

3.11 RECREATION

3.11.1 Introduction

White Pass offers a range of recreation opportunities throughout the year. However, the resort is operated primarily as an alpine skiing operation and experiences the highest use during the winter months, with alpine skiing as the primary activity.⁴¹ Cross-country skiing is also provided on 13.6 kilometers of trails at White Pass. Lift-served backcountry skiing also occurs in the vicinity of the White Pass SUP area.⁴²

Historically, the majority of visits to White Pass have been attributed to day visits. White Pass' location between Olympia and Vancouver, WA (west on US 12), and Yakima, WA (east on US 12), makes it an easy choice for day skiers within this market. White Pass competes with Crystal Mountain, the Summit-at-Snoqualmie, and Stevens Pass within the local/day skier market. White Pass primarily serves the day-use market, which exhibits peak visitation primarily on weekends and holidays, and low visitation during weekdays. White Pass is one of two resorts in the Northwest with overnight lodging provided in condominium facilities near the base area and within a comfortable walking distance of the chairlifts.⁴³ The condominium units are offered on a year-round basis.

Skier visits ranged from a low of 19,061 visits during the 2004-05 season to 142,570 during the 2001-02 season (a record season at White Pass). Over the last five years, White Pass has averaged 109,782 annual visits (PNSAA 2006a).

White Pass' local, regional, and destination market competition primarily includes Washington State areas such as Crystal Mountain, The Summit-at-Snoqualmie, Stevens Pass, Mission Ridge, Mount Baker, and Whistler/Blackcomb Resort in British Columbia. Oregon ski areas, including the Mount Hood ski areas and Mount Bachelor, also operate within White Pass' regional market.

3.11.2 Affected Environment

White Pass Ski Area alpine and Nordic facilities operate during the winter and shoulder season months. Guest facilities at White Pass include the Day Lodge, condominiums at the Village Inn and Summit House, and the store and gas station adjacent to the Village Inn.

⁴¹ For the purposes of this FEIS, the terms "skiing" and "skier" refer to all snow sliding sports typically associated with ski area facilities, such as snowboarding, telemark skiing, cross-country, alpine skiing, etc.

⁴² Backcountry skiers are those skiers that utilize the lift-served off-piste ski terrain in the White Pass vicinity. The term *off-piste* is used to describe skiable terrain that is not associated with the formal trail network, and typically includes gladed, open-bowl, chute, and other advanced to expert terrain types. *Lift-served backcountry* skiing can be defined as skiing the off-piste terrain that is not directly serviced by a chairlift system, but is a short hike or traverse from the chairlift. *Hike-to backcountry* skiing involves hiking to remote off-piste terrain without the aid of a chairlift system to gain elevation.

⁴³ Crystal Mountain also provides condominium lodging within its SUP area. Together, White Pass and Crystal Mountain are the only United States ski areas that provide condominium lodging on NFSL.

White Pass generates an average of 109,782 annual skier visits (PNSAA 2006a). Skiers and snowboarders primarily utilize ski trails within the SUP boundary but will exit the SUP boundary from Pigtail Peak in order to access backcountry ski terrain in Hogback Basin and the Goat Rocks Wilderness, particularly Miriam Basin and the Grand Couloir. As described in Section 3.0, the White Pass Study Area includes the existing SUP boundary as well as the proposed SUP boundary modifications. In addition, Nordic skiers utilize facilities in the base area (north of US 12) to access approximately 13.6 kilometers of Nordic terrain. White Pass is also a food drop and rest stop for hikers along the PCNST.

White Pass currently operates five lifts including four aerial lifts and one surface lift:

- Chair 1 (*Great White Express*) – Detachable Quad
- Chair 2 (*Pigtail*) – Double Chair
- Chair 3 (*Lower Cascade*) – Triple Chair
- Chair 4 (*Paradise*) – Double Chair
- *Platter* – Platter lift

The lift network at White Pass Ski Area provides access to 37 named trails on approximately 212.3 acres ranging from novice to expert slope gradients.

3.11.2.1 Alpine Skiing Analysis

Capacity

The overall balance of the existing ski area is evaluated by calculating the skier capacities of White Pass' various facility components, and, in turn, comparing these capacities to the ski area's CCC.⁴⁴

CCC is defined as an optimal level of utilization for the ski area (the number of visitors that can be accommodated at any given time) that guarantees a pleasant recreational experience, while at the same time preserving the quality of the environment. The accurate estimation of the CCC of a mountain is a complex issue and is the single most important planning criterion for the resort. Given proper identification of the mountain's true capacity, all other related skier service facilities can be planned. The CCC figure is based on a comparison of the uphill hourly capacity of the lift system to the downhill capacity of the trail system, taking into account the typical amount of vertical terrain desired by skiers of varying ability levels. For more discussion relating to CCC, refer to Appendix B - Mountain Plan

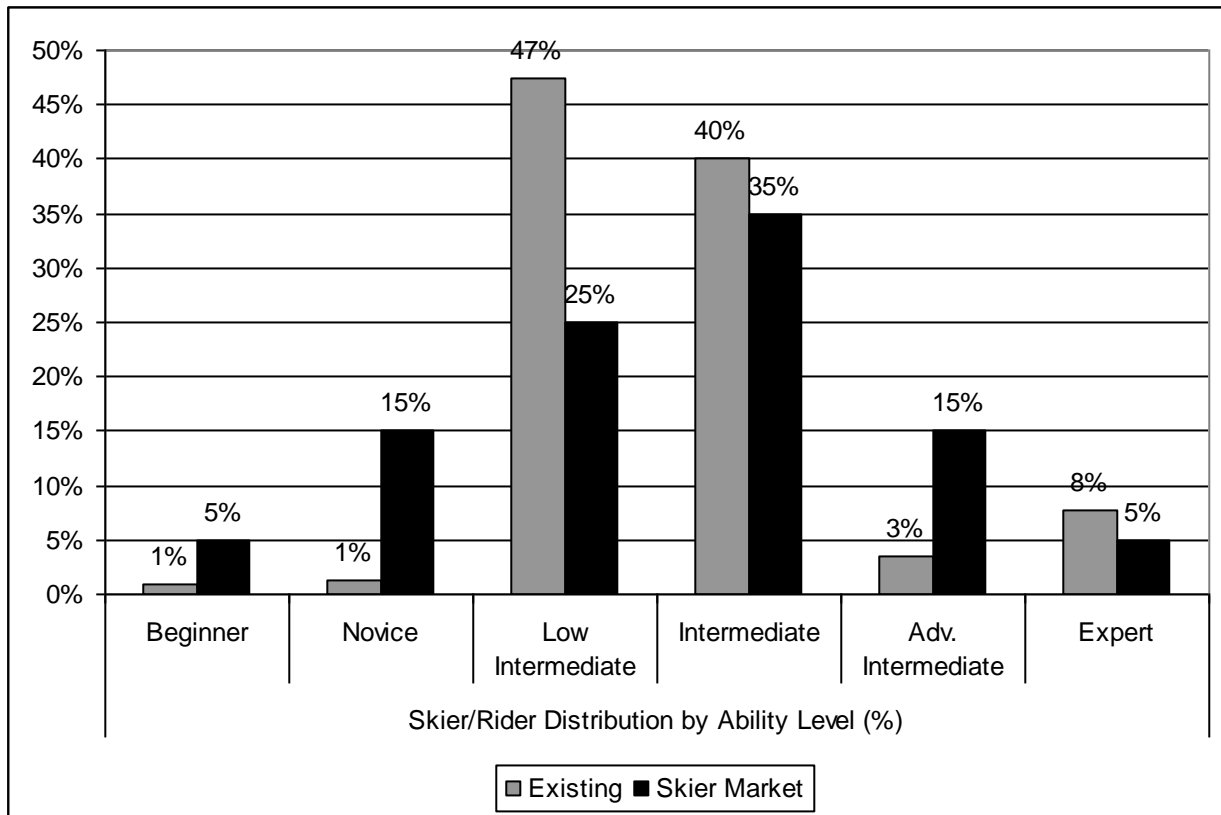
⁴⁴ Refer to Section 2.3.1 – Assumptions Common to All Alternatives for a description of CCC. CCC is commonly referred to as Skier-At-One-Time. Refer to Appendix B – Mountain Plan Specifications for additional information regarding CCC.

Specifications. At full operation, White Pass Ski Area operates five lifts accessing 37 designated ski trails, with a CCC of 2,670 guests per day.

Terrain Distribution, Trail Density and Circulation

Available ski terrain should accommodate the full range of skier ability levels consistent with market demand. The existing terrain at White Pass is predominantly characterized by low intermediate, intermediate and expert terrain. At full operation (e.g., all lifts operating) White Pass Ski Area’s terrain distribution by skier ability level is as displayed in Illustration 3.11-1. White Pass’ current terrain distribution is shown in gray while industry standard/market demand terrain distribution is shown in black.

**Illustration 3.11-1:
Terrain Distribution by Ability Levels – Existing Conditions**



Source: SE Group 2004

As shown in Illustration 3.11-1, White Pass currently has a significant abundance of low intermediate terrain, an abundance of intermediate and expert terrain, and a deficit of beginner, novice, and advanced intermediate terrain, as compared to industry standards.

The calculation of capacity for a ski area is based in part on the acceptable number of skiers that can be accommodated on each acre of ski terrain at any one given time. The widely accepted density criterion for

ski areas in western North America is provided in Appendix B - Mountain Plan Specifications. White Pass trails are at or below the acceptable trail density (refer to Appendix B - Mountain Plan Specifications). The overall density index score shows that, on average, White Pass' trails are about half of acceptable densities. This is a desirable situation, indicating that White Pass' trails are typically not over-crowded. The density index score, however, does not take into account the circulation issues associated with the most significant terrain feature of White Pass, which is the prominent cliff band that crosses the area at mid-mountain level (approximately 5,300 feet elevation). This cliff band makes round-trip skiing from the top to the bottom of the mountain challenging, and can make egress to the bottom of the mountain at the end of the day difficult and crowded. The cliff-band separates the low to moderate level terrain, causing poor circulation for all but expert skiers who can negotiate the cliff band. In order to address this circulation issue, White Pass Company has developed the existing Holiday trail, which allows novice level and higher skiers to traverse around the cliff-band. Similarly, the existing Cascade and Main Street trails provide cat tracks for intermediate and higher level skiers to descend from the upper mountain to the lower mountain.

While these cat tracks allow non-expert skiers to negotiate the cliff line, the majority of skiers at White Pass (i.e., novice to intermediate skiers) are required to negotiate the long traverses over the cliff line, resulting in unacceptably high densities on these trails. In addition, expert trails such as Hourglass, Cascade Cliff and Waterfall cross over these cat tracks. At these intersections, skiers of all ability levels may be found in unacceptably high densities. This situation results in skier conflicts and detracts from the recreational experience of the White Pass skier.

Based on reported ski area observations, a majority of skiers use the Cascade cat track to either round-trip ski or return to base area facilities. An analysis done as part of the proposed 1999 Master Development Plan shows that skier densities on the Cascade track are roughly two times that of the recommended standard design criteria. This creates an undesirable situation that is compounded by the fact this is the primary route for skiers of all abilities to return to base area facilities.

The steady growth in demand for alpine skiing at White Pass has resulted in larger crowds, longer lift line wait times, and more crowded slope conditions. With an existing CCC of 2,670, White Pass has witnessed an increase in the number of days at or near capacity (refer to Illustration 1-3). In response to the growth in business, during the summer of 2003, White Pass expanded the capacity of the day lodge by 180 seats in an effort to meet the current demand. While the expansion of the lodge provides for additional restaurant seating, increased visitation has exacerbated skier circulation and distribution deficiencies and density issues on the egress routes from upper mountain lifts and trails that are used to access base area facilities during lunch time and at the end of the day.

There is currently no Boundary Management Plan required as part of the existing SUP. Up until this year (ski season 2006-07), no ropelines were used along the boundary of the existing SUP, and only signage

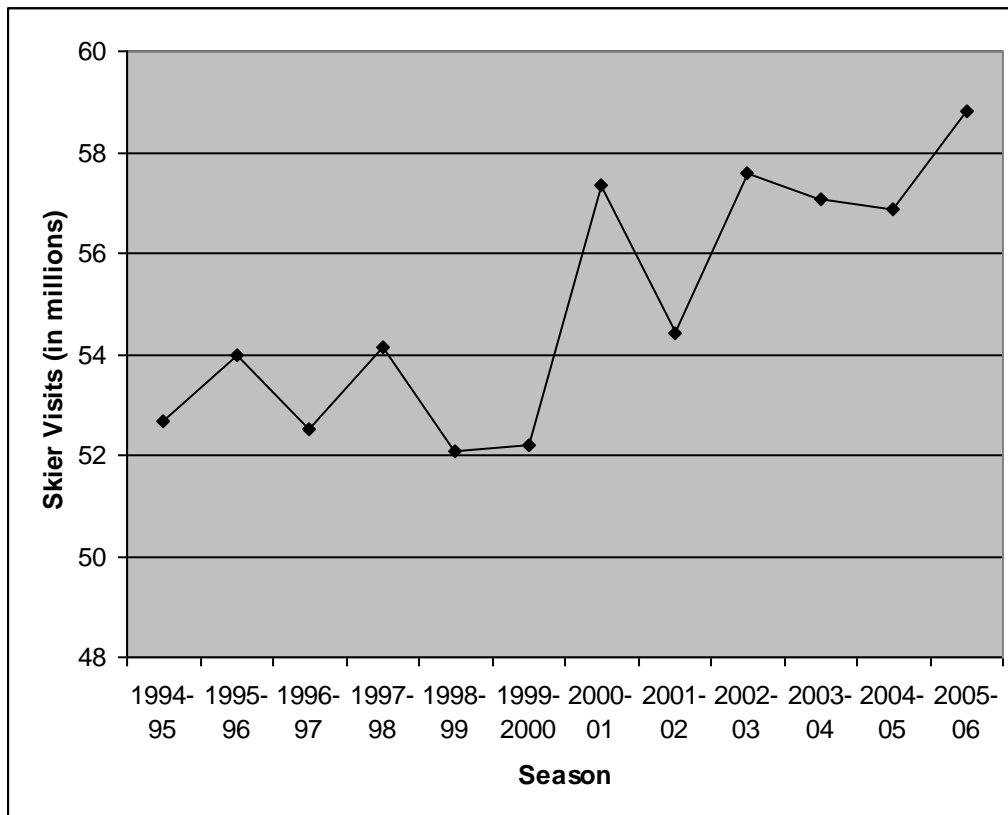
has been used. However, this season White Pass Company will be trialing the use of a ropeline along a portion of the southern boundary of the SUP area (McCarthy, pers. comm.). The ropeline trial is aimed to assist patrons from getting disoriented and entering the Goat Rocks Wilderness inadvertently (McCarthy, pers. comm.).

The current amount of ‘Off-Piste’ terrain within the existing SUP area is approximately 591 acres. Off-Piste terrain is calculated by subtracting the area of formal ski trails (in acres) from the area of the existing SUP area (in acres).

Visitation

National ski area visitation for the past 12 ski seasons is shown in Illustration 3.11-2. The 2000-01, 2002-03 and 2005-06 ski seasons experienced record ski visitation on a national level.

**Illustration 3.11-2:
National Ski Area Visits (1994-2006)**

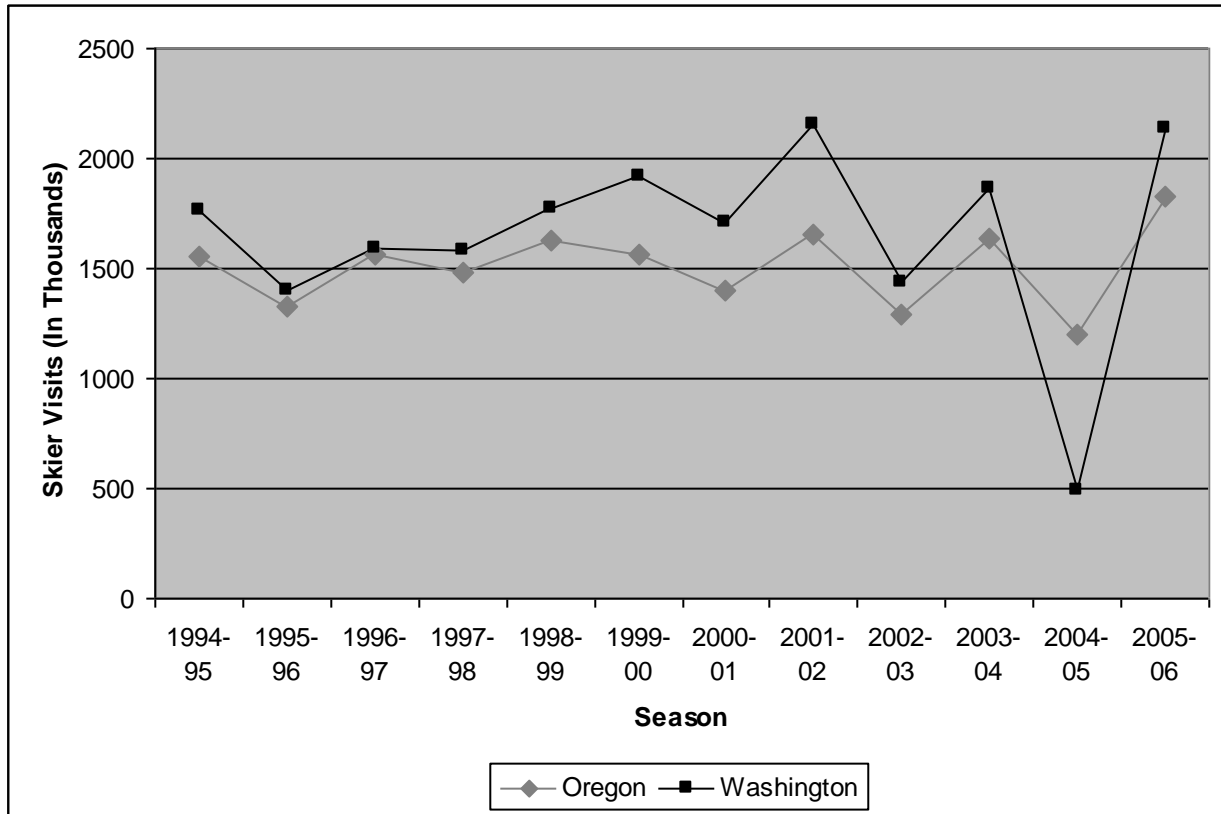


1996-2005 visits: NSAA 2005
2005-06 visits: NSAA 2006

Oregon and Washington skier visits, in contrast, remain somewhat steady during this 12-season trend (refer to Illustration 3.11-3). The 2000-01, 2002-03, and 2004-05 seasons experienced fewer skier visits

compared to the preceding year(s) largely due to low snowfall and poor weather conditions in the Northwest as compared to the rest of the nation.

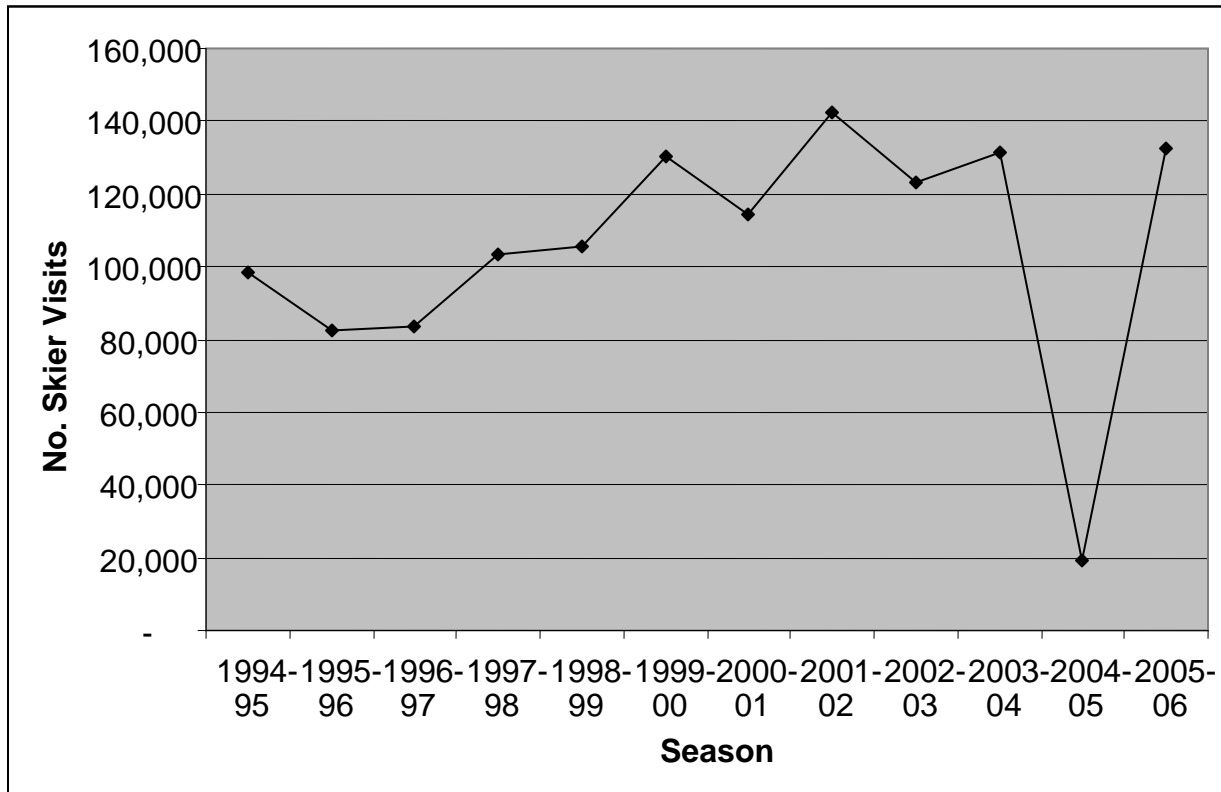
**Illustration 3.11-3:
Oregon and Washington Skier Visits (1994-2006)**



PNSAA 2006a

Prior to 1998, White Pass exhibited visitation ranging from 80,000 to 90,000 annual visits (PNSAA 2004). During the 1997-98 ski season, White Pass exhibited over 103,000 visits. Since that time, annual visitation has been increasing, as demonstrated by the ten-year average of 108,620 annual visits and a five-year average of 109,782 visits (PNSAA 2006a; Illustration 3.11-4). It is recognized that favorable or poor weather conditions have historically caused skier visits to fluctuate from year to year.

**Illustration 3.11-4:
White Pass Skier Visits (1994-2006)**



PNSAA 2006

Snow Conditions

As previously mentioned, skier visits are dependent upon snow conditions. High snowfall, prevailing winds and steep mid slopes create a low to moderate avalanche hazard potential in the present ski area. The more moderate slopes in Pigtail and Hogback basins present a much lower avalanche hazard. However, in adjacent backcountry areas outside the proposed expansion area, steep slopes, such as in Miriam Basin to the south, create a high avalanche hazard. Refer to Section 3.1 – Climate and Snow for a complete analysis of snowfall and snow conditions, including avalanche danger, at and around White Pass (including Pigtail Basin, Hogback Basin, Miriam Basin and the Grand Couloir).

3.11.2.2 Non-Alpine Skiing Analysis

Nordic Skiing

The Nordic trail system at White Pass encompasses approximately 13.6 kilometers over five distinct loop and connector trails. The *Zig Zag* Nordic trail (2.1 kilometers) is not included in the MDP, and operates under an annual SUP. The Nordic ski area is located north of US 12. The trail network varies in elevation from 4,300 feet to a high of 4,800 feet. Trails are maintained and groomed to provide both traditional kick and glide skiing as well as skate surfaces. The majority of the trails are intermediate, with some novice

and advanced trails present. White Pass Ski Area has generated a five-year average of 2,991 Nordic skier visits per year (White Pass Company 2006). In conjunction with the Nordic trails, White Pass provides a network of snowshoe trails comprised of markers on trees and nestled among the Nordic trail network. No mechanized trail grooming or clearing is performed on the snowshoe trails. Nordic skiers and snowshoers can access Deer and Sand Lakes as well as other dispersed recreation opportunities via a combination of the groomed White Pass Nordic trails and cross-county travel.

Backcountry Winter Recreation

The Hogback Basin adjoins the Goat Rocks Wilderness along its southern and western boundaries. Overall, it is perceived as remote and difficult to reach, particularly during the winter. Use is relatively light. During the winter months, approximately 300 visitors use the Hogback Basin area for backcountry skiing and a few for snow cave camping (White Pass Company 2006). Other winter uses include Nordic skiing and snowshoeing, although specific counts for Nordic users are unavailable. This relatively low level of visitor use enhances opportunities for solitude, particularly during the non-skiing season when the White Pass Ski Area does not provide lift access to Pigtail Peak. The rolling topography and parkland vegetation provides screening and separates visitors from one another within short distances. The only sound of human activity is nearby US 12 and passing aircraft. While Hogback Basin is relatively close to U.S. 12, the large difference in elevation discourages hiking into the area from the highway and the sounds from the highway range from muffled to not evident. Thus, Hogback Basin offers good opportunities for isolation from the sights, sounds and presence of others, which is a desirable quality for those seeking primitive backcountry recreation experiences. The White Pass IRA, encompassing the majority of Hogback Basin, is used mostly in transition for those entering and leaving the adjacent Goat Rocks Wilderness during the summer months.

The entire Hogback Basin area is undeveloped, with the exception of the PCNST that passes through a portion of the area near its southern edge. This trail is a single tread, native surface that blends into the landscape. Natural physical and biological processes appear to be intact in the area. Within the portion of Hogback Basin proposed for expansion, slopes are relatively gentle, and support subalpine, parkland vegetation patterned in an array of openings and tree islands. There are intermittent background views of Mt. Rainier, Pinegrass Ridge, Divide Ridge, and views from the ridge top between Hogback Basin and the Goat Rocks Wilderness into Miriam Basin within the wilderness. Lifts and ski trail corridors in the adjacent White Pass Ski Area are discernible from some locations within Hogback Basin, but do not dominate the view. Overall, the natural integrity of the area is very high (refer to Section 3.15 – Visual Resources, Illustration 3.15-5).

The majority of backcountry skiing at White Pass occurs in the Hogback Basin, to the west of the existing SUP area. The area to the north, the northern limit of Hogback Basin, commonly referred to as the “Grand Couloir”, provides extreme skiing and snowboarding opportunities, as the gentle terrain above the cliff line becomes a steep, narrow canyon below the cliff line. Due to the challenging experience provided in

the Grand Couloir, this area is very popular among the White Pass expert/extreme skiers, most of whom ride the lift at White Pass to access the area. Ski area personnel estimate that 65 percent of use occurs in the Hogback Basin, with the remaining 35 percent continuing on into Miriam Basin within the Goat Rocks Wilderness and the Grand Couloir (McCarthy, pers. comm.). Compared to many other backcountry skiing opportunities within the White Pass market area, Hogback Basin provides relatively easy access by taking a ski lift to the top of Pigtail Peak and traversing into the basin area. Accessing the backcountry in this manner is referred to as “lift-served.” Estimates for this type of use ranged as high as 1,400 skiers in the 1980s; however, actual lift ticket purchases have averaged approximately 222 per year over the past five years (White Pass Company 2006).

Additional use may occur from skiers who ascend the existing alpine trails on the snow. These trails are located on very steep terrain, many exceeding 40 percent slope. Although no formal monitoring of this use has been conducted, estimates based on casual observations indicate a maximum of fifty skiers per season accessing the backcountry via this method.

Other backcountry skiing opportunities within the White Pass market area include Mt. Rainier National Park, other portions of the Goat Rocks and William O. Douglas Wildernesses, areas adjacent to Interstate 90 near Cle Elum and Roslyn, Washington and in the vicinity of Blewett Pass on US Highway 97, midway between Ellensburg and Leavenworth, Washington. These opportunities provide widely varying degrees of terrain difficulty and ease of access; however, there are thousands of acres available for this type of use within the region.

Overall, the Cascade Range holds substantial backcountry skiing opportunities. However, with the exception of the developed ski areas, access to the majority of this terrain requires considerable driving, effort, and available parking and/or services are often limited. Table 3.11-1 lists hike-to backcountry skiing areas within White Pass Ski Area’s market area.

**Table 3.11-1:
Hike-to Backcountry Skiing Areas within White Pass Ski Area’s Market Area**

Location	Parking	Approximate Round-Trip Distance (miles)	Notes	Skill Level^a
Mount Rainier Vicinity				
Chinook Pass to Crystal Mountain	Chinook Pass or Cayuse Pass	6 miles	When Cayuse Pass is closed, route can be done in reverse	Advanced
Naches Peak	Chinook Pass or Cayuse Pass	2 miles		Intermediate
Yakima Peak	Chinook Pass or Cayuse Pass	2 miles		Advanced
Puyallup Cleaver	Nisqually Entrance of MRNP; West Side Road	11 miles (plus 11.5 miles by bike or hike)	Extended Tour; 7,000’ elevation gain	Advanced

**Table 3.11-1:
Hike-to Backcountry Skiing Areas within White Pass Ski Area’s Market Area**

Location	Parking	Approximate Round-Trip Distance (miles)	Notes	Skill Level ^a
Sunset Park	Nisqually Entrance of MRNP; West Side Road	7 miles (plus 15 miles by bike)	Extended Tour	Advanced
Van Trump Park	Nisqually Entrance of MRNP; Christine Falls or Nisqually Bridge	8 miles	4,500’ elevation gain	Advanced
Tatoosh Range	Nisqually Entrance of MRNP; Narada Falls	4 miles		Advanced
Muir Snowfield	Paradise Parking Lot	9 miles	4,500’ elevation gain	Intermediate
Nisqually Glacier	Paradise Parking Lot	9 miles		Advanced
Paradise Glacier	Paradise Parking Lot	7 miles		Advanced
I-90 East of Snoqualmie Pass				
Mount Daniel	Cle Elum River Road	14 miles	Overnight Tour; Approach on road April to June or by snowmobile; 4,500’ elevation gain	Advanced
Jolly Mountain	Salmon La Sac Guard Station	12 miles	4,000’ elevation gain	Intermediate
Blewett Pass Highway, US 97				
Porcupine Creek	Ingalls Creek Trail Access Road	22 miles	Overnight Tour; 6,000’ elevation gain	Advanced
Diamond Head	Swauk Pass/Blewett Pass Sno-Park	5 miles		Advanced
Ingalls Peak	North Fork Teanaway River Road	11 miles	Overnight Tour	Advanced
Areas South of White Pass				
Goat Rocks Wilderness	North Fork Tieton River Road	17 miles	Extended Tour; 4,500’ elevation gain; Approach possible from White Pass Ski Area	Advanced
Mount Adams	Timberline Forest Camp	10 miles	Overnight Tour; Over 6,000’ elevation gain	Advanced
Mount Saint Helens	Marble Mountain Sno-Park	8 miles	5,500’ elevation gain	Advanced

^a Skill Level: Intermediate indicates ability to climb up and slide down moderate slopes, experience with winter conditions, camping, survival, alpine travel, and understanding of basics of avalanche hazard avoidance and navigation. Advanced indicates ability to ascend and descend steeper slopes under varying conditions, including tree and gully skiing in deep, soft, or icy snow conditions, and a high degree of skill in snow climbing and avalanche hazard avoidance.
Note: Most of the backcountry ski tours listed in this table are in locations that must be hiked to (hike-to backcountry) as opposed to accessed by chairlift (lift-served backcountry).
Source: Burgdorfer 1999

Recreation Opportunity Spectrum

The Recreation Opportunity Spectrum (ROS) is a classification system created by the Forest Service that categorizes NFSL by its setting and defines classes of probable outdoor recreation activities and experience opportunities. In short, the land and water of NFSL are inventoried and mapped by ROS class to identify the types of opportunities they currently provide. The process comprises six land classes to aid in understanding physical, biological, social and managerial relationships, and to set parameters and guidelines for management of recreation opportunities. This is accomplished by inventorying three “settings” of an area: (1) physical – size, remoteness, and evidence of human activity, (2) social – number and type of human encounters, opportunity for solitude, and (3) managerial – the amount and type of restrictions placed on people’s actions. Inventorying these settings helps identify the quality and quantity of recreation opportunities (USDA 1990a, 1990b).

Under the GPNF Forest Plan, the ROS classifies all management areas, except Wilderness, by defining accessibility, facilities, and visitor contact, direction and interpretation. Areas can be classified Primitive, Semi-Primitive Non-Motorized, Semi-Primitive Motorized, Roaded Natural, or Roaded Modified (USDA 1990a). Under the WNF Forest Plan, the ROS classification system includes the categories above, as well as Rural and Urban (USDA 1990b). Refer to Chapter 7 – Glossary for a detailed description of the ROS land classifications used.

A ROS inventory has been made of the White Pass Study Area. The current ski area is inventoried as Rural in the base area due to its highly developed character, and Roaded Natural on the ski slopes. As described in the WNF Forest Plan, Rural areas are characterized by a substantially modified natural environment, where vegetation management and facility development is dominant, and managerial controls are numerous, but largely in harmony with the natural environment (WNF Forest Plan, page IV-29). Areas classified as Roaded Natural are predominantly natural appearing, where vegetation management and resource modifications are present, but harmonize with the natural environment. Pigtail and Hogback basins are currently in a Semi-Primitive Non-Motorized condition (Thorne, pers. comm.). As described in the GPNF Forest Plan, Semi-Primitive Non-Motorized areas do not contain roads or motorized vehicles, provide dispersed use, and take advantage of scenic views and points of interest. Under the GPNF Forest Plan allocation of 2L (Developed Recreation), the ROS standard for the Pigtail and Hogback basins is Roaded Natural (GPNF Forest Plan, page IV-101).

Pacific Crest National Scenic Trail

The PCNST traverses the Cascade Mountain and Sierra Mountain crests from Mexico to Canada. The PCNST is designated as part of the National Trails System Act. Section 7(a) of the 1968 Act established the relationship between the trail and the management of adjacent land:

“Management and development of each segment of the National Trails System shall be designed to harmonize with and complement any established multiple-use plans for that

specific area in order to ensure continued benefits from the land” (National Trails System Act – P.L. 90-543).

The selected management alternative in the *Comprehensive Management Plan for the Pacific Crest National Scenic Trail* (USDA 1982) clarifies the relationship between the trail and management of adjacent lands and is consistent with Section 7(a) of the 1968 Act. Specifically pertaining to National Forest lands, the Selected Alternative states:

“The entire landscape and its scenic quality are important to the purposes of the Pacific Crest National Scenic Trail. Viewing and understanding resource management and other cultural activities are considered to be part of the normal character of the trail. The management of various resources will give due consideration to the existence of the trail and trail users within the multiple-use concept” (USDA 1982, 17).

The PCNST enters the area from the William O. Douglas Wilderness to the north, passes around the east end of Leech Lake and crosses US 12 to the east of White Pass. It then climbs through dense timber on a series of switchbacks on the eastern boundary of the ski area and crosses into the Goat Rock Wilderness northwest of Hell Lake. From there the trail follows the main ridge between Hogback Basin and Miriam Basin crossing the Wilderness boundary in several places. It re-enters the Wilderness where it crosses the saddle near Hogback Mountain and travels south towards Shoe Lake (refer to Figure 2-1).

The PCNST is utilized by hikers of all abilities, from day-hikers to those completing the entire trek from Mexico to Canada. Ski areas are often used by hikers to pickup food and materials that may have been mailed from friends or family members. This service makes extended hiking over several weeks to months possible. Ski area personnel estimate that approximately 250 to 300 food drops occur per year at the White Pass Ski Area. Stock users also commonly utilize the sections of the PCNST within the central and southern Washington Cascades and adjacent to the White Pass Ski Area for trips lasting one or several days.

The area traversed by the PCNST in and around the White Pass Ski Area is relatively undeveloped. PCNST users are within sights and sounds of development along the north side of US 12, including the Leech Lake Campground and boat launch, White Pass Horse Camp, and White Pass north and south trailheads. Along this portion of the PCNST, users are able to see large recreational vehicles, boats, horses, parking lots, pavement, and other facilities. Developed facilities on the south side of the highway are largely unnoticeable from the PCNST, with the only observations including developed facilities atop Pigtail Peak and the existing drainfield in the eastern part of the SUP boundary (refer to Section 3.15 – Visual Resources). The PCNST in and around the White Pass Ski Area, particularly Miriam, Pigtail and Hogback basins, provides a relatively primitive experience.

3.11.3 Environmental Consequences

3.11.3.1 Capacity

Alternative 1

Under Alternative 1, the White Pass Ski Area would continue to operate existing chairlifts and trails without any further development. White Pass would continue to operate at a CCC of 2,670. With increasing demand for skiing at White Pass (refer to Illustration 3.11-4) and an increasing number of days per season at or above capacity (refer to Illustration 1-3), the capacity of White Pass to absorb growing demand would be limited. In addition, the existing deficiencies at White Pass would remain unresolved, which would continue to detract from the recreational experience of the White Pass skier. Overall, by maintaining the current capacity, White Pass would not be in a position to respond to the need to meet the increased public demand for skiing at White Pass. **Over time, Alternative 1 would adversely affect White Pass' ability to provide sufficient capacity to support the local market, resulting in increased overcrowding, and a reduction in the recreation experience. As a result, it is expected that some skiers in the local market would become increasingly frustrated with skiing at White Pass or would look at other options.**⁴⁵ Therefore, Alternative 1 would limit the ability of White Pass to meet the demonstrated demand for skiing at White Pass.

Alternative 2 and Modified Alternative 4

Under Alternative 2 and Modified Alternative 4, White Pass would expand into Pigtail and Hogback basins with the development of two chairlifts, associated trails and a mid-mountain lodge (refer to Figures 2-2 and 2-4). The CCC of White Pass would increase from 2,670 to 4,250 under Alternative 2, or 3,800 under Modified Alternative 4. The increased capacity would allow White Pass to better meet the need to serve its growing market by providing sufficient ski terrain and facilities to meet the demand. Similarly, the increased capacity would allow for reduced densities on key access and egress areas that exhibit high skier densities under the existing condition (e.g., Cascade track), and, hence, would meet the need to improve circulation and dispersal in these key areas. Finally, the increase in capacity would allow White Pass to serve future growth in the skier market.

Alternative 6

Alternative 6 would include the development of one lift and associated trails in the expansion area (refer to Figure 2-6). Under Alternative 6, the CCC at White Pass would increase from 2,670 to 3,640. The lower CCC, as compared to Alternative 2 and Modified Alternative 4, is a result of adding one lift instead of two lifts. With expanded terrain, White Pass would be able to absorb some of the existing growth in demand for skiing, thereby partially meeting this need. However, this ability would be less than Alternative 2 or Modified Alternative 4, simply due to the comparatively smaller expansion.

⁴⁵ 41 percent of scoping letters indicated that the public is frustrated with the current crowding at White Pass, and would look at other options without an expansion at White Pass.

Alternative 9

Under Alternative 9, one new chairlift, the *PCT* lift, would be constructed in the eastern portion of the existing SUP area (refer to Figure 2-8). Under Alternative 9, the CCC at White Pass would increase from 2,670 to 3,280. **With the lowest CCC of the Action Alternatives, and with no expansion into Hogback Basin, Alternative 9 represents the lowest potential for White Pass to meet the need to absorb the existing growth in demand. With the addition of one new lift and associated trails, as well as one new egress trail, issues relating to terrain distribution, poor circulation and densities would be partially addressed, thereby improving upon the existing condition. However these problems would continue under Alternative 9.**

3.11.3.2 *Terrain Distribution, Trail Density and Circulation*

Alternative 1

Under Alternative 1 (refer to Figure 2-1) White Pass would continue to operate 5 lifts with 37 named trails on approximately 212.3 acres of terrain. **As shown in Illustration 3.11-5, White Pass would continue to exhibit an abundance of low intermediate terrain, an abundance of intermediate and expert terrain, and a deficit of beginner, novice, and advanced intermediate terrain, as compared to industry standards.**

The cat tracks (Holiday and Cascade ski trails) at White Pass would continue to allow non-expert skiers to negotiate the cliff line. The majority of skiers at White Pass (i.e., novice to intermediate skiers) would continue to be required to use these cat tracks to negotiate the long traverses over the cliff line, resulting in unacceptably high densities on these trails. In addition, expert trails such as Hourglass, Cascade Cliff and Waterfall would continue to cross over these highly-used cat tracks. At these intersections, skiers of all ability levels would continue to be found in unacceptably high densities, resulting in additional skier conflicts and further detracting from the recreational experience of the White Pass skier.

Under Alternative 1, increased visitation would continue to exacerbate skier circulation and distribution deficiencies, and density issues on the egress routes from upper mountain lifts and trails that are used to access base area facilities during lunch time and at the end of the day. It would not meet the need for action with respect to terrain distribution, trail density, or circulation at the White Pass Ski Area.

Under Alternative 1, there would no alteration to the extent of ‘Off-Piste’ area within the existing SUP and expansion area.

Under Alternative 1, White Pass would continue to be limited by low snow coverage on terrain that accesses the base area facilities during the period from November to January, even with sufficient snow on the upper mountain.

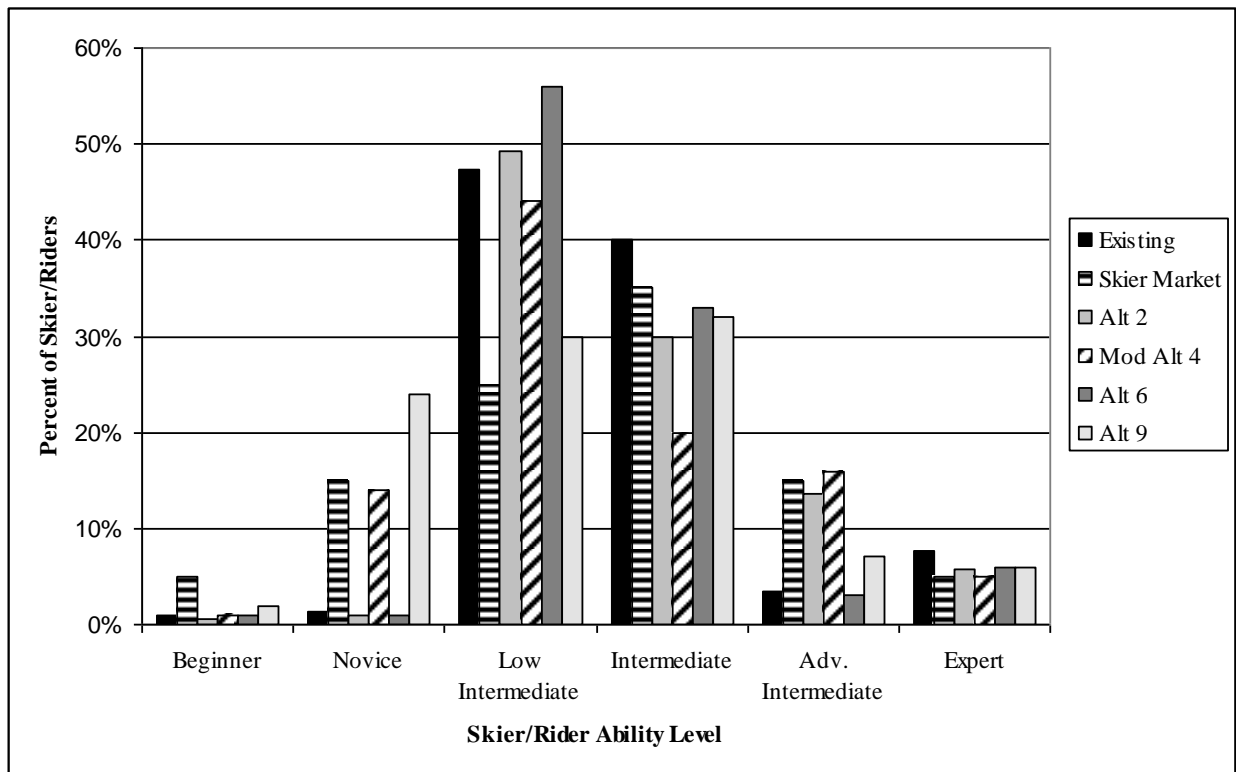
Alternative 2

Alternative 2, as shown in Figure 2-2, represents White Pass Ski Area’s Proposed Action.

Under Alternative 2, White Pass proposes to add approximately 70 acres of terrain on 15 new trails, all of which would be accessed from the two new lifts located in Pigtail and Hogback basins. Additional terrain would provide desirable low intermediate through advanced intermediate skiing. In addition, a two-story mid-mountain lodge would be constructed within the expanded SUP area to serve skiers utilizing the expanded area.

White Pass’ terrain and skier distribution under Alternative 2 is shown in Illustration 3.11-5 and Table 3.11-2. Overall, the terrain distribution would be improved, with the addition of advanced intermediate skiing. As a result of the additional terrain at White Pass, the surplus of expert terrain would be reduced in terms of percentage of available terrain. **Under Alternative 2, White Pass would continue to exhibit a shortage of beginner and novice terrain.**

**Illustration 3.11-5:
 Terrain Distribution by Ability Levels – Proposed Upgrading – All Alternatives**



**Table 3.11-2:
Acreage Distribution by Ability Levels – Proposed Upgrading – All Alternatives**

Alternatives	Skier/Rider Distribution by Ability Level					
	Beginner	Novice	Low Intermediate	Intermediate	Advanced Intermediate	Expert
Existing	1%	1%	47%	40%	3%	8%
Skier Market	5%	15%	25%	35%	15%	5%
Alt 2	1%	1%	49%	30%	14%	6%
Mod Alt 4	1%	14%	44%	20%	16%	5%
Alt 6	1%	1%	56%	33%	3%	6%
Alt 9	2%	24%	30%	32%	7%	6%

Under Alternative 2, the available ski terrain would be more capable of accommodating the full range of ability levels, consistent with market demand, as compared to existing conditions. As shown in Illustration 3.11-5 and Table 3.11-2, advanced intermediate terrain would increase by approximately 42 acres bringing the skier distribution closer to skier market trends. The need to match terrain to market demand would be substantially improved with respect to these terrain types.

Construction of an access and egress trail to the expansion area would occur under Alternative 2. The access trail would be constructed approximately 850 feet south of the top terminal of the *Great White Express* lift on the existing Holiday trail. The egress trail would be constructed from the base terminal of the proposed *Basin* lift north to the existing Quail ski trail. The trails that would be constructed and used to access and egress new terrain in Pigtail and Hogback basins would have flat areas with slopes less than 10 percent extending 150 or more feet. These conditions may require some skiers to pole and skate their way into and out of the new terrain.

Under Alternative 2, the majority of White Pass’ trails would continue to exhibit acceptable trail densities (refer to Appendix B – Mountain Plan Specifications), with the exception of the existing egress trails leading to the base area. Although both the lift network and ski terrain capacities would increase, the additional capacity would occur in areas that are situated away from the cliff band, without any additional improvements being made to the existing egress routes connecting the upper mountain (and expanded terrain) to base area facilities. **During the evening closure time, skier densities on the egress routes would become exacerbated as Hogback Basin area skiers leave the expansion area to return to the existing base area.** If needed, Alternative 2 includes the implementation of staggered closing times, where the Hogback Basin lifts would be closed earlier than the other lifts, in an effort to help reduce the potential for higher crowding on the egress trails (refer to Other Management Provision OMP11 in Table 2.4-4). During lunch, the addition of the mid-mountain lodge would provide additional services outside of the base area. Because skiers utilizing the expanded area (and possibly some skiers on the upper mountain) would utilize the new mid-mountain lodge, fewer people would ski back to the base area for

lunch, which would result in reduced skier densities along the egress routes during mid-day, as compared to the evening egress. This would at least partially respond to the need to improve circulation in the cliff band area.

Under Alternative 2, there would be approximately 1,293 acres of ‘Off-Piste’ terrain within the existing SUP and expansion area. Off-Piste terrain is calculated as described in the existing condition. Actions that create new modified herbaceous vegetation communities (i.e., clearing for a ski trail) increase the amount of ‘On-Piste’ (formal) terrain, and decrease the amount of Off-Piste terrain. Impacts to existing modified herbaceous vegetation communities are not considered an increase in On-Piste acreage.

Under Alternative 2, White Pass would be less limited by low snow coverage on the lower mountain, with the new terrain in Pigtail and Hogback basins providing access to skier service facilities during the period from November to January (i.e., the mid-mountain lodge). With lifts, trails and a lodge facility in the expansion area, White Pass would be better able to accommodate skier demand during the early season by providing access to the *Basin* and *Hogback Express* pods.

Modified Alternative 4

Under Modified Alternative 4, White Pass would construct 18 trails, adding approximately 85 acres to the existing terrain, which would be accessed from the two new lifts located in Pigtail and Hogback basins (refer to Figure 2-4). Additional terrain would provide novice through advanced intermediate skiing, meeting the need for novice terrain at a higher level than Alternative 2. **There would continue to be a shortage of beginner terrain.** In addition, a two-story mid-mountain lodge would be constructed within the expanded SUP area to serve skiers utilizing the expanded area, as described for Alternative 2. White Pass would operate 7 lifts and 55 trails on approximately 298 acres.

Development of access, egress and ski trails in the Hogback and Pigtail basins would be as described under Alternative 2, with modifications to trail width and locations to minimize impacts to wetlands.

Unlike Alternative 2, Modified Alternative 4 includes construction of a new trail in the *Paradise* pod to provide consistent, true advanced intermediate terrain within the current SUP area. This new trail would position skiers higher on Lower Roller, allowing easier traverse to the proposed parking lot.

Revegetation of approximately 5.4 acres as tree islands on the lower mountain would occur under Modified Alternative 4, as described in Alternative 9. These tree islands would provide better separation of ability levels and enhance the visual quality of the area. Additionally, widening and re-grading of existing trails would improve the quality of skiing. Under Modified Alternative 4, the Holiday trail would be graded so that it could truly be classified as a novice trail, creating a more desirable route across the cliff band.

Unlike Alternative 2, Modified Alternative 4 would include an egress trail (Trail 4-16) from the bottom of the *Hogback Express* chairlift to the Quail ski trail to provide access to the base area from the lower Hogback Basin. This additional trail would create a decision point that would allow skiers in the Hogback Express pod to traverse back to existing facilities or to the bottom terminal of the Basin chairlift without having to ride to the top of the Hogback Express chairlift before returning. This would be a small, beneficial addition in meeting the need for improved circulation. Similar to the other egress trails that would be constructed, slope gradients along this trail would require some skiers to pole and skate, or some snowboarders to walk in order to traverse.

Aside from the additional egress trail leading from the bottom terminal of the *Hogback Express* chairlift, the effects to skier densities and facilities would be as described for Alternative 2.

Under Modified Alternative 4, a 7-acre parking lot (accommodating 946 vehicles) and ticket booth would be constructed near the lower terminal of the *Lower Cascade* chairlift. **The parking lot and ticket booth would provide a second entry point to White Pass. The portal would help to alleviate congestion at base area ticket booth facilities throughout the day. In addition, skiers would have the opportunity to exit the ski area from two access points, also helping to alleviate base area congestion at the end of the day. These facilities would contribute substantially to meeting the need to improve circulation and dispersal of skiers in the base area.**

Under Modified Alternative 4, there would be approximately 1,276 acres of ‘Off-Piste’ terrain within the existing SUP and expansion area. Calculation of Off-Piste and On-Piste terrain are as described under Alternative 2.

Similar to Alternative 2, under Modified Alternative 4, White Pass would be less limited by low snow coverage on the lower mountain, with the new terrain in Pigtail and Hogback basins providing access to skier service facilities during the period from November to January (i.e., the mid-mountain lodge). With lifts, trails and a lodge facility in the expansion area, White Pass would be better able to accommodate skier demand during the early season by providing access to the *Basin* and *Hogback Express* pods.

Alternative 6

Under Alternative 6, White Pass would construct seven trails totaling approximately 28.8 acres which would be accessed from one new lift located in Pigtail Basin (refer to Figure 2-6). Additional terrain would provide low intermediate skiing, a terrain ability that White Pass already has in abundance. **Because advanced intermediate terrain would continue to be in short supply, as compared to industry standards (refer to Illustration 3.11-5 and Table 3.11-2), the need to match terrain to market demand would not be met.**

The terrain associated with the *Basin* chairlift would provide access to a relatively small amount of additional terrain. Unlike Alternative 2 and Modified Alternative 4, people would not utilize the *Basin* lift

to access other alpine skiing terrain (i.e., as a transportation lift, as in Alternative 2 and Modified Alternative 4). Rather, skiers in the expansion area of Alternative 6 would utilize the limited amount of terrain accessed by the *Basin* chairlift. **Consequently, terrain densities in this pod would be comparatively higher than industry standards, and conditions proposed under Alternative 2 and Modified Alternative 4 (refer to Appendix B - Mountain Plan Specifications). The need to improve circulation on the slopes would only minimally be met.**

The proposed mid-mountain lodge, located along the Quail trail, would affect the distribution of skiers returning to the base area during lunch similar to Alternative 2 and Modified Alternative 4. The addition of the mid-mountain lodge would provide additional services outside of the base area. As a result, it is anticipated that skiers utilizing the expansion area (and possibly some skiers on the upper mountain) would utilize the new mid-mountain lodge, resulting in fewer people skiing back to the base area during the day, in turn, reducing skier densities along the egress routes during mid-day. In contrast to Alternative 2 and Modified Alternative 4, locating the lodge within the existing SUP boundary should attract skiers from all areas on the upper slopes without having to utilize additional terrain and lifts. As a result, the proposed location in Alternative 6 may further reduce reliance on the egress trails leading to the base area, as compared to both Alternative 2 and Modified Alternative 4, better meeting the need to improve dispersal and circulation along these trails. However, if skier densities on egress trails increase to unacceptable levels, staggered lift closure times would be initiated to reduce crowding, as described in Other Management Provision OMP11 (refer to Table 2.4-4).

Under Alternative 6, a 2.5-acre parking lot (accommodating 340 vehicles) and ticket booth would be constructed near the lower terminal of the *Lower Cascade* chairlift. The parking lot and ticket booth would provide a second entry point at White Pass. The portal would help alleviate congestion at base area ticket booth facilities throughout the day. In addition, skiers would have the opportunity to exit the ski area from two access points, also helping to alleviate base area congestion at the end of the day. As with Modified Alternative 4, these facilities would contribute substantially to meeting the need to improve circulation and dispersal of skiers in the base area.

Under Alternative 6, there would be approximately 1,332 acres of ‘Off-Piste’ terrain within the existing SUP and expansion area. Calculation of Off-Piste and On-Piste terrain are as described under Alternative 2.

Under Alternative 6, White Pass would be somewhat less limited by low snow coverage on the lower mountain, with the new terrain in the *Basin* pod providing access to skier service facilities during the period from November to January (i.e., the mid-mountain lodge). With a lift, trails and a lodge facility in the expansion area, White Pass would be better able to accommodate skier demand during the early season by providing access to the *Basin* pod.

Alternative 9

Under Alternative 9, White Pass would construct one chairlift and seven trails, five of which would be accessed from the new lift, one off the *Paradise* lift, and one from the bottom of the *Paradise* lift back to the base area (refer to Figure 2-8). A two-story mountain-top lodge with a 3,000-square foot footprint would be constructed at the summit of Pigtail Peak. In addition, White Pass would revegetate 5.4 acres of the lower mountain trail network. In total, White Pass would increase skiing by 48 acres within the existing SUP area.

Under Alternative 9, White Pass would operate 6 lifts and 44 trails on 260.6 acres. Additional terrain would provide beginner, novice, intermediate and advanced intermediate terrain. Grading of existing ski trails would result in a significant amount of terrain being re-classified from low intermediate to novice terrain, which would help bring White Pass' terrain distribution closer to industry standards (refer to Illustration 3.11-5 and Table 3.11-2). **The need for additional novice terrain would be well met under Alternative 9, but the response to the need to increase advanced intermediate terrain would remain well under market demand. However, the lift and trail development required to create the additional novice terrain would require removal of mature forest vegetation, grading, and structural stream crossings (i.e., bridges) (refer to Section 3.2 – Geology and Soils, Section 3.3 – Watershed Resources and 3.5 – Vegetation).**

The trails would be largely along the fall-line and would be varied in width and slope to provide terrain variety. All trails would avoid crossing the cliff band except for the egress from the bottom of the *Paradise* chairlift. This egress would provide an additional route from the upper mountain to lower base area in an effort to help reduce trail densities along egress routes. The trail would be constructed so that novice skiers could utilize the egress. In addition, existing terrain would be graded in order to provide more appropriate slope gradients for novice skiers. Particularly, grading would occur on the Holiday and Elevator Shaft trails to reduce slope gradients. Grading along the Holiday trail would provide more appropriate slope gradients for all skier abilities navigating the cliff band in order to access base area facilities from upper mountain trails and lifts. Also, the beginner trail off the *Platter* lift would be regraded to provide more consistent beginner terrain.

The addition of the mountain-top lodge would provide additional services outside of the base area. Similar to the other Action Alternatives, it is anticipated that some skiers would utilize the new mountain-top lodge, resulting in fewer people skiing back to the base area during the day, which would result in reduced skier densities along the egress routes during mid-day.

White Pass' trails would continue to be below the industry standards for trail density. The overall density index would improve under Alternative 9 primarily as a result of the grading that is proposed to reclassify several trails to their intended ability level ratings (refer to Appendix B - Mountain Plan Specifications). The creation of the novice route on the west side, from the bottom of the *Paradise* chair to the base of the

resort, and the regrading of the Holiday trail, would drop skier densities on the Cascade cat track as well as increase egress capacity. Trail conditions under Alternative 9 would exhibit the greatest reduction in trail densities on egress trails, as compared to the other Action Alternatives. In addition, the most significant benefit of this alternative would be that it would improve the skiing experience of the existing mountain by providing for better circulation and flow of skiers, increasing egress capacity (thereby helping to alleviate the crowding on the existing Cascade cat track), and providing additional, and more varied, terrain below the cliff band. The need to improve circulation and dispersal of skiers on the slopes would be met.

Under Alternative 9, a 2.5-acre parking lot (accommodating 340 vehicles) and ticket booth would be constructed near the lower terminal of the Lower Cascade chairlift. The parking lot and ticket booth would provide a second entry point at White Pass. The portal would help alleviate congestion at base area ticket booth facilities throughout the day. In addition, skiers would have the opportunity to exit the ski area from two access points, also helping to alleviate base area congestion at the end of the day. As with Modified Alternative 4 and Alternative 6, these facilities would contribute substantially to meeting the need to improve circulation and dispersal of skiers in the base area.

Under Alternative 9, there would be approximately 1,331 acres of ‘Off-Piste’ terrain within the existing SUP and expansion area. Calculation of Off-Piste and On-Piste terrain are as described under Alternative 2.

Alternative 9 would provide no higher elevation skier services facilities with round-trip skiing access. **Therefore, under Alternative 9, White Pass would continue to be limited by low snow coverage on terrain that accesses the base area facilities during the period from November to January, even with sufficient snow on the upper mountain.**

3.11.3.3 Visitation

Under all alternatives, skier visitation growth is expected to occur due to an expanding population base within the market area (Cowlitz, Lewis, Pierce, Thurston and Yakima counties). Projected population growth from 2005-15 for the market area is shown below by County. The average annual projected increase for the entire area is 2.16 percent for the ten-year development period, as shown in Table 3.11-3.

**Table 3.11-3:
White Pass Market Area
Average Annual Population Growth Projections**

County	2005-15
Cowlitz	2.67%
Lewis	1.95
Pierce	1.71
Thurston	2.70
Yakima	1.79
Average	2.16%

Source: State of Washington 2002

Alternative 1

Under the No Action Alternative, no improvements or additional facility development at White Pass would occur. Small incremental visitation growth (1.0 percent) would occur due to the expanding population base within the White Pass market from the base of 109,782 visits (average visits from 2000-01 to 2005-06). With a projected population growth rate of over 2 percent, it is anticipated that growth in visitation would be approximately one-half the population growth rate (refer to Appendix D – Social, Economic and Recreation Assumptions for a more detailed discussion of visitation projections and assumptions used in developing projections). **Facilities at White Pass would not meet the need to respond to current and anticipated growth in demand under the No Action Alternative.**

Alternative 2 and Modified Alternative 4

Alternative 2 and Modified Alternative 4 provide different variations of the development of a fixed grip chairlift in Pigtail Basin, a detachable quad in Hogback Basin, and a mid-mountain lodge in between the ski pods.

Development with two lifts within Pigtail and Hogback basins would generate the most interest and is the type of terrain expansion the White Pass skier market supports, based on the terrain distribution and circulation. A sizable increase in skier visitation would likely occur due to the excitement of doubling the size of the ski terrain offered at White Pass, in conjunction with incremental visitation growth due to the continually expanding population base in the White Pass market area. **Based upon these factors, skier visits are projected to grow at a rate of 1 percent annually from a base of 149,782 visits in the first year.** As with Alternative 1, it is anticipated that growth in skier demand would be approximately one-half of the population growth rate after the market adjustment for the new facilities (i.e., an increase of 40,000 visits after completion of the project). Projected skier visits are shown in five-year increments in Table 3.11-4 below. **The facilities proposed under Alternative 2 and Modified Alternative 4 would equally respond to the need to meet this increase in demand at White Pass.**

**Table 3.11-4:
White Pass Visitation Projections**

	Alternative 1	Alternative 2	Modified Alternative 4	Alternative 6	Alternative 9
Year 1	109,782	149,782	149,782	123,782	115,782
Year 5	115,382	157,422	157,422	130,096	121,688
Year 10	121,268	165,453	165,453	136,732	127,895

Refer to Appendix D – Social, Economic and Recreation Assumptions for a more detailed discussion of visitation projections and assumptions used in developing projections.

Alternative 6

Alternative 6 represents a smaller expansion of the ski terrain at White Pass, with a correspondingly reduced ability to meet the growth in demand for alpine skiing at White Pass. **Therefore, it is likely that much less interest and excitement would be generated which would be reflected in the visitation projections.** As with Alternative 2 and Modified Alternative 4, stabilization of visits would follow the initial demand increase with incremental growth due to expanded population in the White Pass market. **Accordingly, from a first year projection of 123,782 skier visits, future growth would increase at an annual rate of approximately 1 percent.** As with Alternative 1, it is anticipated that growth in skier demand would be approximately one-half of the population growth rate after the market adjustment for the new facilities. Projections are shown in five-year increments in Table 3.11-4 above.

Refer to Appendix D – Social, Economic and Recreation Assumptions for a more detailed discussion of visitation projections and assumptions used in developing projections.

Alternative 9

Alternative 9 would generate considerable interest with the mountain-top day lodge and provide some additional ski trails but would lack the interest generated by an expansion into the Hogback Basin area. White Pass would still see the incremental growth due to population increases within the market place; however, there would be no substantial increase in growth due to the limited scope of development. The need to respond to the increase in demand for additional alpine skiing at White Pass would only be partially met. Alternative 9 would be similar to the No Action Alternative, with a minor initial increase in visitation due to the limited improvements. As in all alternatives, visitation growth during the ten-year projection period has been estimated at an annual rate of 1 percent. As with Alternative 1, it is anticipated that growth in skier demand would be approximately one-half of the population growth rate after the market adjustment for the new facilities. Projections of skier visits are shown in five-year increments in Table 3.11-4 above.

Refer to Appendix D – Social, Economic and Recreation Assumptions for a more detailed discussion of visitation projections and assumptions used in developing projections.

3.11.3.4 Nordic Skiing and Snow Shoe Trails

Alternative 1

Under Alternative 1, the Nordic trail system at White Pass would continue to cover approximately 13.6 kilometers over five distinct loop and connector trails. No additions or modifications would occur. **The existing Zig Zag Nordic trail would continue to operate as an existing use that is not included in the existing term permit. As a result, operation of this loop would either be shut down after the 2007 season or would require an annual SUP from the Forest Service. In addition, the current snowshoe trail network would also operate without a term permit, and would similarly be shut down or included in an annual SUP. The need to fully integrate current Nordic and snow shoe operations into the MDP and SUP would not be met.**

Alternatives 2, 6, 9 and Modified Alternative 4

Under all Action Alternatives, the Nordic trail system, excluding the *Zig Zag* trail, would be redefined and incorporated into the MDP. The *Zig Zag* Nordic trail and snowshoe trail system would not be authorized under the SUP, and would be closed to use upon expiration of the current permit, unless future site-specific NEPA analysis determines otherwise. **The need to integrate the current snow shoe and Nordic operations into the MDP and SUP would not be fully met.**

3.11.3.5 Backcountry Winter Recreation

Alternative 1

In the short-term, Alternative 1 represents no impact to backcountry winter recreation opportunities (e.g., hike-to backcountry skiing, dispersed snow shoeing, camping, and hunting) within or outside the White Pass Ski Area. **Under Alternative 1, backcountry skiing trends at White Pass would continue to be as described for existing conditions.**

Over the long-term, it is expected that growth in demand for lift-served backcountry skiing near the White Pass Ski Area would exceed average visitation growth at White Pass, due to equipment advances (i.e., shaped and fat skis), which heighten the skill levels of alpine skiers, as well as improved skill levels on the part of snowboarders in general.⁴⁶ **No additional opportunities would be provided for lift-served backcountry skiing.**

Under Alternative 1, no new development would take place and the entire Hogback Basin would remain naturally intact. Mechanized rescue of visitors recreating in the Goat Rocks Wilderness would continue to periodically affect wilderness character.

⁴⁶ Growth in backcountry skiing would generally follow regional population growth, estimated at roughly 1 percent per year and growth in dispersed recreation in general, estimated at an additional 1 percent per year, for a total of 2 percent per year.

Under the ROS system, the White Pass Ski Area is inventoried and would continue to be classified as Rural and Roaded Natural while Pigtail and Hogback basins would continue to be classified as Semi-Primitive Non-Motorized.

Alternative 2 and Modified Alternative 4

Under Alternative 2 and Modified Alternative 4, White Pass would develop two chairlifts, associated trails and a mid-mountain lodge in Pigtail and Hogback Basins, where approximately 65 percent of the people who currently buy one-ride lift tickets at White Pass backcountry ski. **As a result, dispersed backcountry winter recreation (e.g., hike-to-backcountry, dispersed snow shoeing and camping) opportunities would likely be eliminated from Hogback Basin while additional lift-served backcountry skiing opportunities would be created. Alternative 2 and Modified Alternative 4 would increase the quantity of lift-served backcountry skiing terrain adjacent to White Pass Ski Area, particularly in Miriam Basin within Goat Rocks Wilderness.**

The displacement of backcountry winter recreation opportunities (e.g., backcountry skiers, dispersed snowshoers and campers) into Miriam Basin would move backcountry users to an area that is at a higher avalanche risk than either Hogback or Pigtail Basins. Steep slopes and cirque basins within Miriam Basin and the Goat Rocks Wilderness would create more difficult search and rescue situations, require more advanced skill sets amongst backcountry users and would require more effort for skiers to return to White Pass base area facilities, than under existing conditions. Implementation of Mitigation Measure MM15 (refer to Table 2.4-2) would require the development of a Boundary Management Plan that would include designation of no more than two gated ski area exit points along the boundary between Pigtail Basin (i.e., eastern Hogback Basin) and Miriam Basin, and one gated ski area exit point downslope of the proposed expansion area. The plan would also include signage indicating that skiers would be responsible for any search and rescue costs. The limitation on exit points and gravity of the search and rescue language would help to insure that only capable backcountry enthusiasts leave the ski area through the exit points, thereby minimizing the potential for search and rescue operations. With the Boundary Management Plan in place, it is unlikely there would be a substantial increase in the number of times search and rescue activities are required within the Wilderness. If mechanized rescues were necessary, there would be an effect on the immediate area's wilderness character, however, the effects would be short-term (typically less than one day in length) and confined to the winter months. Aside from the increased potential for search and rescue, Alternative 2 and Modified Alternative 4 would not increase wilderness encounters or detract from the wilderness characteristics in the Goat Rocks Wilderness.

Management Requirement MR11 would reduce impacts to the wilderness character during construction of the proposed expansion by restricting helicopter operation to areas outside designated wilderness areas (refer to Table 2.4-3). Additionally, Management Requirement MR14 would reduce impacts to the physical, biological and social character of the wilderness by requiring control actions when Limits of Acceptable Change (LAC) conditions are exceeded.

Under Alternative 2 and Modified Alternative 4, the expansion of the White Pass Ski Area into Pigtail and Hogback basins would substantially change the backcountry character of Hogback Basin, at least for the lifetime of the White Pass Ski Area. Other Management Provision OMP5 would reduce impacts to the adjacent natural vegetation communities by marking maximum trail clearing limits, felling trees away from adjacent communities, and limiting maintenance techniques to manual methods within the mountain hemlock parkland community (refer to Section 3.5.3.1 – Vegetation Communities). Additionally, Mitigation Measure MM18 would require any danger trees that must be felled to be retained onsite (refer to Table 2.4-2).

The introduction of alpine ski facilities into Pigtail and Hogback basins would significantly reduce the opportunities for solitude during the winter operating season. Alpine skiers would be commonly found on the trails and skiing off-piste in Pigtail and Hogback basins. Skiers using lifts on developed slopes occur in concentrations that, while consistent with highly developed recreation sites, do not blend well with primitive, unconfined recreation and opportunities for solitude. In addition, the top and bottom terminals of the *Basin* and *Hogback Express* chairlifts would characteristically experience lift queues and skiers milling in these areas. Finally, the mid-mountain lodge would act as a locus of activity in the expansion area, particularly during the lunch period. During the non-skiing season, opportunities for solitude would be similar to the existing condition, with the exception of periods of facility construction and maintenance, since the ski area facilities would not be in operation.

Clearing would be required to connect natural openings within the proposed expansion area, but the gradual slopes and texture of the landscape would help to absorb the effects of the clearing within Hogback Basin (refer to Section 3.15 – Visual Resources). The lift alignments would traverse the area and would be obvious when in the immediate foreground of the visitor. These would not be readily discernable from points further away, and vegetation and topography would screen all development as viewed from the saddle between Hogback and Miriam basins. The mid-mountain lodge would introduce a permanent structure; however, the footprint is relatively small (2,000 square feet) within the context of the larger Hogback Basin, and use of specific Cascadian architectural design elements would help it blend with the surrounding landscape (refer to Section 3.15 – Visual Resources).

Use in the expansion area during the summer months is primarily along the PCNST. During the initial build-out of the proposed expansion, the sights and sounds of equipment would be noticeable, decreasing thereafter to occasional maintenance activities. Aside from these periods, dispersed recreation opportunities in Hogback Basin during the summer months would remain similar to the existing condition, as the ski area would not operate outside the ski season.

Hunting opportunities in Hogback and Pigtail basins would be affected very little, if at all. The area would remain open for hunting. Although hunting would not be allowed within 150 yards of the mid-

mountain lodge during operation, it is unlikely that snow levels would be such that the lodge would be occupied during hunting season.

Under Alternative 2 and Modified Alternative 4, the existing Semi-Primitive Non-Motorized ROS class in the Pigtail and Hogback Basin areas would move toward the Roded Natural ROS class because of the introduction of facilities and the increased use and encounters. With the design of the ski trails and implementation of Mitigation Measures MM19 and MM20 (refer to Table 2.4-2), this change would be consistent with the GPNF Plan, which specifies a Roded Natural ROS standard for Management Prescription 2L.

Alternative 6

Alternative 6 includes the addition of a single chairlift, the *Basin* chairlift, and associated ski trails into Pigtail Basin (approximately 282 acres within Hogback Basin), the remainder of Hogback Basin would continue to be undeveloped.

Under Alternative 6, White Pass would develop the *Basin* chairlift and associated trails in Pigtail Basin, and construct a quarter-mile of road. **As a result, dispersed backcountry winter recreation (e.g., hike-to-backcountry skiing, dispersed snow shoeing, and camping) opportunities would be displaced from Pigtail Basin.** Lift-served backcountry skiing opportunities would still be available in the undeveloped portions of the Hogback Basin. The majority of Hogback Basin, which is a focus of the winter backcountry use, would remain unmodified and would continue to provide backcountry challenges, as would the Grand Couloir at the northern limit of the White Pass IRA. **Additional lift-served backcountry skiing opportunities would be created in Hogback Basin for those skiers who may not already be familiar with the terrain in Hogback Basin and who may become familiar with Hogback Basin as a result of the *Basin* chairlift.** However, backcountry skiers who currently utilize Hogback Basin might consider their backcountry opportunities in Hogback Basin as being substantially modified and would most likely venture to new, less used areas, particularly Miriam Basin in the Goat Rocks Wilderness. In this sense, the addition of the *Basin* chairlift would create new lift-served backcountry opportunities in the Goat Rocks Wilderness.

As with Alternative 2 and Modified Alternative 4, the displacement of backcountry winter recreation opportunities (e.g., backcountry skiing dispersed snowshoeing, and camping) into Miriam Basin would be to an area that is at a higher avalanche risk than both Hogback and Pigtail basins. The steep slopes and cirque basins within Miriam Basin and the Goat Rocks Wilderness would create more difficult search and rescue operations, require more advanced skill sets amongst backcountry users, and would require more effort for skiers to return to White Pass base area facilities, as compared to existing conditions. Implementation of Mitigation Measure MM15 (refer to Table 2.4-2) would require the development of a Boundary Management Plan that would include designation of no more than two gated ski area exit points along the boundary between Pigtail Basin and Miriam Basin, and one gated exit point downslope

of the expansion area. The plan would also include signage indicating that skiers would be responsible for any search and rescue costs. The limitation on exit points and gravity of the search and rescue language would help to insure that only capable backcountry enthusiasts leave the ski area through the exit points, thereby minimizing the potential for search and rescue operations. With the Boundary Management Plan in place, it is unlikely there would be a substantial increase in the number of times search and rescue activities are required within the Wilderness. If mechanized rescues were necessary, there would be an effect on the immediate area's wilderness character, however, effects would be short-term (typically less than one day in length) and confined to the winter months. Aside from the increased potential for search and rescue, Alternative 6 would not increase wilderness encounters or detract from the wilderness characteristics in the Goat Rocks Wilderness.

Management Requirement MR11 would reduce impacts to the wilderness character during construction of the proposed expansion by restricting helicopter operation to areas outside designated wilderness areas (refer to Table 2.4-3). Additionally, Management Requirement MR14 would reduce impacts to the physical, biological and social character of the wilderness by requiring control actions when LAC conditions are exceeded.

Hunting opportunities in the Pigtail Basin would be affected very little, if at all. The area would remain open for hunting. Although hunting would not be allowed within 150 yards of the mid-mountain lodge during operation, it is unlikely that snow levels would be such that the lodge would be occupied during hunting season. Hunting opportunities in the remainder of Hogback Basin would remain unchanged from the existing condition.

Under Alternative 6, the introduction of a road and alpine ski facilities into Pigtail Basin would reduce the opportunities for solitude along the eastern portion of the Basin, particularly during the winter operating season.⁴⁷ Alpine skiers would commonly be found on the trails and skiing off-piste in Pigtail Basin, and the top and bottom terminals of the *Basin* chair would characteristically experience lift queues and skiers milling in these areas. The mid-mountain lodge would be constructed within the existing SUP area rather than in the proposed expansion area, eliminating the impacts of congestion within Hogback Basin that would occur around the lodge under Alternative 2 and Modified Alternative 4. Motorized use would occur on the proposed road during construction and maintenance activities, creating noise and visual intrusions that would eliminate the ability to seek solitude in this area. However, approximately 518 acres

⁴⁷ The road would include approximately 0.25 mile inside the White Pass IRA, which is also in a Tier II Key Watershed. In order for the Decision-makers to select this road and for the road to be constructed, the Regional Executive Interagency Committee would have to formally determine the construction of such a road would be consistent with the Aquatic Conservation Strategy, as outlined in the Northwest Forest Plan (USDA and USD, 1994). If the Roadless Area Conservation Rule is formally implemented, this road would not be allowed in the White Pass IRA, therefore construction techniques (as described in the other Action Alternatives) would be implemented.

in the remainder of Hogback Basin would remain undeveloped, and would continue to offer isolation from the sights, sounds, and presence of others, as would the surrounding Wilderness.

As with Alternative 2 and Modified Alternative 4, use in the expansion area during the summer months is primarily along the PCNST. During the initial build-out of the proposed expansion, the sights and sounds of equipment would be noticeable, decreasing thereafter to occasional maintenance activities. Aside from these periods, primitive recreation opportunities in Hogback Basin would remain similar to the existing condition, as the ski area would not operate outside the ski season. In addition, a portion of the Hogback Basin would remain undeveloped, providing continued opportunities for backcountry recreation uses.

Under Alternative 6, the ski area and facilities would change the ROS class in Pigtail Basin from Semi-Primitive, Non-Motorized to Roaded Natural because of the presence of a road, increased use and encounters in the area. Hogback Basin would remain Semi-Primitive, Non-Motorized.

Alternative 9

Under Alternative 9, backcountry winter recreation (e.g., backcountry skiing, dispersed snow shoeing and camping) trends and backcountry characteristics at White Pass would be as described for Alternative 1 (the existing condition) and use at White Pass Ski Area would be consistent with the Roaded Natural ROS classification established for the area. Hunting would be affected very little, if at all, as the area would remain open for hunting. Although hunting would not be allowed within 150 yards of the mountain-top lodge during operation, it is unlikely that snow levels would be such that the lodge would be occupied during hunting season. With the Boundary Management Plan in place, it is unlikely there would be a substantial increase in the number of times search and rescue activities are required within the Wilderness. If mechanized rescues were necessary, there would be an effect on the immediate area's wilderness character, however, the instances would typically be short-term (less than one day in length) and confined to the winter months.

Management Requirement MR11 would reduce impacts to the wilderness character during construction of the proposed expansion by restricting helicopter operation to areas outside designated wilderness areas (refer to Table 2.4-3). Additionally, Management Requirement MR14 would reduce impacts to the physical, biological and social character of the wilderness by requiring control actions when LAC conditions are exceeded.

3.11.3.6 Pacific Crest National Scenic Trail

Alternative 1

Under Alternative 1, the PCNST would be unaffected, and would remain as described in Section 3.11.2 – Affected Environment.

Alternatives 2 and 6

Under Alternatives 2 and 6, the PCNST would remain in its current alignment. In contrast to existing conditions, hikers and stock users along the PCNST would be exposed to ski area development in Pigtail Basin, although there would not be a direct conflict in use between skiers and hikers along the PCNST because of seasonal use patterns. **The lift alignment over the PCNST and clearing for ski trails may have a negative impact on users of the PCNST by causing a break in the backcountry experience of the PCNST user. PCNST travelers would cross underneath the *Basin* chairlift one time at approximately 6,050 feet elevation and cross four ski trails for a distance of approximately 500 feet in a 0.25-mile long stretch of the PCNST.**

The towers and lift line would be evident to viewers; however, towers and lift terminals would be painted during construction to blend with surrounding vegetation (refer to Section 3.15 – Visual Resources and Table 2.4-2 - Mitigation Measure MM19). Saplings less than 3 feet in height would not be cut (refer to Section 3.15 – Visual Resources and Table 2.4-2, Mitigation Measure MM9). Evidence of tree removal may occasionally be visible, although stumps would be flush-cut and camouflaged (refer to Section 3.15 – Visual Resources and Table 2.4-2, Mitigation Measure MM19). Although users of the PCNST under Alternative 2 would notice the lift alignments, spectacular views of Mt. Rainier would continue to exist along this portion of the PCNST. Travelers along the PCNST may recognize areas of tree removal, however, much of the existing groundcover, consisting of scattered saplings, herbaceous and shrub vegetation would remain.

Considering the unique vegetative patterns in the subalpine environment of Pigtail Basin and the clearing that would occur to construct ski trails, hikers and casual observers would have a hard time distinguishing ski trails from existing conditions. However, the chairlift structures and clearing would be more noticeable. Duration of impact would be minimal (five to ten minutes of trail time) and views of Mt. Rainier would not be obstructed as a result of ski area development in Pigtail Basin.

During construction of the proposed expansion, Mitigation Measures MM 16 and MM17 would reduce the impacts to PCNST users by informing them of where and when construction activities would be taking place, and by restricting construction helicopter flights on high-use weekends and holidays (refer to Table 2.4-2).

Modified Alternative 4

Under Modified Alternative 4, the PCNST would be re-routed along the ridge between Pigtail/Hogback Basins and the Goat Rocks Wilderness. The re-route would eliminate a 1.2-mile existing segment of trail and create a new 0.93-mile trail segment that would bypass all ski area development in Pigtail Basin. Accordingly, under Modified Alternative 4, the PCNST would not cross underneath the *Basin* chairlift, nor would it cross any developed ski trails. On this basis, Modified Alternative 4 would preserve the continuity of the experience along the PCNST, as compared to Alternatives 2 and 6. The upper terminal

of the *Basin* chairlift would be screened by vegetation from views along this portion of the PCNST. Although the re-route would bypass development, the alternate route would not afford as many views of Mt. Rainier as the existing alignment. Instead, hikers and stock users would travel along a ridge top, and would experience a combination of forest and openings, with some long distance views of Pinegrass Ridge and Divide Ridge and views into Miriam Basin, as discussed in Section 3.15 – Visual Resources.

During construction of the proposed expansion, Mitigation Measures MM 16 and MM17 would reduce the impacts to PCNST users by informing them of where and when construction activities would be taking place, and by restricting construction helicopter flights on high-use weekends and holidays (refer to Table 2.4-2).

In its re-routed location along the wilderness boundary, the revised segment of the PCNST would provide an experience similar to the portions of the trail that are currently in wilderness to the east and west. The re-routed portion of the PCNST would have no effect on wilderness encounters or other aspects of the wilderness character along the trail.

Alternative 9

Under Alternative 9, White Pass would construct one trail that would intersect the existing PCNST at approximately 5,100 feet elevation. Although there would not be a conflict in use between skiers and hikers along the PCNST because of the seasonal use patterns, clearing for trails may have a negative impact on users of the PCNST. In order to mitigate impacts to the PCNST, the trail would be re-aligned along a switchback on the trail to insure that the PCNST would remain outside of ski trail development. Approximately 225 feet of the trail would be relocated about 50 feet to the east outside the area proposed for development, so travelers would not perceive a break in experience.

During construction of the proposed expansion, Mitigation Measures MM 16 and MM17 would reduce the impacts to PCNST users by informing them of where and when construction activities would be taking place, and by restricting construction helicopter flights on high-use weekends and holidays (refer to Table 2.4-2).

PCNST use in Pigtail Basin would be as described under existing conditions.

3.11.4 Cumulative Effects

A cumulative effects analysis was performed for each watershed at the site scale (White Pass Study Area). Past, present and reasonably foreseeable projects occurring within each watershed area are included in the analysis. Within the discussions below, cumulative impacts to recreation are considered for short-term and long-term impacts. The cumulative effect on recreation is an increase in the quality, quantity and access to varied recreation opportunities in the White Pass Study Area, including an increase in lift-served backcountry skiing opportunities. Alternatively, the loss of hike-to backcountry ski terrain at

White Pass and other ski areas represents a cumulative effect on backcountry skiing. Although the backcountry skiing analysis includes effects outside of the White Pass Study Area, it is included to address public comments received during the public comment period.

A list of all past, present and reasonably foreseeable projects occurring within the Upper Clear Fork Cowlitz River watershed (refer to Table 3.11-5) and the Upper Tieton River watershed (refer to Table 3.11-6) that affect recreation within the White Pass Study Area are presented below. For a description of project actions, refer to Tables 3.0-FEIS1 and 3.0-FEIS2 in Section 3.0.

**Table 3.11-5:
Cumulative Effects of Past, Present, and Reasonably Foreseeable Projects in the Upper Clear Fork Cowlitz River Watershed on Recreation**

Project Number	Project	Recreation
UCFC-17	White Pass Ski Area Yurt Construction	The yurt near Chair 4 was constructed in 2002, resulting in an increase in the quality of recreation in the White Pass Study Area by improving skier circulation. The effects of the project overlap spatially and temporally with the White Pass expansion. Combined with the White Pass expansion and the other projects listed in this table, this project will add to the cumulative long-term increase in the quality of recreation opportunities within the White Pass Study Area.
UCFC-21	White Pass Ski Area Day Lodge Remodel	The Day Lodge was remodeled in 2003 to accommodate increased demand for guest services at the White Pass Ski Area, resulting in an increase in the quality of the recreational experience within the White Pass Study Area. The effects of this project overlap spatially and temporally with the White Pass expansion. Coupled with the White Pass expansion and the other projects listed in this table, this project will add to the cumulative long-term increase in the quality of recreational experiences within the White Pass Study Area.

**Table 3.11-6:
Cumulative Effects of Past, Present, and Reasonably Foreseeable Projects in the Upper Tieton River Watershed on Recreation**

Project Number	Project	Recreation
UT-1	White Pass Ski Area Half Pipe Construction	The halfpipe construction in 2003 resulted in an increase in the quantity and variety of recreation in the White Pass Study Area. The effects of this project overlap spatially and temporally with the White Pass expansion. Combined with the White Pass expansion and other projects identified in this table, this project will add to the cumulative increase in the long-term quantity, quality and variety of recreational opportunities in the White Pass Study Area.
UT-4	White Pass Ski Area Relocation of Chair 3 and Platter Lift	The Platter Lift and Chair 3 were realigned to access better terrain, resulting in an increase in the quality of recreation in the White Pass Study Area. The effects of the project overlap temporally and spatially with the White Pass expansion. Combined with the White Pass expansion and the other projects listed in this table, this project will add to a cumulative increase in the quality of recreation opportunities in the White Pass Study Area.

**Table 3.11-6:
 Cumulative Effects of Past, Present, and Reasonably Foreseeable Projects
 in the Upper Tieton River Watershed on Recreation**

Project Number	Project	Recreation
UT-7	White Pass Ski Area Cross Country Yurt	The cross-country yurt was constructed in 2001, resulting in an increase in the quality of recreation in the White Pass Study Area. The effects of this project overlap spatially and temporally with the White Pass expansion. Combined with the White Pass expansion and the other projects listed in this table, this project will add to the cumulative increase in the long-term quality of recreation opportunities within the White Pass Study Area.
UT-25	Zig Zag Nordic and Snowshoe Trails	Use of the <i>Zig Zag</i> Nordic trail and snowshoe trail system until the 2006-2007 winter season has increased the quantity and variety of recreation in the White Pass Study Area. As use of the <i>Zig Zag</i> Nordic trail and snowshoe trails will end prior to implementation of the White Pass expansion, the recreational effects of the two projects do not overlap temporally. However, access to these trails is available from within the White Pass Study Area. As use of the <i>Zig Zag</i> Nordic trail and snowshoe trail system will no longer continue, this project will result in a decrease in the quantity and variety of recreation available in the White Pass Study Area after 2007, and during implementation of the White Pass expansion.
UT-31	Cellular Phone Carrier Improvements at White Pass Communication Site	This project would impact approximately 0.3 acre on Pigtail Peak, resulting in short-term interruptions in the ability to recreate in the area. This project will create noise and visual impacts to dispersed recreation in Pigtail Peak. The short-term construction related effects overlap spatially and temporally with the effects of the White Pass expansion. Combined with the White Pass expansion and other construction projects listed in this table, this project will add to the cumulative increase in short-term interruptions in the quality of recreation in the White Pass Study Area.

As described above, the projects described in the tables, coupled with the White Pass expansion, will result in a cumulative, long-term increase in the availability, quality and quantity of recreation opportunities within the White Pass Study Area.

However, the cumulative effects of the White Pass expansion are primarily centered on the backcountry component of recreation. Currently, hike-to backcountry skiers access terrain in Goat Rocks Wilderness from outside White Pass Ski Area boundaries. The elimination/displacement of lift-served backcountry skiing opportunities from Pigtail and Hogback Basins would increase use of backcountry ski terrain in Goat Rocks Wilderness. The increase in use of Miriam Basin and Goat Rocks Wilderness that is attributed to the development of Hogback/Pigtail Basins would have an impact on encounter rates and decrease the amount of available hike-to backcountry ski terrain within the Goat Rocks Wilderness. In addition, other ski areas, including Crystal Mountain, Alpental and Mission Ridge are expanding into areas currently accessed by either hike-to or lift-served backcountry skiers. Cumulatively, backcountry ski terrain throughout Washington will continue to receive pressure from the increased interest in backcountry skiing and expansion of developed ski facilities into these areas. However, this cumulative

impact is not expected to result in an exceedance of LAC conditions, or in a degradation of wilderness character within the designated Wilderness areas surrounding the White Pass Study Area.

In summary, cumulative impacts to backcountry skiing associated with the implementation of the White Pass expansion would decrease backcountry opportunities in Pigtail and Hogback Basins, and increase pressure on Miriam Basin and the Goat Rocks Wilderness. Meanwhile, the Action Alternatives, combined with the past, present and reasonably foreseeable projects listed in Tables 3.11-5 and 3.11-6, would cumulatively increase the quantity, quality, and variety of developed recreation opportunities within the White Pass Study Area.