

## VI. Recreation

### A. DESCRIPTION

#### 1. HISTORICAL USES

Although there were no known native settlements in the study area, the Tanaina Indians hunted for caribou, sheep and moose in the western Talkeetna Mountains from the 1700's up until the 1930's.

The major human developments in the area are largely traceable to gold mining activities conducted between 1910 and the 1940's. The mines were ordered closed during WWII and after the war, there was little incentive to reopen the mines with the fixed price of gold. Recreationists gradually took advantage of the access to the depressed mining area and now, the major use of the Hatcher Pass area is recreation.

Skiers have long used the area. Old photos show miners recreating on skis and as early as the 1930's, Anchorage skiers were bussed to the Fishhook Inn, which was near the junction of Fishhook Creek and the Little Susitna River, where a rope tow was in place.

In recent years, the boom in cross country skiing, the development of a cross-country ski center near the pass, the establishment of the Independence Mine State Historic park in 1980, and the growing population in southcentral Alaska have all contributed to the increased recreational popularity of Hatcher Pass.

#### 2. TYPES OF USE

As a year-round recreational destination, Hatcher Pass offers a wealth of recreational opportunities for the residents of southcentral Alaska, and other visitors. In summer and fall, recreational pursuits in Hatcher Pass include scenic driving, photography, hiking, camping, mountaineering, moose hunting, fishing, horseback riding, picnicking, berry picking, ORV use, kayaking, rockhounding, recreational goldpanning, wildflower and wildlife viewing, hanggliding and outdoor education classes. Winter recreational activities include skiing (track, telemark and mountaineering and downhill skiing from helicopter access), snowmachining, sledding, ptarmigan and bear hunting, dog mushing and outdoor survival classes.

The spectrum of recreational opportunities available in Hatcher Pass is divided into dispersed and intensive uses. Dispersed activities are those that are not site specific or dependent on a base facility, e.g., hiking, hunting or photography. Activities which occur in concentrated use areas, such as the road corridor or are dependent on an established facility (e.g., campgrounds, track skiing or horse trail rides), are in the intensive category. Dispersed recreation is the primary type of recreational use in the majority of the Hatcher Pass subunits. Popular

areas of note are: Independence valley for track skiing and hiking; Little Susitna drainage, Archangel Valley and Reed Lakes for skiers, snowmachiners, hikers and mountaineers; Mint Glacier and Snowbird Glacier for ski mountaineering and fly-in skiing; Bullion Mountain for hang gliders and hikers; the Pinnacle for rock climbers; and Bald Mountain Ridge and Willow Mountain for hunters, ORV operators and snowmachiners. Intensive use is limited to the road corridor east of the Pass, the area around the Mother Lode Lodge and the Independence bowl.

Map 6 in the draft plan depicts existing and proposed winter uses; Map 7 in the draft plan depicts existing and proposed summer uses. All proposed trails are not shown on these maps as site work and consultation with user groups on design and location will be required before actual trail locations can be mapped.

### 3. VISITATION

Hatcher Pass is one of the most popular recreation areas in the Matanuska-Susitna Borough and is becoming more known as a tourist destination by Anchorage-based tour operators and several tour companies who now offer day and overnight tours by van to the Hatcher Pass area.

Visitor count information from Independence Mine State Historic Park (IMSHP), which is one of many visitor destinations within the management unit and a major statewide historic and recreational resource, reports over 93,000 persons visited the Park in 1985. This is a 27% increase over 1983 and 1984 averages of approximately 73,000.

The Hatcher Pass Lodge and Cross-Country Ski Center estimated between 17,000 and 20,000 visitors during the 1984-1985 ski season (November-April). Visitors come to the lodge area for track skiing and telemarking classes, and for the opportunity to comfortably enjoy spectacular alpine scenery.

Department of Natural Resources traffic count data for the period between July 15 and October 6, 1985 demonstrate that an average of 2,892 cars per week crossed the Little Sustina River bridge and an average of 982 cars per week crossed the Willow Creek bridge during a slightly shorter period. (Refer to Table 12 for a chart showing increase in road traffic.) Most of this traffic is related to recreational use. The results of an August, 1976, informal poll of visitors revealed that the primary reason for visiting the Hatcher Pass area was to pursue a wide range of recreational interests, particularly scenic driving during the summer.

Table 7, page 56, delineates a sampling of estimated visitor use numbers from some activities. It is not comprehensive nor based on any standardized procedure.

Table 8, page 57, summarizes a survey of visitor use taken east of the Pass by DLWM on two weekends in March, 1986. The sample size was large enough (1860 people) to obtain a good breakdown on types of uses which occur in early spring.

TABLE 7

A SAMPLE OF RECREATIONAL AND COMMERCIAL USES AND USER PARTICIPATION  
IN THE HATCHER PASS MANAGEMENT UNIT

## I. GENERAL RECREATION

TYPE OF USE/LOCATION	SOURCE	NUMBER OF USERS
Mountaineering, Mint Glacier	Mint Glacier -- based on the Mountaineering Club hut log book	1980 -- 51 1981 -- 68 1982 -- 107 1983 -- 179 1984 -- 201 1985 -- 151
Reed Lakes: Hiking/Backpacking X-country skiing Snowmachining Dogsled mushing	Kitter: Snowbird Cabin	145/month average (Aug-Sept, 1985) 10/weekend, average (Winter 1984-85) 5/weekend, average (Winter 1984-85) 6/teams/week, average (Winter 1984-85)
Rock climbing/Little Susitna Valley Visitors to IMSHP	ACC-Wilderness Studies program Division of Parks and Outdoor Recreation	1985-86: 160/year 1985: 93,000
X-country skiing/Independence Bowl	Hatcher Pass Lodge and Ski Training Center	est. 17-20,000/Winter season, 1985
Dog mushing/Archangel Road	Chugiak Dog Mushers	1985-86: 8-10 mushers/weekend, especially in the Fall/Spring when there is no snow at lower elevations.
Kayaking: Little Susitna River Willow Creek	Knik Kanoers and Kayakers	1985: 4-8/weekend, if water level is good. 12-16/weekend, if water level is good, below study area; use inside unit not known.
Mountain rescue practice/ Little Susitna Valley	Alaska Mountain Rescue	1982 -- 572 user days
X-country skiing/whole area	Nordic Ski Club	1982 -- 5,600 user days
Sled, ski, camp, hike, fish/whole area	Boy Scout Troops	1982 -- 480 user days
Annual Children's Hike/ Little Susitna Valley	Sierra Club	1982 -- 14 user days
Rock study/whole area	Chugach Gem & Mineral Society	1982 -- 200 user days
Flower study, field trips, hiking/ Willow Creek and Little Susitna Valleys	Native Plant Society	1982 -- 270 user days
Flower study classes	Anchorage Community College classes	1982 -- 250 user days
Rock climbing, mountain rescue skiing/Little Susitna	Mat-Su Community College	1982 -- 570 user days
Snowmachining	Mat-Su Motor Mushers	1982 -- 960 user days
Snowmachining--estimate 50/day weekends/Willow side	Snowmachiners	1982 -- 3,200 user days

## II. ADF&amp;G HARVEST DATA -- 1981-82

TYPE OF USE	LOCATION	SOURCE	NUMBER OF USERS
Moose hunting	Peters-Purcnes Creek trail Bald Mountain Ridge Little Susitna Valley Willow Creek	ADF&G	597 user days 288 user days 862 user days 383 user days
Black and Brown bear hunting	whole area	ADF&G	500-600 user days
Ptarmigan hunting	whole area	ADF&G	3,900 user days
Sport fishing	willow, Purcnes, Craigie Creeks and tributaries	ADF&G	1,000 user days

## III. COMMERCIAL ACTIVITIES

TYPE OF USE/LOCATION	SOURCE	NUMBER OF USERS
Mother Lode Lodge, M.P. 14	Radon Company	25,000 dinners served/1984-85 season.
Tour companies: day and overnight trips by van	Hatcher Pass Lodge, Mother Lode Lodge	Summer, 1985 estimated 75-100 people for Mother Lode Lodge
Outdoor challenge camp classes	Challenge, Alaska	1982 -- 300 user days
Fly-in skiing	Summit Ski Tours--Soloy Helicopters	1984-85 season: Summit--35, Soloy--3 to glacier area; several dozen in April from Hatcher Pass Lodge to Pass area.
Guided hunting and fishing	Registered hunting guides: Lazar's Guide Service--Ellie Jones	2-8 guided trips per year

**TABLE 8**

VISITOR USE SURVEY

Little Susitna River, MP 14  
 March 15-16, and March 22-23, 1986, 10:00 AM - 3:00 PM

1. VISITOR USES

Skiers	1047	56.3%
Sledders	421	22.6%
Hiker/sightseers	169	9.1%
Snowmachiners	162	8.8%
Outdoor education	24	1.3%
3-wheelers	23	1.2%
Dog mushers	13	.7%

TOTAL PEOPLE	1860
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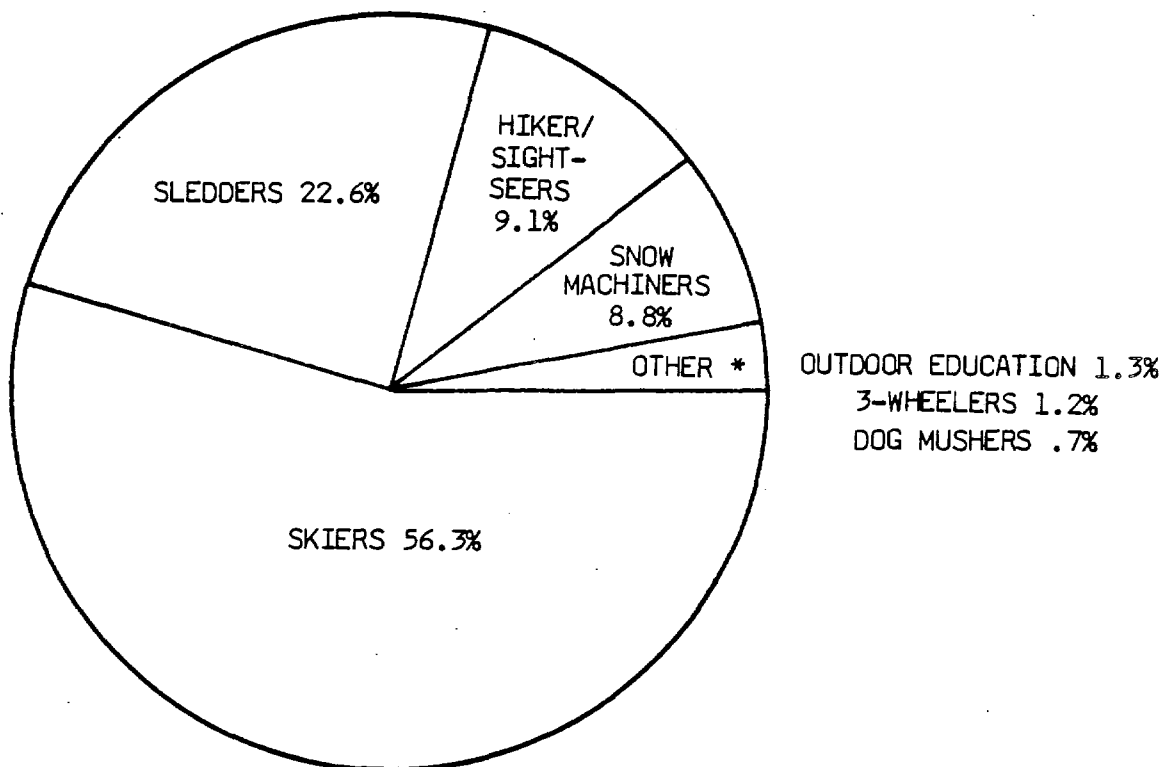


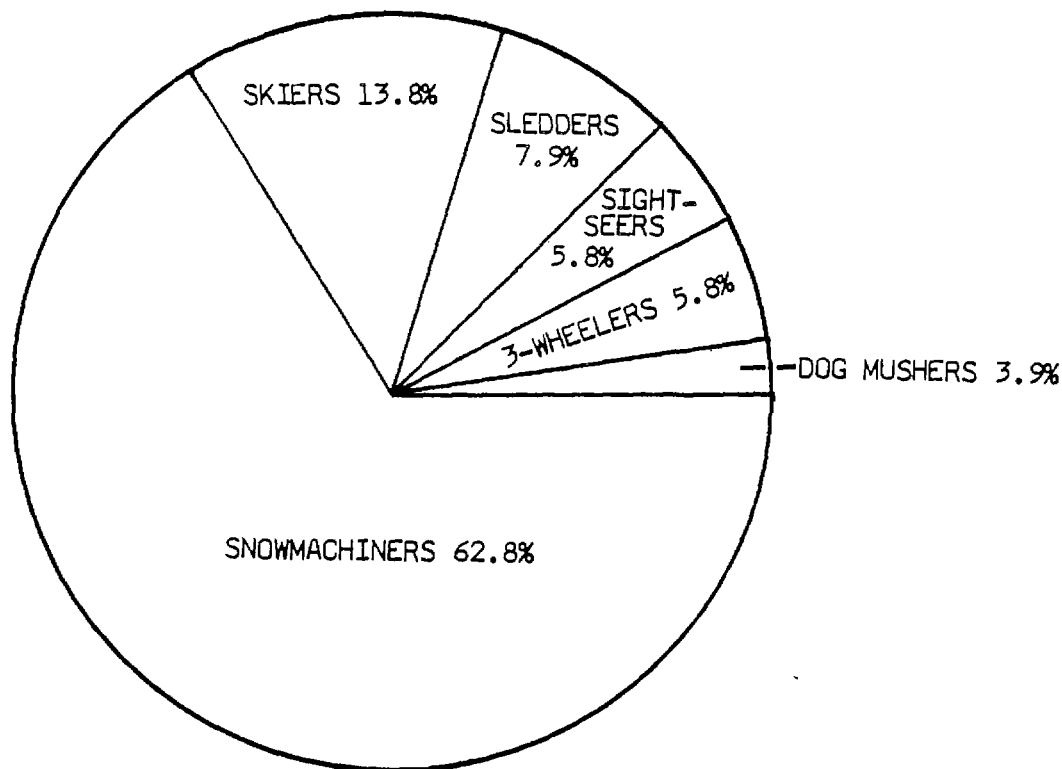
Table 9 below summarizes a 2-day count taken by DLWM at MP 34 near the Willow Creek bridge on March 29 and 30, 1986. Due to ash fall from Mt. Augustine volcano and a holiday weekend, this count is believed to be lower than is typical. While the survey sample size is too small for a high degree of confidence, it does support previous citizen and park ranger reports indicating that snowmachining is the predominate winter use in the western parts of Hatcher Pass.

**TABLE 9**

VISITOR USE SURVEY

Willow Creek, MP 34  
 March 29 and 30, 1986 -- 10:00 AM - 3:30 PM

Snowmachiners	32	62.8%	62.8%
Skiers	7	13.8%	13.8%
Sledders	4	7.9%	7.9%
Sightseers	3	5.8%	5.8%
3-wheelers	3	5.8%	5.8%
Dog Musers	<u>2</u>	3.9%	3.9%
TOTAL PEOPLE	51		



#### 4. ACCESS

Road. Access to the management unit is almost exclusively from the Hatcher Pass Road which enters from both Willow and Palmer. It is a state-maintained, narrow, rough, winding road which provides spectacular views of the glacially carved peaks and valleys, and of three major southcentral Alaska mountain ranges. This scenic drive is popular with sightseers. Most of the diverse recreational use in Hatcher Pass is either concentrated in a narrow corridor on both sides of the road or accessed from it.

Trails. Pioneer trails and roads constructed between the turn of the century and 1940 lead off the Hatcher Pass Road. Former mining roads are now used by hikers, snowmachiners, skiers, and others to access the drainages of the Little Susitna River, Reed, Archangel and Fishhook Creeks, Willow Creek, Craigie Creek and Grubstake Gulch. Established, historic trails include: the Gold Mint, Fern Mine, Reed Lake/Snowbird Mine, Independence Mine, Wet Gulch, Purches Creek, Baldy, Willow Creek sled and Willow Mountain trails. None of these trails are signed and only limited trailhead parking exists. Existing trails are delineated on Map 12.

Motorized Access. Recreational ORV use occurs primarily west of the Pass, especially during moose hunting season. During moose season in September 1985, vehicles (many with ORV trailers) were parked in several places along the road between the Willow Creek bridge and the Purches Creek trailhead at MP 34.2. The average number was 15-30 with a high count of 100 on opening weekend. This is the primary staging area for hunting by 3-wheelers, Argos, track vehicles and occasionally by 4-wheel drive road vehicles. In addition, many 4-wheel drive vehicles were parked across Willow Creek at various ford locations. In the summer, other general recreational ORV use occurs, mostly west of the Pass.

Snowmachining is also popular on the west side of the Pass, with the major access points to Willow Mountain occurring from the Hatcher Pass Road at MP 34.2 and MP 29.5 and to Bald Mountain at MP 27.5. East of the Pass, snowmachines obtain access to the management unit along the Hatcher Pass Road, which is unplowed in winter west of the Independence Mine State Historic Park turn-off. Use occurs both on the plowed and unplowed road. Primary use patterns east of the pass are to take advantage of early snow at the higher elevations, and occurs towards and over the Pass and in the snowmobile "play" areas in the vicinity of the MP 16.5 parking area and Mother Lode Lodge. Other areas of snowmachine use are in Archangel, Reed and Little Susitna valleys.

Non-Motorized Access. Independence Mine State Historic Park was the only area officially closed to off-road motorized use prior to adoption of this plan.

Non-motorized winter recreational activities occur predominantly on the east side of the Pass. Skiers and mountaineers reach the glacial region on the northeast edge of the study area through the Archangel Creek, Reed

Creek and Little Susitna valleys. Dog mushers use several areas throughout the management unit, especially Archangel Road and the unplowed road on the west side of the management unit. In summer, access by foot occurs throughout the management unit through a variety of terrain, but is most popular in the Craigie, Independence, Archangel, Reed and Little Susitna valleys and mountain sides.

#### 5. PRIVATE SECTOR DEVELOPMENT

Private sector development has primarily been in the form of lodging facilities. The Fishhook Inn was built prior to 1924 and rebuilt in 1937 at the junction of Fishhook Creek and the Little Susitna. It burned down in 1942. It consisted of a roadhouse and warehouse to supply food, drink, lodging and materials for people trading in the mining district.

The Mother Lode Lodge, originally called the Little Susitna Roadhouse, was constructed in 1946 and is located at MP 14. It has recently been renovated and expanded. The area around the lodge has been the scene of past private developments, such as a rope tow ski facility, which operated in this location in the 1950's. Commercial trail rides were based at the Mother Lode in the summers of 1984 and 1985.

Other recent commercial activities within the management unit include outdoor challenge classes, guided hunting, helicopter skiing and organized tourist visitation.

The Manager's House at the Independence Mine State Historic Park was operated as a private lodge prior to 1980 when it became part of the state park system. In the 1950's and 1960's, a bunkhouse at the mining village was operated to serve skiers who came to utilize the rope tow and T-bar which ran from Independence Village to the Gold Cord Mine area above, or to cross-country ski.

The Hatcher Pass Lodge, located at the entrance to the Independence bowl has operated as a ski touring center, lodge and restaurant since 1981.

During the 1960s, early season snow resulted in the site being the chosen training site for the U.S. Modern Winter Biathlon Training Center each October and November as well as the location for U.S. Ski Association cross-country ski clinics for Alaska school and college racers.

Cornell's Rendezvous (MP 32.5) was a popular snowmachining destination on the west side of the Pass until it burned down several years ago.

#### 6. IMPACTS FROM RECREATIONAL USE

Negative environmental and aesthetic impacts are caused by motorized users of the Hatcher Pass area and in some popular locations, by non-motorized users. On the west side of the Pass, a network of ORV-made trails radiates from two main access points (MP 34 and 29.3) to Willow Mountain. The lower route goes through extensive boggy areas which are being damaged

by trail widening and new trail making. The steep ridge portions of the Peters-Purches Trail has eroded ruts up to three feet deep. As one area becomes rutted and impassable, other trails are created and the problem is compounded.

Extensive vegetation damage is occurring in the fragile alpine zone around Summit Lake both from hikers and off-road driving. East of the Pass, the foot trail to Reed Lakes is suffering from popularity. In the steep portion above Reed Creek, the path is widening as the vegetation is trampled to gain traction on the often slippery trail.

## 7. SAFETY PROBLEMS

Use of Roadway for Recreation. The narrow, steep Hatcher Pass Road from the Mother Lode to the Pass is currently being used for a variety of winter recreational uses such as snowmachining, sledding and skijoring (towing skiers behind vehicles)--all of which are illegal on state maintained roads. Additionally, vehicles often are parked in the already narrow roadway, often in avalanche zones. There were at least three snowmachine-road vehicle accidents during the 1985-86 season.

In the summer, it is becoming more common to see bicycles and horses in the roadway on the east side of the Pass. Because of dust, blind corners and narrowness, this also creates safety concerns. West of the Pass in the summer, 3-wheelers frequently use the roadway to travel to recreation destinations in the area from homes west of the management area. Due to road narrowness and increasing use, this is a safety hazard and is illegal.

Shooting in High Use Areas. Recreationists and placer claim operators have made numerous reports of shooting near the road and areas where people are congregated for skiing, sledding or snowmachining in winter or in valleys in the summer where people are hiking. This was identified as an issue by the public. The extent of the safety problems and identification of problem locations are unknown at this time.

## B. EVALUATION

### 1. BENEFITS OF MANAGEMENT

Benefits possible from the management of recreation in Hatcher Pass are: the controlled and/or contained growth of private sector development on public land to protect the area's scenic qualities and the quality of experience for all recreationists; the resolution of conflicts between user groups, such as motorized and non-motorized uses; the siting and management of needed facilities and services, such as skiing and sledding areas, designated campgrounds and scenic pullouts; improved access to recreational destinations; the provision of public safety programs, including avalanche control, search and rescue and on-the-ground law enforcement; the enhancement of tourism as an economic factor; greater protection to private property, historic sites, and to active mining operations.



## 2. POSITIVE RELATIONSHIP OF RECREATION TO OTHER RESOURCES

The presence of active mines adds interest to the area for many visitors; recreational gold panning opportunities and interpretation of historical and modern mining could provide a contemporary link with Alaska's mining heritage.

Management to maintain or enhance wildlife populations for both consumptive and non-consumptive uses can add to the quality of recreational opportunity for both types of users.

In some areas, grazing of the tall grass could increase accessibility for recreationists. Limited forestry cuts for moose browse enhancement or to provide new trail access into areas in some areas would provide a diversity of settings and experiences for cross-country trail users. These trails will disperse use in heavily used areas, as well as create new recreational opportunities, (e.g., wildlife viewing), views of the mountains from trails and hunting access.

## 3. CONFLICTS WITH OTHER RESOURCES

Mining. Conflicts between recreational and mining interests center around access problems and the negative visual and aesthetic impacts of placer mining. These include extensive tailing piles from placer operations in Willow Creek, cables across the Little Sustina River, numerous out-buildings and unused heavy equipment on a claim, and the presence of "No Trespassing" signs. In some instances, the access of recreationists to trails and rivers has been restricted by miners. The noise and dust of heavy equipment from mining operations are a potential conflict with the quiet experience many recreationists seek. Overall, recreational and mining activities have largely been compatible over past years and are expected to continue to be so through implementation of the plan guidelines for surface use on mining claims and public information and sign programs.

Grazing. Grazing presents a potential conflict with recreationists when access is limited by fencing, when fencing scars an open view or if any of the grazing stock are aggressive. The presence of cattle detracts from the natural Alaska scenery some recreationists seek. Clearing trees for pasture may alter natural landscape qualities as well.

Hunting opportunities might also be impacted by the presence of cattle if moose and cattle are competing for the same browse. Hunting activity in areas where domestic animals are grazing could result in the accidental shooting of domestic stock. This in turn could lead to pressure for closing grazing areas to hunting. Removing cattle from the range prior to September 1 should resolve this conflict.

Creation of access roads to individual leases/permits where vehicular access would conflict with non-motorized recreation is another possible conflict.

Irregularities in the trail surfaces, caused by high pounds per square inch pressure of hooves, is another possible conflict.

Forestry. Timber cutting and browse enhancement practices would adversely impact foreground scenery in some locations and reduce the vegetative and wildlife species diversity.

Different Recreational Uses. Conflicts among recreationists are also a problem. In ORV use areas, devegetated areas, eroded slopes or damaged bogs conflict with the aesthetic values. Most of the areas enjoyed by recreationists are in the alpine zone where uses and users are difficult to screen from one another and soils and vegetation are fragile. Many of the users of the area go there, in part, to find a sense of solitude from the noise and pace of their lives or for the area's natural beauty; their spatial needs and aesthetic considerations are particularly great. Recreational developments such as an alpine ski area, parking areas and marked trails may lead to overcrowding in some areas and an alteration in the quality of the quiet, backcountry experience sought by many. Intensive recreational use in some areas might lead to restrictions in shooting for safety reasons and thus alter hunting opportunities. Wildlife displacement may occur in some areas as is outlined in the fish and wildlife evaluation.

#### 4. PROJECTED DEMAND

Tourism Potential. The 1982 report from the Anchorage Convention and Visitor's Bureau, "Overall Tourism Development Program for the Matanuska-Susitna Borough", based upon tourism surveys conducted in the mid-1970's, concluded that with proper planning and development, the Hatcher Pass area would offer the best one-day tour out of Anchorage for both Anchorage area residents and out-of-state visitors. Within the Hatcher Pass area, Independence Mine State Historic Park was determined to have the highest tourism potential in the short term for the Borough. The major barriers to tourism in Hatcher Pass, as identified by this study, are: the shortage of destinations, the poorly maintained Hatcher Pass Road and the absence of tourist support facilities, such as restrooms, pullouts, marked trails and picnic areas. There is a shortage of one-day trips out of Anchorage and of destination points within the Mat-Su Borough necessary to increase time and money spent by visitors in the regional economy. Hatcher Pass could help fill an existing market, with the addition of public and private facilities and an improved road.

Potential Private Sector Developments. Recreational users and developers recognize the increasing demand for recreational opportunities in southcentral Alaska and the high potential demonstrated by this area. Interest in private sector recreational development has been expressed by many individuals and groups over the past 15 years. Inquiries for leases or permits have been made by individuals and groups seeking to develop a major alpine ski resort facility, a powderbob sled run, a small scale ski play area, with a rope tow or poma lift, recreational gold panning areas, new lodges and other recreational trails and facilities centered around existing lodges. As a tour bus destination, Hatcher Pass's popularity is expected to increase also.

Hunting and Fishing. See Fish and Wildlife Resources, page 32.

5. SUPPLY

Other Sources of Supply. Within the Mat-Su Borough, there is a shortage of road accessible recreation areas. Trail related winter sports can be found at Nancy Lake State Recreation Area and Sheep Mountain Lodge and portions of Denali State Park are accessible by motor vehicles and foot trails. Moose hunting is conducted in several areas throughout the Borough and some mountaineering and hiking occurs in the other areas of the Talkeetna Mountains. Within the proposed Capital Site, there is the potential for a variety of recreational uses including moose hunting, dog mushing and snowmachining. The Capital Site is currently used for some of these activities and as an access point to the Hatcher Pass area.

Qualities Unique to the Area. The Hatcher Pass area is less than a two hour drive from half of the State's population. This proximity facilitates easy access to glaciers, alpine tundra, wilderness and hunting areas that typify the "Alaska Experience." The picturesque ruins of old mining operations, coupled with the names of the mines--Lucky Shot, War Baby--add to the interesting character of the area. The restored buildings and interpretive displays at Independence Mine State Historic Park also enhance the public's awareness and appreciation of local mining history.

Early snowfall which lasts until late in the spring creates ideal ski conditions in Hatcher Pass. Often there is snow in the Pass area when it is absent in the Matanuska Valley and Anchorage areas. Competitive skiers and other winter sport enthusiasts use the area for early training and to gain a competitive edge.

Government Peak, in the southeastern corner of the management area, has been evaluated as having the only large-scale alpine ski potential in the management unit. A 1985 study conducted by DNR and the consulting firm of Hamre, Bahnson & Associates, concluded that this site could be developed as an intermediate-sized downhill development serving 2,000 skiers at one time. (Alyeska has a 3,000 skier at-one-time capacity.) It has a high percentage of intermediate skill level slopes which are currently in short supply and high demand in the southcentral region.

A review of current studies indicate that alpine skiing demand in the Anchorage area will double by the year 2000, based on resident population increases alone. Currently, however, the resident population is only skiing about half of what would be indicated by the participation and frequency rates determined by polls. While there is theoretically enough total capacity at present participation rates, there is a need for more beginner-intermediate terrain in locations with adequate predictable snow cover. Development of additional areas offering more varied opportunities and higher quality experience may cause higher participation and frequency rates which could double the demand projections (Albrecht, 1982).

Wildflowers are prolific on the alpine and subalpine slopes along the road's edge and are a popular attraction in the summer. In early autumn, berry picking is also popular. Moose populations in western portions of the management unit are one of the highest in Southcentral Alaska and provide a valuable near-to-urban-centers hunting opportunity. The occurrence of ground-nesting birds such as the lesser golden plover, whimbrel, wheatear, lapland longspur and long-tailed jaeger may be unique for the south coastal area. Rock hounds and geologists are drawn to copper outcrops and interesting geologic formations, such as the Castle Mountain Fault or rock glaciers.

Many educational activities are conducted in the Hatcher Pass area due to its unique combination of road access to or near a variety of terrain elevations, geologic features, floral variety, glaciers and wilderness areas. Rock-climbing practice is conducted in the Archangel and Little Susitna valleys. Wilderness studies and survival programs are conducted in many areas east of the Pass by the community colleges and private sector groups. Geology and wildflower field trips are conducted by community college, university and private groups.

## 6. ECONOMIC ANALYSIS

Costs. The cost of improving the Hatcher Pass Road is estimated to be at least \$17 million. The planning team has recommended three different levels of improvement for different parts of the road based on current and projected use patterns, safety considerations and the probable availability of funds. DOT/PF has prepared estimates for road improvements based on map analysis only. Actual construction costs could vary considerably. (See Chapter Five for cost breakdown.) Other costs for public improvements such as campgrounds, picnic and viewing areas and avalanche control will be given in Chapter Five in the final plan.

Benefits. The Division of Parks and Outdoor Recreation has prepared an economic benefit analysis for Hatcher Pass which addresses recreational development only. Assumptions of the study are: that all dollar figures are expressed in 1986 dollars; visitation is maximized within the 20-year time frame of the plan at the carrying capacity of proposed facilities and totals 672,000 visitor days per year or 1840 visitors per day, not including the ski area; jobs include all private and public sector jobs; and all recreational improvements proposed in this plan are assumed to be completed, particularly the Hatcher Pass Road upgrade. The proposed alpine ski area and the Independence Mine State Historic Park are by far the largest generators of revenue in this analysis. The ski area development used for the analysis is assumed to be able to serve 2000 skiers at one time, have 300 parking spaces, a lodge with 100 rooms, and four ski lifts (double or triple chair lifts) with a cumulative distance of two miles. (By comparison, Alyeska can serve 3000 skiers.) The revenue estimate was based on that generated by comparable-size ski areas elsewhere. Direct annual revenue to the state is estimated as \$800,000 and expenditures within the local area are estimated as \$4.2 million. The

Independence Mine State Historic Park is estimated to generate \$730,000 in direct annual revenue to the state and \$4.38 million in expenditures within the local area.

Facilities proposed in the plan are slightly different than those on which the analysis was based (for example, the analysis assumed a luge run of greater size than the proposed bobsled run). The effect would be to lower the revenue figures somewhat. The analysis also did not consider the effect of other types of development on recreation; this could also reduce the recreation-generated revenues.

The analysis shows that recreation industries could contribute significantly to the local economy. Recreational developments could potentially provide 263 full time recreation-related jobs in the area. Yearly expenditures within the Borough could approach \$11 million for services and products in support of outdoor recreation. Direct revenues to the State could be approximately \$2 million per annum from concessions, lease payments, taxes, or service benefits. Development of public improvements for recreation may also stimulate private sector developments on nearby private land.

The visitor figures on which these revenue projections were based equal 12,894 visitors per week, year round, not including the downhill ski area. Complete figures on current visitor use of the area are not available (a sample of visitor counts is presented in Table 7, page 56). However, traffic count data for summer 1985 showed that an average of 2,892 cars crossed the Little Susitna River Bridge per week. This does not provide a visitor count because some of these were two-way trips by the same car and many of the cars contained more than one person. However, it does give a general idea of current summer use and indicates that visitor use will have to grow substantially before these revenues are realized.