

CHAPTER 7: SNOQUALMIE PASS SUB-AREA COMPREHENSIVE PLAN - MASTER PLAN

I. INTRODUCTION

A. OVERVIEW

Snoqualmie Pass is a predominate winter recreation destination in Washington State. The combination of a scenic alpine setting and community initiative present opportunities to improve and expand the quality recreational and social offerings in the Pass area.

These opportunities are enabled by existing sanitary sewer and water systems and excellent access via Interstate 90. This infrastructure is unique to Snoqualmie Pass relative to other mountain recreational areas in Washington State. These utility services, combined with numerous private property holdings in the Pass area, have lead to new growth potential and the inherent quality-of-life and environmental challenges which invariably accompany such growth. These challenges are the primary motivation for the on-going community-based planning at the Pass.

The Snoqualmie Pass community is a diverse group of part-time and full-time residents: people who work at the Pass and live elsewhere, or who live at the Pass and work elsewhere; and some who make both their home and their livelihood at the Pass.

The Snoqualmie Pass area is a magnificent recreational area, including ski areas, the Pacific Crest/John Wayne Trail and Ironhorse State Park Trail, many lakes, and scenic alpine wilderness. These features are remarkable not only for their beauty and recreational opportunity, but also for the ease of public access via I-90, a National Scenic Byway.

The natural splendor of the mountain setting, the economic and recreational opportunities, the existing extensive infrastructure, and the diverse mix of public and private stakeholders are features, which are not found together in any other community in the State of Washington. The challenges of planning for this community are truly unique.

In order to assure the preservation of the scenic beauty, environment and the long success of Snoqualmie Pass as a quality resort and year-round community, the plans of private individuals, large landowners, and public agencies need to be coordinated through an overall plan for the community.

B. COMMUNITY PLANNING HISTORY

In March of 1990 a "town hall" meeting was held at the Pass with officials of Kittitas County at which residents and property owners expressed concerns on issues ranging from road standards and maintenance to police and fire protection. At the urging of the Kittitas County Commissioners, and with the assistance of the County planning staff, the Snoqualmie Pass Planning Advisory Council (now known as the Snoqualmie Pass Advisory Council, or

SNOPAC) was formed and conducted its first official meeting in April 1990. A substantial portion of the planning area lies within King County, and appropriate officials from both counties monitored and supported SNOPAC's efforts.

Members of SNOPAC devoted over 4,000 hours meeting the challenge of creating the first Comprehensive Plan for Snoqualmie Pass. This plan, the Snoqualmie Pass Comprehensive Plan, was completed in 1993 and subsequently adopted by Kittitas and King Counties as Sub-Area Plan (in July, 1996) and Rural Town (1997), respectively, within their comprehensive plans.

Other significant planning activities undertaken since the adoption of that first comprehensive plan include:

- 1) The US Forest Service preparation and adoption of the Snoqualmie Pass Adaptive Management Area Plan which establishes standards and guidelines for all activities occurring on Forest Service lands within the Adaptive Management Area (AMA).

- 2) Mountains to Sound Greenway Trust's successful achievement of a National Scenic Byway designation (in 1998) to help conserve the scenic forested corridor along 1-90 from Seattle to Cle Elum.

- 3) Ski Lifts, Inc. (Booth Creek Ski Holdings, Inc.) acquisition of all public ski operations at the Pass, and the subsequent development of an overall Master Plan for the ski areas.

C. THE CURRENT PLANNING PROCESS

This updated Comprehensive Plan is the community's second phase of planning. It is the result of thousands of hours of volunteer work invested by the community (through countless SNOPAC committee meetings, community open houses, general meetings, and consultant reports and meetings) to review the growth and activities at the Pass over the past ten years, identify current and future growth-related issues, and adapt the first comprehensive plan to meet the challenges and needs of future growth.

Originally made up primarily of local residents and recreational homeowners, business operators and development interests, SNOPAC has expanded to include representatives of local, state and federal agencies, private commercial forest landowners, and mountain recreation and conservation organizations. SNOPAC embodies the public planning process encouraged by Washington's Growth Management Act.

As an unincorporated area at the edges of two different counties, the Pass community is rather distant from the seat of their local government. However, the community has come together, through SNOPAC, to complete this update to the Snoqualmie Pass Comprehensive Plan.

D. THE PLANNING AREA

The study area encompasses approximately 26 square miles on both sides of Snoqualmie Pass in the Cascade Mountains. Approximately 65% of the study area is within Kittitas County, with the remainder in King County. Nearly sixteen square miles is publicly owned by the United States Forest Service lying within both the Mt. Baker/Snoqualmie National Forest and the Wenatchee

National Forest. An additional five square miles is owned by the Plum Creek Timber Company. The remaining five square miles is under other private ownerships ranging in parcel size from small single-family lots to over 500 acres.

Much of the study area is mountainous and not subject to the usual development pressures which typically foster community planning efforts. However, the scenic grandeur and recreational opportunities afforded by these lands are integral to the total environment and character of the Snoqualmie Pass community and therefore were included within the planning area boundaries.

Mountainous topography is the primary determinant, which provides focus on the areas where development potential exists and where detailed planning is necessary. The valley which constitutes the pass through which Interstate 90 traverses the Cascades, together with Alpentel and Gold Creek valleys, comprise the area where residential and commercial development has historically occurred and which holds the most potential for future growth.

To aid in understanding the particular amenities and constraints on various portions of the planning area, it has been divided for ease of reference into five subareas. Although particular elements of the comprehensive plan are presented in this subarea format, they should be viewed as integral parts of the entire Snoqualmie Pass Comprehensive Plan.

E. SUMMARY

Snoqualmie Pass is a year-round alpine community encompassing Snoqualmie Pass summit and the residential, commercial, recreational and open space areas both east and west of the summit, including Alpentel, Gold Creek Valley, Denny Creek and Hyak. The area is a unified community of integrated uses and services which should provide for the recreational, cultural and service needs of its owners, residents and numerous recreational visitors.

The community seeks to preserve the natural features and recreational amenities, which contribute to its alpine environment and enhance the fabric and character of the community while planning for growth and development.

The community strongly desires to maintain and improve existing planning guidelines within the identified community boundary, and to develop standards for growth and development in its alpine environment, which will ensure a community which is aesthetically and environmentally compatible with its mountain setting while meeting the needs of its residents, businesses and visitors.

Although unincorporated, the stakeholders at Snoqualmie Pass are shaping the future of their community through stewardship of the goals and recommendations set forth in their planning efforts. The community continues to make the effort to participate with, negotiate with, and remind those public agencies, private companies, or individuals who have the jurisdiction, authority or responsibility, to implement those actions that will achieve the goals of the community's plan.

II. SUBAREA DESCRIPTIONS

A. SUBAREA “A”

Location and General Description

The four square mile Alpentel subarea is the northern most portion of the study area and lies entirely within King County. The valley is relatively narrow and encompasses the upper most portions of the South Fork of the Snoqualmie River. Small parts of the eastern and western portions of the subarea are within the Alpine Lakes Wilderness boundary. The southern boundary of Subarea A is formed by Interstate 90 and Snoqualmie Summit.

Natural Features

The Alpentel valley is narrow with steep side slopes rising to some of the higher and most scenic mountain peaks in the Pass area, including Snoqualmie Mountain at 6,278 feet, Denny Mountain at 5,519, and the landmark Guye Peak at 5,168. The South Fork of the Snoqualmie River traverses the valley floor and is joined near the valley entrance by Commonwealth Creek, which flows from the north. Due to steep slope gradients and unstable geologic conditions, some areas along the east and west valley walls are subject to rock slides. In winter, many of the same upper slopes are also vulnerable to avalanches.

Existing Land Use and Ownership

Approximately 75% of the subarea is National Forest System Land within the Mt. Baker - Snoqualmie National Forest. Approximately 750 acres of this land is granted a Special Use Permit for use as the Alpentel downhill ski area. The base of the ski area, including two day lodges and other support services, is on private land.

Most of the private land occurs at or near the valley floor in the southeast quadrant of the subarea. An exception is a large, steep linear parcel of undeveloped private land east of the base of the ski area, which runs perpendicular to the slope up to Cave Ridge, which is subject to slides and avalanches.

Other land uses on private properties include condominiums, single family subdivisions and two private ski/outdoor clubs. Other private parcels west of Alpentel Road and east of the subdivisions are undeveloped and are of limited development potential because of steep slopes and slide potential.

Access and Utilities

The Alpentel valley is accessible from the west at Exit 52 (West Summit) of Interstate 90. Alpentel Road is a two lane roadway, which follows the valley floor for approximately one mile to the base of the ski area, providing access to the Alpentel subdivisions and condominiums. Individual lots are accessed by private, two lane roads within each subdivision.

Sewer service is provided to the Alpentel area by the Snoqualmie Pass Sewer and Water District. Water service is provided by a private purveyor. However the system is integrated with the District's system. Telephone, cable television and electricity are provided by private utilities.

Development Constraints

Steep slopes, geologic conditions, Commonwealth Creek and the South Fork of the Snoqualmie River combine to present severe environmental constraints on development of much of the remaining undeveloped land.

B. SUBAREA “B”

Location and General Description

After leaving the Alpentel valley, the South Fork of the Snoqualmie River turns southwest and flows down the valley, which forms the western approach to Snoqualmie Pass. This valley and the adjacent slopes comprise Subarea B, Denny Creek.

Like Alpentel, the Denny Creek subarea lies totally within King County. The valley is dominated by Interstate 90, the separated east-bound and west-bound lanes of which virtually form the boundaries of the valley.

The valley is topographically isolated from the rest of the Snoqualmie Pass planning area, but is nonetheless connected by history, I-90, and recreational opportunities.

Natural Features

The South Fork is the dominate natural feature of the subarea. The river is joined by Denny Creek, flowing from the west, Rockdale Creek which flows from the east and Olallie Creek which enters the river near the southern subarea boundary. Franklin Falls, on the South Fork, is an attractive and popular natural feature.

The valley is heavily treed with a variety of evergreen species and associated understory vegetation. The vegetative cover effectively obscures the visual presence of the freeway for most of the valley.

Existing Land Use and Ownership

With approximately 3 square miles of land area, Denny Creek is the smallest of the five sub-units in the study area. About two thirds of the land is National Forest System Land, and the right-of-way for Interstate 90 also represents a large, lineal land ownership. The Forest Service operates and maintains the Denny Creek Campground, which contains 64 tent and trailer camp sites. There are private cabins on Forest System Land across the river from the campground.

Private land holdings range in size from less than one acre to about 80 acres. Several houses and cabins provide both permanent and seasonal residences.

Access and Utilities

Access to Denny Creek is available from the south from Exit 47 of Interstate 90. This road provides primary access to the Denny Creek Campground and is a two-lane paved roadway from Exit 47 to the campground. Beyond the campground, the road narrows and the surface becomes variable. This portion of the roadway is on the route of the first permanent roadway over the pass, which was dedicated in 1915. Along this route are remnants of the old cross-pass wagon road dating from the 1880's. This winding road connects to the north near Alpentel Road and Exit 52.

Sewer and water services are not provided to the Denny Creek area. Individual septic systems and wells serve the area. Telephone and electricity are provided to most dwellings.

Development Constraints

The small amount of private lands which exist in this subarea would not justify the expense of extending sewer and water service to the area. The absence of these utilities present a development constraint, which will preclude the development of small lot subdivisions. The primary zoning of this area (Forest Production) also limits development potential.

C. SUBAREA "C"

Location and General Description

Subarea C is the center of the planning area, both geographically and economically. The Summit is the most recognized part of the sub-area, and its highly visible ski slopes and tourist services are visited by over 500,000 people each year.

The subarea is separated topographically into two parts by a ridge that runs in a north-south direction. The west side of the ridge, which is essentially undeveloped, descends toward the east bound lanes of Interstate 90 as they climb toward the summit. East of the ridge, ski slopes descend to the base at Highway 906, the frontage road which parallels Interstate 90. East of the freeway, at this point, is the residential area of Yellowstone Road.

The ridge line is also the approximate location of the boundary line between King and Kittitas counties. Most of the developed residential portions of the summit area lie within Kittitas County. Commercial development is about evenly divided between the two counties.

Natural Features

The above described ridge is the dominant physical feature in the subarea. There are a number of small lakes on the west side of the ridge and the western slope supports evergreen forest cover, while the eastern slope has been cleared and groomed for downhill ski use. Hyak Creek flows down the eastern slope and forms the southern boundary of the planning area.

The Summit area provides views of many of the high mountain peaks to the north and east.

Existing Land Use and Ownership

Roughly 50% of this subarea is Forest Service Land, 20% is owned by Plum Creek Timber Company and the remaining 30% by other private owners. Private ownership ranges in size from individual lots to several hundred acres. A large percentage of the Forest Service land is used for downhill ski facilities and supporting services.

Downhill skiing is the predominant land use. Summit West and Summit Central ski areas combine to provide an area of groomed slopes, which is nearly two miles wide. More than thirty ski schools operate from the base of the ski slopes. The Mountaineers have about 80 acres between Summit West and Central with a lodge and ski slope.

The area at the base of Summit West has for decades been the primary activity center at the pass, for both skiers and travelers crossing the Pass. Restaurants, a motel, a gas station and convenience stores operate year round. Other services are offered at the day lodges near the base of the ski slopes during ski season.

The volunteer fire department and the sewer and water district offices are located at the summit, as are a church, public rest rooms and a small Forest Service visitors information center.

Four subdivisions have been platted west of the freeway in this subarea. Conifer Estates, which lies between Highway 906 and Interstate 90, Snoqualmie Summit Village, Ski Acres Estates and Village at the Summit. The Nordic ski/mountain biking day lodge is located at on a Ski Acres Estates lot and Edelweiss Chalet condominiums is adjacent to the northwest end of the Ski Acres Estate plat.

East of Interstate 90 in the Yellowstone Road area there are 23 platted lots and 56 other parcels which have been subdivided for residential use. There are presently 21 dwellings in this area plus 12 cabins located on Forest Service Land under special use permits.

Access and Utilities

Eastbound traffic on Interstate 90 can access the summit at Exit 52 or Exit 53. Westbound traffic can exit at Exit 53 or access the area via SR906 from Exit 54. (Prior to the opening of Interstate 90, SR906 was part of U.S. Highway 10, or the Sunset Highway, which was the primary route over the pass from the 1930's through the 1960's.) SR906 remains the arterial connector, which links all areas of the pass and is accessible from all three Interstate 90 interchanges. At the summit, between Exits 52 and 53, the roadway is two lanes with extremely wide shoulders on each side. Near Exit 53, the shoulders become narrow with some open roadside drainage.

The area is provided sewer and water by the Snoqualmie Pass Sewer and Water District. Electricity, telephone and cable television are provided by private purveyors.

Development Constraints

Hyak Creek and two other unnamed creeks, which flow from the ski slopes, together with Coal Creek, which flows through the Yellowstone Road area, present development constraints. Wetlands and other sensitive areas associated with the streams must also be identified and protected as development occurs.

D. SUBAREA "D"

Location and General Description

Subarea D is the most eastern portion of the planning area. Gold Creek Valley begins at the head of Keechelus Lake and stretches to the northeast, over seven miles, to Chikamin Ridge. The upper reaches of the valley (outside of this subarea) are within the Alpine Lakes Wilderness. The eastern boundary of the subarea coincides with the Wilderness boundary.

Nearly three lineal miles of the valley are included in the subarea, which encompasses about 6.5 square miles. The valley floor is wide and flat at its entrance and tapers gradually to the study area boundary, beyond which the valley becomes narrow and rugged. Steep slopes rim both sides of the valley.

Interstate 90 crosses perpendicular to the valley and separates the valley from Keechelus Lake and the Summit area.

Natural Features

The valley offers some of the most spectacular scenery in the Pass area including Rampart Ridge, Chikamin Peak and Kendall Peak.

Gold Creek flows year around into Keechelus Lake. In the flatter portions of the valley floor, the creek bed becomes broad and, in dry summer months, part of the creek flows under ground. The lower reaches of the creek are a designated flood plain in the Kittitas County Comprehensive Plan.

There are extensive wetlands near the valley entrance. Some are associated with Gold Creek and others with Mardee Lake and Coal Creek.

Existing Land Use and Ownership

Three square miles within this subarea is Forest Service Land. Nearly two square miles are held by Plum Creek Timber Company, including the northwest corner and south of the subarea, which are steep slopes outside the valley floor. The remaining properties are privately owned primarily in five individual holdings. Most of the privately owned land is within the floor of the valley.

The valley is only sparsely developed, even though most of the private properties have been granted preliminary or final approval for either residential or commercial developments.

The U.S. Forest Service has improved the area around Gold Creek Pond, providing trails, landscaping, picnic areas, parking and rest rooms. This should increase the use of this valuable recreational area by tourists and local residents alike.

Access and Utilities

The Gold Creek Valley has access from SR906 and Interstate 90 at Exit 54. The underpass at this interchange allows access between the valley and other areas of the Pass. A paved frontage road parallels the freeway and intersects with a gravel Forest Service road which leads up the valley to Gold Creek Pond and private cabins. This road is the primary access to the largest area of private land ownership on the east side of Gold Creek. This same road leads to the trail head for hikes up the valley to Alaska Lake and Joe Lake.

A second Forest Service road leads directly from the freeway interchange in a northeast direction and traverses private property to provide access to Forest Service properties and privately owned timber lands. A gate prohibits unauthorized vehicles onto Forest Service and timber lands.

Presently, sewers have not been extended into the valley. The existing cabins are served with individual septic systems and most share a community water system. Power, telephone and other utilities are available (not) available in the valley at the present time.

Development Constraints

Gold Creek Valley can be served with sewer and water systems by the Snoqualmie Pass Sewer and Water District. Therefore, utility services should present no constraints to development.

The steep slopes on the east side of the valley are unbuildable and development will be limited to the valley floor. Gold Creek should be protected as a sensitive environmental area and respected as a potential source of flooding.

Extensive wetland areas around Mardee Lake present constraints to development, as do steep slopes and rock outcropping on a ridge area east of Mardee Lake.

Coal Creek and Hyak Creek are other environmentally sensitive areas, which will require protection and special attention.\

E. SUBAREA "E"

Location and General Description

The Hyak subarea is the largest of the subareas, covering over ten square miles and spanning the southern end of the study area from east to west. The northern end of Keechelus Lake and Interstate 90 form the eastern boundaries.

Natural Features

Mount Catherine at 5,052 feet is the center piece for the Hyak area. The Cold Creek valley leads to Twin Lakes and a spectacular view of Silver Peak at 5,605. Other small lakes are tucked in the area north of Mount Catherine.

Keechelus Lake, although a controlled reservoir, provides the visual image and, most of the year, the recreational attributes of a large natural lake. This may be affected for a time by dam stability concerns and repair efforts.

Existing Land Use and Ownership

Over five square miles (fifty percent) of the planning area is Forest Service land and over two square miles is owned by Plum Creek Timber Company. Keechelus Lake, which covers over one square mile of the subarea, is managed by the Federal Bureau of Land Management.

The remaining land is owned by numerous private owners and public agencies, with varying uses. Hyak Estates is located east of the Summit East ski area, and the Suncrest and Sundance Condominiums are located at the base of the ski area. There is also an approved Hyak PUD for a 25 lot development. The Snoqualmie Pass Sewer and Water District's sewage treatment plant is located near Hyak Division 4, and the District's effluent spray field is located on Forest Service and owned land farther to the south. The Washington State Department of Transportation operates a highway maintenance facility near the head of Keechelus Lake, which includes maintenance shops, garages and areas to stockpile sand and gravel.

The Iron Horse State Park (and John Wayne Trail) is located on the abandoned Milwaukee Railroad right-of-way. The State Parks Department also owns some small parcels of adjacent land.

The Summit East Ski Area is located on a combination of Forest Service and private land. The base of the ski area, including its support buildings and services, is on private land.

Access and Utilities

The Hyak area has access from Interstate 90 at Exit 54 and SR906. SR906 provides a direct route to other areas near the summit.

Sewer and water, together with all private utilities, are readily available in the privately developed portions of the area north of the sewage treatment plant. Sewer and water utilities do not extend south from the treatment plant.

Development Constraints

There are few development constraints in the privately owned area near Exit 54, where most development in this sub-area is likely to occur. Privately owned land to the southwest, which is now part of the ski slopes, would face constraints of topography and the availability of sewer and water. Privately owned lands in the southernmost end of the planning area contain some steep slopes. The cost of extending utilities to this area may be prohibitive, so soil suitability for on-site water and septic systems may limit development potential.

III. LAND USE

A. OVERVIEW

This updated comprehensive plan addresses many issues related to land use in the Planning Area, including setting goals and objectives for different land uses and integrating the land use policies and objectives of various entities and groups including Kittitas County, King County, the Forest Service, the Pass community, the ski area, and private landowners.

At the start of the current process, existing plans, documentation and information related to land use at the Pass were reviewed for continued relevance and applicability to present and expected future land use situations to be guided by an updated Comprehensive Plan. The items reviewed included:

1) The existing ***Snoqualmie Pass Sub-Area Comprehensive Plan-Master Plan*** (the plan being updated). As part of this review, the Comprehensive Plans for Kittitas County and King County were reviewed as well.

2) The ***Snoqualmie Pass Adaptive Management Area (SPAMA) Plan***, which is one of a network of AMAs established in 1994 by the Northwest Forest Plan (NWFP). As Forest Service and private lands are intermingled in a checkerboard pattern in the Planning area, land use will have an impact on adjoining property. The SPAMA recognizes that population has and will grow, and the increasing amount and variety of outdoor recreational activities on both public and private lands.

This growth, as well as logging activities, have impacted habitat in the I-90 corridor. Consequently, the AMA was prepared as a comprehensive plan for providing late-successional forest habitat on the ‘checkerboard lands’. One of the central themes in the AMA plan was the recognition of the Pass area as a “critical connective link in the north-south movement of organisms in the Cascades,” including the concept that large gains in connectivity could be made only by land exchanges to provide unfragmented blocks of land. In its adoption of the AMA, the Forest Service noted that the adopted standards and guidelines allow for adaptability; as new information from research and monitoring of other projects becomes available, adjustments will be made to the adopted guidelines.

3) The ***Mountains to Sound Greenway Trust project***. The Greenway is a coalition of people representing land owners and managers, foresters, business representatives, recreation groups, environmentalists, and government agencies. All major land owners and managers along I-90 are represented. Through the efforts of the Greenway Trust, Interstate 90 was designated a National Scenic Byway in 1998.

This coalition of diverse interests has formed a network of critical alliances that, year by year, is implementing its plan to protect more of the scenic and recreational landscape along I-90. Since 1991, over 50,000 acres of forest, open space and historic lands have been purchased or exchanged into public ownership for Greenway purposes, including permanent forestry, parks and wildlife habitat.

Although the Mountains to Sound effort has not yet directly affected planning for lands within the planning area, their efforts to ensure a scenic corridor, in which the Pass is a significant feature, is one important element in the success of the Pass as a residential and resort community. Likewise, maintenance and enhancement of the scenic quality of the Pass will continue to be an essential part of the success of the Greenway project.

4) The ***Summit at Snoqualmie Master Plan***. Under Booth Creek Holdings, the ski area has completed a comprehensive Master Plan, which will substantially improve the overall quality of outdoor skiing experience offered to its customer base.

The components of the Master Plan involve the replacement of existing older chair lifts with new modern lift technology, the improved integration of the Summit West, Summit Central, and Summit East resorts by the cutting of new trails and improved base area transit service, and substantial upgrades of base area facilities, skier support services, restaurants and specialty retail shops. Parking and circulation among the base areas of the mountains will be improved.

The Summit Ski Areas produced a combined 503,000 skier visits during the 1998/99 season, or roughly 30 percent of all visits recorded at Washington ski areas. An additional 50,000 visits were generated for the Nordic and tubing areas. This total of alpine visitation ranks the Summit as the largest ski area in the State of Washington, second only to Mt. Bachelor in the Washington/Oregon/Idaho region. It ranks within the upper five percent of ski areas of the United States.

It has been estimated by the ski areas that, by the 2004/05 ski season, annual skier visits will grow to 548,000, and Nordic and tubing visits will expand to 75,000 visits, with substantial increases in non-ski “other” winter visits, as well. Design peak-capacity of the four areas will increase from approximately 10,000 skiers at one time (SAOT) currently to 15,070 SAOT after the planned improvements are completed.

These improvements will continue to increase the number of recreational users coming to the Pass area for the foreseeable future.

5) ***Regional Growth Trends*** The Snoqualmie Pass area, with its proximity to the rapidly growing Seattle-Tacoma metropolitan area with an estimated King County 1998 population of approximately 1.67 million, is situated in the “path of progress”, and will provide both second home and year-round housing opportunities over the next ten to fifteen years. Development pressure has increased significantly along the I-90 corridor in east King County, with Issaquah and North Bend growing significantly throughout the 1990s.

Development pressures have already begun to unfold in rural Kittitas County as a result of spillover demand from Seattle. The 1998 population of Kittitas County was estimated at approximately 31,400 and is growing at the high end of the State’s projected growth rate. It is currently estimated that up to 2,000 persons are commuting from Kittitas County to King County and this number will expand considerably over the next fifteen years time frame. The increasing ability of the work force to telecommute, especially within the high tech sectors prevalent in the Seattle-Tacoma region, will further enable the resident labor force to find high quality environments in which to live somewhat remote from their places of employment.

The capacity of East King County, including Issaquah and North Bend, to absorb the anticipated growth over the decade will be limited. The Snoqualmie Pass area, and communities to the east, represent the next logical steps along the I-90 corridor, and are already being impacted by development pressures emanating from the Greater Seattle-Tacoma metropolitan area. It is, in part, these regional growth pressures that are motivating the Snoqualmie Pass community to protect the scenic and environmental quality of the Pass by planning for this growth.

6) ***Summer Recreational Growth***

While the Pass area has an established base of winter recreation and tourism, the summer season has not matured to its potential. Although the area is quite scenic, and offers a diversity of hiking, biking and passive recreational functions and activities for current owners and visitors, there is a shortage of other developed recreational facilities, such as golf, tennis, play fields, and equestrian facilities. As efforts are made to promote and utilize this resource, additional demands will be made on Pass infrastructure and facilities.

7) *Community Expectations*. Surveys conducted among the current property owners and residents, as part of the planning effort, document the desire to improve the total year-round recreational environment within the area. The residents also desire other facilities that may be used year around, including a community center (which may include meeting and performing arts space), as well as a new visitor center.

B. REVIEW OF LAND USE DEMAND & CAPACITY

One of the objectives of the planning process was to inventory the residential and commercial development capacity and demand of the Pass area. First, existing developed rental units and commercial square footage within the planning area were determined. In addition, existing platted but unbuilt lots were defined and located. A third category called potential development was then identified. This final designation identified land use opportunities on privately owned, un-platted and vacant properties, which might be available for future development over the two planning periods. The sum of the three identified categories represented the potential development capacity of the Pass.

An analysis was then conducted of the likely demand for primary year-round residential development, second home residential development, and support commercial land uses demanded by the combination of permanent residents, day and overnight visitors to the area, and regional drive-through traffic. Projections were developed for the periods 1998-2005 and 2006-2015.

Residential Development Capacity and Demand

Overall, this analysis found that there are currently 600 existing housing units in the Snoqualmie Pass area, split nearly equally between single-family homes (299) and multi-family units (301). The analysis found that there is additional potential for 1,451 units on platted but unbuilt lots, plus an additional potential for 1,700 units on unplatted lots. Altogether, considering existing units, platted lots, and unplatted lots, there is the potential for 3,751 housing units at Snoqualmie Pass. This potential includes an estimated 1,132 single-family housing units (30 percent of the total) and 2,619 multi-family units (70 percent of the total). The existing level of development of 600 units represents only sixteen percent of the total residential build-out capacity at the Pass.

The demand analysis identified separate projections for year-round and second home dwelling units. It also projected residential unit type demand into separate single family and multi-family categories. Seventy-five percent of the year-round residential demand was allocated to single family, and 45 percent of the vacation or second home market was allocated to single family. The remaining 25 percent of year-round and 55 percent of second home development were allocated to multi-family residential types.

The analysis determined that the Pass area will retain its primarily second home character over the next 15 years; however, principal year-round population is projected to grow as well. Currently 99 of the 600 housing units existing in Snoqualmie Pass are believed to be used as primary residences. The majority of primary residences (58 percent) are situated in the Hyak community, with most of the others located in Alpentel or the Summit Central/East areas.

It is projected that demand for an additional 40 to 90 “year-round” dwelling units will be in place by the year 2005 and another 67-217 year-round dwellings will be desired by the year 2015. A rather conservative growth assumption was used, for planning purposes, of 55 permanent home units, or an average of 8 new dwellings per year through 2005, and an additional 112 permanent home residences, or an average of 11 per year, through the 2006-2015 period. In total, 167 new primary home residences are projected through the 1998 - 2015 planning period.

The demand for second homes was projected (using various factors such as population growth within two hours of the Pass, the estimated growth rate of mountain second homes, and the rate of expected buyers at the Pass) at an average of between 39-89 second homes per year between 1998 and 2005 and 50 to 120 per year between 2006 and 2015. Again using a conservative growth assumption, it is projected that over the 1998-2005 planning period, 380 new second homes will be constructed within the area. This entails an annual average of approximately 54 new second homes per year. During the 2006-2015 period, as the environment continues to improve related to ski area and summer facility upgrades, it is projected that an additional 710 second homes will be constructed, an annual average of 71 new second home dwellings.

Under those assumptions, over the approximately 15 year time frame for the planning period, a combined primary and second home total of 1,257 new units, or an annual average of 74 dwellings per year will be constructed within the Snoqualmie Pass area.

In comparison, over the past few years, (1995-97) an average of 13 dwellings were constructed within the Snoqualmie Pass area. The conservative estimate of demand represents a significant increase in building rate and maturation of the community over the next planning period. It should be noted that demand over time may vary considerably as various unanticipated economic and social factors occur. (A potential range in demand for residential dwellings was projected, from a low of 882 new residential units to a high of 2,132 new residential units within the planning area.)

Under any of these projections, the Pass has sufficient residential land capacity to meet the estimated demand.

Commercial Development Capacity and Demand

A similar analysis was conducted for commercial land area. Currently, there exists 30,000 square feet of commercial development on 8.22 acres of land in the Snoqualmie Pass area. The potential exists for 112.64 additional acres of commercial development in the area, including land for hotels, which could accommodate over one million square feet of commercial space (assuming four square feet of land are required for each square foot of building). Most of the existing commercial acreage is concentrated in the Summit West area, while much of the potential additional acreage is located in the Summit Central and Gold Creek areas.

An analysis of demand for retail commercial square footage within the Snoqualmie Pass Planning Area was also undertaken, consisting of estimating demand related to “spending factors” of the projected permanent residents, second homeowners, overnight lodging guests, day visitors to the area, and regional pass-through traffic. Standards for per capita spending by each of these groups of consumers were developed and applied to various commercial categories, including: high turnover restaurants, quality restaurants, supermarkets, convenience retail, specialty retail, gas stations, and hotels and motels.

The composite annual spending patterns for commercial uses were then tabulated with benchmarks for the year 2005 and 2015. Total projected annual spending within Snoqualmie Pass for retail/commercial categories, based upon the overall growth scenarios, totaled approximately \$36.5 million in 2005 and \$51.3 million in 2015. Based upon an assumed standard of \$300 per square foot of sales, this translated into an overall demand for approximately 122,000 square feet of retail commercial in 2005 and 171,000 square feet in 2015.

With approximately 30,000 square feet of existing retail commercial uses, a conservative estimate was made of new retail commercial square feet, within the geographic area, of 94,000 square feet between 1998-2005, and a total of 124,000 additional square feet required within Snoqualmie Pass by the year 2015, for a total of approximately 154,000 commercial square feet by the year 2015. A demand for an additional 375 hotel units and related conference and meeting facilities was also projected during the same time frame.

Based on these projections, the Pass has sufficient land capacity to meet the estimated commercial demand through 2015.

Other Uses and Notes

It is possible that the area could also serve a variety of firms requiring office, manufacturing, and/or warehouse space. The Kittitas County economic development organization often noted a lack of quality sites for this type of development. However, in spite of the pressure for such development in the region, the Pass would not be a preferred location, particularly for manufacturing or warehouse development. Weather and road conditions could be disruptive to receipt and shipment of goods, which would be a disincentive for businesses seeking sites and facilities.

There will be some demand for two other types of uses:

- Office uses serving local needs (for example, real estate, insurance, medical/dental)

- Office uses, which transact their businesses electronically.

The first type of use will not generate enough demand to warrant its own facilities, and will be part of a larger commercial center. The second use will typically be a home business or telecommuter.

(Note: The projections for both residential and commercial demand were arbitrarily proportioned among the individual sub-areas to insure that no constraints or problems would result. No items requiring attention were noted.)

C. SUMMARY OF COMMUNITY INPUT

The residents and property owners in the community, through several open houses, more than 20 meetings, and a community survey, clearly identified several key issues requiring attention in the Comprehensive Plan, including; the improvement of traffic, parking and circulation; the establishment of voluntary design standards; the preservation of open space and habitat within the alpine environment; and creation of a community center for the Pass. These items will present a challenge to new development as the community strives to maintain and enhance the livability and natural, scenic beauty of the Pass area.

The community addressed the issues related to transportation as part of the overall comprehensive plan review process. The current truck parking situation on SR906 causes

considerable visual and noise pollution and is a serious safety hazard. It is clear that the Interstate 90 corridor, which dominates portions of the Snoqualmie Pass area, brings a complex set of beneficial and detrimental impacts related to regional accessibility along with associated design, noise, and air pollution. These issues must be considered in order for the overall residential and resort environment to be substantially enhanced. The Comprehensive Plan recommends a number of additional road system improvements to SR 906 and the interchanges to upgrade the internal transportation network.

A set of voluntary design guidelines has been developed for development in the Pass area. The design guidelines were developed by members of the Pass community in recognition of the dramatic beauty, recreational assets and environmental sensitivity of this mountainous area and the critical relationship between protection of these natural qualities and the ongoing economic and scenic health of the Pass area. The Guidelines describe a range of physical characteristics for new development that will make positive contributions to visual quality and to the quality of life at the Pass.

These advisory Guidelines are meant to aid all those involved in the planning, design, and approval processes for development at the Pass. They are a tool to inform property owners and their environmental and design consultants and engineers of the design characteristics that are both functional and aesthetic. These voluntary guidelines provide both general and specific information that, together, create a shared basis for understanding and enhancing development proposals. The guidelines contain information applicable to single family residences, plats, multi-unit residential and commercial developments. By recognizing the existence of these guidelines, the County is merely acknowledging that the guidelines have been developed and is not adopting them as a regulatory document.

The planning effort has identified key open spaces and scenic vistas with the intention of preservation of those invaluable resources through the observance of these vistas in the Development Review process. The alpine environment, of which Snoqualmie Pass is a part, is a critical component to maintain the quality of life, which is so desirable to the residents and second homeowners of the area.

A community center was identified as the top priority community facility by respondents to the Pass. Further, respondents identified Summit West as the preferred location for the Community Center. Through cooperative planning and management among the Forest Service, WSDOT and the community, a facility could be developed in this area that would serve visitors and residents alike. Such a facility might include a meeting room, visitor's information area, public restrooms, a museum of Pass history and artifacts, and other services for Cascade Trail hikers and I-90 travelers.

Other issues were identified as well, which are set forth in the Comprehensive Plan in various areas, including land use, design, open space, recreation, transportation, and utilities.

D. OVERALL GOALS

After the review above and extensive community input, the following overall goals were identified:

1. Create a shared vision of the future of the Pass area through a community-based updated Comprehensive Plan.
2. Create a vibrant year-round community in the Pass area capable of supporting, and suitable for, both residents and recreational visitors to the area alike.
3. Establish a unifying theme or motif for development in the Pass area, whether through consistent signage or common area elements, encouraged design features, or similar approaches.
4. Increase the economic and housing viability of the Pass area by giving the economic impact of any activity or decision high priority.
5. Protect the ability to expand recreational opportunities, both winter and summer, to accommodate visitor growth.
6. Plan adequate infrastructure improvements, both transportation and utilities, to accommodate present and future needs.
7. Preserve and protect environmentally sensitive areas and scenic vistas.

E. LAND USE GOALS AND OBJECTIVES

As part of the community review process, the land use goals and objectives of the original comprehensive plan were revised into the following:

III.1 Goal: Achieve the maximum degree of compatibility between adjacent land uses.

Objectives:

1. Residential, commercial and community buildings should be designed in an alpine or Cascadian theme consistent with existing development and the design guidelines.
2. Wherever practical, buffering should be employed for the aesthetic enhancement between land uses, including parking and roads.
3. Appropriate building height limits should be established in the Pass area, by building type.

Residential Land Use

III.2 Goal: Encourage a mix of residence types of alpine or Cascadian design, located in combinations and groupings which enhance the residential and resort atmosphere of the Pass.

Objectives:

1. Clustering of structures should be encouraged, with screening between clusters and open areas (view corridors), wherever possible. Residential land plans which take advantage of the mountain setting should be encouraged.

2. Access roadways should be kept to a minimum (both in number and dimension) consistent with safety and efficient maintenance. Roadways should follow terrain contours with a minimum number of straight segments.
3. All residential areas should be connected, where practical, by a public trail system suitable for all-season use.
4. Appropriate non-residential uses should be accommodated in residential areas.
5. All residential uses should provide adequate off-street parking.
6. All utilities in new residential developments should be underground.

Community Uses

III.3 Goal: Encourage the development of community uses in appropriate areas. Uses could include security/emergency services, clinics and medical/dental offices, places of worship, a community center, a recreation center, visitor information center, recycling center, post office, library, nature center/museum.

Objective: Similar and complimentary uses should be placed in close proximity to each other in a location, which is convenient to the community and visiting public.

Commercial Uses

III.4 Goal: Provide for commercial development in appropriate locations to serve the needs of the community, visitors and traveling public and to enhance the economic vitality of the Pass.

Objectives:

1. Commercial development should be clustered along Highway 906 near Exits 52, 53 and 54, rather than in a linear strip along the highway.
2. Neighborhood commercial centers should be conveniently located to meet local shopping needs.
3. Commercial activities should be located in proximity to principal resort and transportation facilities, such as near the bases of ski slopes and freeway interchanges.
4. All roadside parking should be limited to short-term service and delivery vehicles. Customer parking for commercial uses should be located either under-structure or in designated lots with practical visual screening. Joint use of off-street parking areas should be encouraged. Pedestrian/skier access between uses should not be obstructed by vehicular parking.
5. Signage and advertising should follow a consistent design theme with an alpine or Cascadian nature matching the Pass architecture.
6. A mixture of uses, including residential and community services, should be encouraged in conjunction with commercial development.

7. Unscreened outside storage should be restricted in commercial areas.
8. Off-site or off-premises commercial advertising should not be permitted in the Pass area, except for the use of motorist information signs provided by WSDOT.

Light Industrial Uses

III. 5 Goal: Provide for light industrial users, including utility companies and public agencies, in appropriate locations.

Objectives:

1. Light industrial uses should be located principally near Exit 54, extending southwest to the DOT yard.
2. All applications for industrial facilities and/or business permits should be individually reviewed for conformance with the Comprehensive Plan, and approvals should be limited to non-polluting, non-congesting operations consistent with the character of the Pass area.
3. Perimeters of all industrial operations should be buffered or screened from other elements of the community and of a design consistent with the theme at the Pass.
4. Unscreened outside storage should be prohibited.

Recreational Uses

III.6 Goal: Encourage the development of all-season, multi-option recreational facilities on public and private land.

Objectives:

1. Winter recreation areas should be maintained in an attractive manner during off seasons.
2. Trail networks should be a primary means of Pass area transportation where practical, connecting to surrounding trail systems, where appropriate.
3. Recreation areas should be coordinated and controlled to enhance safety and proper use.
4. Clear, uniform signage should be developed giving orientation and designating type of usage for all recreational areas and trails.
5. Adequate tables, benches, rest room facilities and trash containers should be available throughout all areas and during all open seasons.
6. Visitor parking should be aesthetically located and buffered as much as is practical, and the capacity of the parking area should be correlated with the capacity of the related recreational facility.

Educational/Cultural Uses

III.7 Goal: Foster the development of multi-use facilities, which can adapt with changing seasons, to serve a variety of educational/cultural needs.

Objectives:

1. Building space should be created or allocated for a community center, a nature center, library and museum.
2. A variety of conference centers, retreat facilities and other buildings used for public purposes should be encouraged in the Pass area.

Government Uses

III.8 Goal: Facilitate cooperation and participation of Federal, State and local agencies in planning and implementation.

Objectives:

1. In cooperation with other interested parties, agreements should be sought with the USFS to ensure that logging on federal land in the greater Snoqualmie Pass area will be limited to selective thinning that will not impact the principal view corridors.
2. All stakeholders in the Pass area encourage USFS to approve expansion of ski area facilities and groomed terrain around Mt. Catherine, and other winter and year-round recreational improvements.
3. The Department of Transportation should be encouraged to install landscaping around their Hyak facility and to maintain the facility in a clean and attractive manner.
4. Participation and cooperation should be sought with the Army Corps of Engineers, U.S. Forest Service, Bureau of Land Management, State Department of Wildlife and Department of Natural Resources for the visual improvement (stump removal) and recreational enhancement of the western portion of Lake Keechelus.

Natural Resource Uses

III.9 Goal: Recognize the economic importance of the area's natural resources and promote the optimal use of these resources by public and private interests.

Objectives:

1. Along with other interested parties, agreements should be sought with the USFS and private logging interests to ensure that timber harvesting in the greater Snoqualmie Pass area will be conducted so as to minimize adverse visual impact and environmental damage to surrounding land.
2. Recognize the natural beauty of the Pass as its most important natural resource, and promote continued expansion of recreational opportunities available due to the unique natural attributes of the Pass area, to insure continued recreational opportunity for all interested users.

Parking Uses

III.10 Goal: Provide sufficient parking for all Pass activities in the most practical manner that is the least aesthetically detrimental to the scenic mountain setting.

Objectives:

1. All parking should be off-street and screened from view to the extent practical.
2. Joint use of off-street parking should be encouraged wherever possible, with cross-over easements between uses where appropriate.
3. Parking areas should be well lighted and adequately accessed by trail or sidewalk.
4. Parking should be provided to accommodate all modes of transportation such as cars, trucks, buses, recreational vehicles, snowmobiles, horse trailers etc. Separate parking areas should be provided for uses generating special safety or aesthetic problems, such as semi-trucks.
5. Snow removal and disposal should be an integral part of parking lot design.

LAND USE

Recommended Actions

1. SNOPAC, in conjunction with the Comprehensive Plan review, has drafted general design guidelines which present desired architectural features considered to be consistent with alpine or Cascadian design. These design guidelines are accompanied by visual aids to make clear what the community desires. The design guidelines address advertising signs and other external aspects of development design, which may have aesthetic impact on the community. The Community Design Committee should be available to review proposed projects with proponents before project design is commenced to offer suggestions to best incorporate the design into the community.
2. The Community Design & Aesthetics Committee (“CDA”), together with the Economic Development & Land Use Committee (“EDLU”), should develop additional site design guidelines, which promote the clustering of structures to protect natural land features and sensitive areas.
 1. The EDLU Committee should continue to refine the land use inventory to determine a realistic growth scenario, which will aid in infrastructure planning.
 2. SNOPAC should take the lead in adapting the affordable housing policies of Kittitas and King Counties to the unique housing needs of the Pass area.
 3. The EDLU Committee should monitor the planning, management and operation of Forest Service Land and Keechelus Lake in an effort to enhance and expand their recreational opportunities and visual quality.

F. COMMUNITY DESIGN AND AESTHETICS GOALS AND OBJECTIVES

III.11 Goal: To encourage the use of site planning, landscaping and architectural principles which enhance the mountain character of the community and harmonize with the alpine environment.

Objectives:

1. Encourage “village centers” with high density areas of closely clustered buildings, with narrow walking streets (where practical) and common walls between businesses, at the Summit, Summit Central, Exit 54, and Alpental.
2. Each village center should feature a recreational activity such as tennis, ice skating, curling, swimming pool that is open to the public and located near the center of the village.
3. Lines of sight in village centers should be broken to give a sense of small scale and invite pedestrian wandering and exploration.
4. High density housing close to, or in, each village center should be encouraged.
5. Village centers should be connected with footpaths where practical.

III.12 Goal: Keep vehicular traffic and automotive impact at a minimum in village centers.

Objectives:

1. Emphasize foot traffic and foot access where practical. Sidewalks and footpaths should serve as a main mode of transport within each village center.
2. Buildings at the street side of a village should be required to front on the sidewalk and as close to the road as practical.
3. Streets near village centers should be relatively narrow (but wide enough to accommodate winter snow plowing requirements) to slow traffic and have sidewalks or paths for pedestrians.
4. Parking should be: behind village centers and businesses, and screened from sight (especially along I-90), where practical.

III.13 Goal: Buildings within village centers should be compatible with the character of the mountain environment and meet the year-round needs of the community.

Objectives:

1. Natural materials should be encouraged on the exterior of all buildings.
2. A Northwest-Cascadian Style of architecture should be encouraged. Design guidelines should be developed and publicized to ensure consistent architectural design and signage throughout the Pass.
3. Year-round foot access on covered or cleared paths and sidewalks should be encouraged.

4. Two to four story buildings in Village centers should be encouraged.
5. Employee and other housing on upper floors of commercial buildings should be encouraged.
6. Plans for dealing with snow accumulation should be encouraged at the first meeting with project proponents,
7. Roofs should be designed to either retain snow or sluff snow off in such a way that it is not a hazard to the public.

III.14 Goal: Encourage development of building codes for the community that are compatible with the mountain environment. These codes should include the height and exterior materials of buildings as well as site design and snow management for each structure.

Objectives:

1. Standards should be set encouraging high density housing at each village center, with density reducing with distance from the village centers.
2. Designs and signage should be carefully reviewed in order to avoid a garish, overly competitive visual environment.
3. Standards and programs for the enhancement of the alpine setting should be developed, including standards for revegetation and programs for landscaping along entry corridors and in other prominent public areas.

III.15 Goal: Promote the development of uses, which will provide goods and services to both residents and visitors.

Objectives:

1. The variety of available goods and services should be broadened to reduce the requirement to travel off the Pass for normal daily needs.
2. Special services and facilities should be provided which are oriented to the recreational visitor, so as to enhance the available recreational opportunities.

III.16 Goal: Provide public services and facilities, which will enhance the livability of the Pass for residents.

Objectives:

1. Social and cultural opportunities such as a community center, library, museum, etc. should be planned for and provided.
2. Health and public safety facilities and services such as an immediate care clinic, improved emergency response, garbage pick up and recycling etc. should be planned for and provided.

Description of Village or Activity Centers

Alpental

The non-residential area of Alpental should be primarily oriented toward serving skiers. Overnight lodging, consistent with a destination resort area, may be added and accessory uses such as restaurants, lounges, equipment and clothing shops might be expected. Commercial activity would be concentrated at or near the base of the ski slopes.

Snoqualmie Summit

The Summit will continue to develop as the recreational and community center point of the Pass. New development should be primarily focused toward providing commercial and community services for the year round recreational visitor, other tourists and community residents. Both Forest Service activities and private development should cater to visitor needs by providing information, services and products. Recreation related services should be coordinated to complement each other and provide a complete range of activities, i.e. skiing/hiking, shopping, dining, and lodging. Community needs should be identified and provided to project proponents, land owners and governmental agencies.

Summit Central

Summit Central should be similar in use to Alpental in that it will be oriented toward providing recreational facilities and services. A mixed use facility could be developed which could be sited to be accessible to the general traveler and the resident population; facilities might include conference facilities within a hotel/motel complex.

Exit 54

Because of its visibility and land base, the commercial area at Exit 54 could provide services directed toward the traveler on I-90 (its location makes this area less conducive to ski related services). Over time, as Gold Creek Valley, Hyak and other residential areas develop, or as the Summit is built-out, Exit 54 may become a convenient place for such uses as a community center, post office, and/or general store or supermarket.

General

All activity centers should inform visitors about the entire range of Pass areas and activities. Directional signs and maps should be used at each. Activity centers should be connected, where practical, by trails.

Design Guideline Outline

Site Planning

- Environmental Conditions (solar access, wind, vegetation)
- Grades (cuts and fills)
- Drainage
- Utilities
- Circulation (vehicle and pedestrian)
- Storage (firewood, snow, trash)
- Parking
- Public spaces

Building Location

- Site Characteristics (soils, slope, drainage, wetlands)

Setbacks (street, rear and side boundaries)
Spacing (view corridors, compactness)
Orientation (views, solar access)
Alignment

Architecture

Scale (to site, to adjacent buildings)
Proportion (height to width)
Roof Shape
Other Structural Features (gables, dormers, porches, chimneys, columns, porte-cocheres)
Materials (texture, pattern, color)
Other Design Features (windows, doors, shutters, trim, ornamentation)

Landscaping

Screening (fences, hedges, trees)
Paving (walkways, stairs, patios)
Retaining walls (height, materials)
View Blockage
Plant Materials (indigenous, weather tolerant)
Lighting
Outdoor Furniture
Signing
Community Design and Aesthetics
Recommended Actions

COMMUNITY DESIGN AND AESTHETICS

Recommended Actions

1. The CDA Committee should continue the effort to further develop design guidelines for the village or activity centers, including securing funding for such work when possible. The design effort should involve the community and all other interested parties.
2. The CDA Committee, in conjunction with the EDLU Committee, should continue to develop general design guidelines which present desired architectural features considered to be consistent with alpine or Cascadian design. Written design guidelines should be accompanied by visual aids to make clear what the community desires. The design guidelines should address advertising signs and other external aspects of development design which may have aesthetic impact on the community.
3. The CDA Committee should take the lead in developing the schedule and procedural format of design review for projects in the Pass area. It is recommended that at least one design professional be included on the committee. The design professional should not be required to be a member, although familiarity with Pass issues and goals is desirable.
4. The CDA Committee, together with the EDLU Committee, should provide continued involvement with the Mountains to Sound Greenway Trust to maximize the benefit of mutual effort and involvement.

5. The above Committees should promote the design and development of landscaped entry ways and corridors into and through the Pass, seeking the cooperation and funding support of the Washington State and Federal Departments of Transportation, the U.S. Forest Service and the Mountains to Sound Greenway Trust.
6. In conjunction with the EDLU Committee, the Community Design and Aesthetics Committee should work with local business operators, the U.S. Forest Service, WSDOT and the counties to develop an attractive and coordinated directional and informational sign program for the Pass.
7. The CDA and EDLU Committees should work with Mountains to Sound Greenway Trust to reduce or eliminate commercial signage that is oriented towards Interstate 90. For this to be possible, WSDOT needs to encourage and enable the use of sufficient standard highway signs to help identify businesses in the Pass area.
8. The committees should work with Mountains to Sound Greenway Trust to develop recommended sign regulations for adoption by King and Kittitas Counties and WSDOT that recognizes the scenic quality of the Interstate 90 corridor through the Pass and the designation of Interstate 90 as a National Scenic Byway.
9. The committees should work with Booth Creek Holdings and other business owners to develop a consistent signage plan and design that would be unique to Snoqualmie Pass and would help to create an identity for the Pass area.
10. The committees should work with King and Kittitas Counties and WSDOT to develop a lighting plan that establishes standards for street lighting design and location. The lighting plan should strive to provide adequate lighting for public safety, without contributing to light pollution from excessive lighting.

G. LAND USE PLANS

There are two levels of land use plans presented in this comprehensive plan.

The first is an overall concept plan for the entire planning area. This plan is the more general of the two. General land use activities are identified for the purpose of showing the interrelationship of these activities to each other and to other plan elements such as transportation, utilities and open space corridors. This level of concept plan presents the overall picture.

The second level of concept plan is presented for each of the five subareas of the Pass. Land use designations are more specific in terms of location and use type. Particular planning goals or special conditions may be indicated for land use designations at this concept level.

As an example, the overall concept plan may indicate an activity center in a general location. The subarea concept plan further details the type of activity which is desired in that activity center, such as highway oriented commercial, lodging and tourism activities, and so forth.

The subarea concept plans, although more specific, are nonetheless, still guidelines. Boundaries are general by necessity, and are not meant to imply that all the land within a specific land use boundary is suited for the designated use. For example, portions of land within a residential designation may be environmentally sensitive and will be more appropriately allocated as open

space. Detailed site planning and use restrictions are implemented through Planned Unit Developments, subdivisions, or other forms of design review and approval.

As part of this comprehensive planning process, the community was surveyed to determine their opinion on the most appropriate location for various property uses. The results of that survey are incorporated in the discussion of various sub-area land uses.

1) Relationship to County Comprehensive Plans

King and Kittitas Counties differ somewhat in the land use terminology used in their respective comprehensive plans. Likewise, the land use designations in the concept plans differ in that the terminology used is selected to show the specific intent of the Snoqualmie Pass Comprehensive Plan. Although the terminology may vary in each of the plans, the underlying goals of each similar use category are consistent.

2) Relationship to Snoqualmie Pass Adaptive Management Area (AMA) Plan

Forest Service lands are intermingled with private lands in the Snoqualmie Pass area and are an integral part of the present and future scenic and recreational attributes of the Pass community. The Snoqualmie Pass Comprehensive Plan does not (and can not) preempt the adopted Forest Service plans, but rather, only recommends particular land use designations and future actions which will strengthen the Snoqualmie Pass community and reinforce the multiple use aspects of Forest Service land to maximize long-term net public benefit.

3) Land Use Categories

Residential

The residential designation is intended to accommodate a mix and variety of residential uses and densities including single platted lots, clustered lots with attached or detached structures and multiple unit structures. In appropriate locations, remote lodges, bed & breakfast facilities and recreational cabins should be accommodated. Appropriate non-residential uses, such as learning and recreation centers should also be permitted in residential areas.

Commercial

Commercial areas should provide retail uses, lodging, restaurants and other visitor services, as well as personal and professional services for the Pass community. It is intended that particular types of commercial uses be located in the most appropriate locations to best serve the visiting public and the local community. Residential and community uses should be accommodated in mixed use commercial developments.

Commercial Lodging

This designation provides areas where a variety of overnight or weekly type of lodging may be provided in inns, bed & breakfast homes, hotels, motels or rental cabins. These areas may be appropriate locations for multiple unit structures to provide housing for Pass employees. Uses which are compatible with and supportive of commercial lodging and recreation, such as meeting rooms, restaurants, indoor recreation and retail shops, should be accommodated as part of a commercial lodging development.

Light Industrial

Utilities and public works uses are to be accommodated in small light industrial areas near Exit 54. Planned commercial uses should also be permitted on private land in light industrial areas subject to Planned Unit Development review.

Community/Public

Public and community support uses such as emergency and medical services, community/recreation center, post office, visitors information center, playfields/parks and places of worship are encouraged uses in community/public areas. Historic and cultural uses including a library, museum or historic interpretive display should be accommodated as well.

Active Recreation

Active recreation areas are those where considerable preparation and maintenance are required to provide recreational facilities and where machinery and equipment are used for operation and maintenance. These include alpine ski areas, snow play activity areas, golf courses and sports fields. A variety of associated support uses may be included, such as lodges, clubhouses, restaurants and lounges, equipment sales and repair, instructional facilities, locker rooms, maintenance and storage buildings and administrative offices. Residential development, which does not preclude active recreational uses is allowed.

Forest Recreation

The forest recreation designation is applied to areas which are intended for long-term timber production, but which are desirable for passive or remote recreation activities such as hiking, Nordic skiing or mountain biking. Access to and use of these areas may be restricted as necessary for the protection of the forestry resource or to protect the public during times of forest operations. Many of these areas are integral to the recreation network of the Pass and their long term availability, through use agreements, is encouraged. Residential/commercial lodging uses are permitted, provided the development is compatible with the primary use of long term timber production.

Open Space

Undisturbed areas and environmentally sensitive areas, such as large wetlands and floodplains, are included in the open space designation. Much of the land in this category is Forest Service Land. Designation as open space is not intended to preclude access, but to encourage conservation while providing controlled or managed access for passive recreational activities like hiking, camping, Nordic skiing and fishing, consistent with the SPAMA Plan. Open space areas are critical to the natural beauty of the Pass area and provision of open space should be a consideration on public and private land in all land use designations.

Subarea a Land Use Plan

A majority of Subarea A is designated as Open Space because of ownership and development constraints.

The area at the base of the Alpentel Ski Area is designated as Commercial Lodging. At the present time, the base of the ski area contains two day lodges and other support facilities for skiers. The plan envisions the development of overnight lodging facilities, recreation condominiums, restaurants and retail shops, which could enhance the recreational asset provided by the ski slopes. Due to limited land area available, development should be compactly designed

so as to provide integrated pedestrian access to all facilities. The Snoqualmie River should be emphasized as an aesthetic asset in development planning.

The boundaries of the Residential area coincide with the King County Comprehensive Plan for East King County. The undeveloped portions of the Residential designation are somewhat constrained by topography and/or access. New residential development should be designed in a manner that clusters buildings on suitable building sites and leaves the remainder of the land area in open space.

A portion of the area designated as Open Space west of Alpentel Road is privately owned. The Open Space designation is due to extreme topographic conditions. However, small areas may be available for carefully planned residential clusters. This area is designated as Forest Production in the King County Comprehensive Plan. As such, permitted residential density is one unit per 80 acres of land area.

Any construction west of Alpentel Road and along the South Fork of the Snoqualmie River will need to comply with applicable state and/or county set-back and vegetative buffer requirements.

Subarea B Land Use Plan

Like Subarea A, Open Space is the predominate land use designation in Subarea B. The area is entirely within King County and is designated as Forest Production. Existing land use and ownership in a small portion of the subarea, however, does not meet the descriptive criteria for Forest Production districts. Rural home sites, such as those, which are present, are more compatible with the recreational and environmental assets of this valley than would be the harvesting of the forest resource. The Snoqualmie Pass Comprehensive Plan therefore recommends that the privately owned lands which lie between the westbound and eastbound lanes of Interstate 90 be designated as Residential with a maximum density of one unit per five acres of land area.

Other privately owned land in the most southern part of the subarea is designated as Open Space. Lack of access, topography, and visibility from Interstate 90 are the criteria for this designation.

Most of this area is below the visual level of I-90. Pursuant to applicable state and/or local requirements, vegetative buffers will be required along the South Fork of the Snoqualmie River. A density of one unit per five acres, with clustering, should be considered where feasible.

Subarea C Land Use Plan

Subarea C is the community and recreational hub of the Pass and the Comprehensive Plan reinforces this role and capitalizes on the existing recreational assets.

The overall plan identifies two activity centers (or nodes) at Summit West and Summit West, where hotels, conference facilities, restaurants and other commercial activities are envisioned. The plan recommends that these areas be designed as much as possible in a "village" style, which promotes pedestrian accessibility and discourages sprawling, automobile oriented development.

Because Highway 906 presents a lineal orientation, it is recommended that developments be planned to provide perpendicular movement, connecting the base of the ski areas to the commercial activities and lodging across the highway.

Along Highway 906, at the base of the ski slopes, areas designated for Commercial Lodging could provide accommodations for recreational visitors year around. Additional Commercial Lodging is proposed east of the freeway near Exit 53.

As the recreational hub of the Pass, the summit is also the logical first stop for visitors to the area. The plan recommends that the U.S. Forest Service expand their present activities and hours of operation in a new, larger visitor center which could include, in addition to recreation information, such things as a display on Pass history, information regarding available lodging, picnic areas, and a message center for hikers on the John Wayne/Pacific Crest Trail.

In addition, the Forest Service should provide enhanced public facilities for travelers in the Pass area, together with adequate safe parking. This could be incorporated in the new visitor center or in a stand-alone facility.

The plan designates two alternative locations for the visitor center. The first is between Interstate 90 and Highway 906 near Exit 52. This site has the advantage of being in the center of summit activities, where visitors could easily walk to other facilities nearby. However, available land may be too small to accommodate a well designed center and the required parking. The second suggested site is east of Interstate 90, near Exit 52. This site's advantages include a forest setting and ample available land; however, the site is much less convenient and access would be more difficult.

Subarea C also includes some established residential areas on both sides of Interstate 90. Conifer Estates, located between the two activity nodes at the Summit and Ski Acres, which would appear to be an ideal location for commercial lodging uses. However, the number of long-standing private residences in the development warrants the continuation of residential use. The Yellowstone Road area, though near the summit, is somewhat removed from the activities along Highway 906 and is a good location for private residences. New residential development in this area should be planned in clusters in order to preserve natural vegetation and protect streams and wetland areas.

Subarea D Land Use Plan

The Gold Creek Valley will likely experience the greatest change of all areas of the Pass. Currently, the valley is relatively undeveloped. However, preliminary plans have been developed for all of the private land holdings in the area. These plans include single family and multiple family residential, restaurants, hotels and motels, conference facilities and recreation.

During the planning process, the idea of "community" became a common thread among the various committees. As future growth in the number of permanent residents was envisioned, the need for common community services, including commercial and personal services, became evident. The Summit is presently the hub of Pass activity; however, it may not have enough land

for all future uses the community wants to see there. The north side of Exit 54 is viewed as another possible location for some of this development, due to its freeway access.

The commercially designated property is crossed by Coal Creek in a northwest to southeast direction. A Forest Service road crosses the property perpendicular to the creek. Mardee Lake and its associated wetlands are located in the northeast corner of the property.

The plan shows that the property could be developed in four commercial pods using the creek and the road as dividing lines. The two pods south of Coal Creek should be developed with highway commercial uses such as service stations, restaurants and motels. The development should be designed to take advantage of the site's visibility while respecting and protecting the alpine character and scenic beauty of the Pass.

The two pods north of the creek could contain a broad mix of uses, including uses commonly found in a community shopping district such as food markets, drug and hardware stores and other retail. The development should be designed in a manner, which would use the existing road route as a "main street" rather than a through road. Pedestrian access and mobility should be an important design element. Views of the valley should provide a focus for site plan orientation.

Commercial development in this area should not compromise the ecological integrity of Coal Creek. Special attention shall be given to maintaining the vegetation within areas along the riparian zone and preventing run-off of or enhancing contaminated storm water from adjacent parcels. A riparian buffer (with an average width of at least fifty feet, unless a larger one is required by Kittitas County) shall be used for commercial development in this location. Particular care shall be taken to ensure that the architectural design and signage of commercial structures in these areas be compatible with the scenic, visual integrity of the I-90 National Scenic Byway corridor.

East of the commercial area is a steep ridge of rock outcrop and old growth forest. The plan designates this area for limited commercial lodging use and recommends that site planning cluster buildings in small pockets on the parcel where soil and slope are suitable for construction. Development shall be sited to screen the structures from view of I-90, with no disturbance of steep slope and ecologically sensitive areas. Old-growth timber shall be preserved except where necessary for construction, and included within site plans and lots as much as possible. The remainder of the site should be preserved as open space.

Care shall be taken to minimize removal of old growth timber and to screen the lodging elements from view of I-90. In no case shall construction result in increased slope instability or erosion in the area, or disturb ecologically sensitive areas, such as Mardee Lake and its associated wetlands.

North of the proposed commercial area, the U.S. Forest Service manages Section 10, which the plan designates as Active Recreation. This land has been partially logged, and the topography of the southern half of the site is suitable for development as a golf course. While a golf course would provide a much needed recreational facility for non-winter seasons and would provide Nordic skiing in the winter, these uses are not currently contemplated by the Forest Service in

the SPAMA. The community will continue to monitor updates to the plan and provide input on any proposed changes to the use of this area.

Lying to the east of Section 10 is a Section of privately owned land, which is, designated Residential. The area is bisected on the diagonal by Gold Creek. Development plans for the majority of the property should reserve a substantial open space greenbelt on both sides of the creek. Development should be clustered on the site to take advantage of views and conserve natural vegetation.

The residential development should be planned with the highest degree of sensitivity to the aesthetic values of the area and the preservation and enhancement of wildlife habitat.

Subarea E Land Use Plan

Development in Subarea E is clustered near Exit 54. Uses range from single family residences to public utilities. The WSDOT highway facility and the Snoqualmie Pass Sewer and Water District's sewage treatment plant are designated Light Industrial, as is a partially vacant area west of the WSDOT property. This is the only Light Industrial classification on the Pass and it is intended to recognize the existing uses and provide a small area for other light manufacturing activities.

Approximately 17 acres between the sewage treatment plant and Keechelus Lake is proposed in the plan as commercial lodging. The site's location and characteristics may make it well suited for a Recreational Vehicle park, a facility which the Pass is currently lacking.

The majority of the Hyak subarea is used for recreation, including alpine and Nordic skiing, mountain biking, hiking and water sports. The Summit East Ski Area plans to expand considerably the area available for alpine skiing by constructing an additional chair lift to higher elevations.

IV. OPEN SPACE AND CRITICAL AREAS

Scenic Vistas and View Corridors

The grandeur of the North Cascade Mountains is equal to that of any other range in North America. And Snoqualmie Pass, because of intersecting valleys at the summit, provides a unique combination of vistas, from a looming “up-close” view of Guye Peak, to the distant view, up Gold Creek Valley, of Chikamin Peak. There can be no doubt that mountain scenery, and the visual and physical open space it provides, is an important asset to the Snoqualmie Pass community that needs protection and enhancement.

There are several ways to approach scenic vistas and view corridors, including:

- 1) Address the issue at ground level; that is, protect the sight-line of the viewer at a specific location (i.e., a view point or residence);
- 2) Protect the “content” of the view; that is, control activities that occur in the view corridor or vista so that the quality of the view is not reduced. Obvious activities include logging

and utility right-of-way swaths; more subtle intrusions would include reflective satellite dishes or roofing material, or bright night lighting; or

3) Encourage that full advantage is taken of the view in a given facility's design. This should occur in site design, building and village design, and in the location of parks and scenic view points.

Developing regulations for the first approach would be difficult in any circumstance because it often involves protecting the assets of one property to the detriment of another. The protection of individual views from home sites is most effectively accomplished during site design, when lots and building envelopes can be staggered or stepped in a way that optimizes the view for everyone, rather than maximizing it for the few. View corridors and scenic vistas should always be considered in the design review process.

Because of a combination of rugged terrain and Federal ownership, the very disturbing activity of ridge-top development will not occur, as it has in area of less rugged terrain in eastern Washington. The SPAMA plan will benefit the Pass over the long-run, if it can prevent further logging activity, which is the most destructive activity in terms of scenic vistas and views. Nonetheless, the design review process could help ensure that site design is sensitive to: impacts to neighboring properties and optimization of individual view potential, which will benefit the project owners, neighbors and the public.

The third approach should be obvious, but occasionally site designers looking down and do not consider the specific and unique attributes of a site. This attention to detail is important in both site design and building design.

The sample of scenic views and vistas, which is included in this section identifies only views from publicly accessible property. There are undoubtedly other vistas from private homes and properties that are equally spectacular.

Scenic views and view corridors should be a primary consideration. Individual projects should consider the impacts their actions have on others in regards to views.

Goals and Objectives

IV.1 Goal: Develop a Pass image, which creates strong sense of community, scenic beauty, and recreational opportunity.

Objective: Planning policies should provide a land use framework, which maintains the highest level of integrity of the alpine environment, while meeting the needs of the residents and visitors, which live, work and recreate at the Pass.

IV.2 Goal: Identify uses complementary with Open Space/Critical Areas goals and objectives.

IV.3 Goal: Develop an implementation strategy for preserving and incorporating open space and critical areas into the community plan.

Objectives:

1. Vegetative buffers should be required between different uses and along trails and roadways.
2. Green belt areas should be designated between clustered uses.
3. Well designed entry ways to new developments should be encouraged.
4. Plans should be developed which will preserve or enhance native flora, fauna and sensitive areas.
5. Implementation approaches should include:
 - a. Development of an inventory of indigenous plants to be used in new landscaping.
 - b. Encourage project covenants, conditions & restrictions to include open space/critical areas guidelines.
 - c. Work to create an incentive system for preserving open spaces and critical areas.

IV.4 Goal: Policies and regulations should be developed which recognize the special requirements of critical areas, as defined by Kittitas and King Counties, in the mountain environment of the Pass. Critical areas include:

- a. Wetlands;
- b. Areas with a critical recharging effect on aquifers used for potable water;
- c. Fish and wildlife habitat conservation areas;
- d. Streams, rivers and lakes;
- e. Frequently flooded areas; and
- f. Geologically hazardous areas.

IV.5 Goal: There should be no net loss of wetland habitat.

IV.6 Goal: Have appropriate agencies identify the functional characteristics of wetlands, which may be impacted by development or human intrusion.

Objectives:

1. Identify the existing or potential use of the wetland as a surface-water or groundwater supply and the extent to which the area serves as a recharge area or purifier of surface water or groundwater.
2. Identify the wetlands function as part of the natural drainage system for the watershed and its importance in preventing flooding, leaching, erosion or otherwise affecting water quality.
3. Assess the importance of the wetland habitat as a natural wildlife feeding or breeding area and if there is a rare or unusual concentration of botanical species.
4. Assess the existing, potential or allowed use of the wetland areas for recreational purposes and their importance as open space.

IV.7 Goal: Wetlands shall be managed in accordance with the latest Federal and Washington State regulations and guidelines.

IV.8 Goal: Natural wetlands of irreplaceable high quality as habitat and open space should be preserved and protected.

IV.9 Goal: Mitigation strategies should be developed and required of all development to assure no net loss of wetlands and no loss of high quality natural wetlands.

Objective: Wetland management, protection or mitigation should be implemented according to applicable laws.

IV.10 Goal: Ensure the purity of Pass drinking water by identifying critical aquifer recharge areas and instituting policies, which prevent surface and groundwater degradation.

IV.11 Goal: Protect fish and wildlife habitat areas, including habitat corridors, migration routes, ponds, streams, and breeding and nesting areas.

Objectives:

1. Manage land development and recreational activities to protect habitat from human intrusion, including noise, particularly during critical periods of breeding, nesting and migration.
2. Enhance and improve wildlife habitat and habitat corridors, which may be disturbed or disrupted by development.

IV.12 Goal: Preserve the natural function of the floodplain and floodway, recognizing that the historic flooding characteristic of mountain streams and rivers varies due to upstream landslides, debris buildup, steep upstream gradients and impermeable soils.

Objective: Avoid construction in the floodplain or floodway of structures which could interfere with the flow of flood water or result in the destruction of private property or danger to human safety.

IV.13 Goal: The quality and integrity of existing riparian corridors should be preserved.

Objectives:

1. Identify and classify riparian corridors based upon their existing or potential habitat quality and diversity, importance to the drainage system of the watershed and recreational potential.
2. Establish riparian management zones including buffer and setback requirements, and vegetation preservation requirements within the setbacks and buffers.
3. Encourage non-structural bank stabilization techniques emphasizing bio-engineering.

IV.14 Goal: Restrict development in geologically hazardous areas including areas, which are subject to erosion, landslide, avalanche or subsidence.

Objectives:

1. Modification of natural terrain and removal of natural vegetation should be minimized. Large flat building pads should be avoided in favor of terraced or piered structures.
2. Consideration should be given to the geological stability of the soil and slope well above and below a proposed building site, including the vulnerability of the site to avalanches or debris deposition in periods of rapid water runoff.
3. Disturbed terrain should be restored and revegetated as soon as feasible. Restoration should conform to the natural surface relief. Straight steep planes in cuts should be avoided. Natural drainage channels and swales should be restored.
4. Road and trail construction should follow topography as much as feasible to reduce the need for excavation and fills. Cuts and fills should be stabilized and regraded to resemble natural terrain, or terraced, rather than restrained with straight walls or bulkheads.
5. Site specific geotechnical information should be required for construction on slopes greater than 3:1.

IV.15 Goal: Identify the "viewshed;" that is, scenic areas, which are visible from places of frequent human activity.

IV.16 Goal: Important scenic views and viewlines should be identified, preserved and, where appropriate, enhanced.

Objectives:

1. The enhancement of the island area in Keechelus Lake should be strongly encouraged, to enhance the wildlife habitat and visual quality of the lake.
2. Where appropriate, a program of thinning or removal of vegetation in view corridors should be considered.
3. Careful site planning should consider the impact of the placement and height of new structures on views from adjacent developed properties and public roads and trails.
4. The removal of vegetation for view enhancement should be balanced with the aesthetic and environmental importance of maintaining natural vegetation and open spaces.
5. Development of hillsides should be designed to respect and conform to the natural terrain so as to not be visually intrusive.
6. Where feasible, forestry practices which seek to replicate natural processes, enhance wildlife habitat, conserve biodiversity and blend with the surrounding landscape should be employed in viewshed areas.

IV.17 Goal: Categorize and map type and extent of vegetative ground cover within the viewshed.

IV.18 Goal: Identify and map current uses within the viewshed.

Objective: Incorporate by reference the U.S. Forest Service Plans; public and private forest management plans; public and private recreation plans; Alpine Lakes Protection Society management plan.

IV.19 Goal: Identify current and future management and use activities within the viewshed, including, but not limited to year round recreational uses; forest management; habitat preservation; commercial and residential development, and; viewshed enhancement.

IV.20 Goal: Identify areas of viewshed challenges where the attainment of other goals and objectives within the planning area may impact viewshed quality.

Objective: Resolve challenges by encouraging practices, which maintain and/or enhance the visual quality of the viewshed. Such practices should include, but not be limited to, the following:

- a. Retention of existing vegetation and natural features.
- b. Vegetative buffers around active uses such as recreation, commercial and residential development, and forest harvesting.
- c. Forest management practices, which protect and/or improve the viewshed quality while recognizing intended long term commercial forest practices.
- d. Public and private recreational activities, which protect and/or improve the viewshed quality while recognizing the intended public benefit of the recreational use.
- e. Restoration of impacted lands within the viewshed to provide year round aesthetic quality.
- e. Any timber harvesting within the viewshed should be thoughtfully planned and include innovative strategies to achieve the above listed goals.

IV.21 Goal: Identify potential land exchanges, which will ensure the long term protection of viewshed quality.

IV.22 Goal: Prevent, in the long-term and short-term, the degradation of air quality in the Pass area.

Objectives:

1. Codes, covenants and restrictions in new developments should require the installation of wood stoves and fireplaces, which minimize the introduction of pollutants into the air.
2. Educational material should be developed and distributed which explains the impact of temperature inversion on air quality and the typical weather conditions in which inversions occur.
3. Voluntary restraint from wood burning should be strongly encouraged, particularly in valley floors where the impact of temperature inversions is most severe.

4. In designing and implementing strategies to encourage the sensible use and control of all air pollution sources at the Pass, the assistance of staff from regional air quality control authorities should be sought.

IV.23 Goal: Prevent or reduce the intrusion of sources of high noise levels into the Pass area.

Objectives:

1. Options for altering the jet flight pattern for high speed, low altitude military maneuvers in Gold Creek Valley should be researched.
2. The use of non-muffled compression brakes on Interstate 90 should be prohibited. (???)

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Recommended Actions

1. The EDLU Committee should work with Kittitas and King Counties to insure clearing and grading regulations restrict such activities prior to site plan approval.
2. The Committee should enlist the assistance of appropriate agencies and knowledgeable individuals to further identify highly sensitive environmental areas including high quality wetlands and riparian corridors, old growth forests, sensitive wildlife habitats and wildlife corridors. The Committee should review the Counties' critical areas maps and regulations to ensure that these sensitive areas are adequately identified and protected, considering the special requirements of the mountain environment.
3. Working with the CDA Committee and the Mountains to Sound Greenway Trust, the EDLU Committee should identify the significant view-shed areas of the Pass and recommend actions to protect or enhance their visual quality.
4. The EDLU Committee should work with the Forest Service, Mountains to Sound, the Mountaineers and others to identify funding sources for the planning and implementation of a system of open space trail corridors which will provide functional transportation alternatives, recreational opportunities, visual enhancement, and preservation of sensitive and unique areas.
5. The Committee should provide recommendations, assistance and support for potential land exchanges, which will protect open space and sensitive areas on the Pass.
6. The Committee should seek assistance to prepare an informational brochure for distribution to all Pass residents which explains the typical weather conditions under which temperature inversions occur and encourages voluntary restraint or limitation of wood burning during these conditions. The Committee should seek the assistance of staff from regional air quality control authorities to develop and implement this and other strategies to encourage the sensible use and control of air pollution sources at the Pass.

V. RECREATION

The Snoqualmie Pass area contains many outstanding recreational opportunities, including both active and passive activities. Recreation opportunities include:

- downhill skiing and snowboarding (four areas)
- cross-country skiing (including 56 kilometers of trails within the ski areas)
- sledding, tubing and snowshoe activities
- mountain biking
- hiking (many trails, including Iron Horse State Park, John Wayne/ Pacific Crest Trails, and many well-known day trip and overnight hikes)
- fishing
- boating
- bird and wildlife watching
- sightseeing

The amount of available recreation is unmatched anywhere else in the State, and is remarkable not only for its diversity, but also for its close proximity to a major metropolitan area and ease of access via I-90.

Goals and Objectives

V.1 Goal: Encourage the development of all-season, multi-option recreational facilities on public and private land. Facilitate the cooperation and coordination of planning and development activities of public agencies and private land owners.

V.2 Goal: Encourage the development of a Visitor Information Center to inform and educate the public about the areas recreational opportunities.

V.3 Goal: Develop an integrated public/private trail system, which provides recreational opportunities and connects recreational areas with other uses.

Objectives:

1. Connect village or activity centers to surrounding residential and recreational areas with trails developed in green belts and open space areas.
2. Incorporate educational, cultural, historical and environmental self-guided tours.
3. Provide sufficient trail width and/or other means for multiple uses (e.g., biking, walking, jogging, and cross country skiing).
4. Prohibit the use of off-road motorized vehicles on multi use trails. Limit the use of snowmobiles to appropriate areas.
5. Prohibit the use of firearms in areas where other forms of recreation are accommodated or encouraged.

6. Expand the existing mountain biking trail system.
7. Provide a separate equestrian trail system.
8. Site trails away from wildlife corridors and archaeologically important areas.

V.4 Goal: Encourage careful, consistent, multi-season development of ski areas comprising The Pass complex.

Facilitate the expansion and upgrading of existing facilities - including, but not limited to, properties conveniently attainable from the existing facilities - thereby providing improved recreational opportunities in a manner consistent with the applicable Master Plan in effect for The Pass ski area.

Objectives:

1. Develop base facilities into all-season, multi-use complexes.
2. Encourage upgrade of existing facilities to properly accommodate present and future demand.
3. Provide additional recreational opportunities to local and statewide recreational users.
4. Encourage aesthetically and environmentally sound development of chairlift placement, alpine and Nordic trails, runs and summer use to be compatible with view-sheds and other recreational uses.
5. Encourage development of extensive summer use trail networks to harmoniously accommodate hikers/sightseers, mountain biking and equestrian use.
6. Encourage adoption of the ski areas for multi-use by those with disabilities.
7. Provide alternative, non-fee based winter use, which is in harmony with other winter recreation uses such as back country access through USFS permitted areas.

V.5 Goal: Provide open space for properly managed festivals, cultural events, theater, athletic events and formal public parks. Such open space and events should be appropriately scaled to be harmonious with the mountain environment and its other recreation attributes. The following issues should be addressed:

- a. Traffic impact;
- b. Sound impact;
- c. Effective event and off-site security;
- d. Sufficient event parking and spill-over parking in controlled areas;
- e. Litter control and clean-up;
- f. Overnight camping only in legal camping areas;
- g. Sufficient community support services (e.g. medical, fire);
- h. Sufficient sanitation capacity;
- i. Adequate provisions for safe pedestrian routes; and,
- j. Should not impair or reduce the natural setting.

V.6 Goal: Encourage the development of a "village center" within which cultural and community uses and activities can be clustered.

V.7 Goal: Analyze the potential of Keechelus Lake as a boating, fishing, swimming/beach area. The feasibility of removing the stumps from the lake should be investigated. Encourage Federal, State and local agencies to develop a management plan which optimizes the recreational opportunities of the lake.

V.8 Goal: Create an identity, which promotes the recognition of the Pass as a unified, multiple use recreation and resort area.

Objectives:

1. Marketing efforts should be combined so as to reach the broadest possible audience.
2. An incentive program should encourage resort owners and operators to provide joint recreational access to all Pass visitors.
3. Physical access should be improved between recreational facilities and areas, including joint easements, crossover trails, access for disabled persons, etc.

V.9 Goal: Work with public and private historical/cultural groups to identify events and locales of significance in the evolution of the Pass area, and recognize the importance of history and culture as a recreational asset.

VI. TRANSPORTATION AND CIRCULATION

Some of the most important issues to the Pass community entail transportation issues. Two of the most important are:

1) Restriction of Trucks/Truck Parking on SR 906

Trucks and truck parking on SR 906 were identified as the most pressing transportation issues by respondents to the community survey. There is a very strong sentiment among Pass residents that trucks should be prohibited completely from SR 906 between Exit 52 and Exit 54 and that no alternative sites for truck parking should be provided.

Safety for pedestrians and local traffic, as well as the aesthetic detriment, were among the reasons that the community wants truck parking removed from the highway. Even though the community perceives SR 906 as a year-round recreational highway, WSDOT does not feel it should restrict "commercial combinations" from SR 906 in the same manner as they currently do in the summer on SR821 (Canyon Road) in Yakima County, as truckers are coming to destinations on SR906, not just passing through as they do on SR821.

Truck drivers stop at the summit for a variety of reasons: the need to sleep or rest; restroom stops; stops for meals. Some drivers prefer the Pass in the summer because it is cooler than down in the lower areas. Fewer drivers stop in the winter, because of the possibility of getting stuck at the Pass. However, trucks do stop in the winter, and some get boxed in by private vehicles.

If trucks cannot be prohibited from SR906, providing an alternative location, or an actual rest area, for trucks is a must. Truck parking on the shoulders of SR906, as currently exists, is intolerable to the community because of past accidents and recurring near misses, as well as the

very disrupting effect on the scenic mountain environment. WSDOT should continue to work with the community to identify means to reduce or eliminate truck parking on SR906. If, notwithstanding the community's wishes, trucks cannot be prohibited from SR 906, cooperative planning efforts among WSDOT, the Forest Service and the community towards selecting an alternative truck parking site and developing an implementation plan would be a significant step towards the elimination of the serious problem of truck parking on SR-906.

2) Pass Closures and Pass Access

Interstate 90 was closed 66 times between the summer of 1996 and the summer of 1997 alone. Forty five of these closures were due to an avalanche or avalanche control. While recent closure numbers have been down, some of the closure durations were very significant.

I-90 road closures are determined and regulated by (WSDOT) in coordination with the Washington State Patrol (WSP). WSDOT and WSP will close I-90 when there is a serious safety concern for the motorist. Typically, closures occur all the way from North Bend to Cle Elum, but each situation is evaluated to determine the level of closure required.

Closure of the road has an economic and social impact on the Pass community, and is particularly frustrating to skiers and residents alike when eastbound traffic is prohibited from reaching the summit when the safety hazards occur east of Exit 54.

While WSDOT and the State Patrol may allow access during closures, there is no adopted plan or policy that accommodates Pass residents and businesses. While such a plan would not eliminate all future inconvenience, it would provide some certainty of access for Pass residents.

In the meantime, Pass residents have established a good working relationship with a member of WSP, who helps residents get home, when it is safe, during I-90 closures. The residents meet in North Bend, and then are led by caravan to the pass by uniformed officers. This was a new arrangement in the winter of 1998/1999. However, one officer cannot be on duty at all hours. WSDOT should work with the community, through SNOPAC, and WSP to prepare a Closure/Access plan which includes a system whereby residents can be identified easily and allowed access to at least Exit 52 (eastbound) when safe.

Transportation Study

A transportation study was prepared as part of this planning effort and is available as a separate document. The study includes background information and descriptions of existing conditions, and includes trip generation based on the allocation of land uses for the years 2005 and 2015 as briefly described in the Land Use section. This section presents a summary of the transportation findings for future conditions, recommendations for improvements that may be necessary to mitigate growth impacts, and improvements that could presently be made to mitigate existing problems.

The computer traffic model used in analyzing conditions at the Pass distributes and assigns traffic to area intersections and roadways. The modeling program is supplied the trip generation information, through-traffic volumes on area roadways (in this case, I-90), information on relative land use locations, and "network" information - capacity, where the roads are, and how many lanes per road. The model programmer also provides information on average observed speeds, congestion points, stop sign or signal locations, and other data needed to run the traffic model.

For this project, the program also included information to restrict traffic flow due to adverse weather conditions. This is done by reducing the capacity (ability of cars to flow) on each road

segment, through each intersection, and on the freeway ramps. The main purpose in this modeling exercise was to determine two sets of information: (1) How much traffic would be on each road segment for different scenarios and different years; and (2) How would the additional traffic affect speeds on road segments.

The model identified important information on several matters:

1. Queuing problems may occur on Exit 54, westbound, in 2015 (depending on the level of development in this sub-area)
2. Queuing problems may occur on Exit 53 as well, in 2015.
3. Speeds may be very low (below 10 mph) on SR-906 northbound between Summit Central and Exit 53.
4. Speeds on 1-90 over the summit may drop to 50 mph by 2015.
5. Congestion will worsen on SR-906 between Exits 52 and 53. The expected volume in the peak hours would be greater than the capacity of a two-lane road.
6. Building a frontage road on the east side of 1-90 would not result in significant time savings for residents.

The model was run for both 2005 and 2015. Conditions were modeled for higher and lower housing development (please see the Land Use section of the Plan). The differences in operating conditions under these scenarios was not significant from those conditions under the “Planning Projections”. These model results, coupled with our observations of pedestrian and parking activities, result in the following proposals to improve traffic flow at Snoqualmie Pass now and in the future. Most of these proposals are based on better management, rather than built improvements.

Improving Traffic Operations - Physical Improvements

As traffic levels increase, congestion will rise and travel speeds will fall. The Pass area already suffers from traffic congestion on busy winter weekends. The following sections outline improvements that should ease traffic congestion now, and help alleviate problems in the future.

1) Realigned SR-906 at Summit Central

Booth Creek Holdings has included a realigned SR-906 in their Master Plan for The Summit at Snoqualmie. SR-906 would be moved so it lay outside the Summit Central parking area. This is intended to remove the current conflict between skiers and pedestrians. Now, all skiers have to cross SR-906 to reach the lifts (except those parking along the southwest side of SR-906). The proposed realignment would bend around to the north of the parking. A few sharp bends would be created in SR-906. This could create some safety and operational issues. Drivers would have to negotiate sharper curves under snow and ice conditions. Plowing may become more difficult. The high snow banks created by the plows, combined with the curves, may create sight distance problems.

The road, as proposed, creates an “oxbow”, which would not meet WSDOT Design Guidelines. In order for the change to proceed, one of the following must happen: (a) Another entity could take over jurisdiction of the road, such as Kittitas County; the road would then have to meet design standards for the County; or (b) The proposed realignment could be designed in such a way that it meets WSDOT standards; however, this may not be possible; or (c) a variance would have to be granted by WSDOT. A combination of measures (b) and (c) would most likely allow the improvement to be built. The road should be designed to smooth out the curves and

bring the road as close as possible to WSDOT standards. If WSDOT still has concerns, then the ski area should apply for a variance.

It is understood that the ski area intends to fund the engineering, design and construction of the improvement. Sufficient time for review and approval by WSDOT should be included in the schedule for the project. WSDOT approvals can take from 6 to 18 months. The road design should include a 40 mph design speed, and maintain adequate snow storage.

2) Alternative Alignment of SR-906 at Summit West

It might be possible to realign SR-906 in the area of Summit West to the northeast, so it lies closer to I-90. Land swaps or right-of-way acquisition might be involved. Doing so would provide an opportunity to develop a “village” master plan that would integrate parking, access and direct pedestrian connections between the ski base and the commercial areas.

This idea has several advantages: Reducing vehicular/pedestrian conflicts by removing most road crossing activity; creating additional areas for parking; making shared ski/commercial use of commercial parking areas feasible; and reducing traffic conflicts on SR-906 for Summit West parking.

Several issues would need to be investigated, including: Right-of-way, slope and road grade issues, impacts to existing commercial development, visual impacts on the I-90 scenic corridor and funding.

If other measures do not solve the traffic and parking problems on SR-906, this alternative could be re-considered; however, a brief initial review indicates that the cost of such a project makes it unfeasible. Accordingly, it will not be considered further or relied upon to solve existing problems at the Pass.

3) Improvements at Exit 53 underpass/SR-906 Intersection

By 2015, traffic in this area will become congested during peak ski arrival and departure times. Speeds could drop to just a few miles per hour. This will be frustrating for drivers, and would create a negative perception in their minds about their recreational experience.

Manual traffic control could help with this problem. If drivers leaving the area can flow freely onto I-90, congestion would be reduced. Those arriving in the morning should be able to flow freely onto SR-906. Manual traffic controls should be tested in the field before becoming policy. Allowing greater movement for off-ramp traffic could create a delay problem on SR-906 as it approaches the intersection. Cost and liability issues relating to manual traffic controls should also be investigated.

Another option would be to increase the number of approach lanes at this intersection. For instance, the underpass road could be widened to one left turn lane, and one shared left-turn/right-turn lane. This would necessitate widening SR-906 south of Exit 53 for some distance. This may be possible within the existing pavement width. During snow conditions, pavement markings would not be seen, and so either overhead signage or manual traffic control would be needed to keep traffic flowing.

4) Improvements at Exits 53 and 54

As discussed under the model paragraph, there may be some operational problems at these two exits. The primary issue is traffic queuing on the off-ramps and spilling back onto the

freeway. This also creates safety problems on 1-90. There are several possible measures for alleviating this problem. Each has issues associated with it.

A. Install traffic signals at the westbound off-ramps of Exits 53 and 54. The signal might increase delay and queues for ramp traffic. The signals also might not work well under snow/ice conditions (the signal detectors don't work well when covered in snow). The community may not feel comfortable installing signals, since they seem out of place in the rural/resort setting of the Pass. Finally, signals cost upwards of \$150,000 to install, and must be maintained. One positive note: signals do tend to make it clear to drivers who has the right-of-way.

B. Restripe the off-ramps to two lanes. As the ramps near their termini near the underpasses, the paved width is such that two lanes of traffic could be accommodated. The ramp could be restriped to one left turn lane, and one shared left/right lane. This would mean restriping the underpass road as well. This is probably feasible with the existing roadway width, although some additional paving may be required. If paving is required, then funding must be found. Some truck drivers park on the ramps and under the overpass. No parking would have to be enforced if two lanes are installed.

C. Variable message signing on the freeway could warn westbound drivers of congested conditions at Exit 54, and direct them to Exit 53. This requires staff and incurs operation and maintenance costs. If Exit 53 is congested, drivers would need information in advance of Exit 54 so they could choose that exit instead. If both ramps are congested, then the VMS could only warn drivers of congested conditions. Since there are no westbound ramps at Exit 52, drivers would only have the choice of slowing for congestion, or bypassing the Summit area. Variable message signs would have to be monitored and updated as conditions change.

D. Improvements to the intersection of SR-906 and Exit 53 could help, since southbound delays there may be spilling back and causing delay on the off-ramps. Please see discussion below.

E. Manual traffic control at the off-ramps during peak times. Certified flaggers directing traffic to continue through might alleviate some delay.

F. Improved signage may reduce delays. It may not be clear to drivers which way to turn to reach their destination. Signage along the ramp, and then near and at the terminus, would help drivers find their way. Signage would need to be designed and located so as to be visible under winter conditions.

Signals are not recommended at this time. They probably would not be effective. Instituting the remaining measures would probably be most effective in reducing delay and congestion on the off-ramps. The variable message signing would have to be coordinated with the existing driver information system, and approved by WSDOT. Manual traffic control should be used initially on those days when activity will be high. With time, it may become evident that control is needed on a regular basis (e.g., every Saturday during the ski season). Better signage would be coordinated with and approved by WSDOT.

Since the majority of peak hour traffic is associate with ski activity, the Summit at Snoqualmie should bear a proportional share of the costs of these measures.

5) *New Eastside Frontage Road*

There has been some discussion in the past of building a new frontage road to the east of 1-90, to connect Exits 52, 53 and 54. Even in the most optimistic Land Use Allocation previously described does not result in traffic volumes that would warrant construction of a new roadway. If the road connected just Exits 52 and 53, it would be about one mile in length. A rough cost estimate would be about \$2 million, assuming no significant structures (bridges)

would be required. The section between Exits 53 and 54 would be even more expensive because it is a longer. Funding for such a roadway would be problematic, with little demonstrated demand and competition for funds with roads that would carry higher volumes of traffic.

6) *Traffic and Parking Management*

Many of the congestion problems at the Pass can be ameliorated with better traffic and parking management. The following section discuss measures to improve traffic flow, increase parking efficiency, remove conflicts between pedestrians and cars, and provide better shuttle service for both skiers and residents. Many of these measures should be provided by the ski area in response to heightened skier traffic and parking.

A) *Summit West*

One of the primary problems on SR-906 is the conflict between pedestrians and cars. Currently, there are few pedestrian facilities. Pedestrians walk in and cross SR-906 at Summit West and Summit Central.

The problems at Summit West are related to two activities:

1. People frequenting the restaurant/mini-mart, then crossing to the ski area.
2. Vehicles (especially trucks several vehicles deep) parking along SR-906.

People cross SR-906 at will. There is no organized crossing point. This behavior constantly exposes pedestrians to safety problems. Drivers trying to traverse the area have to stop again and again for pedestrians. At night, the problem gets worse because pedestrians are less visible. For these reasons, some type of pedestrian walkway with marked driveways and pedestrian crossing(s) needs to be created. (Please see below for more discussion about enforcing parking restrictions).

Simply removing the on-street parking at Summit West would exacerbate the parking shortage problem for skiers. More skiers would be trying to find fewer spaces, which could create even greater congestion around parking lots. Several remedies have been analyzed to alleviate this problem, but a workable solution remains to be found.

When the ski area expands, additional parking will be provided. If sufficient parking is provided in lots, then the pedestrian/car conflict should be diminished. However, if skier visits increase beyond ski area parking capacity, or when more commercial development occurs on the north side of SR-906, pedestrian activity will increase and people will want to cross SR-906. To mitigate this problem, a pedestrian overpass or underpass could be created. Such structures are very costly, therefore it might be advisable to manage pedestrian crossings rather than build an overpass or underpass. The pedestrian control option, which would need to be finalized, is recommended at this time. The community and WSDOT can investigate federal funding for an overpass/underpass through the Puget Sound Regional Council and/or other sources. It may take several years to secure such funding, if it is ever available.

B) *Summit Central*

The problems at Summit Central are related to skiers having to cross the road to reach the lifts. As discussed above, the ski area may reroute SR-906 so that pedestrians do not need to cross the road to reach the lifts. In the meantime, several measures would help with pedestrian/vehicle conflicts:

1. Creating and enforcing a new 300' no-parking zone on SR-906 at the crossing. Cars parked on the road at Summit Central complicate the problem because pedestrians are harder to see as they come from behind parked cars and buses.
2. Active traffic and pedestrian control at the main crossing location, some of which is slated to be installed any time. On prior winter visits to Summit Central, traffic monitors have

been observed standing in the middle of SR-906 at the crossing, but doing nothing in the way of assisting drivers or pedestrians. Drivers slow or stop because they don't know what to do. Pedestrians stand on the sides waiting for direction. It is imperative that persons of authority, such as certified flaggers, control this crossing point.

3. Keeping the snow wall in place (at a reasonable height) so that pedestrians are encouraged to cross only at the crosswalk.

If SR-906 is rerouted around Summit Central, on-street parking in this area of SR906 should become less of a problem.

C) *Silver Fir Base Area*

There are also skiers crossing the road at this area. However, the volume of both people and cars is low at this point, so conflicts should be manageable.

Regardless of measures to minimize pedestrian crossing points, the ski area should provide separate pedestrian facilities so they can stay off of SR-906 and Alpental Road. It isn't safe to have pedestrians on the road, especially when they are wearing ski boots, carrying equipment and trying to keep children under control. A separate path can be created for pedestrians paralleling the road. This may require purchase of special snow removal equipment. Pedestrian facilities will also be a necessary element of new commercial development.

Providing more frequent shuttle service could also reduce pedestrian use of SR-906 and Alpental Road.

7) **Signage**

A) SR-906 Overhead Signage

It is difficult to discern what and where lanes exist on SR-906. If the road is intended to be used for more than two lanes, then confusion will increase when snow and ice cover lane markings. Strategic placement of one or two overhead signs with lane usage information would help reduce driver confusion on SR-906. These signs would indicate that the center lane is for turning traffic; and the lanes for access to and from parking lots and through traffic.

B) Moveable Signs

On-street signage is also needed. The ski area does use some signage now. However, it is largely ineffective because it generally cannot be seen. The signs are very small and are often either buried in snow or half covered with dirt thrown up by the plows. These are moveable signs, and they should be removed every night and replaced every morning. The signs also need to be checked throughout the day to see:

1. If they are still visible
2. If they are still meaningful
3. Whether more signage is needed.

There is now a critical lack of signage directing drivers to parking areas. The use of moveable signs (e.g., on sawhorses) would help sort out some of the confusion for drivers on SR-906 and Alpental Road. Drivers should be directed to one *parking area at a time* at Summit West and Alpental. Signs help do this; once another area opens for parking, the signs are moved accordingly. Sufficient signage to close parking areas that are full would also help. The signs needs to be large enough and placed in such a manner that a driver can see the sign and keep going to the next lot without hesitating at the closed parking area. (Note: Although the "No Parking" spray painted in orange at Summit Central may be somewhat effective, we do not recommend this measure. It is primarily done to keep areas open for shuttle buses and charter bus parking. It is unattractive and may have environmental implications. It is only useful until the snow plows cover up the information.)

WSDOT requires that moveable signs be located outside the SR-906 right-of-way, and cannot be used to direct traffic to Interstate 90.

Moveable signs, whether permanent or temporary, should be professionally designed and manufactured and be consistent in design. “Hand-made” signs should be strongly discouraged.

C) *SR-906 at I-90*

The signs directing drivers to 1-90 at Exit 53 are very small and become buried in the snow. Larger, tall signage or moveable signage would be better. Better signage would help reduce driver confusion about access to 1-90 at this location. This signage should be provided by WSDOT.

8) ***Snow Removal and Sanding/Plowing***

Snow plowing is a major issue at Snoqualmie Pass. WSDOT plows SR-906. To minimize conflict with parked cars and pedestrians, plowing is generally done between midnight and 8 am. Snow is stored along the roadway. In a cooperative arrangement with Booth Creek Holdings, the plowing provides for selected pedestrian crossings, parking along the highway and no-parking locations.

Strictly from the standpoint of pedestrians and visibility to commercial areas in the vicinity of Summit West and Summit Central, it would be desirable to haul the snow rather than leave it along the roadway; however, snow hauling presents serious issues including: (a) Cost: Considerable heavy equipment and labor could be required, including loaders and dump trucks; (b) Location: There is currently no designated location for storing the hauled snow; and (c) environmental considerations for snow storage locations. While these issues are serious, they may not be insurmountable. A snow management plan that developed priorities and policies for when, where and how often snow removal would occur, could result in a strategy that utilized existing equipment and labor at times when snow plowing was not otherwise necessary. WSDOT, the ski area, and commercial business would have to agree on such a plan, including cost sharing arrangements, before it would be feasible.

The ski area operators plow the Alpental access road. Apparently, in times past the time of plowing sometimes coincides with peak times of arriving traffic. As a matter of policy, this plowing should be done before peak traffic arrives.

9) ***Parking***

A) *Future Parking Demand*

Total future peak parking demand is estimated at 5,814 vehicles. This parking demand relates to a typically busy Saturday. Parking demand on the very busiest days (e.g., Saturdays of holiday weekends) may be higher.

The Summit at Snoqualmie Master Plan currently shows 39.9 acres of parking. This translates to about 4,948 parking spaces. This will not be enough parking to meet demand. As discussed above, on-street parking may not be available in the future. The parking spaces must also be allocated to demand. Currently, the Alpental area has the biggest parking problem. When the lots fill, drivers park along Alpental Road. This creates problems for plowing, cuts off emergency access and makes traffic flow very difficult.

If the parking areas are not more efficiently managed than today, the parking areas will not be able to park even the 4,948 cars. Therefore, several measures are needed to mitigate parking problems.

(1) *Parking Management*

(i) Provide enough parking in lots to accommodate peak demand. We recommend that room for 6,000 cars be provided to meet typically high demand. The ski area is currently amending their master plan to add parking.

(ii) Provide parking at the demand location. This requires some thought by the ski area so that parking at each portal matches demand. Until permanent parking can be created, the ski area should investigate temporary parking locations to be utilized closer to the demand locations.

(iii) Provide for off-site, overflow parking. This might take place at one of the Sno-Parks at either Hyak or Exit 38. These lots tend to be lightly used. Overflow parking would require additional shuttle service.

(iv) Provide better overall shuttle service. Skiers should not have to wait more than 5 - 10 minutes for the shuttle. Longer waits encourage people to get in their cars and drive to another portal, which creates both parking and traffic problems.

(v) Emphasize parking management to provide excellent parking utilization.

a) Parking lots should only be parked one at a time. In other words, all other lots are closed off until one lot fills. Then all traffic is directed to the next lot, and down the line.

b) Provide enough parking staff to do the job right. For the large lots, the minimum would be 7 - 8 staff. Having enough people on hand allows those staff to get people efficiently into parking spaces, maximizes the number of cars possible in a lot, and makes the experience better for skiers.

c) Traffic management into the parking areas is critical to success. SR-906 traffic should be directed by certified flaggers. To be effective, the flaggers must be aggressive in directing traffic.

d) During busy times, have parking and traffic management staff on hand to manage egress activities. Waiting in a parking lot to exit is no fun, and creates a bad visitor experience. It also breeds frustration in drivers, who may then exhibit poor driving behavior on exiting the lot.

(vi). The Summit and those who develop the commercial area should work together to maximize parking efficiency. It is likely that most people visiting the commercial areas during the winter will also be skiing. The total parking demand for all activities should be determined, so that all lots can be used effectively to ensure sufficient parking for the Pass.

(vii) Expand on programs that bring skiers to the area on buses.

(viii) Reward high occupancy vehicles. Those arriving four or more to a vehicle might receive one free ski pass, reduced passes for the day, or preferential parking areas. Scrip for these can be given by the parking lot monitors, who will be able to tell how many people are arriving per car.

(ix) Organize parking activities in the Summit West lot. This lot is so large that people tend to park haphazardly. If enough staff are present, with tools such as signage and traffic cones, it will help better direct drivers to spaces.

(x) Create and implement an actual parking management plan, which spells out in detail who needs to be where, when. This plan could have levels for dealing with slow days, busy days and peak days. This plan should be created in advance of the season, tested, and revised as needed.

10) ***Enforcing No-Parking on SR-906***

From the end of the commercial area to south of the intersection of SR906/Exit 53 underpass, there are "No Parking" signs posted. There are other limited locations where the road is posted for no parking, primarily in the areas around shuffle bus stops. On limited access roadways, such as 1-90, no parking is allowed. This restriction extends to the on- and off-ramps.

Washington State Patrol continues to heavily enforce the no parking restrictions on I-90 and other limited access roads. The Patrol feels that truck drivers are parking on ramps to avoid competing for spaces at formal truck stops (which tend to fill up early), and to try and get a competitive advantage (get on the road faster). Truck violations such as ramp parking are typically enforced by Commercial Vehicle Officers of the Washington State Patrol. These officers differ from Troopers in that they concentrate their efforts on commercial vehicles, and carry special equipment for dealing with truck enforcement. Any State Patrol officer can enforce the Commercial Vehicle code.

It is legal to safely park on some State facilities in unincorporated areas, including SR906 (though some of this road has been previously marked as “no parking from midnight to 8am). However, if drivers park at night on these facilities, they must leave at least their parking lights on for safety. This applies to passenger vehicles and trucks. (Information from Officer Brown, Commercial Vehicle Enforcement Officer, WSP.)

It should be noted that police power enables Troopers to curtail any activity they feel presents a safety problem. This could extend to something like vegetation growing in sight triangles, trucks blocking traffic flow, or parking in areas that may not be posted no parking but where the parking is creating a problem.

From the stand point of public safety and aesthetics, it may be in the best interest of the community and visitors to make all parking along the road illegal. Removing parking from the highway would result in a significant net loss of parking during the ski season. However, prohibiting “commercial combinations” from using SR906 would significantly improve public safety and aesthetics. (The problems with this approach were discussed in more detail earlier.)

The community will need to continue working with the Washington State Patrol and Washington State Department of Transportation in resolving parking issues on area roadways. Parking restrictions must be enforced, which may mean additional manpower by the Washington State Patrol during peak parking demand days during the winter and summer. In the long run, the best way to resolve on-street parking problems may be a combination of providing sufficient off-street parking, revising SR906 so there is no room for parking, and realigning SR906 at Summit Central so there is no advantage in parking along the road. All of these measures are discussed in other sections of the plan.

11) *Drop-Off Areas*

As the drop-off areas are generally within the parking lots, they are included here. The current drop-off areas are not big enough for the level of activity. As the Summit at Snoqualmie works to increase its skiing levels, better drop-off areas will become more important. Given its proximity to the Central Puget Sound, many parents drop off kids in the morning and go home, returning in the afternoon.

The Alpentel ski school drop off area is a significant problem. The lot is often full of parked cars to the point that cars cannot circulate through to drop off and pick up. Small children dart out from behind parked cars into moving traffic. The lot should be redesigned so the front area is only used for drop-off and pick up. The area needs strict enforcement (people park in it now). The drop-off area should be expanded. All ski school lots should be quite large to accommodate both drop off and parking demand.

Parking monitors not only need to efficiently direct traffic to parking areas, they also need to efficiently direct drop-off activity. Having separate entering lanes for drop-off vehicles would help. Signage will also help sort out traffic.

Managing traffic in the afternoon will also help with pick up activities. Now, cars leave the lots in all lanes, so entering traffic must wait on SR-906 to enter the lots. Traffic and parking staff must keep one entering lane open to accommodate pick up activities.

12) *Emergency Access*

At times, Alpentel Road becomes almost impassable due to cars parked on the road. The road is not wide enough for parking and two way traffic. This creates problems for emergency access. Parking along Alpentel Road should be strictly forbidden, and it must be enforced. Violators should be towed. However, the ski area must also provide enough parking and good shuttle service so that skiers aren't forced to park on the road.

Occasionally in the past, Alpentel Road would not be plowed or sanded until after the lifts open. Cars go off the road and block access, including emergency access. The road should be plowed and sanded at least an hour before the lifts open, and kept in good condition throughout the day.

13) *Shuttle Bus*

More frequent service would make the shuttle bus more attractive to skiers. It would also become useful to residents, who might not have to use their car for all activities. A 5 to 10 minute headway for shuttle service is desirable. At 10 minute headways, the average wait time is 5 minutes. Any longer than this is uncomfortable for passengers, especially in the cold and snow. This may require additional vehicles. The Summit at Snoqualmie could work with Metro or other providers to use fleet buses on the weekend, when other demand is at the lowest. Metro has both full sized coaches and small, 18-passenger coaches. Analysis of the number of vehicles needed to meet policy headways should be undertaken.

Shuttle services should be expanded to run to overflow lots on busy days. Since this won't happen every weekend, a plan to rent shuttle services might work for serving these lots (e.g., contracting with Metro, Super Shuttle or another provider).

The shuttle drop-off areas should be expanded so the shuttles can get out of the traffic flow. Shuttle stops should be carefully considered near Summit West, both to minimize walking distance to the bus and so stops can be placed where the road has available plowed width.

14) *Future Improvements to I-90*

For years, Washington State Department of Transportation has been trying to find a way to widen I-90 east of Exit 54. The passage of I-695 and the current road alignment (between steep slopes and the lake) make widening problematic.

The State Highway System Plan, 1999 - 2018 (Washington State Department of Transportation, January, 1998) lists two projects for I-90 in the Financially Constrained Mobility Strategies. This would have ordinarily indicate that, by using the historical revenue trends before I-695 and projecting them out, these projects have a chance of being funded in the next 20 years. However, unless another initiative passes making more road funding available, the current situation is that many other higher rated (from a need standpoint) projects are unfunded, leaving these projects in limbo: (A) Milepost 55.49 to 67.29, Gold Creek to Easton Hill: Corridor design and environmental design. Estimated cost range: \$2 - \$2.6 million; and (B) Milepost 59.79 to 63.53, Resort Creek to Cabin Creek Road: Widen to six lanes. Estimated cost range: \$38.8 - \$54.4 million.

In another section of the Highway System Plan are listed those projects that were excluded. These projects did not have funding, or could not be feasibly funded, given expected revenue for

the next 20 years, which is even less now than before. The excluded projects for 1-90 include widening of 1-90 east of milepost 67.46 (Easton Hill), and this project: (C) Milepost 55.16 to 59.79, Hyak to Resort Creek: Widen to 6 lanes, snowshed widening not included in cost estimate. Cost estimate: \$103 - 133.9 million. At over \$11 million per lane mile, it is not surprising that this project did not make the Financially Constrained Mobility list. However, extension of the snow shed may occur. This project falls under another category of the Plan: Economic Initiative Strategies. The cost estimate to extend and widen the shed is \$20 - \$26 million.

About \$960 million of the total \$1.09 billion worth of Economic Initiative Strategy projects were in the Financially Constrained Plan. This contrasts with the Mobility Strategies, where only about \$7 billion of the total \$29 billion in improvements could receive funding. Therefore, before I-695 there was a chance the snow shed project would go forward, but little hope for the widening of 1-90 along the lake. Expanding and widening the snow shed may reduce the number of Pass closures. This action, combined with improvements in communication between residents and WSP, may reduce Pass access problems during the winter.

WSDOT should be encouraged to develop a project that becomes part of the State Highway System Plan, probably under the Safety Improvements or Economic Initiative category. This project would provide formal status for resolving the access issue not just for residents, but also for those wishing to access the ski area or cross over the Pass.

The only certain thing regarding highway funding is its continued uncertainty. Watch pending referendums and initiatives in this and coming years to keep current on the status of highway funding in the State of Washington.

VI.1 Goals and Objectives

Goal: Provide for transportation methods which are safe and serve the residential, recreation, cultural, economic and emergency needs of the area while reducing internal automobile travel and encouraging pedestrian, bicycle and ski circulation within the community.

Objectives:

1. Adequate circulation for residents should be provided, even during times of heavy visitor traffic.
2. All transportation corridors, from walkways to roadways should take into account the safety aspects of falling and accumulating snow.
3. Parking along SR 906 should be controlled and coordinated to increase pedestrian safety. Additional off-street parking alternatives should be identified and implemented.
4. The availability of remote or new parking areas should be analyzed, including:
 - a. Shuttle from Bandera;
 - b. Denny Creek campground; and,
 - c. Asahel Curtis picnic area with chairlift/gondola to area of Surveyors lake/ radio tower, connecting to top of Silver Fir.
 - d. Additional ski area parking lots.

5. Large commercial through trucks should have their own planned parking, preferably separate from other users (for safety) and visually screened (to preserve the scenic beauty of the Pass).
6. A study of current traffic patterns and future growth should be conducted for the corridor between Hyak and Alpental. The study should identify existing problems and examine possible solutions, including the potential of each alternative to:
 - a. Cut down on SR 906 congestion;
 - b. Provide access to future commercial and community facilities at Exit 54;
 - c. Allow shuttle service following the loop; and,
 - d. Enhance opportunities for recreating the historic Sunset Highway and parkway driving within the I-90 corridor.

If the study should indicate the need for a frontage road on the east side of I-90, any such road should be designed and constructed with adequate vegetative buffering to minimize the visual impact on I-90, and with drainage capacity to reduce the road's effects on surface and ground water.

1. Methods to discourage tourist traffic on residential streets should be developed implemented.
2. Street lights should be installed where needed for public safety. Street lights along the frontage of SR 906 should be considered.
3. The compatibility (or incompatibility) of the various modes of transportation, including horses, off-road vehicles, mountain bikes, cross country skiers, hikers, walkers, joggers and snowmobiles should be analyzed and appropriate designations and restrictions developed.
4. Emergency response services should be accommodated Pass-wide, with particular emphasis in high traffic activity areas.
5. Future development should provide roads at county standards, as the same may be amended for the mountain environment. Sidewalks and curbs should only be required in compact, pedestrian oriented "village centers" where no snow plowing will take place.
6. New development should, where practical, provide trails that traverse their property which are open to the public, subject to resolution of liability and compensation issues. Trails for cross country skiers and bicycles, should integrate into the overall trail system. Portions of the trail system should be readily accessible to disabled persons and the elderly. Incentive credits should be considered for developers to include planned portions of an integrated public trail system and other amenities (such as exercise stations or view points). USFS trails should be connected with other public trails in accordance with an approved trail plan.
7. Permanent display maps should be installed at strategic trail/path/road junctions. A large, permanent overall map should be located at each activity center.

8. Heated sidewalks or other means of snow removal or clearing should be considered at commercial centers.
9. Pedestrian sky bridges or underpasses should be considered over high use roads such as SR 906.
10. Crossover trails between ski areas which would encourage people to ski or bike between ski areas, should be developed or upgraded.
11. Loading zones and ramps for deliveries in commercial centers should be required.
12. Transportation planning should address the needs of potential future uses, such as:
 - a. Community center;
 - b. Golf courses or other new recreational facilities; and
 - c. Competitions or events such as mountain biking, skiing, snow boards, triathlons, and shows.
13. Commercial/residential/recreational centers which are developed should be connected by transportation corridors.
14. The redesign of SR 906 at the Summit to create a pedestrian oriented commercial/recreational village should be considered.
15. Whenever possible, auto-oriented business should be separated from pedestrian oriented shopping and recreation areas.
16. Both public and commercial cross country skiing are a part of the recreational activities at the Pass and should be encouraged. A system of out-back lodges and a longer loop trail should be encouraged to increase the desirability of cross country skiing.
17. Scenic hiking trails from the base area through old growth timber, and to local attractions and view points should be maintained. A system of trails utilizing the ski lifts should be considered.
18. Horseback riding and mountain pack trips should be encouraged on suitable trails. Llama trips should also be considered. Trails suitable for this use should be identified and mapped.
19. The mountain bike trail system should be expanded and made compatible with walking trails.
20. Biking, walking and skiing should be encouraged as attractive transportation alternatives. Car/pedestrian conflicts should be reduced.
21. Adequate capacity roads, paths and streets with convenient and carefully planned circulation should be developed and maintained.

22. Residential streets should be protected from the effects of through traffic. Nonresident parking on residential streets should be discouraged or prohibited.
23. Parking should be provided in accordance with type of trip and vehicle. Walking to secondary destinations should be encouraged.
24. Road markings and directional signage should be improved to reduce confusion.
25. Access to building lots should be consolidated to the extent practical using common drives and walkways.
26. Transportation facilities required to support new development should be in place by the time that development occurs.

VI.2 Goal: Recognize the inherent access and other requirements of large public and private land owners in the plan area.

Objectives:

1. USFS polices and regulations for vehicular activities should be recognized in planning for the Pass.
2. The utilization of USFS roads/easements in the transportation system should be avoided.

VI.3 Goal: Insure that the hierarchy of transportation in the Pass area is thoroughly compatible with existing and expected HOV/mass transit/rapid transit connecting it to its markets.

Objectives:

1. Access to possible future high speed east/west transit should not be precluded.
2. The transportation needs of the Pass should be expressed and represented in all related planning efforts by other agencies and groups.
3. The Department of Transportation plans for their rights-of-way should be researched. Surplus right-of-way should be identified.

VI.4 Goal: Reduce the number of single-occupancy vehicle trips to and within the Pass area.

Objectives:

1. Incentives to encourage ride sharing should be developed. Ski instructors, ski patrol, employees and season pass holders should be targeted as prime candidates for car-pooling. A ride-sharing information network should be developed. Employee parking should be limited to remote locations using shuttle service.
2. Provision of transit and/or shuttle service to the Pass should be explored and encouraged.
3. Shuttle bus stops should be provided at commercial centers, residential areas, and ski areas. The shuttle should loop through all activity centers.

VI.5 Goal: Create a transportation structure, which is adaptable to changing conditions, be they seasonal, economic, climatological or demographic.

Objectives:

1. Future development, both commercial and residential, should address snow removal with respect to vehicle traffic.
 - a. Roads should have adjacent snow storage readily available.
 - b. Main roads should be built at a standard, which is compatible with the mountain environment.
2. Contact should be maintained by the EDLU committee and SNOPAC with all strategic policy bodies in King and Kittitas County to advocate for the Pass.

VI.6 Goal: Provide for transportation methods, which blend with and/or enhance the natural mountain environment, inflicting minimum environmental damage to it and contiguous areas.

Objectives:

1. New roads, trails, paths and any improvement to same, should not degrade existing natural environments, water courses, or migratory paths unless no practical alternatives exist. The adverse effects of new crossings should be mitigated.
2. All transportation decisions should seek to protect the environment from adverse impact. All activities that involve hazardous waste recycling or treatment, solid waste landfills, petroleum pipelines or open storage of toxic substances should be prohibited.
3. All roads, trails, parking lots and development of any sort resulting in the clearing of natural ground cover, should have an adequate drainage system designed to handle the projected runoff in an adequate manner per applicable code. Drainage system design should limit downstream effects including scour, bank erosion, siltation, channel capacity and impact on wildlife habitat.
4. Pollutants such as oil, antifreeze and silt should be separated from stormwater runoff.
5. Future transportation additions should not restrict wildlife migration, and modifications should be used to repair existing problems where possible.
6. Enhancement of visual quality of roads and trails should include:
 - a. Drainages which replicate natural conditions;
 - b. Retention of natural vegetation and installation of landscaping; and,
 - c. Regular maintenance to prevent buildup of sand during the winter.
7. The Pacific Crest Trail and the John Wayne Trail should be provided with appropriate scenic buffers, parking areas and trail connections to activity centers.
8. The suitability of the road system east of the Pass, and particularly at the east end of Keechelus Lake for off-road vehicles should be assessed.

TRANSPORTATION
Recommended Actions

1. The Transportation Committee should work with the Washington State Patrol and the WSDOT to identify alternative areas where large trucks can park away from the shoulders and right-of-way of SR 906. The areas adjacent to the Exit 53 interchange should be specifically studied for this use.
2. The Committee should work with WSDOT to identify areas of surplus rights-of-way, which might be used for visitor or employee parking.
3. The Committee should assist and support efforts of Pass business operators to encourage transit operators to provide, or expand, bus service to the Pass.
4. The Committee should bring ideas and suggestions for improving road standards for the mountain environment in terms of special considerations for slope, soil, impermeable surfacing and natural drainage characteristics to the appropriate County and State agencies.
5. The Committee should encourage Kittitas County and the Regional Transportation Planning Organization (RTPO) to seek funds to finance a detailed traffic study to determine future highway improvements needed to eliminate current safety problems and accommodate land uses shown in the Comprehensive Plan.
6. The Committee should encourage Kittitas and King Counties to apply for available state or federal funds to complete path and trail planning and construction and to fund beautification efforts.

VII. CAPITAL FACILITIES AND UTILITIES

The Snoqualmie Pass sewer system is operated in accordance with a Facilities Plan and a State Waste Discharge Permit issued by the Department of Ecology. The Waste Discharge Permit must be renewed every five years. At the time of renewal, a study is conducted to determine the status of the operation of the sewage treatment plant. If the plant is found to be operating at 85% capacity, or greater, DOE requires that additional studies be conducted to do a Plan to Maintain Adequate Capacity, which results in a new or amended Facilities Plan.

Goals and Objectives

VII.1 Goal: Insure that public services, utilities and facilities are adequate to provide a high level of service and reliability for present and future land uses.

Objectives:

1. A program should be developed and monitored which assures that new development will pay its proportionate share in the construction of new facilities and the maintenance of existing facilities.
2. Activities of service providers should be coordinated to assure that all services are installed during a single construction phase to decrease disruption and risk of erosion.
3. Public and private facilities and services should be provided at levels necessary to support anticipated growth and development per the Comprehensive Plan. The facilities and services needed to support this growth and development include: sewage disposal, solid waste disposal, water, surface water management, police and fire protection, parks and open space and other public utilities.
4. The costs of adequate facilities and services should be kept as low as possible, cost-effective relative to the benefit received, and distributed equitably. Extension of services and construction of facilities to support planned growth should:
 - a. Be paid for by those who benefit;
 - b. Prevent substantially reduced service levels for existing residents; and,
 - c. Be timed to prevent problems before they require expensive remedial action, while avoiding the costs of premature excess capacity in facilities and services.
5. Public spending priorities for facilities and services should be as follows:
 - a. First, to maintain or upgrade existing facilities and services where necessary to serve existing development at applicable service level standards; and,
 - b. Second, to upgrade facilities and services to support planned growth at applicable service level standards.
6. Individual developments should provide all on-site improvements needed to meet adopted service standards for roads, sewage disposal, water supply, surface water management, fire flow, open space and other public utilities.
7. When the off-site capacity of public sewer systems and public water systems is inadequate to meet adopted service standards, individual developments should be deferred until these

services are assured of being brought up to standard by either the public entity involved or the developer, or some combination of funding sources. If the deficient services cannot be brought up to standard, the development should be delayed or denied.

8. Kittitas and King Counties, in cooperation with other service providers, regulatory agencies and private sector experts, should set service level standards as the basis for defining adequacy of facilities and services needed to support growth. The Snoqualmie Pass Sewer and Water District should ensure that adequate treatment capacity is available, in an appropriate time frame, to support planned growth.
9. Physical standards for public facilities should:
 - a. Assure public health and safety;
 - b. Reflect adopted service level standards of regulatory agencies;
 - c. Be reasonable in cost and cost-effective relative to the benefit received;
 - d. Have the minimum possible effect on the cost of development relative to the benefit received;
 - e. Allocate public service costs equitably; and,
 - f. Protect the environment.
10. Public facility and service standards should be defined based on the following:
 - a. Applicable Federal, State and County laws;
 - b. Nationally accepted standards;
 - c. Cost effectiveness;
 - d. Availability and stability of funding; and,
 - e. Community desires.
11. Public utilities and facilities should be located, designed, and operated to be compatible with neighboring uses.
12. Utility structures such as telephone exchange buildings, telecommunications towers, transformers stations, sewage treatment plants, and solid waste facilities should adjoin nonresidential uses wherever possible. Mitigation measures to minimize scenic impacts should be required.

Utilities

1. Utility special district comprehensive plans and proposals should support and be consistent with land use plans.
2. Utilities should be designed, located and constructed to minimize adverse environmental impacts and to protect valuable environmental features.
3. Where utilities are inadequate to serve existing development necessary improvements should be provided. Utility capital improvement programs should give priority to improving present systems with significant inadequacies.

4. Whenever possible, utilities should make joint use of utility or road rights-of-way. Underground utilities should be grouped together and easily accessible for maintenance, repair and additions.
5. Underground installation of power and telephone wires should be required, where feasible, particularly in newly developing areas.
6. If underground installation is not feasible due to an engineering or geologic problem, above-ground utility installations should be designed and located to minimize unsightly views and environmental impacts. Power and telephone poles should be as far from right-of-way center lines as possible.
7. Utilities should be located within rights-of-way.

Water Service

1. The District should be encouraged to include conservation measures in their plans as appropriate, as well as development of new sources; to support planned land uses with reliable service at minimum cost; and to assure maximum net benefit in allocating water for fisheries, navigation, hydroelectric power and recreation, as well as domestic and commercial uses.

Sewage Treatment and Disposal

1. Public sewers should be the only method for wastewater treatment for new development.
2. New on-site systems should only be allowed in limited areas for small scale development where public sewers are not feasible.
3. On-site wastewater treatment should be designed and located to protect water quality in lakes, streams, wells and aquifers, in compliance with District standards.
4. Operation and maintenance standards should be established for all areas served by on-site systems. Special programs, including inspections and regular pumping of tanks, should be established in all areas with a high risk of system failure.
5. On-site systems that create health or pollution problems should be repaired or replaced. Provision of public sewers to these areas should be considered an option.
6. On-site wastewater systems should be monitored for evidence of existing or potential failures and the data should be used to correct problems and prevent future problems.
7. Solid waste should be handled and disposed in ways that minimize land, air and water pollution, and protect public health.

Surface Water Management

1. Surface water management should integrate with and protect natural drainage systems wherever possible.
2. A watershed approach to surface water management should be implemented which provides for multiple uses including recreation, fish and wildlife enhancement, flood protection, erosion control and open space.
3. Stormwater facilities should be funded through an adequate and equitable set of user charges on contributing and benefiting properties. Stormwater facilities required of new development should be designed and built for low-cost, long-term maintenance.
4. Design of stormwater management systems should recognize the impacts of rapid snow melt on intensity and volume of runoff.
5. Consistent with other considerations, such as snow removal, maintenance and aesthetics, the amount of hard surfaced areas for parking and roads should be minimized to the extent possible.
6. Clearing and grading activities should be regulated to minimize the removal of surface vegetation, which alters natural drainage characteristics, increases runoff and potential for erosion.

Energy and Telecommunications

1. Energy, utility and telecommunications distribution and transmission facilities (for example, substations, pump stations, major power lines and pipelines, transmission/reception towers) should be underground whenever feasible and should not be located in residential areas unless other alternatives are not feasible.
2. Siting decisions for energy and telecommunications facilities should be based on applicable regulations and the following factors:
 - a. Minimal health risk to residents of neighboring properties, whether from noise, fumes, radiation or other hazards;
 - b. Minimal visual impact, achieved with buffering through distance and/or landscaping;
 - c. For power lines and transmission/reception towers, no adverse impact on aviation traffic patterns;
 - d. Convenient access (may not be needed if the facility is automated);
 - e. Encourage use of cold weather engineering practices to cope with power outages; and,
 - f. Ensure that new developments are designed with facilities to withstand a minimum 48-hour power outage.

Streets

1. Street design should reflect the density of development and the anticipated traffic load, in terms of volume and vehicle type.
2. Aesthetically pleasing road design should be encouraged.

3. Street names and addresses should be adopted which reflect regional sense of place.
4. Streets should be designed with wide shoulders and shallow side swales or ditches to accommodate snow removal, snow melt, and storm water runoff.
5. For traffic safety during ice and snow conditions, sharp curves and right angle turns should be avoided where possible.
6. Road signs and other objects should be set back a sufficient distance so as not to be an obstacle for snow plows or a danger for motorists in icy conditions. Road signs should be installed at a sufficient height so as to be visible above roadside snow banks.
7. Road design standards should be flexible to permit designs, which can accommodate the mountainous environment and which balance safety, maintainability and environmental impact.

CAPITAL FACILITIES AND UTILITIES

Recommended Actions

1. The EDLU Committee should assist the Snoqualmie Pass Sewer and Water District to ensure that District planning is consistent with the Comprehensive Plan and that services become available in all unserved areas where they are desired, such as Exit 54 and Gold Creek Valley, consistent with the Comprehensive Plan and commensurate with system capacity. The Committee should support applications by the District for needed expansion to ensure that adequate sewage treatment, water storage capacity, and water rights are available in a timely manner.
2. The Committee should work with appropriate agencies with expertise to insure a stormwater management program, which protects property from damage from run-off while at the same time preserving natural drainage systems is developed and implemented.
3. The Committee, in consultation with County agencies, the Sewer and Water District and the Fire District, should consider an impact fee program to ensure that new development contributes its fair share to finance the construction and maintenance of required capital facilities.
4. The Committee should work with Puget Power to ensure a reliable source of electrical power for the Pass.
5. The Committee should encourage the use of fiber optic telecommunication facilities at the Pass