

### 3.8 Wilderness

Wilderness, is defined by the Ministry of Forests as: *An area of land generally greater than 1000 hectares that predominately retains its natural character. It is an area where human impact is transitory, minor, and in the long run, substantially unnoticeable* (Ref. Ministry of Forests Policy Manual 4.3 - Wilderness Management, Volume 1, Chapter 4).

The location of areas in TFL 1 which fit wilderness criteria are illustrated on Map 1 - ROS Classes in Section 3.2. These areas include the Semi-Primitive Motorized (yellow), Semi-Primitive Non-Motorized (green) and Primitive (blue) ROS Classes. The majority of TFL 1, 403,000 ha or 66% of the land area is rated as Primitive, Semi-Primitive Non-Motorized or Semi-Primitive Motorized.

RMU's 3, 4 and 9 contain areas having wilderness characteristics. The location of these areas are shown on Map 3 on page 26.

The largest of these wilderness settings contains the headwaters of the Kitsumkalum, Ishkheenickh, Mayo, Little Cedar and Nelson Rivers and Amoth Lake. The area has a range of terrain from rugged mountainous areas to plateaus to valleys and rivers and lakes suitable for extended backcountry mountaineering and hiking, camping, wildlife viewing and canoeing. This area, which includes the Upper Kitsumkalum Goal 1 PAS, is a potential wilderness study area. This area also borders onto the Khutzeymateen Provincial Park.

The current Five Year Development Plan proposes development which will affect the amount of Primitive and Semi-Primitive Motorized/Non-Motorized Classes in TFL 1. The table below lists these areas.

**TABLE 6: AREAS WITH PROPOSED FORESTRY DEVELOPMENT**

AREA	CURRENT ROS CLASS	ROS CLASS WITH DEVELOPMENT
North end of the Kiteen River - to just before the old burn.	SPNM	MR
An additional 10 km to the end of the Kitnayakwa River.	SPNM	MR
East side of the Copper River north of Limonite Creek.	SPNM	MR
An additional 10 to 15 km along the south side of the Kitsumkalum, directly across from the Upper Kitsumkalum PAS study area.	SPM	MR
Bridge across the Copper River near the Clore River.	MR	MR

#### 4.0 DESCRIPTION OF USE, VALUE AND DEMAND

##### 4.1 Current Demand

The results of several surveys including traffic volumes, hunting and fishing use put out by the various ministries can all be found in this section. The results of the surveys sent out by RRL for the TFL 1 Recreation Inventory (1996) are also located in this section.

The table below indicates the results of Summer Average Daily Traffic (SADT) compiled by the Ministry of Transportation and Highways.

**TABLE 7: TRAFFIC VOLUMES IN BRITISH COLUMBIA FROM 1990 TO 1997**

CARS/DAY	1990	1992	1993	1994	1995	1996	1997
KALUM LAKE ROAD - 19.5 KM NORTH OF HWY. 16 AT GLACIER CREEK BRIDGE			1800	1000			322(N) 309(S)
NASS ROAD - 0.1 KM SOUTH OF HWY. 37 AT CRANBERRY JUNCTION	80	100					
KALUM LAKE ROAD, 1.6KM NORTH OF ROUTE 16	2300	2300		2200	1238 (N) 1167 (S)	1117 (N) 1062 (S)	
NISGA'A HWY (57.2KM NORTH OF TERRACE)					195 (N) 187 (S)	219 (N) 214 (S)	208 (N) 209 (S)
VEDDER CREEK BRIDGE (3.4 KM SOUTH OF THE "Y")					149 (N) 157 (S)		198 (N) 196 (S)
TSEAX BRIDGE (1KM SOUTH OF TSEAX BRIDGE)							220(N) 271 (S)

N = Cars traveling North, S = Cars traveling South

Source: Traffic Volumes in British Columbia, Ministry of Transportation and Highways.

The following tables provide a summary of hunting data compiled by the Ministry of Environment, Lands and Parks. It is organized by Wildlife Management Units (WMU) of which the locations are illustrated on Map 5 on page 38.

The sections of WMU 6-09 that are within TFL 1 include RPU's Nogold, West Copper, Clore, and Kitnayakwa. The drainage's include the entire Copper River drainage, the Clore River, Kitnayakwa River, Limonite Creek and Trapline Creek. It also includes the Howson Range, Telkwa Pass, Mt. Henderson, and Pillar Peak.

The table indicates that moose have the highest kill figures for all years from 1992 to 1996. The number killed was greatest in 1992 (with 405 killed) and was at its lowest in 1993 (with 218 moose killed) and appears to be on the rise again. Mule deer also have significant kill numbers ranging from 61 killed in 1996 to 112 killed in 1992. Grizzly bear also has low kill numbers for each year with an average of 7 being killed each year.

**TABLE 8: HUNTING STATISTICS SUMMARY TABLE FOR WMU 6-09**

YEAR	SPECIES	# OF HUNTERS	# OF HUNTER DAYS*	KILL FIGURES
1992	Black Bear	285	2805	92
	Grizzly Bear	31	244	6
	Moose	1762	11694	405
	Goat	74	314	28
	White Tailed Deer			
	Mule Deer	1043	7336	112
1993	Black Bear	219	1844	59
	Grizzly Bear	30	236	6
	Moose	1258	6954	218
	Goat	112	304	53
	White Tailed Deer	46	249	4
	Mule Deer	840	5003	111
1994	Black Bear	195	1049	70
	Grizzly Bear	57	454	7
	Moose	1178	7340	284
	Goat	77	273	26
	White Tailed Deer	56	316	6
	Mule Deer	857	5509	129
1995	Black Bear	217	1444	72
	Grizzly Bear	55	318	5
	Moose	1092	5892	302
	Goat	91	309	43
	White Tailed Deer	58	541	7
	Mule Deer	652	4110	70
1996	Black Bear	189	1297	107
	Grizzly Bear	30	334	10
	Moose	1174	6808	321
	Goat	91	287	30
	White Tailed Deer	37	307	
	Mule Deer	555	3210	61

\*Hunter Days: Any portion of a day that one person attempted hunting, whether successful or not.

The sections of WMU 6-10 that are within the TFL include the entire Whitebottom RPU which includes Dasque Creek, the Skeena River and White Creek. The table indicates that moose have the highest kill figures with the greatest number, 44, being killed in 1993 and the lowest kill number of 25 in 1994. The kill numbers are fairly consistent over a small range. Black bear had the highest kill number of 15 in 1994 and lowest of 4 in 1993. There were no kill figures for grizzly bear or for white-tailed deer over the 5 year period.

**TABLE 9: HUNTING STATISTICS SUMMARY TABLE FOR WMU 6-10**

YEAR	SPECIES	# OF HUNTERS	# OF HUNTER DAYS*	KILL FIGURES
1992	Black Bear	38	216	5
	Grizzly Bear	6	27	
	Moose	178	1150	38
	Goat	11	32	4
	White Tailed Deer			
	Mule Deer	18	252	6
1993	Black Bear	37	121	4
	Grizzly Bear	5	18	
	Moose	184	976	44
	Goat	7	33	
	White Tailed Deer			
	Mule Deer	20	105	
1994	Black Bear	41	682	15
	Grizzly Bear	4	33	
	Moose	111	643	25
	Goat	2	14	1
	White Tailed Deer			
	Mule Deer	10	300	
1995	Black Bear	43	430	7
	Grizzly Bear	5	24	
	Moose	139	545	35
	Goat	9	28	1
	White Tailed Deer			
	Mule Deer	27	90	9
1996	Black Bear	29	171	7
	Grizzly Bear	1	2	
	Moose	182	1008	34
	Goat	5	10	
	White Tailed Deer	3	6	
	Mule Deer	25	130	4

\*Hunter days: Any portion of a day that one person attempted hunting, whether successful or not.

The sections of WMU 6-14 within TFL 1 include the Ishkheenickh RPU, Lower Nass and the Lava RPU. The major drainage's included in these RPU's are the Ishkheenickh River, Ksedin Creek, a small section of the Nass River and Amoth Lake. Moose again generally have higher kill figures with no general trend emerging. The greatest number killed was 16 in 1993. Black bears also had the greatest number killed (23) in 1993. Grizzly bear have very low kill figures.

**TABLE 10: HUNTING STATISTICS SUMMARY TABLE FOR WMU 6-14**

YEAR	SPECIES	# OF HUNTERS	# OF HUNTER DAYS*	KILL FIGURES
1992	Black Bear	18	120	12
	Grizzly Bear	4	18	2
	Moose	44	217	12
	Goat	21	59	6
	White Tailed Deer			
	Mule Deer	49	245	6
1993	Black Bear	32	218	23
	Grizzly Bear	5	23	2
	Moose	44	147	16
	Goat	10	37	3
	White Tailed Deer			
	Mule Deer	61	216	
1994	Black Bear	19	52	6
	Grizzly Bear	2	6	3
	Moose	28	96	11
	Goat	7	17	3
	White Tailed Deer	3	9	
	Mule Deer	24	72	10
1995	Black Bear	7	45	5
	Grizzly Bear	3	15	
	Moose	45	198	13
	Goat	11	20	2
	White Tailed Deer			
	Mule Deer	62	200	4
1996	Black Bear	11	28	4
	Grizzly Bear	9	53	5
	Moose	24	96	8
	Goat	9	53	5
	White Tailed Deer	3	6	3
	Mule Deer	33	116	4

\* Hunter days: Any portion of a day that one person attempted hunting, whether successful or not.

The sections of WMU 6-15 that are within TFL 1 include the West Kalum RPU, Beaver/Mayo RPU, Cedar/Meadow RPU, part of the Lava RPU, the Hoodoo RPU and the Kiteen RPU. Moose were the most popular species being hunted in the area. Their numbers ranged from a low of 68 in 1994 to a high of 89 in 1995. Black bear and goat were also popular. Goat kill numbers ranged from a low of 23 in 1992 to a high of 39 in 1995. Black bear had the lowest kill number of 16 in 1995 and highest kill number of 57 in 1992. Very few grizzly bear were shot with the greatest number being shot in 1995 totaling 7 bears.

**TABLE 11: HUNTING STATISTICS SUMMARY TABLE FOR WMU 6-15**

YEAR	SPECIES	# OF HUNTERS	# OF HUNTER DAYS*	KILL FIGURES
1992	Black Bear	144	740	57
	Grizzly Bear	18	150	4
	Moose	417	2574	85
	Goat	62	208	23
	White Tailed Deer			
	Mule Deer	55	282	
1993	Black Bear	95	414	39
	Grizzly Bear	13	73	4
	Moose	282	1099	71
	Goat	105	392	25
	White Tailed Deer			
	Mule Deer	56	246	
1994	Black Bear	95	384	35
	Grizzly Bear	13	68	
	Moose	290	1134	68
	Goat	68	248	24
	White Tailed Deer	3	18	
	Mule Deer	29	128	5
1995	Black Bear	85	537	16
	Grizzly Bear	20	113	7
	Moose	387	1691	89
	Goat	83	304	39
	White Tailed Deer	3	3	
	Mule Deer	67	180	4
1996	Black Bear	59	271	21
	Grizzly Bear	14	103	2
	Moose	329	1696	69
	Goat	54	228	31
	White Tailed Deer	6	12	
	Mule Deer	47	224	

\*Hunter days: Any portion of a day that one person attempted hunting, whether successful or not.

**Map 5: Wildlife Management Unit Locations for 6-09, 6-10, 6-14 and 6-15**

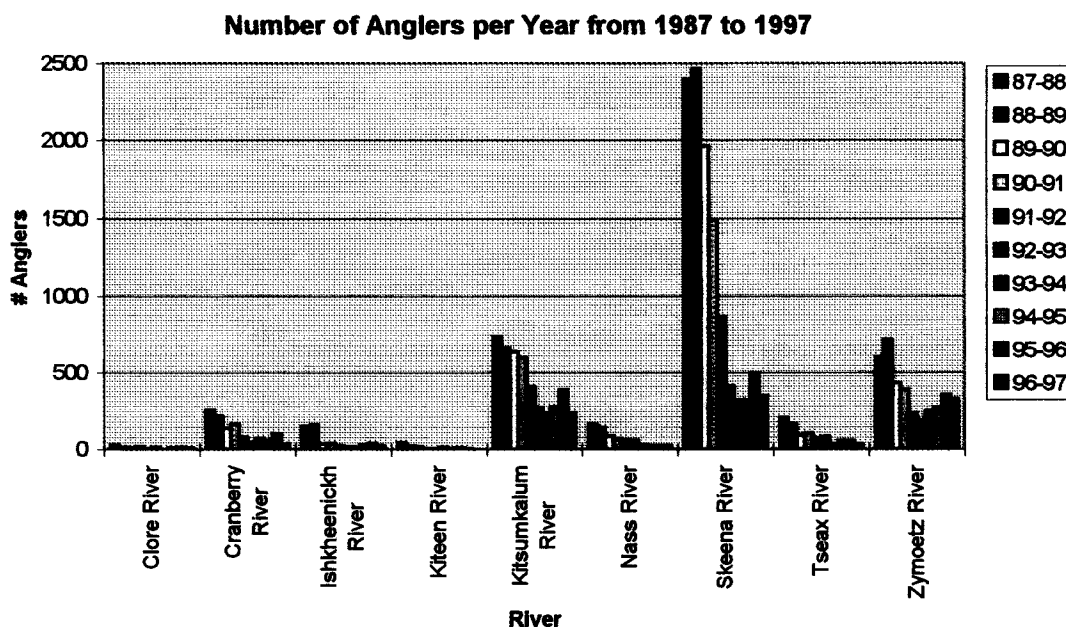
## A detailed map of the Skeena River region in British Columbia, Canada, showing various wildlife management units. The map includes geographical features such as the Skeena River, Williston Lake, Taha Lake, Babine Lake, Rukley Lakes, and several smaller lakes like Etnah, Cootna, and Rancho. It also shows towns like Hazelton, Bulkley, and Cariboo. A network of roads is depicted throughout the area. Overlaid on the map are numerous numbered management units, including 6-7, 6-8, 6-9, 6-10, 6-11, 6-12, 6-13, 6-14, 6-15, 6-16, 6-17, 6-18, 6-19, 6-20, 6-21, 6-22, 6-23, 6-24, 6-25, 6-26, 6-27, 6-28, 6-29, 6-30, 6-31, 6-32, 6-33, 6-34, 6-35, 6-36, 6-37, 6-38, 6-39, 6-40, 6-41, 6-42, 6-43, 6-44, 6-45, 6-46, 6-47, 6-48, 6-49, 6-50, 6-51, 6-52, 6-53, 6-54, 6-55, 6-56, 6-57, 6-58, 6-59, 6-60, 6-61, 6-62, 6-63, 6-64, 6-65, 6-66, 6-67, 6-68, 6-69, 6-70, 6-71, 6-72, 6-73, 6-74, 6-75, 6-76, 6-77, 6-78, 6-79, 6-80, 6-81, 6-82, 6-83, 6-84, 6-85, 6-86, 6-87, 6-88, 6-89, 6-90, 6-91, 6-92, 6-93, 6-94, 6-95, 6-96, 6-97, 6-98, 6-99, 6-100. A legend box in the bottom right corner identifies the units as "Wildlife Management Units for the Skeena Region". The map is oriented with North at the top.

**SOUTH NATIONAL  
RESERVE**

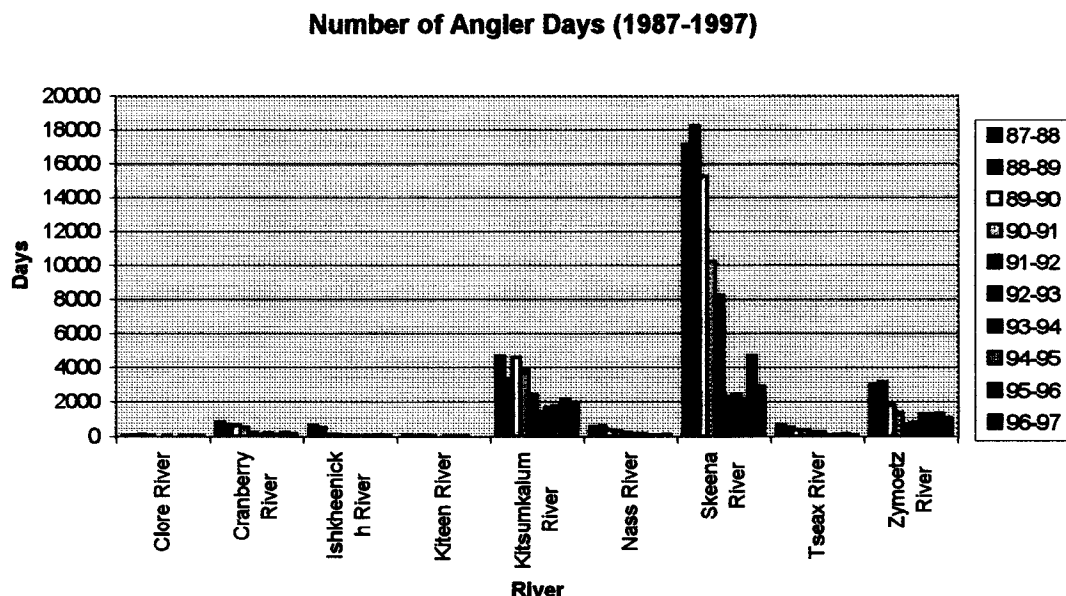


The following graphs provide a summary of steelhead sport fishing data compiled by the Ministry of Environment, Lands and Parks, Fisheries Section. The rivers with available data included the Clore, Cranberry, Ishkheenickh, Kiteen, Kitsumkalum, Nass, Skeena, Tseax and Zymoetz (Copper) Rivers.

**GRAPH 1:** The graph below indicates that for the majority of rivers the number of anglers has generally declined.

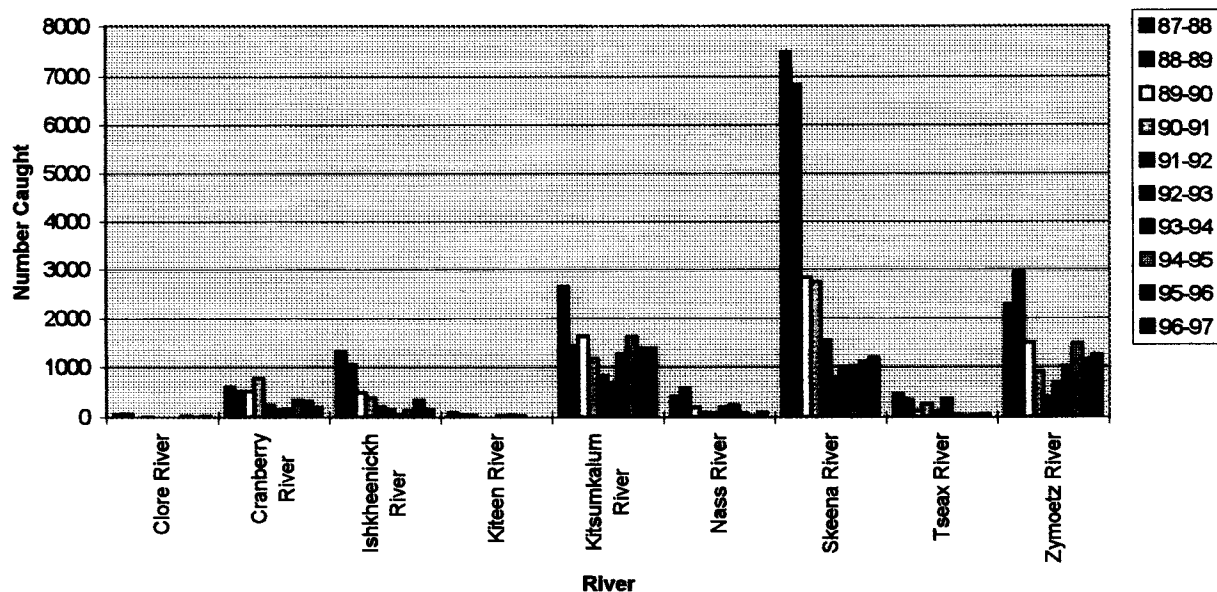


**GRAPH 2:** The graph below also indicates that the number of angler days has dropped significantly, particularly for the Skeena River.



**GRAPH 3:** The graph below indicates that the total steelhead catch dropped around 1992/1993 and for most rivers appears to be on the rise again.

**Total Steelhead Catch for Each Year (1987-1997)**



### TFL 1 Recreation Survey Summary

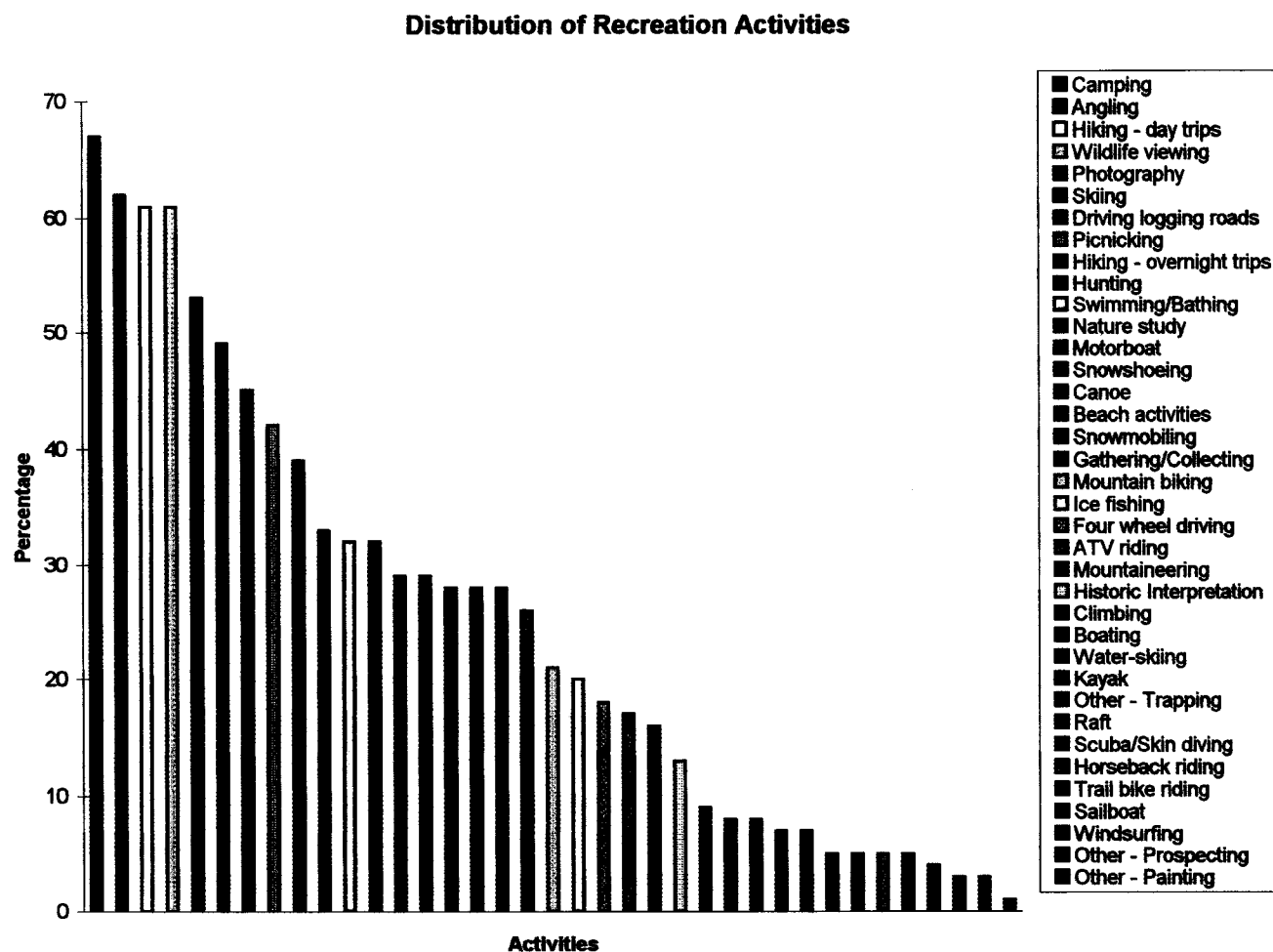
In June 1996 a detailed recreation survey was conducted as part of the recreation inventory project undertaken for TFL 1. Surveys were sent to 276 stakeholders, associations and individuals who had a recreational interest in TFL 1. The contact list was taken directly from the Kalum Outdoor Recreation Survey Mailout List. From the mailout to 276 addresses, there were 76 responses, 183 who did not respond and 17 that were returned due to "moved - address unknown". All responses were kept and are contained in a three-ring binder held at SCI's office in Terrace. Note that numbers in the graphs may not add up to 100 due to rounding of values.

The TFL 1 survey results are largely compatible with the Ministry of Forests 1995 Kalum/Nass Outdoor Recreation Use and Demand Survey.

**TABLE 12: THE FOLLOWING TABLE INDICATES THAT THE MAJORITY OF RESPONDENTS LIVE IN TERRACE.**

PLACE OF RESIDENCE	PERCENTAGE (%)	FREQUENCY OF RESPONSE
Terrace	62	47
Smithers	7	5
Kitimat	17	13
Prince Rupert	4	3
Stewart	3	2
Kemano	1	1
Hazelton	1	1
Saltspring Island	1	1
Colorado, USA	1	1

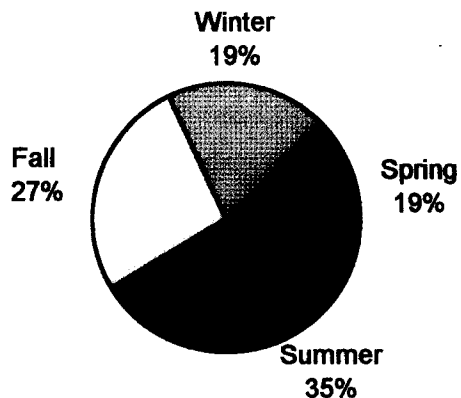
**GRAPH 4:** The following graph indicates that camping, angling, hiking and wildlife viewing are the most common form of recreation activity in TFL 1.



Source: TFL 1 Recreation Survey, June 1996.

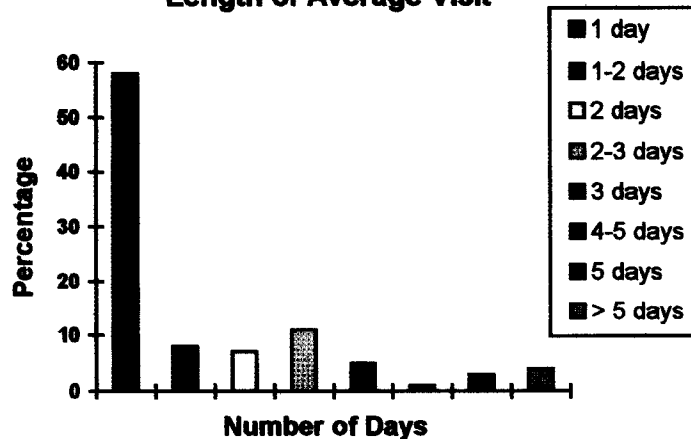
**Graph 5:** The following pie chart indicates that most recreation use in TFL 1 takes place during the summer months.

**Distribution of Use Per Season**

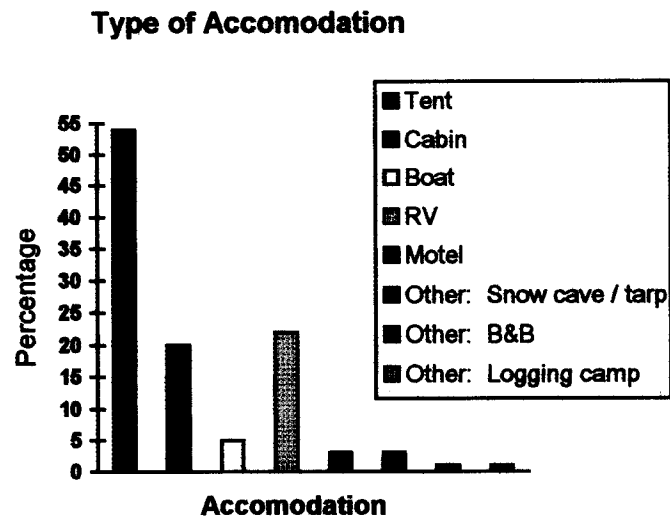


**Graph 6:** The following graph indicates that the length of an average visit for recreation purposes is one day.

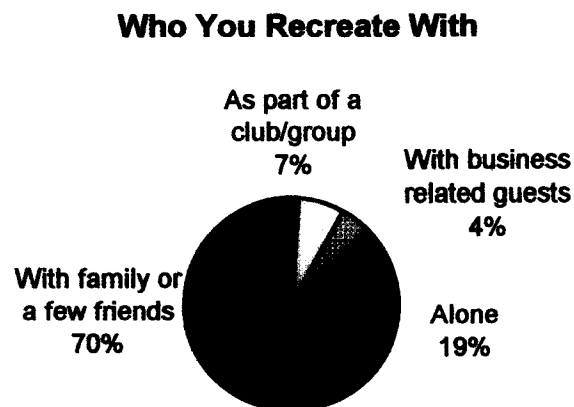
**Length of Average Visit**



**Graph 7:** The following graph shows that a tent is the most common type of accommodation when staying in TFL 1.

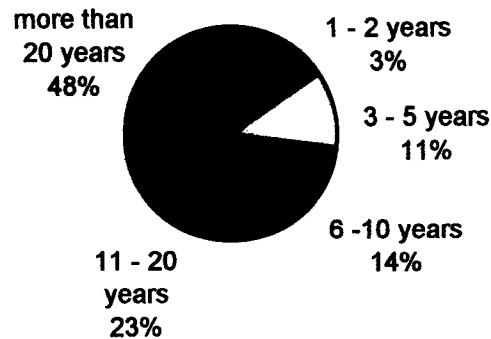


**Graph 8:** This pie chart indicates that 70% of respondents recreate with their family or friends.



**Graph 9:** The following pie chart indicates that 48% of the respondents have been recreating in TFL 1 for more than 20 years.

**Number of Years Recreating in Study Area**



#### 4.2 Forecasting Demand and Projecting Trends

This section contains recreation use data gathered from recreation sites in TFL 1, as well as a summary of the key findings of the 1995 Kalum Forest District Outdoor Recreation Survey, and from the 1989/90 Ministry of Forests Outdoor Recreation Survey. These surveys are used as the basis for determining the existing and future demand for various recreation activities in TFL 1.

The following two tables present the Recreation User Day statistics for the three recreation sites for 1996 and 1997.

**TABLE 13: RECREATION USE STATISTICS FROM MOF RECREATION SITE REPORTS FOR 1997**

RECREATION SITES	# OF FS172 FORMS	FS172 PARTIES	WEEKEND RUDS	WEEKDAY RUDS	RUDS		
					MAY-OCT	NOV-APR	TOTAL
Glory Hole	24	7	190	834	931	93	1024
Dragon Lake	26	124	3802	1460	4783	478	5261
Pine Lake	26	78	670	1529	2000	200	2200
Total					7714	771	8485

**TABLE 14: RECREATION USE STATISTICS FROM MOF RECREATION SITE REPORTS FOR 1996**

RECREATION SITES	# OF FS172 FORMS	FS172 PARTIES	WEEKEND RUDS	WEEKDAY RUDS	RUDS		
					MAY-OCT	NOV-APR	TOTAL
Glory Hole	23	5	380	626	914	91	1005
Dragon Lake	5	30	3992	2503	5904	590	6494
Pine Lake	24	31	489	1808	2088	209	2297
Total					8906	890	9796

It is difficult to develop any interpretation based on the limited recreation site data. Further survey of recreation use at these site is recommended.

The Kalum Forest District Draft Recreation Management Strategy (1996) summarized the key findings of the 1995 Kalum Forest District Survey. The summary of these results is found in the table below.

**TABLE 15: SUMMARY OF THE 1995 KALUM FOREST DISTRICT OUTDOOR RECREATION USE AND DEMAND SURVEY**

TOPICS	FINDINGS	IMPLICATIONS
Overall satisfaction with recreation visits to the forest.	<ul style="list-style-type: none"> <li>high satisfaction with the visit, the quality of facilities, the degree of maintenance and general site quality;</li> <li>some concerns about privacy, visitor impacts and access to drinking water.</li> </ul>	<ul style="list-style-type: none"> <li>most persons that use forestry recreation sites like their informal nature and degree of development;</li> <li>more frequent site maintenance is required;</li> <li>site layout and/or rehabilitation is very important</li> </ul>
Things people do while recreating in the forest.	<ul style="list-style-type: none"> <li>picnicking, sight-seeing and camping are the top forest recreation activities;</li> <li>day hiking is popular;</li> <li>winter recreation is important;</li> <li>a general lack of marine recreation sites was cited.</li> </ul>	<ul style="list-style-type: none"> <li>additional site development at attractive locations is in demand;</li> <li>expanded opportunities for day hiking and winter trails may be warranted;</li> <li>expanded opportunities for marine camping and anchorages required.</li> </ul>
The most important recreation activity.	<ul style="list-style-type: none"> <li>generally varied responses among those surveyed;</li> <li>generally high participation in day-use, camping, fishing, driving for pleasure and sight seeing.</li> </ul>	<ul style="list-style-type: none"> <li>participation in a variety of activities implies the need for a diverse recreation program offered in all ROS classes.</li> </ul>
Length of time spent participating in outdoor recreation.	<ul style="list-style-type: none"> <li>recreation trips longer than 10 days, in all seasons, more commonly occur south of Hwy. 16 (i.e. in TFL 41).</li> </ul>	<ul style="list-style-type: none"> <li>expansion of more diverse, natural recreation opportunities to accommodate longer stays (both land and marine) is required south of Hwy. 16.</li> </ul>
Most important ROS Class.	<ul style="list-style-type: none"> <li>general preference for natural areas for outdoor recreation;</li> <li>general preference to motor to recreation location;</li> <li>specific preference by some for little or no contact with others.</li> </ul>	<ul style="list-style-type: none"> <li>a variety of ROS settings must be available;</li> <li>people should have a variety of outdoor recreation opportunities and know where to find the type of settings they are seeking.</li> </ul>
Recreation facility preferences.	<ul style="list-style-type: none"> <li>preference for trails and hiking opportunities;</li> <li>strong preferences for picnic tables, toilets, access to drinking water and waterfront sites.</li> </ul>	<ul style="list-style-type: none"> <li>well designated sites and trails with maintained facilities are in demand.</li> </ul>

Source: Kalum Forest District Recreation Management Strategy 1997-2001 (Draft), Dec 1996.

Another source of recreation data is the Ministry of Forests 1989/1990 Outdoor Recreation Survey, which indicated that residents of the Prince Rupert Forest Region had the highest average number of days recreating in provincial forests (29.04 days each). The distribution of outdoor recreation activity days undertaken by residents of the Prince Rupert Forest Region is outlined below:

**TABLE 16: ACTIVITIES THAT RESIDENTS OF THE PRINCE RUPERT FOREST REGION PARTICIPATED IN MOST FREQUENTLY IN 1989/1990\***

ACTIVITY	RECREATION ACTIVITY DAYS (RADS)**
Fishing	13.4
Scenic Viewing	7.96
Camping	6.96
Hiking	5.6
Hunting	5.52
Motoring	4.32
Snow Skiing	3.52
Motor Boating	2.16

\*Source: Ministry of Forests Recreation Branch Outdoor Recreation Survey 1989/1990.

\*\* Recreation Activity Days: all or part of a calendar day spent participating in a particular activity.

**TABLE 17: RECREATION TRENDS IN THE PRINCE RUPERT FOREST REGION**

	Recreation Trend Appearances
<b>Tourists to the region</b>	<ul style="list-style-type: none"> <li>• strong growth in the "risk" activities of kayaking and mountaineering;</li> <li>• expansion of the "adventure tourism" markets of hiking/trekking, kayaking, rafting, horse riding, and helicopter access recreation;</li> <li>• more educational pursuits: historic sites, wildlife viewing and nature study;</li> <li>• less consumptive use of the recreation resource: hunting in particular;</li> <li>• increasing interest in motorized access to wilderness: fly-in, 4WD, ATV.</li> </ul>
<b>Residents in the region</b>	<ul style="list-style-type: none"> <li>• outdoor recreation opportunities that are close to home;</li> <li>• negotiated rights of native and aboriginal populations for land &amp; hunting/fishing resources that protect their traditional lifestyle;</li> <li>• international sport fishers/hunters who may press for reductions in local harvest and quota.</li> </ul>

Source: Kalum Forest District Recreation Management Strategy 1997-2001 Draft, Dec 1996.

TFL 1 encompasses the full range of ROS settings, (limited amount of Rural, Natural Roaded and SPM) and has high quality recreation and landscape features in each of the settings. As such, the TFL can expect to receive increased recreation use in most activity groups, particularly those already experiencing high participation levels.

In TFL 1, the key implications of the increased participation in these activities include:

- facilitation of roaded access to backcountry/wilderness recreation settings.
- management of landscape quality, particularly in association with higher value recreation features;
- provision of facilities, particularly along river corridors and in association with high value recreation features;



The growing popularity of activities such as mountain biking, snowboarding, snowshoeing and hiking can be expected to lead to increased use of backcountry areas. In addition, the dramatic, but often unpopular increase in motorized access to wilderness (heli-skiing, heli-hiking, fly-in fishing and hunting, jet skiing on remote rivers) is well established and will likely continue to grow. (K. R. Balmer 1993).

At the same time, as interest in motorized recreation grows, there is also growing awareness of the need to "tread lightly", "no-trace" camping, and acceptance of quotas to regulate volume of use and limit negative environmental impacts (P. Wilkinson, York University).

Significant increases in mountaineering can be expected in TFL 1. It offers a range of mountaineering opportunities which range from moderate difficulty to being challenging on an international scale. Mountaineering and rock climbing are among the fastest growing outdoor recreation activities (PAS background papers, 1994).

Opportunities for backcountry skiing, ski touring and ski mountaineering are well supported in TFL 1 and these activities are growing in popularity. The area is readily accessible from Prince Rupert, Terrace, Kitimat and Smithers.

Photography and nature study (e.g. bird watching) are growing rapidly in popularity. Recreation use of the extensive natural areas in TFL 1 is limited by the remoteness and lack of access. However, if trails, roads or commercial facilities are developed, these activities would likely be among the most popular.

Increases in RV use may result in a rise in the number of RV's visiting TFL 1, primarily in the Natural Roaded settings. There are 500,000 - 600,000 RVs registered in Canada, with 26,000 new units being registered in 1996. RV users/owners are getting younger. The average time on the road each year for an RV is 23 days, and travel distances average 9,500 km a year. "Boon-docking", setting up camp far from outside services, is growing, as RVs are being increasingly equipped with solar panels and systems which don't require conventional service hook-ups. (Westworld Magazine, Spring 1998).

### 4.3 Estimate of Intrinsic Recreation Values

British Columbians consistently place high values on natural resources. Residents of the Prince Rupert Forest Region place their highest recreation activity or use value on Hunting, Fishing and Motoring.

Recreation use value is a measure of a person's willingness to increase their expenditures before deciding not to participate in a given activity.

The intrinsic value of recreation can also be measured by the amount individuals are willing to pay for preservation of opportunities to participate in a particular activity.

**TABLE 18: INTRINSIC VALUE OF RECREATION ACTIVITIES WITHIN THE PRINCE RUPERT FOREST REGION**

BY ACTIVITY	WILLINGNESS TO PAY (per year)
GENERAL PROTECTION OF RECREATION RESOURCES	\$67.79
NATURE STUDY	\$33.12
FISHING	\$32.81
CAMPING/SWIMMING	\$31.20
HIKING/SKIING	\$25.56
WILDLIFE VIEWING	\$24.39
HUNTING	\$24.12
BOATING	\$22.79
MOTORING	\$9.91

Source: Ministry of Forests, Recreation Branch, Outdoor Recreation Survey 1989/90.

Further, measures of the importance of particular recreation settings (ROS Classes) have been assessed in terms of the willingness to pay to preserve these forest settings.

**TABLE 19: ANNUAL PRESERVATION VALUE OF FOREST RECREATION BY ROS CLASS FOR THE PRINCE RUPERT FOREST REGION**

BY ROS CLASS	WILLINGNESS TO PAY (PER YEAR)
PRIMITIVE	\$52.77
SEMI-PRIMITIVE	\$70.58
ROADED RESOURCE	\$48.49
RURAL	\$16.03

Source: Ministry of Forests, Recreation Branch, Outdoor Recreation Survey 1989/90.

Since there is a wide range of outdoor recreation opportunities available, the activities that people participate most frequently in is a reasonable indicator of the value they place on that activity. The top ten activities from the TFL 1 are listed below. Sixty-seven percent of those surveyed, went camping in TFL 1. The top activities are consistent with the 1989/90 Outdoor Recreation Survey.

TABLE 20: TOP TEN ACTIVITIES IN TFL 1

ACTIVITY	LEVEL OF PARTICIPATION (%)
CAMPING	67
ANGLING	62
HIKING - DAY TRIPS	61
WILDLIFE VIEWING	61
PHOTOGRAPHY	53
SKIING	49
DRIVING LOGGING ROADS	45
PICNICKING	42
HIKING - OVERNIGHT	39
HUNTING	33

Source: TFL 1 Recreation Inventory Survey, June 1996, RRL Recreation Resources Ltd.

The Kalum Forest District Outdoor Recreation Use and Demand Survey (1995) determined that the participation in a wide range of recreation activities meant that provision for opportunities across the full range of ROS Class setting was desirable. In TFL 1, all ROS classes are well represented except for Rural and Semi-Primitive Motorized (SPM) Classes.

#### 4.4 Gaps in Meeting Outdoor Recreation's Needs

In order for TFL 1 to meet the increasing demand for high quality recreation settings several, "gaps" will need to be filled in order to maintain and enhance the high value recreation opportunities which are available in the TFL. Gaps within the TFL include:

- Limited facilities outside of the Modified Roaded ROS Class;
- Limited number of boat launches on the Skeena, Nass, Copper and Kalum Rivers;
- General lack of recreation sites and trails in association with high quality recreation and landscape features such as the Copper River valley, Kitsumkalum River valley and Telkwa Pass;
- Limited information for visitors such as maps, interpretative brochures and programs;
- Limited number of established trails in a limited range of ROS settings;
- Limited trail access to sub-alpine and alpine settings;
- Lack of a formal recreation, landscape and ROS management strategy for the Kalum Forest District;
- Lack of strategy for protection of alpine and sub-alpine backcountry recreation opportunities.

TFL 1 lies in the Central Kalum sub-zone identified in the Kalum Forest District Recreation Management Strategy (December 1996). General forest recreation management gaps in this sub-zone are:

- preserving important Natural and Natural Roaded ROS classes in proximity to population centres;
- continued management of visual landscape quality along Highway 16 and the Nisga'a Highway;
- protecting camping and day-use hiking, cycling and lake/river-side fishing opportunities in the forested slopes, sub-alpine and navigable rivers recreation settings for residents of Terrace and Kitimat.

Regional recreation gaps in the Nass Ranges Ecoregion identified in the Prince Rupert Region PAS Report (April 1996) include:

- valley bottom lakes in a natural state;
- navigable rivers;
- moderate slope mountains (Seven Sisters and Rocher Deboile exceptionally rugged/glaciated for Nass Ranges Ecoregion);
- alpine/sub-alpine backcountry recreation opportunities.

#### **4.5 Recreation Suppliers**

Information specific to TFL 1 in terms of recreation suppliers is limited. Some general observations are as follows:

- The number of people employed in maintenance of TFL 1 facilities is estimated at around a dozen. (Pers. Com. Erika Nicholson, Feb 25, 1998)
- The number of fishing and hunting guides which operate in TFL is not known.
- One mountaineering guide is known to operate in the Howson Range, located in the southeast corner of the TFL.
- Limited amount of heli hiking takes place on the William Brown Glacier.
- BC Parks operations employ staff who work in conjunction with the Nisga'a Memorial Lava Bed Park.
- The Nisga'a Amoth CBR application proposes employment of 18 employees in the first year and 46 employees by the eighth year of operation. The application further anticipates 300 client days during the first year of operation and 1300 client days during the fourth year of operation, at which point tour lengths will be increased to 14 days. By year six, 1600 client days are anticipated and a 21 day tour is scheduled for introduction (Nisga'a Amoth CBR Project Draft Management Plan, May 1997). Note: Operations will occur inside as well as outside of TFL 1.

Employment in each of these activity areas is likely to increase. Employment projections in the Nisga'a CBR application are in part a reflection of this anticipated increase.

Regional and District recreation trends, which were largely confirmed in the TFL 1 recreation survey, indicate that expenditures on recreation pursuits constitutes a significant part of individual incomes. The demand for additional services and facilities, can only lead to increased employment and increased expenditures for capital costs and maintenance .

The City of Terrace, Economic Development Officer, Ken Veldman, was unable to provide any information regarding recreation business and employment. However, he indicated that a committee has been formed in Terrace which will be addressing this issue this year.

The Regional District of Terrace, Andrew Webber, reported that while he had no studies on recreation employment, he was aware of a study done on guides on the Skeena River and that he would try to supply a copy. No information was received to date.

The Kitimat and Terrace Chambers of Commerce, are actively supporting a variety of recreation projects, some of which create summer employment for students. Neither chamber has specifics on employment related recreation.

The Northern BC Tourism Association, Marilyn Quilley, was contacted but was unable to provide any information on employment related to recreation.

## 5.0 RECOMMENDED MANAGEMENT STRATEGIES

### 5.1 Recreation Analysis

TABLE 21: COMPARISON OF RECREATION SUPPLY AND DEMAND

DEMAND, TREND & GAPS	SUPPLY	STRATEGY MANAGEMENT
<ul style="list-style-type: none"> <li>Low demand for Rural ROS setting.</li> </ul>	<ul style="list-style-type: none"> <li>Limited Rural (2%) ROS settings available in TFL 1.</li> </ul>	<ul style="list-style-type: none"> <li>Low emphasis in TFL 1.</li> </ul>
<p>Highest recreation value placed on hunting, fishing, motoring, nature study, camping, swimming, hiking, skiing, wildlife viewing, scenic viewing and boating.</p>	<ul style="list-style-type: none"> <li>Recreation use surveys for TFL 1 and for the Prince Rupert Forest Region indicate high use numbers for these activities.</li> </ul>	<ul style="list-style-type: none"> <li>Improve ease of access to opportunities.</li> </ul>
<ul style="list-style-type: none"> <li>Trend among tourists for educational recreation opportunities (cultural, historic, wildlife viewing and nature study).</li> </ul>	<ul style="list-style-type: none"> <li>Settings are available (PAS Goal 1 &amp; 2 areas), but not developed in TFL 1.</li> <li>Cultural and some nature study opportunities are available in Lava Park</li> </ul>	<ul style="list-style-type: none"> <li>Enhance historic, educational, interpretative opportunities for visitors.</li> </ul>
<ul style="list-style-type: none"> <li>Demand for adventure tourism (kayaking, rafting, mountaineering, hiking, horseback riding and heli access recreation).</li> </ul>	<ul style="list-style-type: none"> <li>High participation in hiking at present, low participation in other activities, but increasing.</li> <li>Rivers lacking challenge for rafting, but have opportunities for kayaking/canoeing. Quality settings for mountaineering, heli hiking and kayaking.</li> </ul>	<ul style="list-style-type: none"> <li>Improve access to rivers and sub-alpine/alpine settings.</li> </ul>
<ul style="list-style-type: none"> <li>Trend towards non consumptive, tread lightly, recreation. Acceptance of managed recreation use (catch and release fishing).</li> </ul>	<ul style="list-style-type: none"> <li>High participation levels (good supply).</li> </ul>	<ul style="list-style-type: none"> <li>Improve access and facilities where suitable.</li> <li>Limit or discourage facilities in wilderness settings except for purposes of safety, shelter, etc.</li> </ul>
<ul style="list-style-type: none"> <li>Demand for motorized access to wilderness settings.</li> <li>High willingness to pay for SPM/SPNM settings.</li> </ul>	<ul style="list-style-type: none"> <li>Upper Kitsumkalum, Telkwa Pass, Lower Ishkheenickh, Trapline Mountain.</li> <li>Limited supply relative to area of TFL 1.</li> <li>Locations are limited and range of motorized use/type varies, e.g. jetboats on Upper Kitsumkalum.</li> </ul>	<ul style="list-style-type: none"> <li>Enhance opportunities where appropriate (Kiteen area).</li> <li>Limit opportunities in specific areas (Ishkheenickh Valley).</li> </ul>
<ul style="list-style-type: none"> <li>High value is placed on wilderness settings.</li> </ul>	<ul style="list-style-type: none"> <li>66% of TFL 1 can support wilderness recreation - currently receiving low use, but increasing.</li> </ul>	<p>Adopt low intensity approach to recreation development.</p>

**TABLE 21: COMPARISON OF RECREATION SUPPLY AND DEMAND CONT.**

<b>DEMAND, TREND &amp; GAPS</b>	<b>SUPPLY</b>	<b>STRATEGY MANAGEMENT</b>
<ul style="list-style-type: none"> <li>Outdoor recreation opportunities close to home - MR settings.</li> </ul>	<ul style="list-style-type: none"> <li>Settings are available and are receiving high use (Pine Lake, Hart Farm, West Kalum Road, Red Sand Lake, Sleeping Beauty, Glory Hole).</li> </ul>	<ul style="list-style-type: none"> <li>Maintain at current levels - expand trails/facilities (Copper River, boat launch on Skeena River).</li> </ul>
<ul style="list-style-type: none"> <li>Demand for informal setting with well maintained rustic facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Some sites are well serviced, while others (Dragon Lake) are not.</li> <li>Limited directions (maps, signs).</li> </ul>	<ul style="list-style-type: none"> <li>Increased servicing.</li> <li>More consistent level of maintenance.</li> <li>Consistent signage (maps, brochures).</li> </ul>
<ul style="list-style-type: none"> <li>Residents of the PRFR place high value on preservation of forest recreation resources.</li> </ul>	<ul style="list-style-type: none"> <li>Participation in a wide variety of activities.</li> </ul>	<ul style="list-style-type: none"> <li>Foster communication with recreation users.</li> </ul>
<ul style="list-style-type: none"> <li>Demand for natural areas.</li> </ul>	<ul style="list-style-type: none"> <li>Limited facilities in a limited range of settings.</li> </ul>	<ul style="list-style-type: none"> <li>Provision of a range of ROS settings.</li> </ul>
<ul style="list-style-type: none"> <li>Need for coordinated, Regional and District recreation, landscape and ROS strategies in order to meet the range of recreation demands efficiently.</li> </ul>	<ul style="list-style-type: none"> <li>Individual strategies (PAS, BC Park Management Plans, TFL Plans).</li> </ul>	<ul style="list-style-type: none"> <li>Assist with effective coordination of individual strategies.</li> </ul>
<ul style="list-style-type: none"> <li>High demand for scenic viewing opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>Lack of landscape management along some recreation corridors (Copper River, Upper Kitsumkalum River).</li> </ul>	<ul style="list-style-type: none"> <li>Review requirements for visual resource inventories.</li> </ul>

## 5.2 Recreation Management Strategies

This section outlines strategies for management of recreation values associated with biophysical features in TFL 1. These resources i.e. fish, forests, wildlife etc., generally also have resource values other than for recreation. This section identifies the following:

1. Recreation features to be protected;
2. ROS objectives;
3. Number of sites and trails to be developed and maintained;
4. Any Protected Area Strategy study areas, recreation corridor plans, heritage trails, etc.;
5. VQO's and visually sensitive corridors.

TABLE 22: RMU 1 - DAY USE AREAS AND TRAVEL CORRIDORS

AREA	RECREATION FEATURES	ACTIVITIES	FEATURE RATING	ROS	ROS OBJECTIVES	MANAGEMENT STRATEGIES
Sterling Creek and Area	M01, R01, Q12, E10, W05, E02, E03	I01, Q08, d01, M03, M05, H01	BM1	SPM	SPM	<ul style="list-style-type: none"> <li>Establish snowmobile trails along Sterling Creek and area in accordance with MoF standards;</li> <li>Examine for benefits of formal management of trails;</li> <li>Provide for both motorized and non-motorized recreation;</li> <li>Facilitate discussion and planning between snowmobile and cross country skiing groups.</li> </ul>
Sand Lake	M03, A01, B16	F01, M08, B03	BM1	MR R	MR R	<ul style="list-style-type: none"> <li>Manage as a day use recreation area.</li> </ul>
Big Cedar River	M13, Q01, A01, M09, M14	F01, B04, K03, M03	BH1	MR	MR NR	<ul style="list-style-type: none"> <li>Manage for high quality fishing and kayaking opportunities;</li> <li>Limit vehicle access to the river bank;</li> <li>Develop access trail from road to the Big Cedar River for fishing.</li> </ul>
Upper Kitsumkalum or Beaver River Valley	M09, A01, M11, M01, E08, W05, M13, D08, M02, M08, B01	M09, F01, H01, Q09, N02, B04, M08, B01	AH1 BH1	MR SPM SPNM	SPM SPNM	<ul style="list-style-type: none"> <li>Reflect PAS Goal 1 study area objectives (protection of valley bottom recreation settings, river and associated wetlands in Upper Kitsumkalum watershed; mountaineering access);</li> <li>Facilitate discussion between motorized and non-motorized recreation users;</li> <li>Advisory notices to watch for non-motorized recreation users.</li> <li>Adopt speed limits for the river;</li> <li>Establish landscape management of views from the Upper Kitsumkalum River;</li> <li>Reflect PAS Goal 2 study area objectives (protection of wetlands at mouths of Kitsumkalum and Cedar Rivers which have great importance for wintering/migratory waterfowl &amp; trumpeter swans).</li> </ul>
Kitsumkalum Lake	M05, E05, B01	B03, F01, B02	BM1	MR	MR	<ul style="list-style-type: none"> <li>Develop informal campsite on northeast side of the lake (located outside of TFL 1).</li> </ul>
Kitsumkalum River (from Kitsumkalum Lake south to the Skeena River)	M09, A01, M11	F01, M08, B03	AH1	MR	NR	<ul style="list-style-type: none"> <li>Provide boat launches and determine location in consultation with user groups;</li> <li>Establish landscape management of views from the Kalum River;</li> <li>Review trail development options along west side of Kalum River in consultation with private land owners. Potential for trail link between Red Sand Campsite, Hart Farm and fish hatchery.</li> </ul>



TABLE 22: RMU 1 Cont.

AREA	RECREATION FEATURES	ACTIVITIES	FEATURE RATING	ROS	ROS OBJECTIVES	MANAGEMENT STRATEGIES
Redsand and Treston Lakes and Hart Farm area.	M04, E05, Y01, E02, E03, W03	B03, I01, K04, M04, M03, Q09	BM1	MR R	MR R	<ul style="list-style-type: none"> <li>◆ Maintain existing sites and facilities at current levels;</li> <li>◆ Upgrade Treston Lake as a maintained day use site with boat launch;</li> <li>◆ Establish landscape management of views from the West Kalum Forest Service Road.</li> </ul>
Pine Lake	M02, T01, E03	I01, K04, B03	BM1	MR	NR	<ul style="list-style-type: none"> <li>◆ Maintenance of facilities at current levels;</li> <li>◆ Improve direction signs to the site from West Kalum Road;</li> <li>◆ Establish landscape management of views from Pine Lake Recreation Site.</li> </ul>
Lower Clore River	M09, M11, A01, M12	B04, F01, Q08	BH1	MR	MR NR	<ul style="list-style-type: none"> <li>◆ Maintain road access and provide access/egress points for kayakers.</li> </ul>
Copper River	M09, A01, M11 Q01, D02, M10,	F01, B04, M04, Q08, b06	AH1	MR	MR NR	<ul style="list-style-type: none"> <li>◆ Provide boat launch along south side of river;</li> <li>◆ Provide safe canyon viewpoint;</li> <li>◆ Develop vehicle access and kayak access campsites on north side of Copper River;</li> <li>◆ Develop trail along north side of Copper River for hiking, mountain biking, horseback riding, (using portions of the hydro right-of-way where suitable);</li> <li>◆ Establish landscape management of views from the Copper River.</li> </ul>
Kitnayakwa Recreation Site	R04, R01, E05	G03, K04, i01	BM1	MR	NR	<ul style="list-style-type: none"> <li>◆ Expand and improve recreation site with additional facilities, upgrade trail access to the river and open-up view to the river from recreation site.</li> </ul>

TABLE 23: RMU 2 - WORKING FOREST (MULTI RESOURCE USE AREAS)

AREA	RECREATION FEATURES	ACTIVITIES	FEATURE RATING	ROS	ROS OBJECTIVES	MANAGEMENT STRATEGIES
Kiteen River	M09, A01, M11, Q01	b04, F01, Q08, K04, q08	BH1	MR SPNM	MR NR SPM SPNM	<ul style="list-style-type: none"> <li>♦ Conservation of high fishing values;</li> <li>♦ Provide access (short trails) to the river to enable angling and kayaking;</li> <li>♦ Provide access for hikers and ATV's/snowmobiles to moderately sloped mountains and ridges, e.g. Kiteen Ridge, Nass Ranges and Mount Hoadley area.</li> </ul>
Upper Kitsumkalum or Beaver River (beyond limit of jetboat travel)	M12, M14, E03	i01, b04, k04	BM1	P SPNM SPM	P SPNM SPM	<ul style="list-style-type: none"> <li>♦ P ROS Class will change to MR with future development as outlined in current Five Year Plan - minimize development of MR setting;</li> <li>♦ Assess landscapes viewed from the river corridor.</li> </ul>
Upper Copper River	M09, A01, M11	F01, B04, b06	AH1	MR SPNM	MR NR SPNM	<ul style="list-style-type: none"> <li>♦ Establish river access only campsites;</li> <li>♦ Avoid developing river access for vehicles and hikers;</li> <li>♦ Develop trail access to view Milligitt Creek waterfall and hanging valley.</li> </ul>
Clore River	M13, R01, A01, M09, M11, B10, Q01, R01, M12, D02,	B04, q08, f01, b04, q09, F01, Q08	BH1	MR SPNM	MR NR SPNM	<ul style="list-style-type: none"> <li>♦ Provide kayaking access points for recreation use on the river, e.g. below confluence of Thomas Creek;</li> <li>♦ Develop campsite areas along river corridor;</li> <li>♦ Develop viewpoint and pullout at Lower Canyon.</li> </ul>

TABLE 24: RMU 3 - SUB-ALPINE/ALPINE RIDGES

AREA	RECREATION FEATURES	ACTIVITIES	FEATURE RATING	ROS	ROS OBJECTIVES	MANAGEMENT STRATEGIES
Mount Hoefft	Q12, E01, R01, G01, L03	I01, Q08, R02	BM1	SPNM	SPNM	<ul style="list-style-type: none"> <li>♦ Development of trail to Mt. Hoefft in consultation with Nisga'a;</li> <li>♦ Protection of SPNM setting.</li> </ul>
Trapline Mountain	E01, R01, M01	I01, M05, D01	BL1	SPM	SPM	<ul style="list-style-type: none"> <li>♦ Maintain facilities and access at current level.</li> </ul>
Alice Ridge	Q12, E01, R01, Q11, W03	I01, K04, Q08, D01	BM1	SPNM	SPNM	<ul style="list-style-type: none"> <li>♦ Maintain road access for hiking;</li> <li>♦ Protection of wilderness settings for future recreation use;</li> <li>♦ Provide shelters for overnight use;</li> <li>♦ Develop trail along Alice Ridge in cooperation with user group.</li> </ul>
Sleeping Beauty Mountain	Q12, T01, E10	I01, Q08, N02	BM1	MR SPNM	MR SPNM	<ul style="list-style-type: none"> <li>♦ Maintain trail at current level;</li> <li>♦ Protection of SPNM setting.</li> </ul>

TABLE 25: RMU 4 - HIGH ELEVATION ALPINE TRAVERSES

AREA	RECREATION FEATURES	ACTIVITIES	FEATURE RATING	ROS	ROS OBJECTIVES	MANAGEMENT STRATEGIES
Oscar Peak, Paul's Peak, Mount Poupard	G09, G16, G03, Q09, G01	R02, R04, Q08	BL1	SPN MP	SPNM P	<ul style="list-style-type: none"> <li>♦ Management of landscape values identified in landscape inventory;</li> <li>♦ Protection of wilderness settings for future recreation use.</li> </ul>
Pillar Peak	G11, R01, G01	r02, r04, q08	BL1	P	P	<ul style="list-style-type: none"> <li>♦ Protection of wilderness settings.</li> </ul>
Howson Range	G09, G01, G11, G12	R04, R02, D05, Q08	BL1	SPN MP	SPNM P	<ul style="list-style-type: none"> <li>♦ Protection of wilderness settings;</li> <li>♦ Plan for future hut/shelter development.</li> </ul>

TABLE 26: RMU 5 - DRAGON LAKE AREA

AREA	RECREATION FEATURES	ACTIVITIES	FEATURE RATING	ROS	ROS OBJECTIVES	MANAGEMENT STRATEGIES
Dragon Lake	M04, A01, Y01	F01, K04, B03	BH1	MR	MR	<ul style="list-style-type: none"> <li>◆ Upgrade sanitation facilities at both recreation sites;</li> <li>◆ Develop trail around lake;</li> <li>◆ Conduct landscape management from surface of lake.</li> </ul>
Nass River	M09, A01, M11	F01, b04, K04	AH1	MR	MR NR	<ul style="list-style-type: none"> <li>◆ Maintain high quality fishing experiences.</li> </ul>
Lower Kiteen River	M09, A01, M11	F01, b04, K04	BH1	MR	MR NR	<ul style="list-style-type: none"> <li>◆ Upgrade informal day use sites.</li> </ul>

TABLE 27: RMU 6 - NISGA'A MEMORIAL LAVA BED PARK

AREA	RECREATION FEATURES	ACTIVITIES	FEATURE RATING	ROS	ROS OBJECTIVES	MANAGEMENT STRATEGIES
Lava Lake	M04, E03, B16	B03, M08, K03	AH1	MR NR	MR NR	<ul style="list-style-type: none"> <li>◆ Day use area largely outside of TFL 1;</li> <li>◆ Put up signs to facilitate safe travel;</li> <li>◆ Landscape inventory from lake surface.</li> </ul>
Tseax River	E05, V03, M13	I01, K04, F01	AH1	MR NR	MR NR	<ul style="list-style-type: none"> <li>◆ Maintain opportunities for angling;</li> <li>◆ Manage as a scenic corridor.</li> </ul>
Crater Creek	E03	I01	BM1	MR	MR NR	<ul style="list-style-type: none"> <li>◆ Coordination with Nisga'a with development of trail to the crater;</li> <li>◆ Landscape management along Crater Creek to crater.</li> </ul>
Vetter Creek	E02, V03, E05	m03, n02	BH1	NR	NR	<ul style="list-style-type: none"> <li>◆ Coordination of development of campsite in cooperation with the Nisga'a.</li> </ul>

TABLE 28: RMU 7 - TELKWA PASS/LIMONITE CREEK

AREA	RECREATION FEATURES	ACTIVITIES	FEATURE RATING	ROS	ROS OBJECTIVES	MANAGEMENT STRATEGIES
Telkwa Pass	M03, D08, A01, E03, R01, W03	M01, I02, F01, D05, h01, I01	BM1 BL1	NR	NR	<ul style="list-style-type: none"> <li>♦ Evaluate present level of access and determine if upgrading is necessary;</li> <li>♦ Upgrade camping areas at Top and Tauw Lakes;</li> <li>♦ Assess landscape resources from trail/road and lakes;</li> <li>♦ Provide road signs and maps.</li> </ul>

TABLE 29: RMU 8 - SKEENA/NASS RIVER AND HIGHWAY

AREA	RECREATION FEATURES	ACTIVITIES	FEATURE RATING	ROS	ROS OBJECTIVES	MANAGEMENT STRATEGIES
Lower Nass Valley	M09, A01, M10, M13, A02, E08, E02, W03, W05, M11, E05, E03, D04, D01	F01, M04, Q01, M08, B06, B04, Q08, Q09, H01, M03, n03, z01, b03, I01, Z01, B06	AH0 AH1 BM1 BH1	MR SPM	NR MR SPM	<ul style="list-style-type: none"> <li>♦ Assess landscape resources from the river;</li> <li>♦ Build boat launches in consultation with Nisga'a and in keeping with Nisga'a CBR plans;</li> <li>♦ Manage for NR ROS Class in addition to MR and SPM.</li> </ul>
Skeena River	M09, A01, M10, M13, W05, E05, E08, E04	F01, M08, B04, K04, M09, H01, Q09, Q08	AH1 AH0 BH1	R MR	R MR	<ul style="list-style-type: none"> <li>♦ Assess landscape resources from the river;</li> <li>♦ Build boat launches at key access points.</li> </ul>
Lakelse River	M09, A01, M11	F01, B04, b03	BH1	MR	MR	<ul style="list-style-type: none"> <li>♦ Manage high quality fishing environment in cooperation with adjoining tenures.</li> </ul>

TABLE 30: RMU 9 - ISHKHEENICKH RIVER/AMOTH LAKE

AREA	RECREATION FEATURES	ACTIVITIES	FEATURE RATING	ROS	ROS OBJECTIVES	MANAGEMENT STRATEGIES
Amoth Lake	M04, A01, D08, M13, E10, E08	F01, M13, Q08, H01, Q08, Q09	BH0 BH1	SPNM	SPNM	<ul style="list-style-type: none"> <li>◆ Develop a recreation access management strategy;</li> <li>◆ Assess landscape resources from Amoth Lake;</li> <li>◆ Discourage motorized recreation use;</li> <li>◆ Low intensity and limited forestry and recreation development in wilderness ROS settings;</li> <li>◆ Maintain dialogue pertaining to recreation and landscape issues with the Nisga'a.</li> </ul>
Ishkheenickh River	M09, A01, M10, M11	F01, M01, B04, b04, Q08, M03	BH1	MR SPM SPNM P	MR SPM SPNM P	<ul style="list-style-type: none"> <li>◆ Develop a recreation access management strategy;</li> <li>◆ Discourage motorized recreation use;</li> <li>◆ Maintain dialogue pertaining to recreation and landscape issues with the Nisga'a.</li> </ul>

## **6.0 Recommended Recreation Management Objectives**

### **Management Objectives for RMU 1 (Day Use Areas and Travel Corridors):**

- Manage conflicts between motorized and non motorized recreation users. Minimize potential for conflict when building trails and recreation facilities;
- Management of visual landscape along river and road corridors;
- Provide Natural Roaded ROS settings;
- Provide recreation facilities including trails, boat launches, day use and camping areas.

### **RMU 2 (Working Forest - Multi Resource Use Areas):**

- Maintain level of access to identified hiking trails and routes;
- Management of landscape in keeping with very high and high recreation feature significance;
- Development of facilities at high recreation value features;
- Provide fishing opportunities;
- Provide a range of ROS settings;
- Compliance with PAS objectives.

### **RMU 3 (Sub-Alpine and Alpine Ridges):**

- Develop access management strategy between the working forest and the sub-alpine and alpine;
- Develop overnight/emergency shelters for longer trips along suitable routes;
- Develop routes along ridges that would be suitable for hiking;
- Maintain landscape quality in scenic areas;
- Engage community group support for trail development/maintenance.

### **RMU 4 (High Elevation Alpine Traverses):**

- Protection of backcountry wilderness settings;
- Identify mountaineering traverses on TFL 1 recreation inventory maps;
- Provide emergency shelter/huts.

### **RMU 5 (Dragon Lake Area):**

- Maintain access to recreation features through maintenance of roads, trails and signs;
- Develop trail around Dragon Lake;
- Discourage long term camping;
- Identify mushroom growing sites and site productivity;
- Identify aboriginal trading routes.

**RMU 6 (Nisga'a Memorial Lava Bed Park):**

- Development planning should reflect cultural and natural history interpretation programs for the area being undertaken by the Nisga'a;
- Develop facilities to accommodate high value recreation features of the area;
- Ensure safety of traveling public;
- Maintain viewshed around Lava Bed at NR ROS settings.

**RMU 7 (Telkwa Pass/Limonite Creek Area):**

- Support motorized and non-motorized recreation use;
- Manage visual landscapes to maintain high value recreation experiences;
- Maintain an appropriate level of access, (consult with user groups and stakeholders);
- Facilitate access with road signs.

**RMU 8 (Skeena/Nass Rivers and Highway):**

- Develop a landscape management strategy for the Skeena and Nass Rivers;
- Provide additional boat launches on both rivers for easier access;
- Evaluate Andesagen Creek Hot Springs for recreation site potential.

**RMU 9 (Ishkheenickh River/Amoth Lake Area):**

- Protection of wilderness ROS settings;
- Manage for non-motorized recreation use;
- Manage landscape from Amoth Lake;
- Pursue cooperative management of recreation and landscape resources with the Nisga'a.



## ***RMU 1: Day Use Areas and Travel Corridors***

### **Management Objectives**

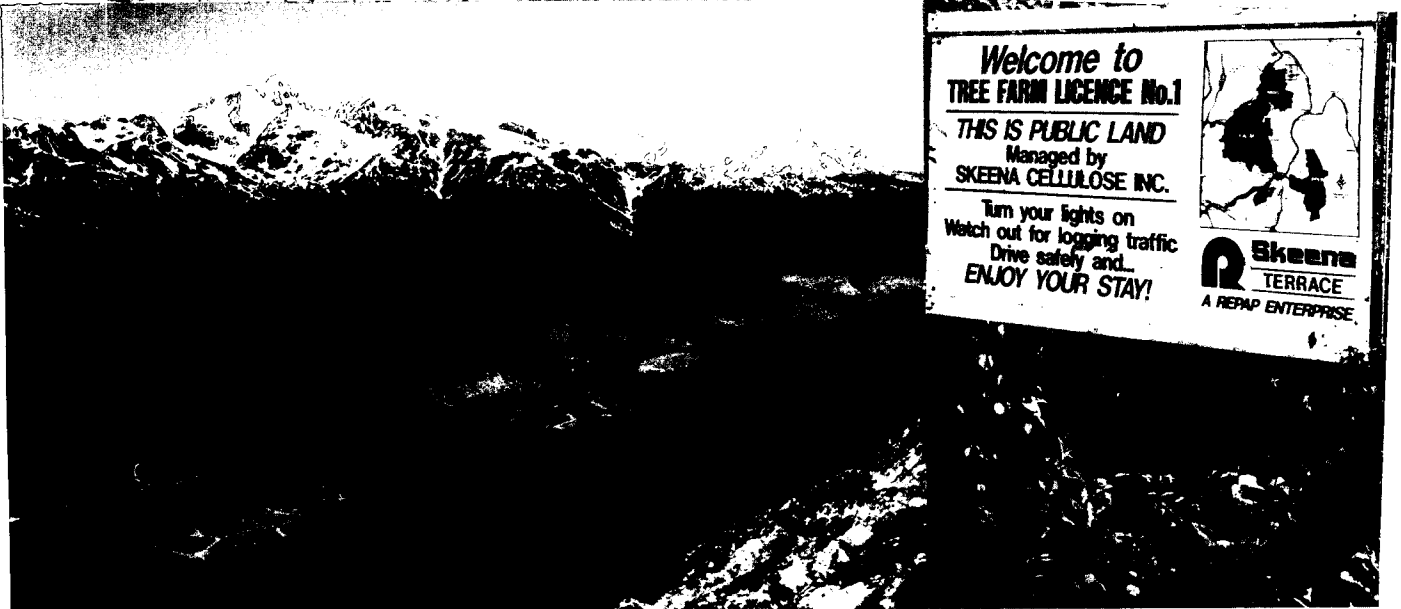
- ◆ Manage conflicts between motorised and non motorised recreation users.  
Minimise potential for conflict when building trails and recreation facilities;
- ◆ Management of visual landscape along river and road corridors;
- ◆ Provide Natural Roaded ROS settings;
- ◆ Provide recreation facilities including trails, boat launches, day use and camping areas.



## ***RMU 2: Working Forest - Multi Resource Use Areas***

### **Management Objectives**

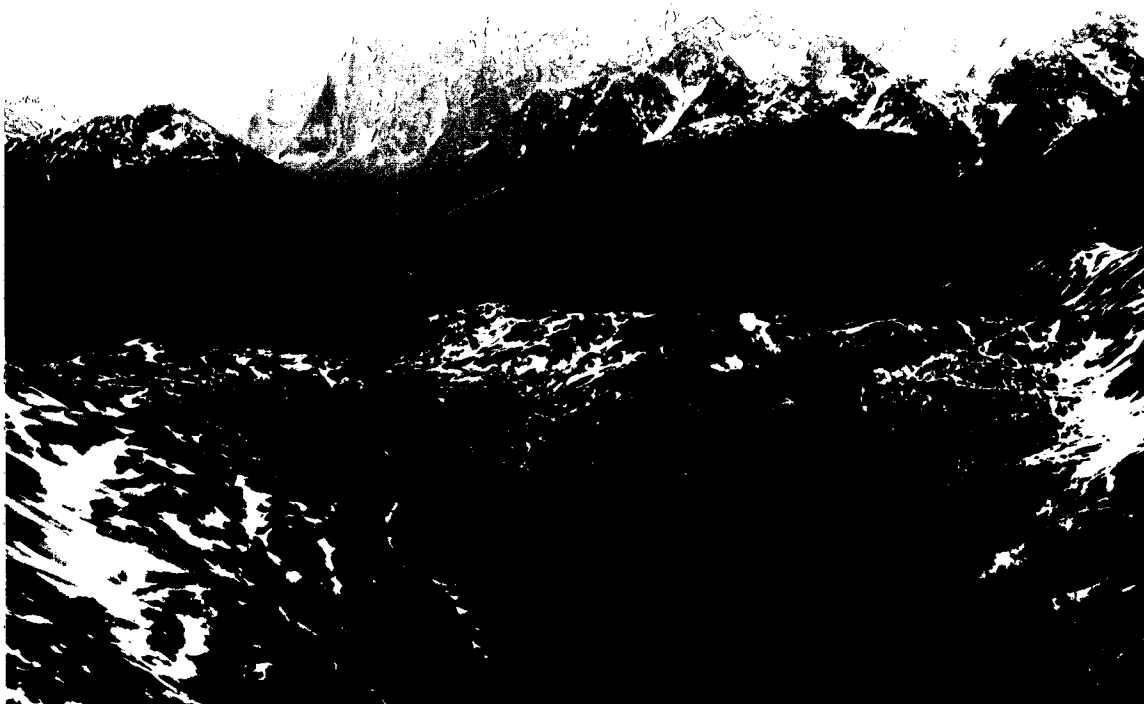
- ◆ Maintain level of access to identified hiking trails and routes;
- ◆ Management of landscape in keeping with very high and high recreation feature significance;
- ◆ Development of facilities at high recreation value features;
- ◆ Provide fishing opportunities;
- ◆ Provide a range of ROS settings;
- ◆ Compliance with PAS objectives.



### ***RMU 3: Sub-Alpine and Alpine Ridges***

#### **Management Objectives**

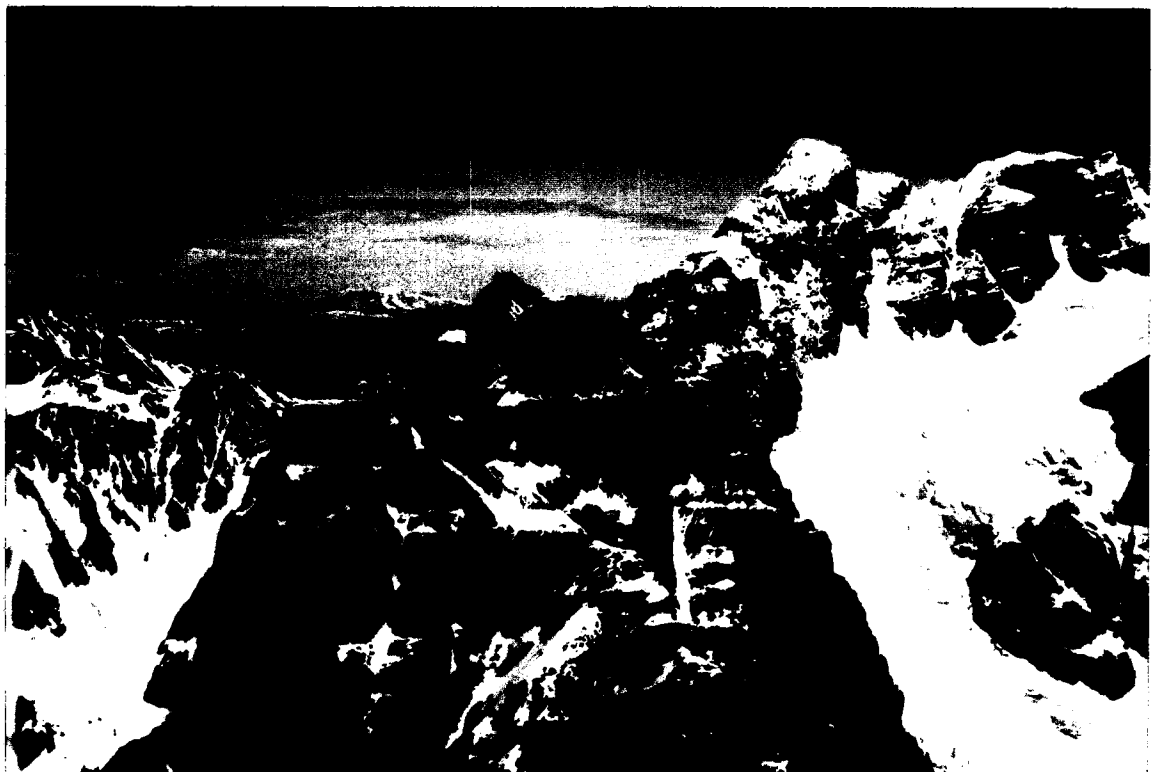
- ◆ Develop access management strategy between the working forest and the sub-alpine and alpine;
- ◆ Develop overnight/emergency shelters for longer trips along suitable routes;
- ◆ Develop routes along ridges that would be suitable for hiking;
- ◆ Maintain landscape quality in scenic areas;
- ◆ Engage community group support for trail development/maintenance.



## ***RMU 4: High Elevation Alpine Traverses***

### **Management Objectives**

- ◆ Protection of backcountry wilderness settings;
- ◆ Identify mountaineering traverses on TFL 1 recreation inventory maps;
- ◆ Provide emergency shelter/huts.



## ***RMU 5: Dragon Lake Area***

### **Management Objectives**

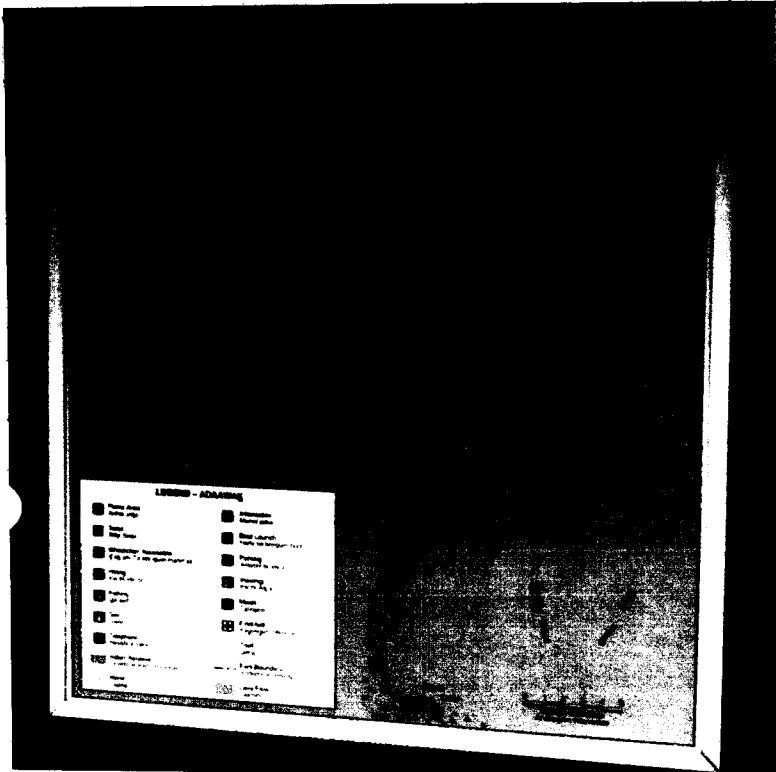
- ◆ Maintain access to recreation features through maintenance of roads, trails and signs;
- ◆ Develop trail around Dragon Lake;
- ◆ Discourage long term camping;
- ◆ Identify aboriginal trading routes;
- ◆ Identify mushroom growing sites and productivity.



## ***RMU 6: Nisga'a Memorial Lava Bed Park***

### **Management Objectives**

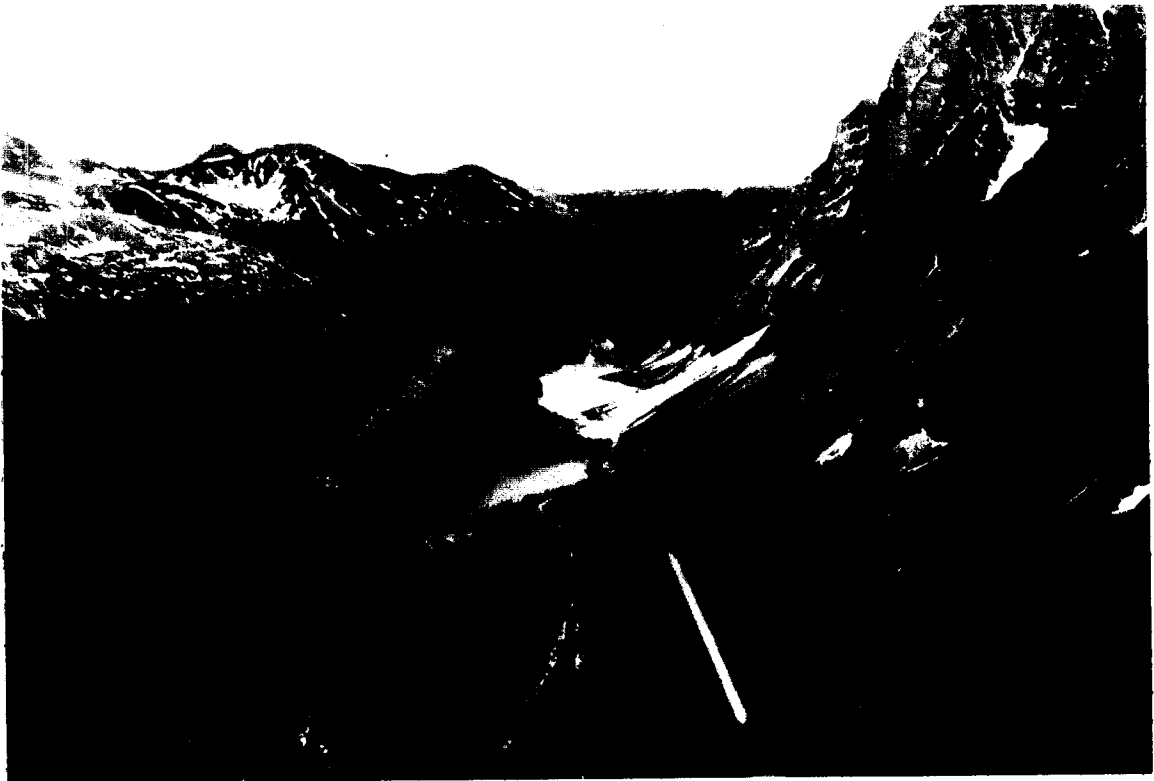
- ◆ Development planning should reflect cultural and natural history interpretation programs for the area being undertaken by the Nisga'a;
- ◆ Develop facilities to accommodate high value recreation features of the area;
- ◆ Ensure safety of travelling public;
- ◆ Maintain viewshed around Lava Bed at NR ROS settings.



## ***RMU 7: Telkwa Pass/Limonite Creek Area***

### **Management Objectives**

- ◆ Support motorised and non-motorised recreation use;
- ◆ Manage visual landscape to maintain high value recreation experiences;
- ◆ Maintain an appropriate level of access;
- ◆ Facilitate access with road signs.



## ***RMU 8: Skeena/Nass Rivers and Highway***

### **Management Objectives**

- ◆ Develop a landscape management strategy for the Skeena and Nass Rivers;
- ◆ Provide additional boat launches on both rivers for easier access;
- ◆ Evaluate Andesagen Creek Hot Springs for recreation site potential.

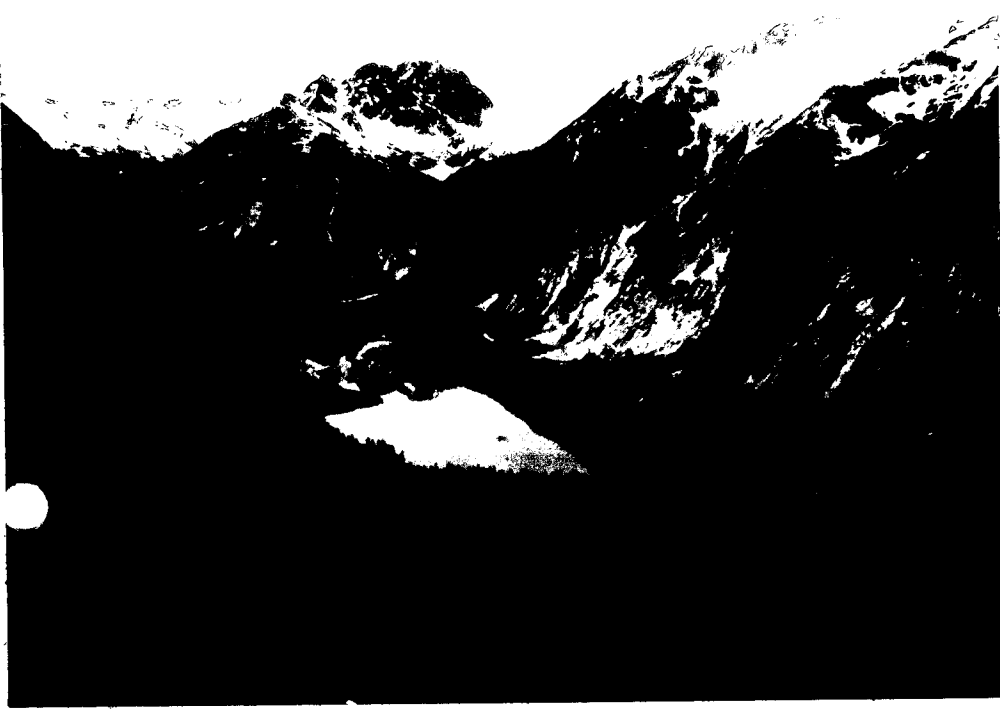




## RMU 9: Ishkheenickh River/Amoth Lake Area

### Management Objectives

- ◆ Protection of wilderness ROS settings;
- ◆ Manage for non-motorised recreation use;
- ◆ Manage landscape from Amoth Lake;
- ◆ Pursue co-operative management of recreation and landscape resources with the Nisga'a.



## **7.0 Options and Recommendations**

The following sequential recommendations outline some options for management of recreation features, visual landscape resources and ROS settings in TFL 1. These recommendations, combined with the strategies in Section 5.2, satisfy the recreation management objectives described in Section 6.0.

### **1. Gather information and data:**

- Continue planning and assessment of visual landscape resources;
- Measure use at established recreation sites and trails.

### **2. Foster cooperative relationships with stakeholders:**

- Stakeholders:
  - Recreation user groups - snowmobilers, ATV/Motorbikes, Boat (canoe/jetboat), cross-country skiers, mushroom pickers, etc.;
  - Nisga'a;
  - Adjoining tenure holders (Refer to Map 6 on page 64), e.g. TFL 41;
  - BC Parks/MELP/RPAT;
  - Guide Associations;
  - Chamber of Commerce/Regional Districts.
- Meetings, dialogues and consultation topics:
  - Road maintenance;
  - Road access;
  - Establish who provides which recreation opportunities, e.g. cultural interpretation, wilderness camping, boat launches and RV campsites;
  - Cooperative visual landscape management between different tenure holders;
  - Location and value of features, e.g. mushroom growing sites and productivity.

### **3. Finalize Kalum Recreation Management Strategy in consultation with stakeholders**

### **4. Prepare forest development and road deactivation plans to incorporate:**

- Recreation access;
- Recreation values;
- Visual landscapes;
- ROS objectives.

Use the management strategies described in Section 5.2 and information gathered in consultation with stakeholders to prepare forest development and road deactivation plans.

### **5. Upgrade existing recreation opportunities:**

- Improve level of recreation site maintenance at Dragon Lake, Kitnayakwa Recreation Site and Vetter Creek;
- Improve road signs and directions to recreation sites;
- Post road signs on deactivated roads (partial, full deactivation);
- Share maintenance with established recreation user groups.

**6. Expansion strategy:**

- Review RMU recreation management strategies with stakeholders and modify as required, e.g. identify specific locations for river access/egress, campsite/day use sites and trails.

**7. Monitoring:**

- Recreation site use;
- Recreation site maintenance;
- Recreation site user satisfaction;
- Maintain recreation opportunities in a range of ROS settings, e.g. modified roaded setting becomes semi primitive non-motorized after road deactivation and recovery of vegetation while a semi primitive motorized setting becomes natural roaded after a new road is built.

**Map 6: Tenures adjoining TFL 1**

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## 9.0 APPENDIX - 1

**TABLE 31: TFL 1 RECREATION USERS AND MANAGERS**

This is a partial list of resource users and managers associated with TFL 1.

CONTACT	CONTACT NAME	TELEPHONE/ FACSIMILE
Terrace Hiking Club	Kelly Kline	798-2535
Skeena Valley Snowmobile Club	Ron Niesner	635-9270
Terrace and District Anglers Association	Frank Thodt	635-3702
BC Steelhead Society	Doug Webb	
BC Wildlife Federation	Gil Payne	635-3955
Terrace Rod and Gun Club	Terry Morris / Fred Straw	635-7330
Trappers Association	Rob Seaton	
Kermode Four-Wheel Drive Club	Dan Thickett	635-5867
Terrace Parks and Recreation	Carol Wall	6380325
Canadian Helicopters	Dave Newman	635-5266
Northern Mountain Helicopters	Ian Swan	638-1028
Peak Experiences Heli-Skiing	Joanne Monaghan	632-7512
Kitsumkalum Band Council	Steve Roberts	635-6177
Kitselas Band Council	Wilfred McKenzie	635-5084
Nisga'a Tribal Council	Ben Haizimsque	633-2601
Nisga'a Tribal Council, President	Joe Gosnell	635-4422 (local)
Gitwunsihlkw Band Council	Perry Azak	633-2294
Gitlakdamix Council	Bert Mercer	633-2215
<b>Government Ministries</b>		
Kalum Forest District Assistant Planning Officer	Ken Newman	638-5115
Kalum Forest District Recreation Planner	Bob Childs	638-5160
Department of Fisheries and Oceans	Scott Trent	635-2206
Prince Rupert Forest Region, Acting Regional Recreation Officer	Lloyd Davies	847-7427
Prince Rupert Forest Region, Regional Landscape Specialist	Lloyd Davies	847-7427
Ministry of Environment, Lands and Parks, Conservation Officer - Terrace		638-6530
Outdoor Rec. Council of BC	Joe Iannarelli	632-5938
BC Parks - Lakelse Lake Area - Area Supervisor	John Trewitt	798-2277

NOTE: A detailed list of contacts is contained in the public input binder that was assembled as part of the 1996 recreation and landscape inventory project.

## **Appendix - 2: General Comments from the Recreation Surveys**

### **What are the specific features and/or recreation opportunities which attract you to the study area? (Summary of the key points)**

The natural beauty of the area • abundant wildlife • lack of crowds • real wilderness • quality outdoors experiences • remoteness • wilderness atmosphere • superb scenery • opportunities to see wildlife in their natural environment • rugged terrain • awesome beauty • undisturbed alpine areas • intact sub-alpine ecosystems • low public use • fantastic alpine country • drinkable clear running creeks • excellent wildlife populations • excellent variety of river systems for fishing and jet boating • mountain ranges • type of ecology • scenery • high alpine areas • mountain meadows.

Angling opportunities • excellent hunting and fishing opportunities • wildlife viewing • photographic opportunities • bear hunting • wildlife abundant in each area because each area contains a different ecosystem • rivers for steelhead and salmon fishing • small lakes and slow moving rivers.

Access to a lot of true wilderness areas • close to home • ease of access to many areas • access to alpine - summer or winter • access to lakes for boating • good access via logging roads that haven't been deactivated • remote areas are accessible with new logging roads • good secondary roads • boat launches • easy access via logging roads and public roads.

Trails to alpine areas for hiking, camping, skiing • areas with good berry crops • alpine hiking opportunities • good snowmobiling trails • mature stands for pine mushroom picking • year round activities between alpine, sub-alpine and valley bottoms.

**Please describe or indicate on the enclosed map, the land and/or water routes you use to travel to recreation locations within the study area.**

**Roads:** Highway 16 • Highway 37 • Nisga'a Highway • active and inactive logging roads • West Kalum FSR • East Kalum FSR • Copper River FSR • microwave access roads • Copper/Clore mainline • Whitebottom area network of roads • Telkwa Pass through Limonite Creek • Hoodoo Road.

**Waterways:** Skeena River • Nass River • Copper River • Kalum River • Cedar River • Kitsumkalum River • Tseax River.



**Are there any specific recreation facilities which you would like to see within TFL 1?**

### **Access**

Gates on logging roads should be unlocked and ready for public access • improved access to recreation sites - shouldn't just be for 4x4's • winter access maintained to Pine Lake • the Ishkheenickh River should have access • access into Erlandson Creek valley (bridge has been taken out) • maintain access and footbridges • continued access using logging roads even after logging has finished in the area • more access to fly fishing, catch and release areas only - no bait • more access to timberline • logging roads should be maintained & new bridges • put roads to bed • road access to Ishkheenickh River • road to Sleeping Beauty needs upgrading • maintain most important logging roads but balance with closures to limit access to sensitive sites • coordinated access - management plan for most logging roads

- total closure for some logging roads.

### **Parks**

Other parks with power • garbage facilities, washroom facilities as well as designated camping areas • more camping locations • Upper Clore/William's ski cabin • outhouses at picnic areas, serviced camping and picnic areas • clean toilets • provincial campsite at north end of Kitsumkalum Lake • more Forest Service campgrounds like Red Sand Lake • more campsites, overnight campgrounds, boat launches and bathrooms • semi-serviced campgrounds on Kitsumkalum Lake • more huts for overnight, emergency shelters and extended treks • more campsites for tenters only - not large RV's or motorhomes • maintain Forest Service campsites • road pullouts or small spur roads for parking and camping • restricted RV and ATV access to more primitive areas • rec. sites at both ends of Kitsumkalum Lake • campsite at confluence of Kiteen and Cranberry Rivers • recreation site at Ishkheenickh River or Ginluk Creek • bathrooms at Gainor Lake.

### **Trails**

More trails & developed lookout area for the upper Kitsumkalum River rutting moose • more hiking trails to alpine, more drivable access to alpine and don't deactivate logging roads • proper hiking trail into the Lava Beds • circle routes for skiing, mountain biking, snowmobiling • well maintained trails to alpine areas - including well maintained access to trail heads • improve signage for hiking trails • better marked hiking trails • more day trip areas of significance • more well marked and maintained trails to the tops of the peaks around TFL1 • improved signage of trails and marked routes • trails for mountain top viewing • more hiking trails • network of non-motorized trails • more hiking trails to reach alpine areas and good logging road access to the start of trails • more hiking trails into remote areas.

### **Boating**

Improved and maintained boat launches along the Skeena River • more boat launches on the Skeena, upstream of Terrace and better parking areas • boat launches on the Kalum, Skeena and Nass Rivers • better quality boat launches and sanitary facilities • restricted size, horsepower & speed of jet boats and

displacement hull boats • lack of good/safe boat launches on Nass, Skeena, Kalum and Beaver • boat launches on Lower Nass, Tseax and Upper Kitsumkalum River • boat launch at Gainor Lake.

### **Miscellaneous**

Protected artifacts, fossils, historical sites and cultural sites • inventory of points of historical interest - old mine sites and logging camps • no more facilities - with less development fewer people will come (12 responses like this).

### **Areas that are important to its present recreational value and future recreation potential.**

Should be an official FS Rec. Site at the Kitsumkalum River bridge • better road signage • rivers and lakes are important to protect in this area as they have highest recreational use • Mt. Hoadley has excellent above treeline hiking • after logging has occurred shouldn't close off the area to recreational use • the Fossil Beds should be fully developed to contain a day use area and a overnight camping area • leave area open to all • scenic values have been greatly impacted in a negative way due to large clearcuts • suggested hiking trails to Gunsite Peak, Mount Catt, Glacier Mountain (Fiddler Lake) • potential hiking along ridge and cross over to West Skeena, Wesach Mountain and Mt. O'Brien • permanent maintenance of primary logging roads rather than deactivation • signs telling people what forest management activities have been carried out • put more picnic areas on back roads where there are scenic views and more hiking trails up to mountain tops • potential to upgrade x-country trails around Erlandson Creek • need better road maps with trails • need to upgrade Andesite Creek Trail to Glacial Lake • better directional signs to all areas of interest • more designated alpine hiking trails and designated semi-primitive campsites - garbage serviced only • a few goats can be seen 6km down the Kleanza M/L down by the river • old mine shafts on the ridge between Mayo and Beaver Rivers • keeping all the major rivers clear of logs due to logging, some logging is getting to close to the alpine • have buffer zones around lakes and rivers so don't have to fish out of a clear-cut • regulate motorized backcountry use and access and the amount of hunting that goes on - hunting may increase with better access up to the alpine • develop a infrastructure of trails - Copper River to McDonnell Lake or a traverse on the Nass Range from Usk to Kitsumkalum Lake • Cedar/Kiteen River has potential for hiking also Williams, Trapline and Thomas Creeks for possible trail development • Grease Trail sections around Hoodoo Lake for hikers and cultural appreciation • sections of the Grease/Hoodoo Trail roads in mature dry forest are still visible • many respondents realize that much of their hiking opportunities into the alpine would not be possible where it not for logging roads so many people are keen on keeping these roads open - particularly roads that lead to access to nice hiking locations • keen on having more road signage saying that a road has been deactivated or a bridge has been taken out.

**Appendix - 3: Sample photos with Recreation, Landscape and ROS polygons**

## Sample of Recreation Polygons

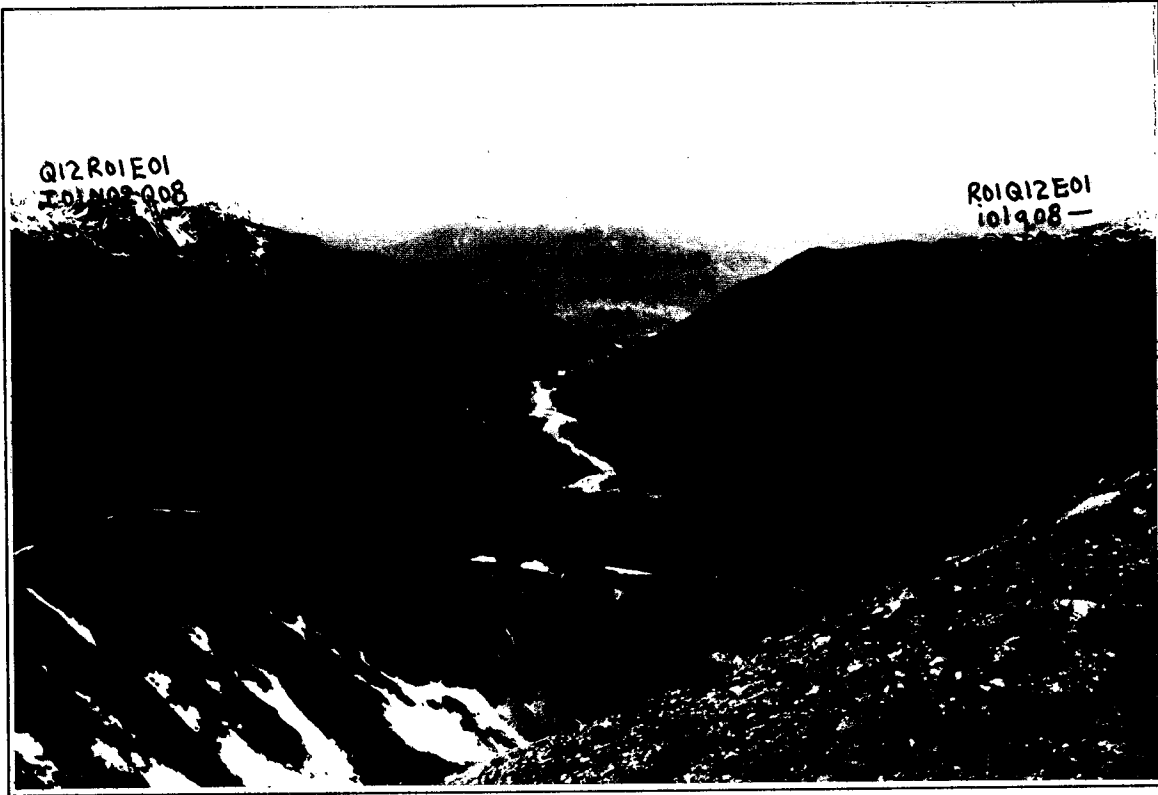


Photo 1: Copper River Valley

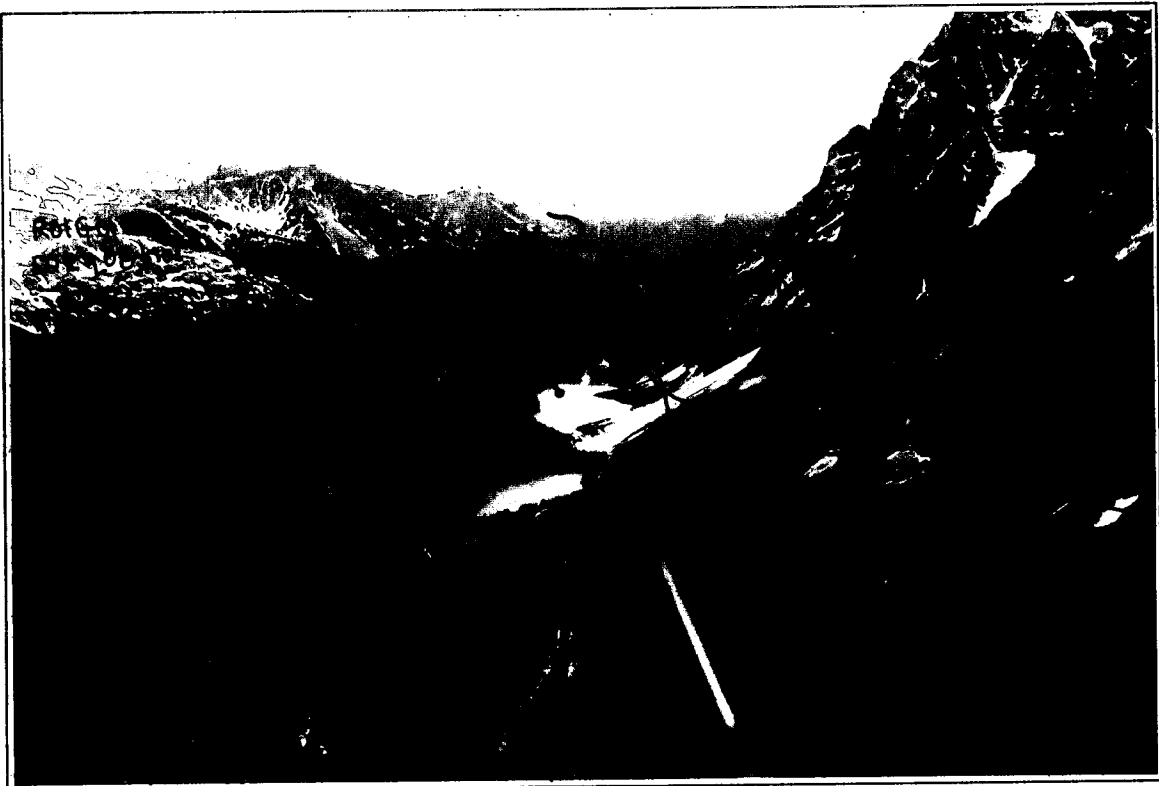


Photo 2: Telkwa Pass

## Sample of Recreation Polygons

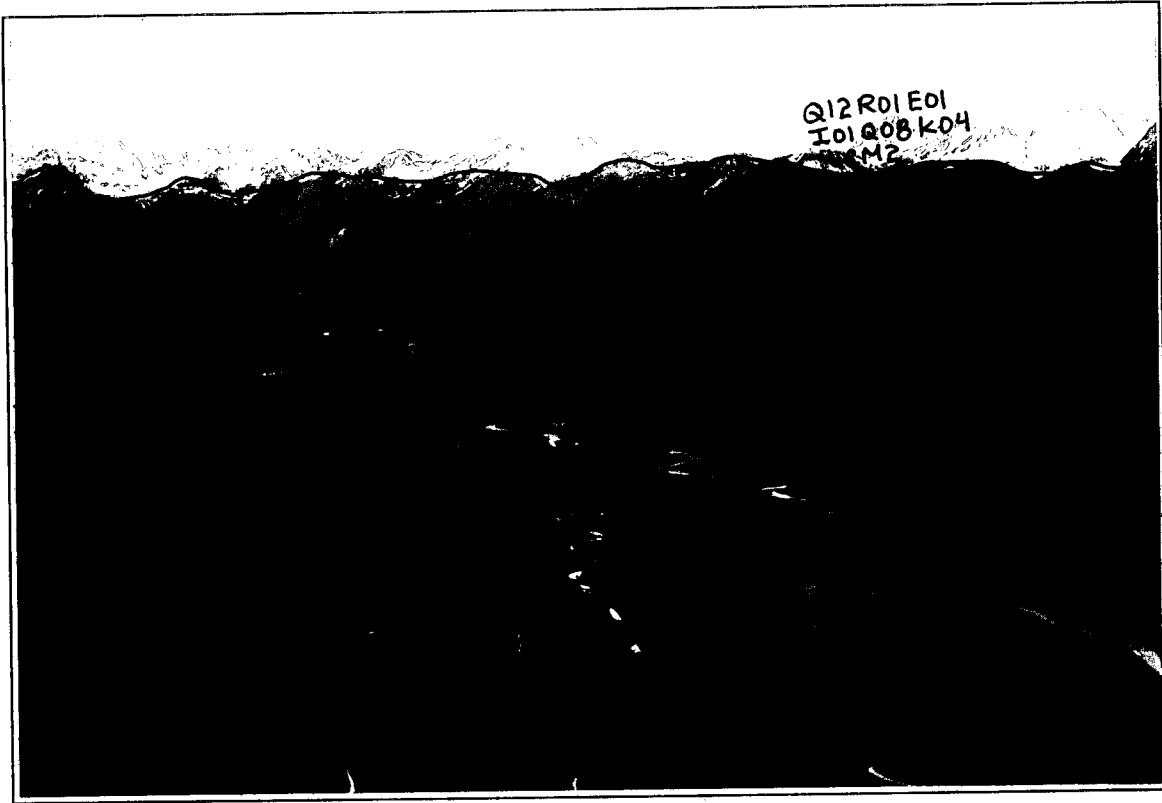


Photo 1: Beaver River Valley

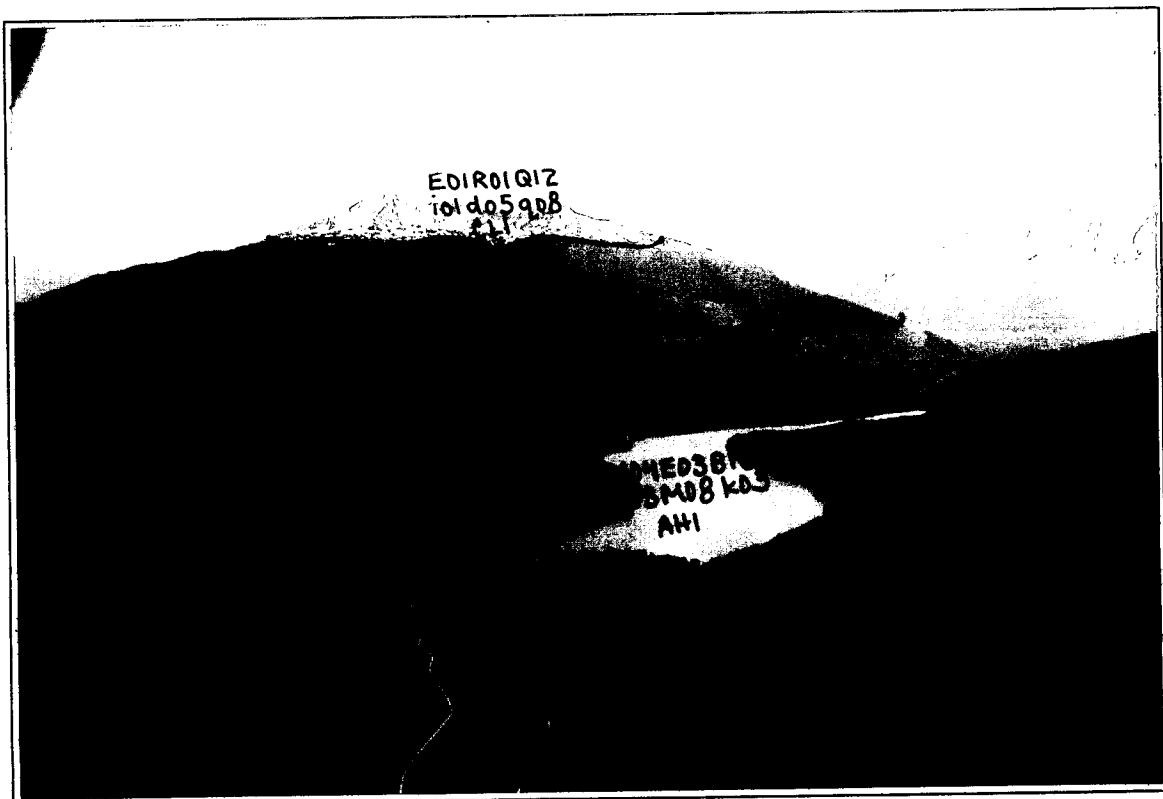


Photo 2: Lava Lake

# Sample of Landscape Polygons

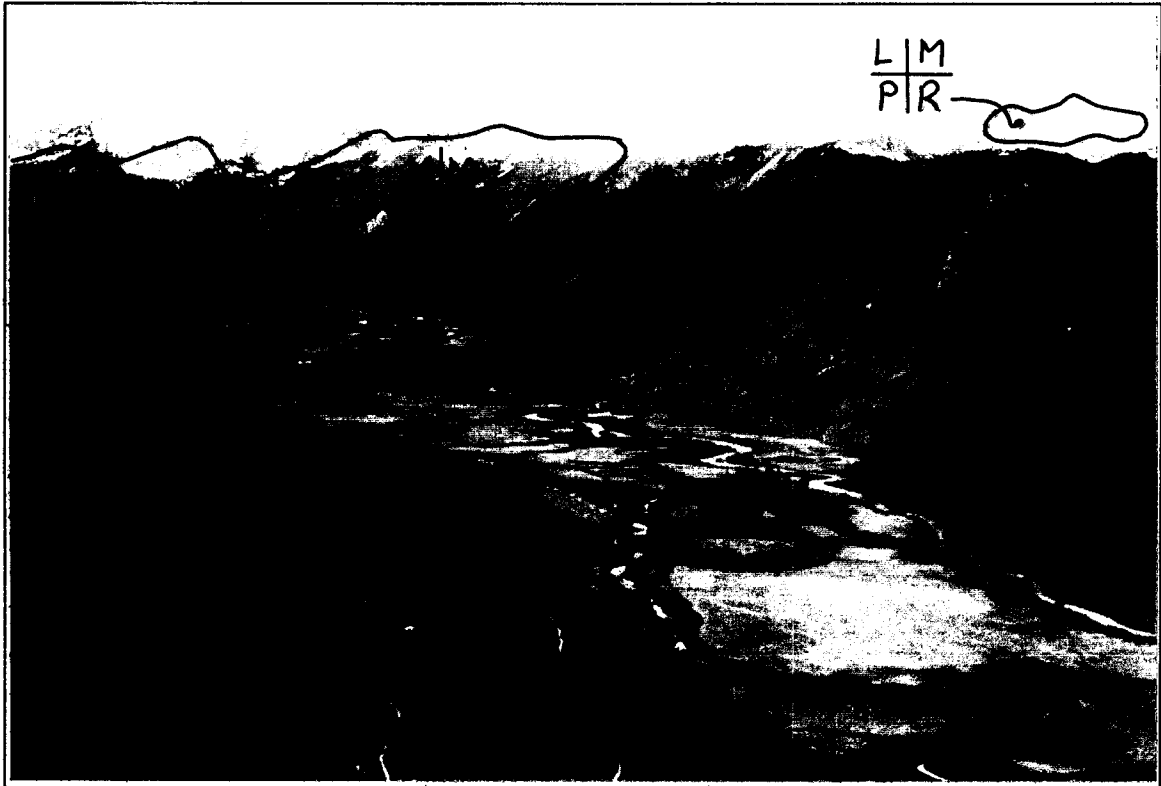


Photo 1: Beaver River Valley

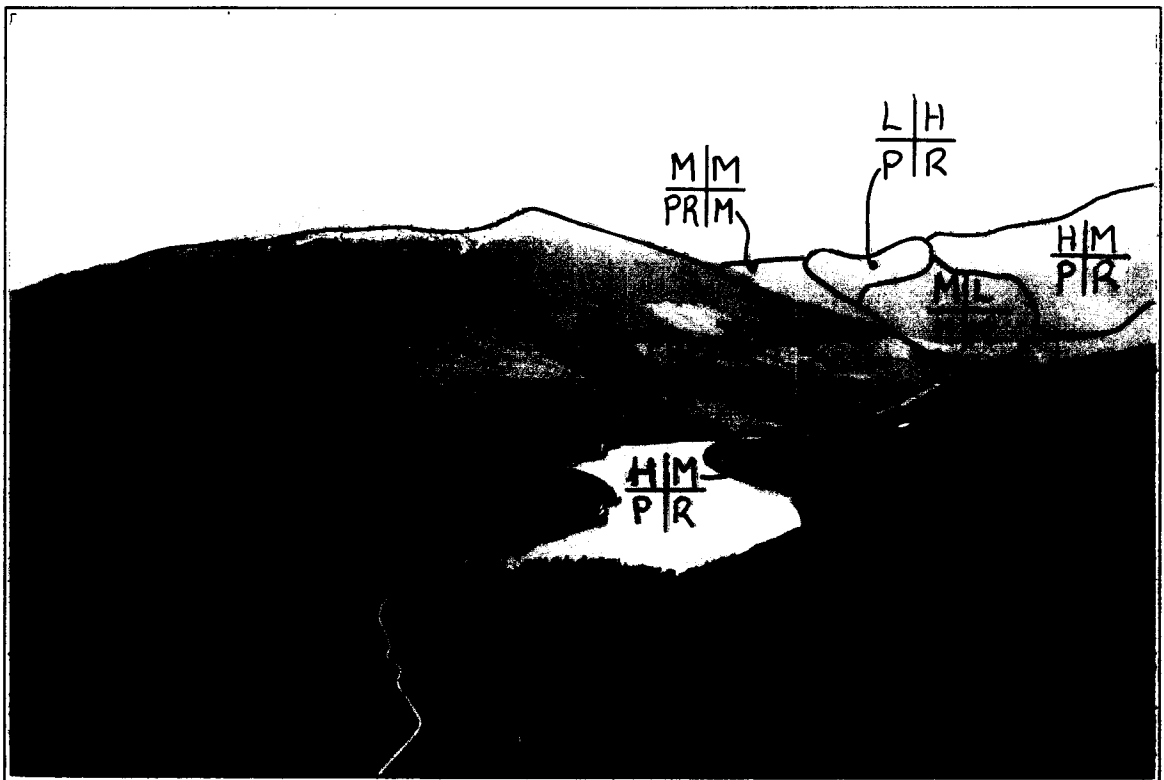


Photo 2: Lava Lake

## Sample of ROS Polygons

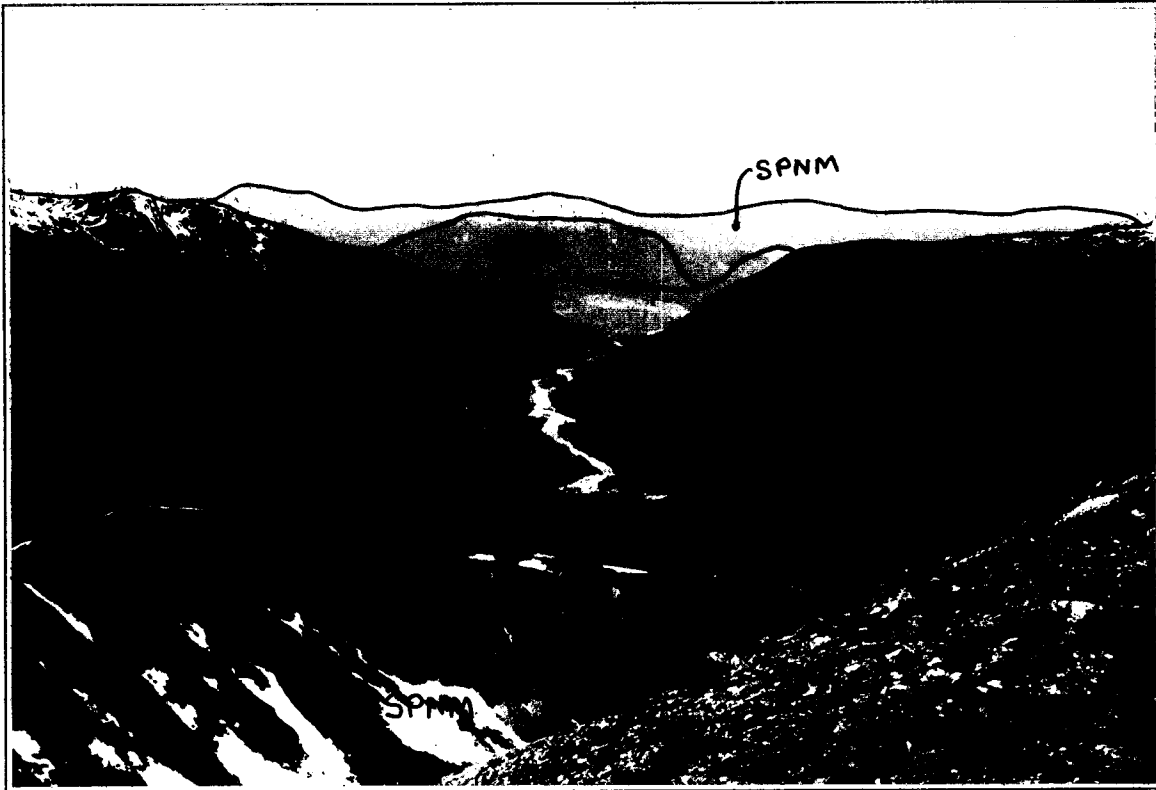


Photo 1: Copper River Valley



Photo 2: Telkwa Pass

## Sample of ROS Polygons



Photo 1: Beaver River Valley

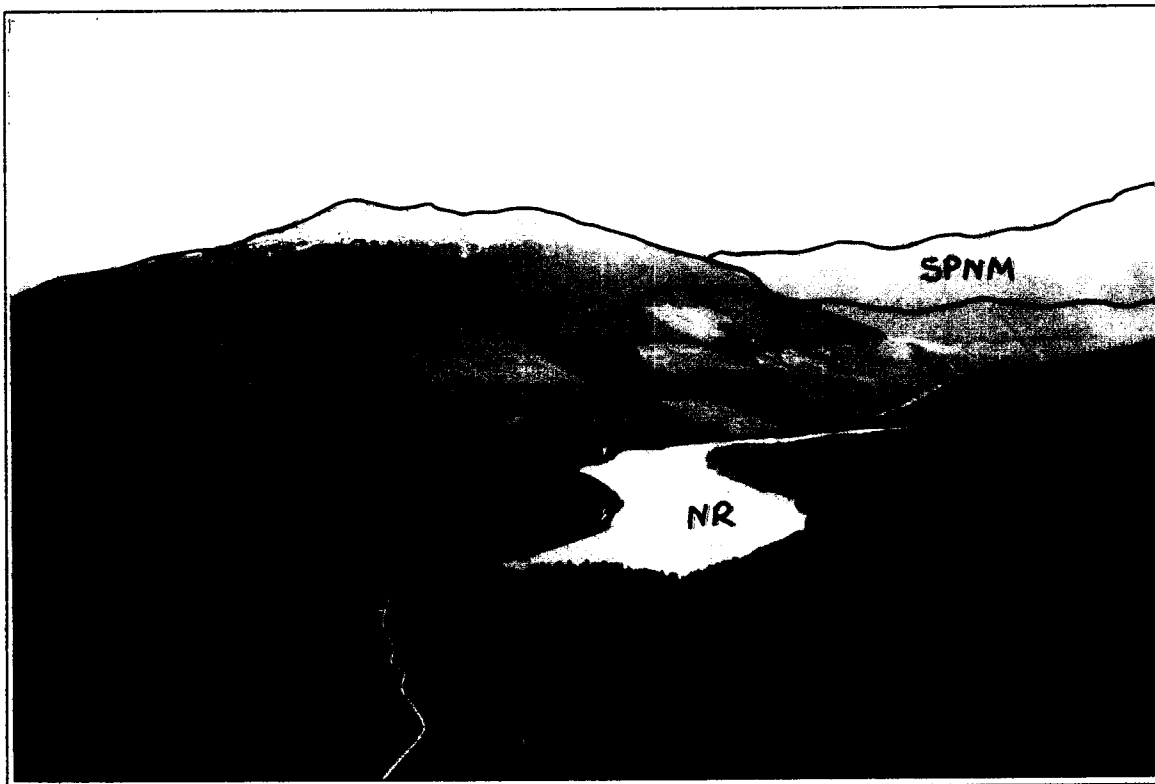


Photo 2: Lava Lake



#### Appendix - 4: Recreation Opportunity Spectrum (ROS) Class Descriptions

**Primitive (P):** Has a high degree of remoteness and naturalness. There is no visible modern sites or structures, very low or no site modifications, and very little or no motorized use within the area. It is 5000 ha or more in size and 8 km or more from a road.

**Semi-Primitive Non-Motorized (SPNM):** Is similar to the remoteness and naturalness criteria for a primitive ROS class. There is very little or no recreation facility development for signs, safety and sanitation, very little or no site modifications and very little or no motorized use within the area. It is 1000 ha or more in size and is greater than 1 km from a road.

**Semi-Primitive Motorized (SPM):** Is similar to SPNM, except for greater motorized use within the area - which may include snowmobiles, ATV's, jet-boats. There is low recreation facility development for signs, safety and sanitation. It is 1000 ha or more in size and is greater than 1 km from a road.

**Natural (N):** Characterized by 'small pockets or corridors' enclosed by biophysical features that are predominately natural-appearing. For example, areas around and including small lakes, coves, rivers or trails. It is less than 1000 ha in size and less than 1 km from a road.

**Natural Roded (NR):** The area is within 1 km of a road and has no size criteria. There is a moderate to high degree of motorized use for both access and recreation. A natural roded ROS class usually occurs within or near a Modified Roded ROS Class.

**Modified Roded (MR):** This ROS class is generally dominated by resource extraction (timber harvesting or other human made alterations) and numerous roads. The area is within 1 km of a road and has no size criteria. There is moderate to high recreation facility development for signs, safety and sanitation.

**Rural (R):** Is a landscape dominated by human development and settlements associated with agricultural land. There is high recreation facility development for signs, safety and sanitation. There is easy access and many interactions with other people are expected.

**Urban (U):** Landscape is substantially altered by urban development.

## Appendix - 5: Visual Landscape Unit Description

### Landscape Unit Label

1	
VSR	VAC
EVC	RVQC

### VISUAL SENSITIVITY RATING (VSR)

H	High
M	Medium
L	Low
NVS	Not Visually Sensitive

### VISUAL ABSORPTION CAPABILITY (VAC)

H	High
M	Medium
L	Low

### EXISTING VISUAL CONDITION (EVC)

P	Preservation
R	Retention
PR	Partial Retention
M	Modification
MM	Maximum Modification
EM	Excessive Modification

### RECOMMENDED VISUAL QUALITY CLASS (RVQC)

P	Preservation
R	Retention
PR	Partial Retention
M	Modification
MM	Maximum Modification

**Appendix - 6: Recreation Feature and Activity Codes**

**Schedule D****RECREATION FEATURE CODES****Aquatic Flora / Fauna Features:**

- A00** Aquatic Flora / Fauna Features, General
- A01** Fish
- A02** Aquatic Habitat
- A03** Aquatic Birds / Waterfowl
- A04** Edible Aquatic Food
- A05** Large Marine Mammal
- A06** Small Marine Mammal

**Shore Features:**

- B00** Shore Features, General
- B01** Shorelands
- B02** Coastal Plain
- B03** Crenulated Shore
- B04** Delta
- B05** Estuary
- B06** Headland / Point / Cape
- B07** Lagoon
- B08** Rock Arch
- B09** Rock Platform / Ledge
- B10** Sand / Gravel bar
- B11** Sea Cave / Shore Cave
- B12** Sea Stack
- B13** Spit or Hook
- B14** Tidal Flat / Tidal Marsh
- B15** Tombolo
- B16** Beaches, General
- B17** Fine Textured Beach
- B18** Sand Beach
- B19** Pebble Beach
- B20** Cobble Beach
- B21** Rubble Beach
- B22** Pocket Beach
- B23** Raised Beach
- B24** Offshore Features, General
- B25** Islet
- B26** Small Island

**Modern Cultural Features:**

- C00** Modern Cultural Features, General
- C01** Art
- C02** Structural Feature
- C03** Use Site
- C04** Trail or Route

**Hydrologic Features:**

- D00** Hydrologic Features, General
- D01** Junction of River / Stream
- D02** Rapids and Chutes
- D03** Riptides and Currents
- D04** Thermal Spring
- D05** Freshwater Spring
- D06** Mineral Spring
- D07** Water Clarity

- D08** Water Color
- D09** Site-Specific Waterfall
- D10** Waterfall Landscape
- D11** Waves

**Vegetation Features:**

- E00** Vegetation Features, General
- E01** Alpine / High sub-alpine
- E02** Regenerating Stand
- E03** Coniferous
- E04** Deciduous
- E05** Mixed Coniferous / Deciduous
- E06** Forest Parkland
- E07** Brush
- E08** Wetland Vegetation
- E09** Grassland
- E10** Meadow / Open Space
- E11** Pastoral / Agricultural

**Glacial Features:**

- G00** Glacial Features, General
- G01** Cirque / Cirque Basin
- G02** Col
- G03** Crevasse
- G04** Drumlin
- G05** Erratic
- G06** Esker
- G07** Glacial Outwash
- G08** Glacial Trough ('U'-shaped Valley)
- G09** Glacier
- G10** Hanging Valley
- G11** Horn / Matterhorn / Arete
- G12** Ice Fall
- G13** Ice Tunnel / Cave
- G14** Icefield or Snowfield
- G15** Kame / Kettle
- G16** Moraine
- G17** Roche Moutonnée / Crag and Tail Hill
- G18** Nunataks

**Historic Features:**

- H00** Historic, General
- H01** Art
- H02** Structural Feature
- H03** Use Site
- H04** Trail or Route

**Periglacial Features:**

- J00** Periglacial Features, General
- J01** Patterned Ground

**Cave / Karst Features:**

- K00** Cave / Karst Features, General
- K01** Cave

## Schedule D

## RECREATION FEATURE CODES

**K02** Sinkhole  
**K03** Limestone Plateau

**Mass Movement Features:**

**L00** Mass Movement Features, General  
**L01** Landslide / Rockslide / Avalanche  
**L02** Earth Slump  
**L03** Rock Fall / Topple (Colluvial, Talus, Scree Cones)  
**L04** Snow Avalanche / Track

**Waterbody Features:**

**M00** Waterbody Features, General  
**M01** Frequent Small Waterbodies  
**M02** Small Lake (< 40 ha)  
**M03** Mid-size Lake (41 - 200 ha)  
**M04** Large Lake (201 - 1000 ha)  
**M05** Very Large Lake (> 1001 ha)  
**M06** Tarn  
**M07** Pro-glacial / Ice-dam Lake  
**M08** Oxbow  
**M09** Large River  
**M10** Anastomosing Channel (Fluvial)  
**M11** Meandering / Irregular Sinuous Channel (Fluvial)  
**M12** Braided Channel (Fluvial)  
**M13** Small River, Stream or Creek  
**M14** River / Stream Deposits  
**M15** Cove or Bay  
**M16** Fjord  
**M17** Inlet  
**M18** Marine Channel  
**M19** Open Ocean

**Generic Landform Features:**

**Q00** Generic Landform Features, General  
**Q01** Canyon / Gorge / Ravine  
**Q02** Cliff  
**Q03** Fan  
**Q04** Gully  
**Q05** Hill  
**Q06** Hoodoo  
**Q07** Hummocky / Rolling / Undulating Terrain  
**Q08** Mountain  
**Q09** Peak  
**Q10** Plain  
**Q11** Plateau  
**Q12** Ridge  
**Q13** Sand Dune  
**Q14** Sidehill  
**Q15** Terrace  
**Q16** Topographic Pattern / Contrast  
**Q17** Valley

**Bedrock Features:**

**R00** Bedrock Features, General

**R01** Exposed Bedrock  
**R02** Exposed Internal Rock Structure  
**R03** Mineral Deposit  
**R04** Fossil

**Trail or Route Features:**

**T00** Trail or Route Features, General  
**T01** Developed Land Trail  
**T02** Developed Snow Trail  
**T03** Land Route  
**T04** Snow Route  
**T05** Water Route  
**T06** Water / Land Portage Route

**Harbour Features:**

**U00** Harbour Features, General  
**U01** Large Harbour  
**U02** Protected Moorage

**Volcanic Features:**

**V00** Volcanic Features, General  
**V01** Columnar Basalt  
**V02** Volcanic Cone  
**V03** Lava Flow  
**V04** Tuya

**Wildlife Features:**

**W00** Wildlife Features, General  
**W01** Upland Bird  
**W02** Small Land Mammal  
**W03** Large Land Mammal  
**W04** Freshwater Mammal  
**W05** Wildlife Diversity  
**W06** Amphibian  
**W07** Reptile

**Human-made Features:**

**Y00** Human-made Features, General  
**Y01** Developed Campsite  
**Y02** Undeveloped Campsite  
**Y<sub>n</sub>** Human-made Features, <number & name>

**Miscellaneous Features:**

**X<sub>n</sub>** Miscellaneous Features, <number & name>

## Schedule D

### RECREATION ACTIVITY CODES

**Air Sport Activities:**

- a00 Air Sports, General
- a01 Hang Gliding
- a02 Paragliding

**Water Sport Activities:**

- b00 Water Sports, General
- b01 Beach Activities
- b02 Boating (non-motorized)
- b03 Canoeing
- b04 Kayaking
- b05 Parasailing
- b06 Rafting
- b07 Sailing
- b08 Scuba Diving / Skin Diving
- b09 Snorkeling
- b10 Surfing
- b11 Swimming / Bathing
- b12 Tubing
- b13 Wind Surfing

**Snow Sport Activities:**

- d00 Snow Sports, General
- d01 Cross-Country Skiing
- d02 Dog Sledding
- d03 Downhill Skiing
- d04 Ice-skating
- d05 Ski Touring
- d06 Sledding / Tubing / Tobogganing
- d07 Snow Boarding
- d08 Snow Shoeing
- d09 Telemarking

**Exploring Activities:**

- e00 Exploring, General
- e01 Caving / Spelunking
- e02 Canyoning

**Fishing Activities:**

- f00 Fishing, General
- f01 Sport Fishing
- f02 Ice Fishing
- f03 Shell Fishing (e.g. crab, clams)

**Gathering / Collecting Activities:**

- g00 Gathering / Collecting, General
- g01 Beach Combing
- g02 Berry Picking
- g03 Fossil Hunting
- g04 Mineral Panning

**g05 Mushroom Picking****g06 Rock Hounding****g07 Vegetation Picking / Collecting****Hunting Activities:**

- h00 Hunting, General
- h01 Large Game
- h02 Small Game
- h03 Target Shooting
- h04 Upland Birds (e.g. grouse)
- h05 Waterfowl

**Summer Land Sport Activities:**

- i00 Summer Land Sports, general
- i01 Hiking / Backpacking
- i02 Mountain-biking
- i03 Horseback riding
- i04 Orienteering
- i05 Survival games

**Camping Activities:**

- k00 Camping, General
- k01 Cabin / Hut Use
- k02 Cottaging
- k03 Picnicking
- k04 Summer Camping Activities
- k05 Snow/Winter Camping Activities

**Motorized Activities:**

- m00 Motorized Land Activities, General
- m01 All-Terrain Vehicle (ATV)
- m02 Trail-bike Riding
- m03 4-wheel Driving
- m04 Driving For Pleasure
- m05 Snowmobiling
- m06 Snow-cat Skiing
- m07 Motorized Water Activities, General
- m08 Boating (motorized)
- m09 Jet Boating
- m10 Water Skiing
- m11 Flight Activities, General
- m12 Helicopter Access (land / water)
- m13 Fixed-wing Access (land / water)
- m14 Heli-skiing

**Nature Activities:**

- n00 Nature Activities, General
- n01 Nature Study / Appreciation
- n02 Photography / Drawing / Painting
- n03 Relaxation / Contemplation

**Viewing Activities:**

- q00 Viewing, General
- q01 Aquatic / Fish Run
- q02 Astronomical / Meteorological
- q03 Big Tree
- q04 Bird Watching
- q05 Cultural/Historic
- q06 Large Land Mammal
- q07 Large Ocean Mammal
- q08 Scenic
- q09 Wildlife

**Climbing Activities:**

- r00 Climbing, General
- r01 Ice Climbing
- r02 Mountaineering
- r03 Rock Climbing
- r04 Ski Mountaineering

**Other Activities:**

- zn Other Activities

*note: lower case letters shown above represent examples only.*

**Appendix - 7: Recreation Analysis Guidelines**

# **An Interim Guide for Completing a Recreation Analysis Report in the Vancouver Forest Region**

## **i EXECUTIVE SUMMARY**

This section should summarize purpose of analysis, procedures followed, recommendations, proposed actions and state conclusions. This section should not be any longer than one or two pages and be prepared upon the completion of the recreation analysis itself.

## **ii TABLE OF CONTENTS**

### **1.0 Introduction**

The introduction should set the context for recreation analysis report, the reason/purpose for doing the recreation analysis and the identification of the issues. It should also include a description of how the recreation analysis fits into the Management plan process and how the analysis results affect management of recreation on the land base.

The recreation analysis report will include all activities under the recreation program, including visual landscape management and wilderness management and forest interpretation. The use of the word recreation is intended to imply the complete program.

#### **1.1 Purpose**

The purpose outlines the intent of the analysis. For example, the purpose of the recreation resource analysis report is to compare the supply of recreation opportunities (features, activities, settings) with the existing and future use, the demand for public/commercial recreation and to present options and recommendations for management of the recreation resource.

#### **1.2 Background Information**

- a) Describe where the TFL/TSA is located and include a key map showing location, size and distribution of the management area.
- b) Describe biophysical, cultural/heritage characteristics of the land base in general terms, regional summarized from the recreation features inventory context.
- c) Describe proximity of parks, recreation sites/trails communities and transportation corridors relative to the management area.
- d) Discuss what effect climate may have on recreation pursuits.
- e) Describe in general what recreation use and opportunities presently exist within the management area.



## **2.0 Methodology / Procedures**

This section should mention how the data was collected and analyzed, e.g.) through recreation inventory and consultation with the public, licensees and agencies. Refer to Recreation Manual - Chapter 8, Section 8.5.1.

## **3.0 Description of Existing Recreation Resource Values**

This section should describe recreation values presently within the management area and identified in the recreation inventory (Hierarchical Summaries, Tables 1, 2, and 3 Chapter 8 of the Recreation Manual). This is not a repeat of the text portion of the recreation inventory report.

### **3.1 Key Features**

List and describe important recreation features within the management area that will play a role in the direction of management, i.e., visual values, karst, coastline, waterfalls, springs, beaches etc.

Unique lakes and rivers that require special management prescriptions are to be identified and discussed.

Note if any designated and non-designated heritage trails pass through the management area and whether there is a management plan in place or would be required to protect the resource.

Delineate travel corridors running through the management area and describe management emphasis/strategies for these corridors.

List any other important recreation corridors, road, trail, or water and discuss the management strategies associated with these.

Quote any interagency agreements/contacts where applicable. State relevance of agreement, level of involvement, sources of information additional inventories and dates undertaken.

### **3.2 Recreation Opportunity Spectrum**

Identify ROS classes as they currently exist in the management area and provide a list in the form of a summary table quantifying how much of each ROS class exists in terms of hectares and percent land base.

### **3.3 Existing and Potential Activities**

List the types of existing activities being pursued within the management area and note where they occur. In addition prepare a list for areas having potential for activities to occur but not currently utilized.

### **3.4 Recreation Issues**

List the recreation issues within the management area as identified through the recreation inventory and public consultation and will form the basis for use in the Options reports. Delineate areas where recreation will impact timber harvest (VQO's, feature significance A, B, C, and management class 0,1, ROS objectives) and state how recreation integrates with harvest activities.

### **3.5 Forest Service/Licensee Recreation Sites and Trails**

State number of formal and informal recreation sites and trails, (including interpretative forest sites) where they occur, who is responsible for them, facilities offered etc.

### **3.6 Parks, Commercial and Private Recreation Facilities**

Note commercial recreation operations which occur within the management area. Identify the recreation features or opportunities within the management area they rely on. List the parks which occur within or adjacent to the management area and describe what opportunities they provide.

### **3.7 Visual Quality / Scenic Resources**

Identify visually sensitive landforms which must be managed for scenic quality and comment on how these are to be managed in the future. Tie in specific areas in which visual landscape management plan will drive management and refer to Landscape Analysis process of setting VQO's.

### **3.8 Wilderness**

Note the areas within the management area that meet the Ministry of Forests wilderness criteria, i.e. at least 1000 hectares in size and occur in SPNM or Primitive ROS class.

Comment on their potential to become wilderness study areas, considering uniqueness (is this type feature already represented elsewhere?), attributes (vegetation, unique habitat, spectacular scenery, superb beaches), proximity to population centres, access, development pending, etc.

## **4.0 Description of Use, Value and Demand**

### **4.1 Current Demand**

Use surveys will be conducted to determine existing use levels for various activities within the management area. In addition, existing information collected by other agencies, businesses, etc. should be integrated in results.

List what activities currently occur within the management area using the BCFS Provincial Recreation Survey and state at what level they occur, e.g., sport fishing in # of angler days for a particular river system.

### **4.2 Forecasting Demand and Projecting Trends**

Determine what the demand will be for various activities over the next 5-10 years using trend information collected by the Forest Service, through its provincial recreation survey, recreation site surveys and surveys completed by licensees and others. Focus on recreation issues identified for existing and potential activities the land base is capable of supporting.

### **4.3 Estimate of Intrinsic Recreation Values**

People place a value on natural resources whether they currently use them for recreation or not. These values include, the knowledge that a particular resource exists in sufficient quantity and quality to meet current needs, that the option to use the resource in the future will be there, if they so desired (future demand) and that the resource will be maintained and sustained in sufficient quality and quantity to ensure its availability to future generations to enjoy.

Non-use values must be identified even if they are not quantified to ensure that these values are given sufficient consideration in land use planning and resource management activities (ties in to ROS objectives). These values are measured by "willingness to pay" questions in use surveys either in terms of actual expenditures or expressed intention to pay.

Intrinsic values keep options open for the future and must be considered in addition to the present use values the recreationist places on a piece of land to engage in a particular activity. The BCFS Provincial Recreation Survey provides a starting point to be enhanced with information gathered in local use surveys.

#### **4.4 Gaps in Meeting Outdoor Recreation's Needs**

Given the existing use, projected demand and estimate of non-use values, identify gaps in meeting the recreational needs to ensure full recreational opportunities are met within the management area.

#### **4.5 Commercial Recreation**

Estimate the number of people who are directly/indirectly employed in the recreation/ tourism field within the management area. i.e.) hunting/fishing guides, adventure tourism operations, etc.

Estimate what this employment represents in terms of wages and overall recreation dollars.

Based on current trends, state whether employment figures within the recreation sector will increase/decrease.

Would enhanced recreation opportunities increase employment opportunities and lead to a stable more diversified economy?

### **5.0 Recreation Management Strategies, Options and Recommendations**

The Forest Service or licensee should explain strategies it will use to manage specific key features, develop a set of options from which further analysis', such as timber supply analysis, can be undertaken, make recommendations and choose an option.

#### **5.1 Recreation Analysis**

Compare the supply of recreation opportunities, including scenic landscapes and wilderness, identified in the recreation inventory with use value and demand for recreation, landscape and wilderness.

Factor in the key recreation landscape and wilderness issues and the sensitivity and significance of these values in the management area.

Deal with how to overcome shortfalls identified in gaps determined in section 4.4.

Prioritize and set objectives for the integration of recreation and the management of "hot spots".

#### **5.2 Recreation Management Direction Scenarios**

Illustrate that the management area supplies recreation opportunities, use management studies have been completed, and provide a range of ways the recreation resource (recreation features, scenic landscapes and different ROS settings) would be managed in the Management Plan.

The different scenarios must recognize the need to manage and protect recreation and should identify;

- a) Recreation features to be protected, tables 4 & 5.
- b) ROS objectives, hectares by ROS class, tables 4 & 5.
- c) Number of sites and trails to be developed and maintained, tables 6 & 7 including interpretative forest sites.
- d) Any Protected Area Strategy study area, recreation corridor plans, heritage trails, etc.
- e) VQO's, visually sensitive corridors.

A map identifying the recreation, landscape and wilderness emphasis areas should be prepared for each option.

### **5.3 Evaluation of Options**

The impacts, benefits and costs of each of the above options should be analyzed and evaluated.

### **6.0 Recommendations**

A recommendation option should be identified.

### **7.0 Appendices**