

## APPENDIX D – SOCIAL, ECONOMIC, AND RECREATION ASSUMPTIONS

### 1.0 ASSUMPTIONS USED IN THE RECREATION AND SKIER VISITATION ANALYSIS

- 1) Visitation utilization in the first year (baseline conditions for all alternatives) is based on average total annual visitation at White Pass over the past five years (109,782 average visits from 2001-02 to 2005-06) (PNSAA 2006). During this same period of time, the market area (comprised of Cowlitz, Lewis, Pierce, Thurston and Yakima counties) experienced an average annual population growth of 5.3 percent (OFN 2005). Between 1996-97 to 2000-01 skier visits averaged 107,457 (PNSAA 2004).
- 2) The projections generally reflect the maximum visitation growth expectations in order to estimate potential “worst case” impacts to other resources.
- 3) Projections are based upon a ten-year period. All alternatives are implemented in a single phase.
- 4) 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 2005-2015 for the market area is shown below by county (refer to Table 1). The average annual projected increase for the entire area is 2.16 percent for the ten-year development period.

**Table 1:  
White Pass Market Area  
Average Annual Population Growth  
Projections From 2005-2015**

County	Projected Annual Growth (%)
Cowlitz	2.67
Lewis	1.95
Pierce	1.71
Thurston	2.70
Yakima	1.79
Average	2.16

Source: State of Washington, 2002

- 5) Visitation projections have taken into consideration weather variables, recognizing that favorable or poor weather conditions have historically caused skier visits to fluctuate dramatically from year to year.

- 6) Under the Action Alternatives, it is expected that some growth in visitation would be the result of excitement generated by ongoing improvement and expansion, particularly when considering that very little new development has occurred at White Pass over the past 20 years.
- 7) Calculation of White Pass skier visitation projections is assumed to be linear. Therefore, growth was calculated using the following equation:  $P_{t+n} = P_t(1+r)^n$ . Beyond the excitement-based growth in visitation under the Action Alternatives, a rate of 1 percent per year is used to project growth in visitation at White Pass.

## **2.0 ASSUMPTIONS USED IN THE SOCIAL AND ECONOMIC BREAK EVEN ANALYSIS**

- 1) Revenue per visit, fixed, semi-variable and variable costs are summarized and annualized from the White Pass 6/30/06 nine-month income statement. Principal payments on long-term debt for 2006 are added to fixed costs. For the break-even analysis the expense per visit for semi-variable and variable costs are used to calculate these costs at each visit increment.
- 2) Debt service assumptions were based upon the various capital costs of each alternative. It is assumed that the alternatives could be 80 percent financed at 8 percent, for 10 years with a 20-year amortization schedule. The additional debt service is added to fixed costs for each alternative.
- 3) Revenue per visit is \$31.48 for the fiscal year ended 9/30/06. Alternative 2 and Modified Alternative 4 open up a new skiing pod and enhance other facilities whereby resort management believes that they could achieve a per visit revenue of \$37.00. Alternatives 6 and 9 do not offer a substantial increase in new or exciting terrain and therefore resort management believes that revenue per visit would be \$34.00. These revenue per visit assumptions are used to calculate revenues at each visit increment.
- 4) Revenues, semi-variable, and variable costs are increased at 3 percent per year from year-one to forecast these at year-five. (A multiplier of 1.15 is used.). Construction costs are summarized below in Table 2.

**Table 3:  
Construction Costs for Action Alternatives**

	Construction Quantities					Unit costs (\$)	Base cost (\$)	Construction Costs (\$)				
	Alt. 1	Alt. 2	Mod. Alt. 4	Alt. 6	Alt. 9			Alt 2	Mod. Alt. 4	Alt 6	Alt. 9	
Buildings (sq ft.)	38,065	2,000	2,735	3,235	3,235	300	-	600,000	820,500	970,500	970,500	
Parking lot (ac.)	6.83	-	8.03	2.63	2.63	120,000	-	-	963,600	315,600	315,600	
Power Lines (ft.)	14,830	11,340	11,120	6,180	1,430	25	10,000	293,500	288,000	164,500	45,750	
Communication Lines (ft.)	14,280	16,750	16,570	6,180	4,290	25	-	418,750	414,250	154,500	107,250	
Waste Water Lines (ft.)	3,842	-	-	7,730	14,231	35	60,000	-	-	330,550	498,085	
Water Line (ft.)	-	-	12,670	7,730	-	35	-	-	443,450	270,550	-	
Maintenance Roads (ft.)	33,000	-	-	1,790	-	40	-	-	-	71,600	-	
Clearing Only (ac.)	-	14.87	24.94	9.62	27.00	4,000	-	59,490	99,742	38,492	108,019	
Clearing and Grading (ac.)	-	4.82	13.51	5.92	5.95	21,000	-	101,304	283,715	124,300	124,950	
Grading Only (ac.)	-	-	7.45	-	7.59	17,000	-	-	126,630	-	129,030	
Re-vegetation (ac.)	-	-	5.25	-	5.25	6,000	-	-	31,500	-	31,500	
<b>Total</b>									1,473,044	3,471,387	2,440,592	2,330,684
<b>Lifts</b>									6,500,000	6,500,000	5,000,000	1,500,000
<b>Grand Total</b>									7,973,044	9,971,387	7,440,592	3,830,684

SE Group, 2006

### 3.0 WHITE PASS SKIER VISITATION PROJECTIONS

#### 3.1 ALTERNATIVE 1 (NO ACTION)

Under the No Action Alternative, no improvements or additional facility development at White Pass would occur. Small incremental visitation growth (1.0 percent) will occur due to the expanding population base within the White Pass market from the base of 109,782 (for average visits from 2000-01 to 2005-06, including the low snow season of 2004-05) or 128,000 visits (from the DEIS, for average visits from 1999-2000 to 2003-04). The skier visitation projections (shown in five-year increments over the projection period) are shown below in Table 3:

**Table 3:**  
**White Pass Skier Visitation Projections for Alternative 1**

<b>Projection Year</b>	<b>DEIS Skier Visitation Projection (128,000 average visits from 1999-2000 to 2003-04)</b>	<b>FEIS Skier Visitation Projection (109,782<sup>a</sup> average visits from 2000-01 to 2005-06)</b>
Year 1	128,000	109,782
Year 5	133,197	115,382
Year 10	139,992	121,268

<sup>a</sup> Average includes 2004-05 low snow year

#### 3.2 ALTERNATIVE 2 AND MODIFIED ALTERNATIVE 4

Alternative 2 and Modified Alternative 4 provide different variations of the development of a fixed-grip quad chairlift in Pigtail Basin, a detachable quad in Hogback Basin, a mid-mountain lodge in differing locations in and adjacent to the basins and the 15 ski trails associated with these proposed lifts. It is assumed that because both alternatives provide similar facilities in the Hogback and Pigtail basins, visitation growth rates would be similar.

A development with two lifts within the Pigtail and Hogback basins would generate the most interest and is the type of terrain expansion the White Pass skier has been seeking for many decades. A sizable increase in skier visitation (40,000 annual visits) would 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. The 40,000 number is based on the idea that the additional lifts add a CCC of approximately 1,580 (for Alternative 2) and 3,800 (for Modified Alternative 4), and that near capacity visitation would occur approximately 25 times after the opening of the new terrain. 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. Projected skier visits are shown in five year increments for Alternative 2 and Modified Alternative 4 (refer to Table 4).

**Table 4:  
White Pass Skier Visitation Projections for  
Alternative 2 and Modified Alternative 4**

Projection Year	DEIS Skier Visitation Projection (128,000 average visits from <u>1999-2000 to 2003-04</u> )	FEIS Skier Visitation Projection (109,782 <sup>a</sup> average visits from <u>2000-01 to 2005-06</u> )
Year 1	168,000	149,782
Year 5	174,821	157,422
Year 10	183,739	165,453

<sup>a</sup> Average includes 2004-05 low snow year

### 3.3 ALTERNATIVE 6

Alternative 6 is the development of one chairlift in Pigtail Basin, a mid-mountain lodge within the existing Special Use Permit area and five ski trails associated with the lift.

This alternative would represent a smaller expansion of the ski terrain at White Pass. Therefore, 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 (14,000 annual skier visits) with incremental growth due to expanded population in the White Pass market, estimated at 1 percent annually, to follow. Future growth would increase at an annual rate of approximately 1 percent based on projections shown in five year increments below, in Table 5.

**Table 5:  
White Pass Skier Visitation Projections for Alternative 6**

Projection Year	DEIS Skier Visitation Projection (128,000 average visits from <u>1999-2000 to 2003-04</u> )	FEIS Skier Visitation Projection (109,782 <sup>a</sup> average visits from <u>2000-01 to 2005-06</u> )
Year 1	142,000	123,782
Year 5	147,766	130,096
Year 10	155,303	136,732

<sup>a</sup> Average includes 2004-05 low snow year

### 3.4 ALTERNATIVE 9

Alternative 9 is the “In-Fill” alternative with one chairlift development on the eastern most side of the existing Special Use Permit area, a mountain-top lodge and seven new ski trails.

Alternative 9 would generate considerable interest with the mountain top day lodge and provide some additional ski trails but would lack the interest of expanding into the Hogback Basin area. White Pass would still see the incremental growth due to population increases within the market place, estimated at 1 percent per year. Alternative 9 would produce an initial demand increase (6,000 annual skier visits) in

visitation due to excitement about the improvements. Skier visits are shown in five year increments in Table 6, below.

**Table 6:  
White Pass Skier Visitation Projections for Alternative 9**

<b>Projection Year</b>	<b>DEIS Skier Visitation Projection (128,000 average visits from <u>1999-2000 to 2003-04</u>)</b>	<b>FEIS Skier Visitation Projection (109,782<sup>a</sup> average visits from <u>2000-2001 to 2005-06</u>)</b>
Year 1	134,000	115,782
Year 5	139,441	121,688
Year 10	146,554	127,895

<sup>a</sup> Average includes 2004-05 low snow year