
2000	B	0010400073	16		Tractor



Water Engineering Technologies in conjunction with

**POMERELLE
1996 MASTER DEVELOPMENT PLAN**

**PRELIMINARY DESIGN REPORT
WATER SUPPLY
AND SANITARY SEWER SYSTEM**

October 23, 1996

**Prepared For
ANDRWOOD, INC.**



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INTRODUCTION

This preliminary design report for proposed culinary and snowmaking water supply and sanitary sewer system improvements at Pomerelle Ski Area (Pomerelle) has been prepared for Andrwood, Inc. by Scott Benowitz of Water Engineering Technologies (WET) and Beat vonAllmen of Alpentech Inc. This report is an integral part of Pomerelle's 1996 Master Development Plan (MDP) being prepared by Andrwood and Alpentech. The MDP is being developed by Andrwood as required in the USDA-Forest Service (USFS) Special Use Permit (Permit).

The MDP includes a proposed additional day lodge for skiers, snowmobilers and other winter recreationists. The new day lodge will also be used during summer and is referred to as the Learning Center. This report addresses proposed water supply and sanitary sewer modifications included in the MDP, and will be a basis of design for these improvements after the MDP has been approved by the Forest Service.

This report consists of a brief overview of the MDP, a section on the water supply system that serves the existing facilities as well as improvements proposed for culinary and snowmaking water, and a section on proposed sanitary sewer improvements.

MASTER DEVELOPMENT PLAN

The MDP includes expansion plans for increased ski lift capacity, new ski trails (downhill and cross country), expanded snowmaking capabilities, a new day lodge learning center, a new maintenance shop/residence, and a new skier and snowmobile parking area. Other miscellaneous improvements not pertinent to this report are described in the MDP. The MDP calls for doubling the skier capacity at one time (design day capacity) from 1,000 to 2,000 skiers at one time (SAOT). The proposed Learning Center and parking area will be located to accommodate those skiers using the proposed learning center. The existing lodge and parking area is not physically located to adequately serve this clientele.

With the addition of the Learning Center, two day lodges will be available. The existing day lodge will be down-scaled to a cafeteria facility, although during low demand days the food service may be reduced or closed. This area will accommodate approximately 500 SAOT. It will also include a new employee lounge and locker area. The ski shop and ski school desk will be removed. The existing men's and women's rest rooms will remain.

The Learning Center will be used for: (a) a new cafeteria and commercial kitchen that will offer a menu similar to the existing menu in the existing lodge (sandwiches, soups, drinks). This new cafeteria will accommodate 1,500 SAOT; (b) new ski school and ski patrol service areas; (c) a new rental and accessory shop; (d) new men's and women's rest rooms; and (e) ticketing and reception.



WATER SUPPLY SYSTEM

The MDP requires modifications of the water distribution system to accommodate the Learning Center and expanding snowmaking capabilities. Bennett Springs is the primary water source for Pomerelle. This spring is located approximately 3,000 feet northeast of the existing parking area in the NW 1/4, Section 1, T13S, R24E, Boise Meridian. The elevation of Bennett Springs is approximately 7360 feet M.S.L. A secondary historical water source for Pomerelle is the Pomerelle Spring, located in the NE 1/4, Section 11, T13S, R24E, Boise Meridian. The Pomerelle Spring is not currently used.

Existing Water System

The primary water system consists of a spring collection tank and pump station, transmission pipe line, booster pump station, iodine disinfection system, distribution pipelines and storage reservoir. The Bennett Spring water is collected in a 6 inch perforated pipe that is connected to a 48 inch diameter by 6 foot fiberglass tank. This tank is enclosed within a 48 inch by 6 foot galvanized steel housing. The steel housing is covered with a locked cover (IDHW, 1993, USFS, 1992). The tank has a 6 inch screened overflow (Andrwood, 1996). A 3 horsepower (HP) single phase submersible pump is located within the fiberglass tank, capable of pumping approximately 18 gallons per minute (gpm) (Mike's Pumps, 1996) up to a 1,200 gallon booster pump tank (IDHW, 1993) located on the east end of the existing Pomerelle parking area at an elevation of approximately 7650 feet M.S.L. The water is pumped through a 2 inch schedule 40 PVC pipeline (Andrwood, 1976) buried in the old road alignment between the springs and the booster tank. The 3 HP pump runs continuously. Excess water collected in the tank not pumped through the pipeline is routed to the overflow.

USFS installed a new rail fence around Bennett Springs in the summer of 1995 to exclude cattle from the area. The fence encompasses approximately 4 acres. A surface diversion ditch which diverts surface runoff from reaching the spring was also improved at this time (USFS, 1996). Andrwood's Special Use Permit includes the development of the Bennett Spring water source and pipeline alignment.

USFS estimates the spring production to be between 50-60 gpm with the pump running (USFS, 1992), and IDHW estimates the spring production to be 75-80 gpm with the pump running (IDHW, 1993). USFS also describes a second spring located approximately 250 feet down drainage which flows at approximately 75 gpm (USFS, 1992). For the purposes of this report, it is assumed that the Bennett Springs area has a total production capability of 150 gpm (200,000 gallons per day, gpd). We have also assumed an uphill pumping capacity of 26,000 gpd (1,083 gallons per hour, gph).

The 1,200 gallon booster tank contains a 2 HP submersible pump which boosts the water through an iodine disinfection system, then either into the distribution system or through a 2 inch galvanized pipeline up to a 60,000 gallon concrete reservoir. This reservoir is located approximately 400 yards west and uphill of the lodge, at an elevation of about 7840 feet M.S.L. The reservoir is buried in the hillside. It is internally baffled and

equipped with a bottom drain and overflow, which is piped to a stock watering tank (IDHW, 1993). The overflow and drain are screened (Andrwood, 1996). A 48 inch concrete pipe with lid serves as a manway into the reservoir.

The iodine disinfection system is located in the existing lodge, at an elevation of 7690 feet M.S.L. The iodine system consists of an Iodinamics Iodinator®, which dispenses saturated iodine solution into the water supply to achieve a 0.5-1.0 part per million (PPM) concentration (Iodinamics, 1977). The treated water then flows into a 120 gallon holding tank prior to being routed to the reservoir or to the distribution system. Water quality is analyzed as required by the State (monthly-E. coli, coliform; annually-nitrate; every nine years-nitrite). As of this date, the iodine disinfection system is performing satisfactorily. On one previous occasion during the off-season, E. coli was detected in the water by water quality analysis. The source was determined to be from a rodent that had found its way into the 60,000 gallon storage reservoir. The water was drained from the reservoir, the reservoir was disinfected, and refilled. Screens were placed on all reservoir openings so that this incident could not be repeated. Since that time, no further water quality problems have occurred. The water system is currently in full compliance with State regulations.

In addition to supplying culinary water to the existing lodge and residence, the water system supplies a limited amount of water for snowmaking. A hydrant located near the lodge is used to supply water to portable snowmaking equipment in the base area.

The secondary water source, Pomerelle Spring, is not being used at this time. Historically, water from this spring was collected in a spring box, and routed to the concrete storage reservoir. This spring is located approximately 900 feet upslope from the reservoir. It is estimated that the Pomerelle Spring has a capacity of about 5-10 gpm (Andrwood, 1996).

Water use at Pomerelle has not been measured in the past. During the 1996-97 operating season, water consumption will be measured to help determine final design criteria for the Learning Center. For preliminary design purposes, it is assumed that 3.5 gpd per skier visit is currently being used in the existing day lodge. This assumption is based on actual flow measurements taken from Bridger Bowl, Montana, a similar ski lodge facility (RME, 1996). Assuming a peak of 1,000 SAOT, 3,500 gpd is the estimated peak daily demand. Assuming an average attendance of 360 skiers, 1260 gpd is the estimated average daily demand. These flow amounts do not include snowmaking water.

Andrwood has begun monitoring Bennett Springs for temperature and turbidity on a regular basis, to document whether or not the water supply is influenced by surface water. This is being performed in anticipation of upcoming State requirements for small transient water systems as required by the Safe Drinking Water Act. At this time, Andrwood believes that Pomerelle's water supply is not affected by surface water, and therefore filtration will not be required in addition to disinfection because the source is not influenced by surface water.

Proposed Water System Modifications

The MDP foresees a 2,000 SAOT design capacity. Using 3.5 gpd per skier, the peak day demand will be 7,000 gpd for both lodges, occurring primarily between 9 am and 4 pm. An average day demand will be 2520 gpd for both lodges. For design purposes, it is assumed that of the 2,000 skiers, 75 percent will use the Learning Center, and 25 percent will use the existing lodge. Assuming 3.5 gpd per SAOT, a peak day demand for the new lodge will be 5,250 gpd, occurring between 9 am and 4 pm (7 hours). It is common that 25-30 percent of SAOT are in a day lodge at one time, therefore, the peak hourly demand is assumed to be 1575 gph. An average day demand will be about 36 percent of the design SAOT, or 1890 gpd, with a average day peak hourly demand of 570 gph.

Preliminary design plans for providing culinary water to the Learning Center call for a new booster pump and two new pipelines. One new pipeline will use 2 inch PVC (or equivalent) pipe and be constructed adjacent to the existing 2 inch galvanized pipeline between the existing treatment system and the 60,000 gallon storage reservoir. Once the water has been treated, it will be pumped through the existing galvanized pipeline to this reservoir for storage and iodine contact time. Demand water will then flow from the reservoir through the new pipeline to the existing lodge or to the Learning Center through a new in-line booster pump station. A float switch will be installed in the reservoir that will activate the pump at the 1,200 gallon tank/pump station. The pump will be activated when the water level in the reservoir reaches a pre-determined level.

The new booster pump station will boost the treated water up to the new day lodge to be located at an approximate elevation of 7970 feet M.S.L. The in-line booster pump will probably be located in or near the existing lodge. This pump will boost line pressure to provide at least 40 psi working pressure for the Learning Center. A booster pumping station, capable of providing about 15 gpm and 275 feet of head will be required. A hydropneumatic (pressure) tank(s) will be located in the Learning Center that will activate the booster pump upon demand. Water will be pumped through a new 1.5 inch PVC (or equivalent) pipeline from the booster pump station to the Learning Center. This will provide about 21,600 gpd (900 gph) of treated water to the Learning Center.

Snowmaking Water

Snowmaking water may also be supplied from Bennett Springs, and potentially surface water runoff from within the ski area. At this time, Pomerelle is considering expanding their snowmaking considerably. Water from Bennett Springs used for snowmaking will be pumped directly, either to a proposed 6 acre-foot storage pond located near the new parking lot, or to the snowmaking circuits, bypassing water disinfection. This will require additional piping from just upstream of the disinfection system to the snowmaking system. Ultimately, snowmaking will require increased pumping capacity at Bennett Springs and a new pipeline from Bennett Springs to the snowmaking system.

Surface water runoff could be diverted near the existing lodge to fill the 6 acre-foot storage pond. This water could be collected over the course of the spring and summer months, then used as needed at the beginning of the ski season. Preliminary snowmaking requirements calculated in the MDP suggest a 2 acre-feet (0.65 million gallons, MG) of water storage pond to be located at approximately 8000 feet altitude. The pond would be lined with clay (if locally available) or a flexible membrane liner (FML) to prevent losing water to infiltration. The pond may be covered with either a FML or other type of floating cover to prevent evaporation. The pond would be surrounded by a fence. Snowmaking pumps near the storage pond would feed snowmaking circuits. See also MDP. Snowmaking pipelines will be separate from the culinary water pipelines.

SANITARY SEWER

The existing lodge, residence and maintenance shop all have sanitary sewer facilities which will not be adversely affected by the proposed expansion described in the MDP. Existing sanitary sewer facilities approved by District Health include:

Existing Day Lodge: 1-1,200 gallon tank, drain field and replacement area serving the women's rest room; 1-1,000 gallon tank serving the men's rest room, 1-1,000 gallon tank serving the kitchen (grease trap), and common drain field and replacement area.

Existing Residence and Shop: 1-500 gallon tank and drain field.

The tanks are pumped on a regular basis, and the drain fields have performed as designed. Since the kitchen in the existing lodge will be removed upon completion of the Learning Center, the existing 1,000 gallon tank (grease trap) may be used as an additional tank for the men's rest room.

Proposed Sanitary Sewer Improvements

Additions to the sanitary sewer system at Pomerelle include new facilities at the Learning Center and the new maintenance shop and residence. The Learning Center will have a kitchen and men's and women's rest rooms that will require sanitary sewer facilities. At this time, we envision that the kitchen discharge will be higher in nutrient concentrations than domestic wastewater, and that this discharge may require pre-treatment down to domestic wastewater strengths. The proposed kitchen will have a menu similar to the menu in the existing lodge, so wastewater strengths from the new kitchen will be similar to wastewater strengths from the existing kitchen. Pomerelle will determine the wastewater strength from its existing kitchen prior to designing a pre-treatment system for the Learning Center. At a minimum, wastewater from the kitchen will pass through a grease trap prior to being disposed of in a suitable drain field or bed. If additional pre-treatment is required, an aerobic digester system (e.g., Nibbler™ Wastewater Treatment System) or similar device will be considered in the final design.

For the design of drain fields or beds, Pomerelle will collect soil samples during the summer of 1997 from potential drain field and replacement locations to determine soil types. This data, in combination with on-site flow data collected during the 1996-97 ski season, will provide a suitable data base to determine design criteria for drain fields or beds and replacement areas. This information will be presented in a design report submitted for the sanitary sewer.

The new maintenance shop and residence will have one rest room for the shop and at least one bathroom in the residence. We do not anticipate the shop to have floor drains. As such, this facility will require a septic tank, drain field and replacement area.

REFERENCES

Andrwood, 1976. Receipt from Stevenson's, Inc. for 3,000 feet of 2 inch schedule 40 PVC pipe and couplings. September 30, 1976.

Andrwood, 1996. Personal communication, John Burrows. March 15, 1996.

IDHW, 1993. Drinking Water Supply Report. Pomerelle Ski Resort. Idaho Department of Health and Welfare, Division of Environmental Quality. 1993.

Iodinamics, 1977. Iodinamics Disinfection Systems product literature. Iodinamics Corporation, a subsidiary of Continental Water Conditioning Corporation. 1977.

Mike's Pumps, 1996. Personal communication. March 15, 1996.

RME, 1996. Deer Park Chalet Design Report, Bridger Bowl Ski Area, Bozeman, MT. Rocky Mountain Engineers. March, 1996.

USFS, 1992. Sawtooth - Pomerelle Ski Resort and possible water source alternatives for other facilities on the mountain. H. Kent Bingham, USDA-Forest Service. August 20, 1992.

USFS, 1996. Personal communication, Zeke Zimmerman, Burley Ranger District, Sawtooth National Forest. March 12, 1996.

Current Capacity Estimate

Chair Lift Year (re-)built Lift Age	Rope 1978	Double 1973	Triple 1988	Total or average	
ANTICIPATED USE	18	23	8		
% First Practice	100%	100%	100%		
% Beginner	95%	0%	0%		
% Intermediate	0%	35%	10%		
% Advanced	0%	50%	40%		
% Snowboard	0%	5%	40%		
	5%	10%	10%		
LIFT DATA (see map)					
Bottom Elevation ft	7730	7720	7725		
Top Elevation ft	7780	8317	8668		
Vertical ft	50	597	943	1590	
Horizontal ft	400	3011	4210	7621	
Lift Slope avg.%	12.5	19.8	22.4	20.9	
Length ft	403	3070	4314	7787	
Design Capacity p/h	300	1200	1200		
Rope Speed fpm	350	500	475		
HP-estimate	3	108	167	278	
VTF million p-ft/h	0.015	0.716	1.132	1.863	
OPERATIONS DATA					
Open hours	7	10	7		
Efficiency (day-avg.)	0.50	0.90	0.85		
VTF/day million	0.053	6.448	6.733	13.233	
SKIER DISTRIBUTION					
% Active Skiers	60	75	75	75	
Avg. Dispatch (p/min)	2.50	18.00	17.00		
Ride Time (min)	1.15	6.14	9.08		
Avg. Skiing Time (min)	1.94	8.71	9.18		
Design Queue (min)	1	6	7		
Skiers on Lift	3	111	154	268	
Skiers on Trails	5	157	156	318	Area
Skiers waiting	3	108	119	230	Use
Active Skiers (ASP)	10	375	429	815	% of
Inactive Skiers	7	125	143	275	historic*
SAOT Increment	17	500	573	1090	VTF use
Avg VTF Use (ft/day)	3077	12887	11758	12140	95%
Historic* VTF Use	2875	9500	13550	11524	100%
Hours to get VTF/d	4.20	7.50	5.25		
Active Skier Density	31	15	9	15	
Net Acreage Increment	0	25	48	72	1997/98
SKIER COUNT					Percent
First Practice	16	0	0	16	B/ I /A/S
Beginners	0	175	57	232	23%
Intermediates	0	250	200	451	41%
Advanced Skiers	0	25	258	283	26%
Snowboard Users	1	50	57	108	10%

VTF Vertical Transport Feet (Sum of each lift's vertical feet times its rated p/h capacity)
 ASP Active Skier Population (all those actually skiing, waiting in the lift line, or riding up)
 SAOT Skiers at one time (comfortable skiing capacity from lift use as indicated above)
 historic Traditional ski area use assigning lift consumption per ability from USFS handbook)
 B/ I /A/S Beginner / Intermediate / Advanced / Snowboards % of total)

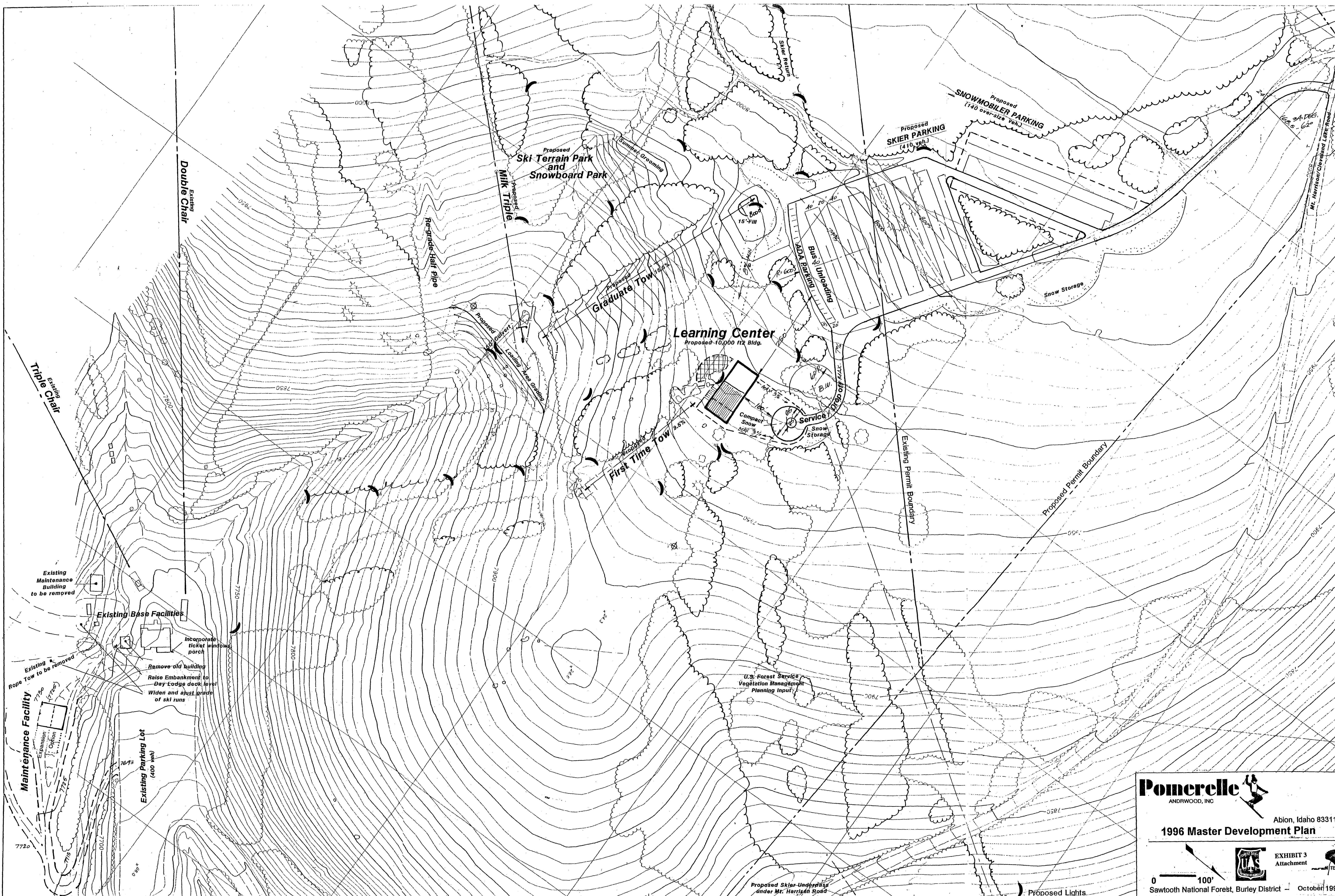
1996 Master Development Plan - Capacity Estimate

Chair Lift Year (re-)built	Rope 1978	Double 1973	Triple 1988	Kids Tow 1996	Grad Tow 1996	New Trp. 1996	1997/98 Target	
Lift Age	18	23	8	0	0	0		
ANTICIPATED USE	0%	100%	100%	100%	100%	100%		
% First Practice	95%	0%	0%	100%	70%	20%		
% Beginner	0%	35%	10%	0%	10%	60%		
% Intermediate	0%	50%	35%	0%	5%	10%		
% Advanced	0%	5%	45%	0%	0%	0%		
% Snowboard	5%	10%	10%	0%	15%	10%		
LIFT DATA (see map)								
Bottom Elevation ft	7730	7720	7725	7900	7925	7900		
Top Elevation ft	7780	8317	8668	7965	8000	8150		
Vertical ft	50	597	943	65	75	250	1980	
Horizontal ft	400	3011	4210	350	650	1600	10221	
Lift Slope avg. %	12.5%	19.8%	22.4%	18.6%	11.5%	15.6%	19.4%	
Length ft	403	3070	4314	356	654	1619	10417	
Design Capacity p/h	300	1200	1800	300	400	1800		
Rope Speed fpm	350	500	475	300	350	475		
HP-estimate	3	108	242	3	5	69	430	
VTF million p-ft/h	0.015	0.716	1.697	0.020	0.030	0.450	2.928	
OPERATIONS DATA								
Open hours	0	10	7	10	10	10		
Efficiency (day-avg.)	0.50	0.90	0.85	0.70	0.80	0.82		
VTF/day million	0.000	6.448	10.100	0.137	0.240	3.690	20.614	
SKIER DISTRIBUTION								
% Active Skiers	60	75	75	50	60	60	70	
Avg. Dispatch (p/min)	0.00	18.00	25.50	3.50	5.33	24.60		
Ride Time (min)	1.15	6.14	9.08	1.19	1.87	3.41		
Avg. Skiing Time (min)	1.94	8.71	9.18	1.78	2.76	6.11		
Design Queue (min)	0	6	7	1	2	4		
Skiers on Lift	0	111	232	4	10	84	440	
Skiers on Trails	0	157	234	6	15	150	562	Area Use
Skiers waiting	0	108	179	4	11	98	399	% of historic*
Active Skiers (ASP)	0	375	644	14	35	333	1401	VTF use
Inactive Skiers	0	125	215	14	24	222	599	
SAOT Increment	0	500	859	28	59	554	2000	
Avg VTF Use (ft/day)	0	12887	11758	4916	4076	6657	10306	98%
Historic* VTF Use	2875	9500	13550	2500	4400	6200	10077	100%
Hours to get VTF/d	0.00	7.50	5.25	5.00	6.00	6.00		
Active Skier Density	31	15	9	32	26	23	18	
Net Acreage Increment	0	25	71	0	1	15	112	1997/98
SKIER COUNT								Percent B/ I /A/S
First Practice	0	0	0	28	41	111	180	
Beginners	0	175	86	0	6	333	599	39%
Intermediates	0	250	301	0	3	55	609	30%
Advanced Skiers	0	25	387	0	0	0	412	21%
Snowboard Users	0	50	86	0	9	55	200	10%

Abbreviations: VTF Vertical Transport Feet (Sum of each lift's vertical feet times its rated p/h capacity)
 ASP Active Skier Population (all those actually skiing, waiting in the lift line, or riding up)
 SAOT Skiers at one time (comfortable skiing capacity from lift use as indicated above)
 historic Traditional ski area use assigning lift consumption per ability from USFS handbook)
 B/ I /A/S Beginner / Intermediate / Advanced / Snowboards % of total)

Pomerelle Base Site, Square Foot Requirements

Classification	DESCRIPTION	Required	Demand	Proposed	Plan	1996	1997	2000
		square feet per SAOT	at SAOT 2000	Plan sq-ft.	Surplus in %	SAOT 850	SAOT 1500	SAOT 2000
1	As built SUNDECKS Scheduled Change	2.00	4000	1250	-220	1000 1700 1250	2250 3000 0	2250 4000 0
2	As built FOOD SERVICE SEATING Scheduled Change	2.40	4800	4475	-7	1600 2040 4475	6075 3600 -600	5475 4800 0
3	As built FOOD PREPARATION Scheduled Change	0.50	1000	1800	44	600 425 1800	2400 750 0	2400 1000 0
4	As built REST ROOMS Scheduled Change	0.35	700	1250	44	400 298 1250	1650 525 0	1650 700 0
5	As built FIRST AID, PATROL Scheduled Change	0.50	1000	700	-100	200 425 700	900 750 0	900 1000 0
6	As built SKI SCHOOL Scheduled Change	0.40	800	150	-100	300 340 150	450 600 0	450 800 0
7	As built RETAIL SALES Scheduled Change	0.30	600	1200	50	300 255 1200	1500 450 0	1500 600 0
8	As built RENTAL AND REPAIR Scheduled Change	0.40	800	1200	33	400 340 1200	1600 600 0	1600 800 0
9	As built PUBLIC LOCKERS Scheduled Change	0.50	1000	1175	15	300 425 1175	1475 750 0	1475 1000 0
10	As built EMPLOYEE LOCKERS Scheduled Change	0.15	300	300	0	100 128 300	400 225 0	400 300 0
11	As built TICKETS SALES Scheduled Change	0.20	400	150	-167	100 170 150	250 300 0	250 400 0
12	As built ADMINISTRATION Scheduled Change	0.30	600	800	25	150 255 800	950 450 0	950 600 0
13	As built BAR AND LOUNGE Scheduled Change	0.70	1400	450	-211	0 595 450	450 1050 0	450 1400 0
14	As built NURSERY, DAY CARE Scheduled Change	0.35	700	750	7	750 298 750	1500 525 0	1500 700 0
15	As built CONFERENCE AREA Scheduled Change	0.00	0	2300	n.a.	0 0 2300	2300 0 0	2300 0 0
16	As built INDOOR CIRCULATION Scheduled Change	0.40	800	1250	36	200 340 1250	1450 600 0	1450 800 0
17	As built STORAGE, MECHANICA Scheduled Change	0.20	400	850	53	60 170 850	910 300 0	910 400 0
18	As built MAINTENANCE SHOP Scheduled Change	1.50	3000	3600	17	1500 1275 2100	3600 2250 0	3600 3000 0



Pomerele
ANDRWOOD, INC.

Abion, Idaho 83311

1996 Master Development Plan

0 100'

Sawtooth National Forest, Burley District

October 1996

REVISED JUNE 3, 1997

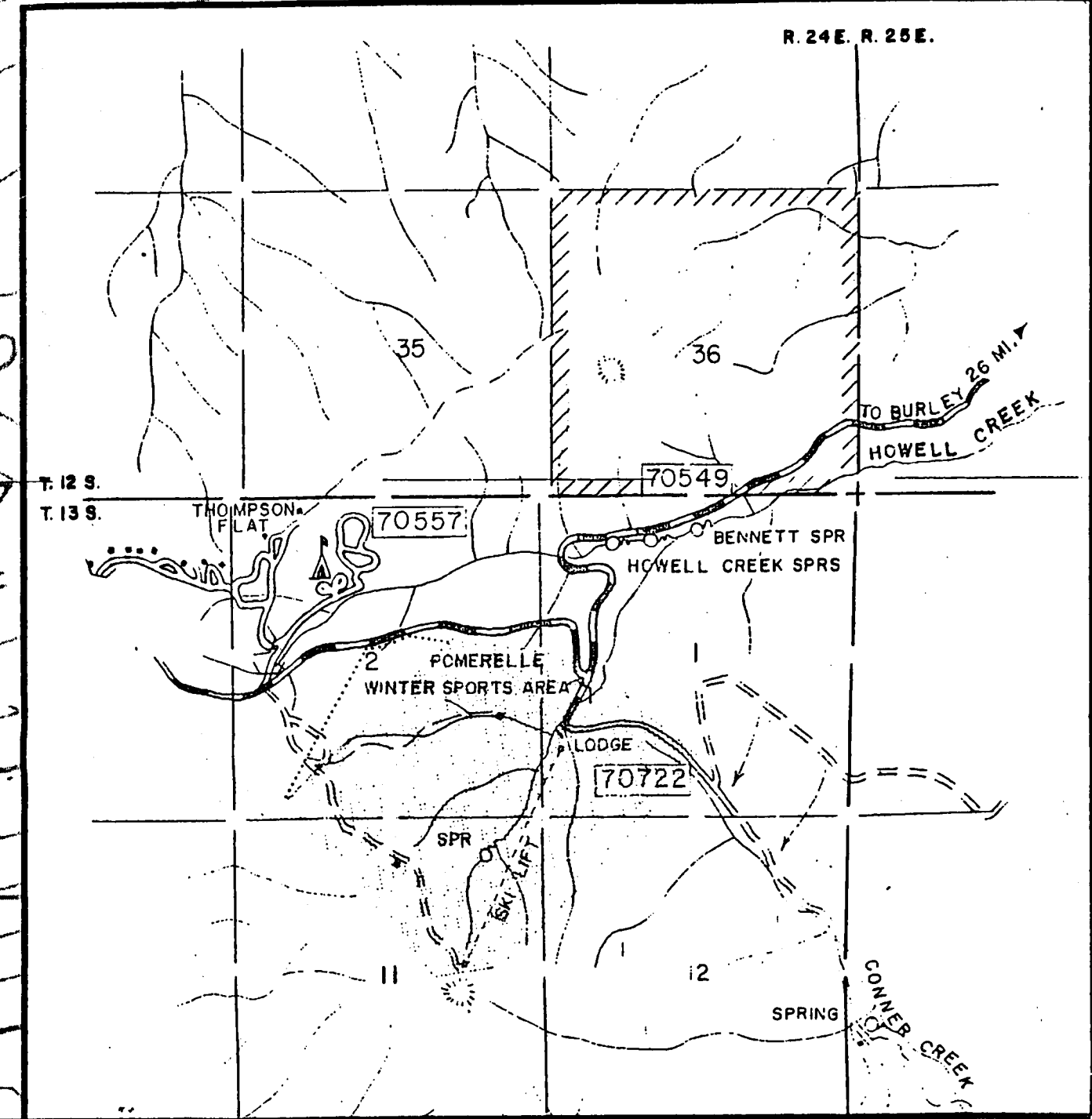
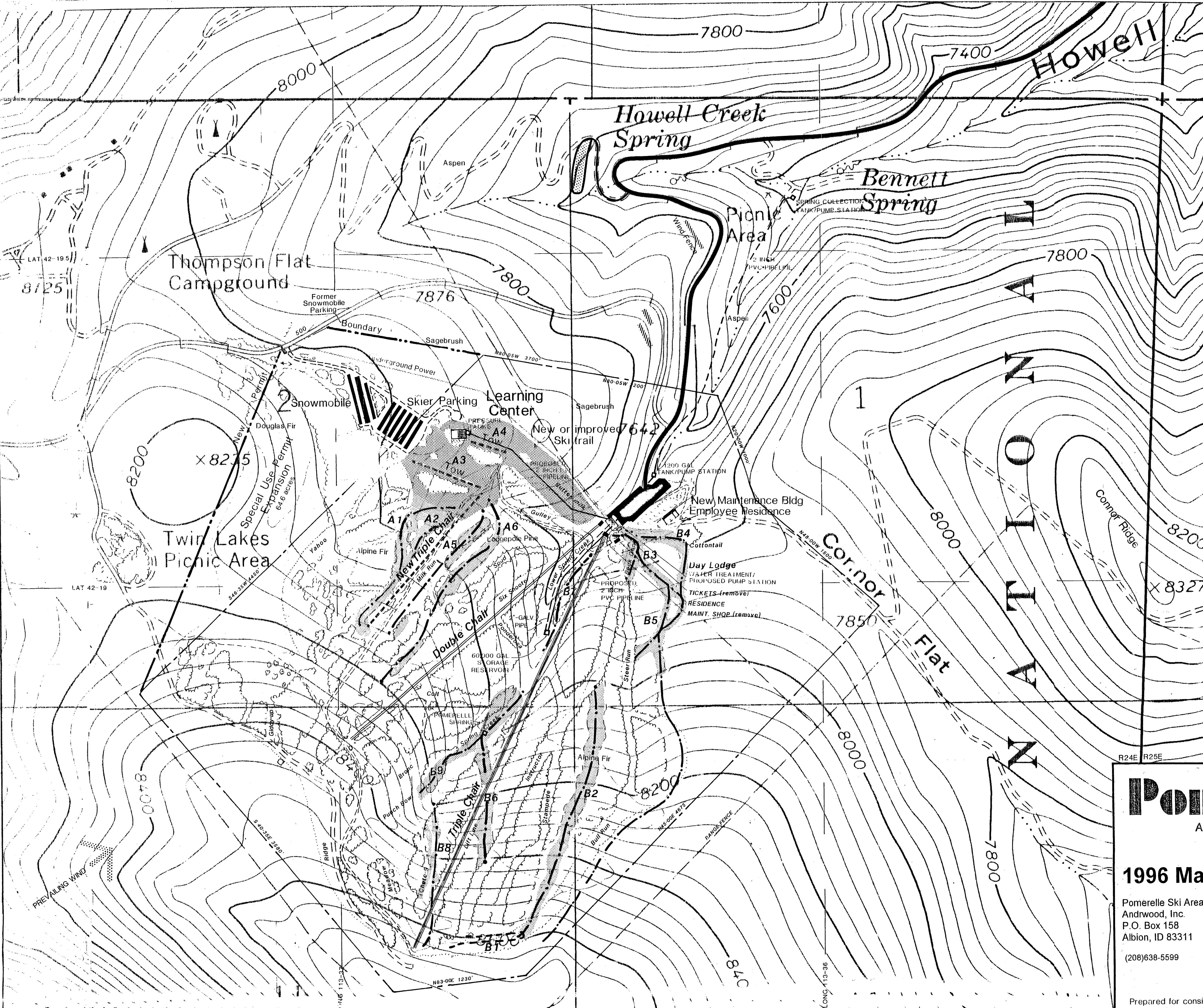
EXHIBIT 3
Attachment

TECH

see Drawing 2

1.5 miles to Brackenbury Campground and Lake Cleveland

2.5 miles to Burley



Pomerelle

ANDWOOD, INC

20715 2620 E
Salt Lake City
Utah 84129
(801) 496-2662

REvised: JUNE 3, 1996
Oct. 10, 1996

ALPEN TECH

1996 Master Plan

Pomerelle Ski Area
Andwood, Inc.
P.O. Box 158
Albion, ID 83311
(208) 638-5599

	EXISTING	PROPOSED
Forest Service Permit Area	521.5 ac.	586.1 ac.
Parking (automobiles)	400	810
Acres served by lifts	300	320
Acres normally groomed	85	100
Number of lifts	2 CH, 1 RT	3 CH, 2 CT
Comfortable Capacity	1,000	2,000
Beg./Int./Adv.	30/60/10 %	40/50/10 %

Prepared for consideration by the Sawtooth National Forest, Burley District, Bu

EXHIBIT 3
Attachment