



BACK COUNTRY BOOM

B. J. Mason

Cover: Mount Tapuaenuku
Photo: Q.R. Christie

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B.J. MASON

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“Back Country Boom” is a report on Mr B.J. Mason’s tour of the western United States and Canada where he studied the recreational use of the back country. Mr Mason is a Ranger with the New Zealand Ranger Service. He is currently engaged in establishing the Otago Goldfield’s Historic Park.

His report highlights the great interest being shown in the back country of North America and the pressures this is placing on resources.

Because of its relevance to the New Zealand situation this report has been published by the Department of Lands and Survey on behalf of the National Parks Authority. The report is being distributed widely in an endeavour to provoke thought and discussion on the problems facing the New Zealand high country, so that management policies can be formulated to meet the “Boom”.

The Authority is interested in your thoughts and suggestions. These should be addressed **to:-**

The Chairman,
National Parks Authority,
Private Bag,
Wellington.

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A. INTRODUCTION

A1 Background

Personal interest in the preservation and use of national parks, forest parks, and recreational use of back country areas, resultant from 10 years active tramping, mountaineering and skiing, and as a Federated Mountain Clubs' representative on the Otago Committee of the N.Z. Walkways, led me to study back country recreational management during a private visit to western North America.

A2 The Tour

The Sierra Nevada and Cascade Mountains of California, Oregon and Washington provide a continuous chain of National Parks and National Forests, comprising a large portion of such areas in the contiguous United States. During the first two months, commencing late January 1974, I started from Los Angeles and progressed northwards, visiting Sequoia/Kings Canyon, Yosemite, Lassen Volcanic, Crater Lake, Mt Rainier and Olympic National Parks and most of the national forests surrounding and connecting these parks. I was downhill skiing, cross-country (nordic) skiing, and tramping during this period.

The following two and a half months of tramping, skiing, mountaineering and canoeing throughout British Columbia included visits to Pacific Rim, Revelstoke, Glacier, Yoho, Banff, Kootenay and Jasper National Parks, and Garibaldi, Manning, Bugaboo Glacier, Mt Robson, and Bowron Lake Provincial Parks.

Then followed two months of travel throughout the Yukon Territory and Alaska with visits to many National Forests and Mt McKinley National Park.

Although I did not experience at first hand, peak summer visitation in California, Oregon, Washington and British Columbia, this did not prevent an assessment of over-use and conflicting use problems. In fact the light visitation during the tour, allowed time for lengthy discussion with park administrators, planners and rangers, and I benefited greatly from their concern that "New Zealand should not repeat our mistakes".

A3 Extent of This Report

The findings of 'Conserving New Zealand's Heritage' by P.H.C. Lucas, a report on a 1969 study tour of National Parks and Allied Areas in Canada and the United States, closely parallel my observations of development and administration in these areas and do not require duplication in this report

The phenomenon of booming back country recreation is recent in western North America, the impact on these areas only being a widespread management problem during the last five years. This management crisis was apparently subsequent to Lucas' study tour, and to my knowledge the significance of this boom has not been related to the New Zealand scene.

B. SUMMARY OF FINDINGS

B1 Lessons for New Zealand

The report comments in greater depth on the lessons North America has to offer New Zealand, but the main lessons are:

- * The factors behind increasing back country recreation in North America are present in New Zealand. (Section C)
- * American experience indicates that future demand for the intangible values of wilderness should not be under-rated.
- * Legislative definition of wilderness areas, isolated from surrounding land uses must be avoided. Wilderness management within broader, co-ordinated land management schemes must be the objective.
- * As more back country areas are recreationally developed, greatly increased demand for wilderness areas will result.
- * For wilderness areas to survive, wilderness values must be present in much wider areas.
- * Inflated public demand for outdoor recreation will be further inflated by commercial interests.
- * Guide books seriously erode the prime element of discovery from wilderness use. Policies to exclude isolated areas from coverage, will generate increased demand on these areas. The decision on guide book coverage must be made well before the majority of the back country is covered. With completion of the 1:63,360 topographic map series in 1975, little more than competent map interpretation will be required for even the remotest areas.
- * In terms of remoteness and accessibility, American Wilderness areas are not remote by New Zealand standards; the N.Z. equivalent of National Park Natural Environment areas would be comparable.
- * Modification of the back country by extensive tracking and provision of facilities to absorb increasing levels of recreation, is self generating of use, and the beginning of an over-use cycle.
- * The creation and resultant heavy use of long distance foot paths (Walkways) is incompatible with National Park and wilderness values. (Section D)
- * 'The promotion of a minimum impact code of back country use, if commenced early enough, is the only non-restrictive means of preserving the back country in an unimpaired condition. (Section E)
- * The time margin between back country use and over-use is very narrow.

- * There is no alternative to restrictive regulations in an over-use situation.
- * The quality of user experience becomes more important with increasing use. (Section F)
- * There is a danger that track and trail formation could be overdone.
- * Shelters and toilets cause localised concentration of users, and are attractions in themselves There is a general trend away from such facilities in North America.
- * Actions amounting to 'advertising' and encouraging mass public use of fragile back country areas should not be taken.
- * The preventive management system devised in Mt. McKinley National Park may have application in New Zealand, as it maintains a less restrictive user pattern and a high quality of user experience. (Section G)

C. BACK COUNTRY BOOM

C1 Population and Prosperity

Westward population movement, better roads, increased leisure and prosperity have been common factors behind greatly increasing total visitation to the National Parks and Forests of the Western States and Canada.

c2 Intensification of Outdoor Recreation

Throughout the early 1960s, only some 2% of total visitors were using back country areas within the Parks and Forests, but with intensification of outdoor recreation in the late 1960s, proportionate back country visitation has more than doubled to 4-4½% of total park visitation.¹

c3 Decline of Horse Riding

Horse riding has been a long established use of most North American back country areas, requiring high standards of trail construction, and having a major impact on most areas because of grazing and trampling. However, the boom in use has been in foot traffic.

“Data gathered from wilderness registration stations indicate that annual use by horsemen comprised 27% of the total use in 1966, but only 15% in 1970. During the same period the number of saddle and pack animals registered decreased from 3,675 to 2,691”.²

The decline in horse use is due to economic causes; ownership and year-round grazing becomes more difficult and more expensive for the increasing urbanised population. Conflicts between horsemen and the more numerous hikers on heavily used trails, is resulting in increasing confinement by ‘Hikers Only’ trails.

c4 California: Sequoia and Kings Canyon National Parks

There was fairly constant back country use from 1962 to 1967 with a mean of 55,000 visitor/days per summer. There were only slight variations in use during this period. A dramatic increase over the next 4 years peaking at 270,000 visitor/days in 1971, levelled off to 190,000 visitor/days in 1973.³ This constitutes a 500% increase in back country use in 4 years.

c5 Oregon: Three Sisters Wilderness

Similar usage trends have occurred with 67,000 visitor/days/year in 1965 and 1966, increasing to 200,000 visitor/days in 1970. The usage has subsequently stayed at this level.

1. Personal interviews with staff of Sequoia and Yosemite National Parks
2. ‘Three Sisters Wilderness Management Plan’ Williamette and Deschutes National Forests, Oregon. Prepared December 1972.
3. Data supplied at Sequoia and Kings Canyon National Parks Headquarters, Three Rivers, California.

C6 Washington: Mt. Baker National Forest

An estimate has been made of back country and Wilderness use in four categories: light, medium, heavy and very heavy, in 43 areas within its boundaries. The criteria being -

Light - If I hiked in on a summer weekend, I probably wouldn't see anyone else

Medium - I would see one or two other parties but would have no trouble camping out of sight and sound.

Heavy - I couldn't get away from people no matter where I went.

Of these areas 35% had light use, 32% medium, 26% heavy, and 7% very heavy use during 1973.

C7 Lessons for New Zealand

* The factors behind increasing back country recreation in North America are present in New Zealand.

4 'Mt Baker Trends', No 2 February 1974. Mt Baker National Forest, Bellingham, Washington"

D. CAUSES

A boom of this magnitude has its origins in several external stimuli which defied attempts at linear projection of usage levels by park planners. Extensive discussion with both users and planners isolated these factors:

D1 1964 Wilderness Act

This Act created a National Wilderness Preservation System in the United States, and defined wilderness as:

“A Wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognised as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain”.

The Act further defined Wilderness as an area of undeveloped Federal land with “outstanding opportunities for solitude or a primitive and unconfined type of recreation”, of at least 5000 acres or “of sufficient size as to make practicable its preservation and use in an unimpaired condition.”

Since the Act was passed by Congress in 1964, 10 million acres of Federal land has been transferred to the Wilderness System, most of it withdrawn from the multiple use National Forests but some set aside from National Parks and wildlife refuges. There are now 89 separate Wilderness areas. This appears to be just the beginning of the System with more than 80 million acres of undeveloped (roadless) areas now under study for Wilderness potential.

Large scale public debate prior to the passage of the Act, and subsequent publicity of conflict with multiple use interests over each land withdrawal for inclusion in the System, has placed Wilderness at the forefront of the preservation movement. Wilderness has been vocally placed before the public, capturing a huge latent demand for first-hand experience of what their pioneering forefathers experienced.

The definition of wilderness areas has made them prime attractions as the last remaining pristine America. Few of the invading hordes realise that their interests could be satisfied in less fragile areas, and that if everyone exercises his right to experience wilderness in a Wilderness area each and every time he visits the National Parks and Forests, that wilderness (solitude) experience will be unattainable.

D2 ‘Commercial Wilderness’

(a) Outfitters and Guides have sprung up, offering guided hikes to those wishing to be ‘shown’ wilderness, rather than experience it for themselves. However these areas

as envisaged by Congress, were intended to be both a condition of physical geography and a state of mind.

- (b) Guide Books in mass have appeared on most areas, many titled "101 Hikes in X Wilderness", systematically reducing each wilderness area to a trail number with detailed description. During my tour I frequently saw backpackers (trampers) and cross country skiers literally with guide book in hand, dependent on some 'experts' writings to get them from A to B when the most basic use of their senses and map interpretation would have been sufficient.
- (c) Equipment Manufacturers have gone into mass production with new improved 'Wilderness' models of backpacking equipment appearing every year. The impact from this sector cannot be under estimated. They have succeeded in transferring the gadgetry of the kitchen to the 'essentials list' of backpackers, and have made their merchandise appealing to the consumer at large. This commercialisation has substantially removed the need for self-reliance and competence grown out of time consuming personal experience, making a 'wilderness experience' within the range of most wallets.

D3 Facilities

Steady upgrading of trails, provision of shelters, signposting and bridging since the late 1950's, largely removed much of the discomfort, effort, and objective dangers from many back country areas. When the back country 'boom' started these areas were already modified to a less rugged condition, allowing the uninitiated hiker ease of access and travel.

The land management agencies entrusted to preserving these areas, reacted to the booming use by constructing more trails, and of a higher standard of construction, to absorb and disperse use and minimise the impact of indiscriminate trampling. More shelters and toilets were erected to accommodate the demand.

It is now widely recognised that this approach greatly compounded the over use problem by generating even greater use because of the facilities provided.

D4 Pacific Crest National Scenic Trail

The Pacific Crest Trail was designated by Congress as a National Scenic Trail in 1968. This 2,350 mile footpath is two thirds complete, extending generally from the Mexico/California border, northwards along the Sierra Nevada and Cascade Mountains to the Washington/British Columbia border. The trail passes through 23 National Forests (including several Wildernesses),

7 National Parks and lesser areas of federal, state and private land.

Sections of this trail have had long established use, but the publicity accompanying the establishment of National Scenic Trails has generated usage at higher levels than the surrounding areas.

Most travellers spend a weekend to a week or two on it at a time with some sections getting particularly heavy use. The status of the land the Trail traverses remains unaltered, so the funnelling of high density traffic into National Parks and Wildernesses intended for low density dispersed recreation is a management problem, until overall use restrictions are imposed in those areas.

Accommodation on the Trail has been kept primitive as camp sites and occasional improved campgrounds at road-ends, there being only 12 shelters on the 850 mile section through Oregon and Washington.

D5 Lessons for New Zealand

- * American experience indicates that future demand for the intangible values of wilderness should not be underrated.
- * Legislative definition of wilderness areas, isolated from surrounding land uses must be avoided- Wilderness management within broader, co-ordinated land management schemes must be the objective.
- * As more back country areas are recreationally developed, greatly increased demand for wilderness areas will result.
- * For wilderness areas to survive, wilderness values must be present in much wider areas.
- * Inflated public demand for outdoor recreation will be further inflated by commercial interests.
- * Modification of the back country by extensive tracking and provision of facilities to absorb increasing levels of recreation, is self generating of use, and the beginning of an over-use cycle.
- * The 'creation and resultant heavy use of long distance trails (Walkways) is incompatible with National Park and wilderness values.
- * Guide books seriously erode the prime element of discovery from wilderness use. Policies to exclude isolated areas from coverage, will generate increased demand on those areas. The decision on guide book coverage must be made well before the majority of the back country is covered. With completion of the 1:63,350 topographic map series in 1975,

little more than competent map interpretation will be required for even the remotest areas.

- * In terms of remoteness and accessibility, American Wilderness areas are not remote by New Zealand standards; the N.Z. equivalent of National Park Natural Environment areas would be comparable.

E. MINIMUM IMPACT EDUCATION

The management agencies realise that their best efforts must be directed towards education and the giving of adequate explanation of the need for preserving the quality of the back country, and hence the quality of the visitors' experience.

EI Minimum Impact Code

A code of use has evolved and is now actively promoted by the agencies and by user organisations. It is now recognised that this is a long term educational process, which was started far too late, for any appreciable reduction on the impact of the 'boom'.

Local conditions vary but a summary of this code is as follows:

- (1) Plan trip to minimise rubbish - avoid bottles and cans.
- (2) Pack out what you pack in - carry out all unbumable rubbish.
 - (i) Burying is unsatisfactory because rubbish will usually be exposed by animal or frost action.
 - (ii) In British Columbia's Bugaboo Glacier Provincial Park, ashes from incinerated rubbish are required to be carried out from an alpine hut.
 - (iii) All the agencies provide plastic rubbish bags which are issued to parties on entry.
- (3) Keep party size to a minimum - crowds and solitude are incompatible.
 - (i) Party size limits are in force in some areas.
- (4) Keep to regular trails - avoid trampling surrounding areas.
- (5) No camping within 100 feet of open water or trails.
 - (i) The traditional use of prime camping sites on lake and stream shores is now discouraged, due to rapid degradation of these fragile zones.
- (6) Minimise campsite construction.
- (7) Change tent location periodically to avoid soil compaction and the killing of ground cover.
 - (i) Camping in many fragile alpine and sub-alpine zones is restricted to one night per site.
- (8) Use tents which blend in - avoid bright colours.
- (9) Avoid congregated camping - respect the privacy of others and screen camp from view.
- (10) Do not use vegetation for 'mattresses' - use foam pads.
- (11) Do not use soap and detergents in streams and lakes - wash and swim downstream from drinking areas.

- (12) Sanitation (1) Human Waste: Select a suitable screened spot at least 200 feet from open water. Dig a hole no deeper than 6" to 8" - to stay within the 'biological decompose? soil layer. After use, fill in hole with loose soil and tramp in sod. Nature will do the rest in a few days.
- (2) Do not wash utensils or clothing in streams or lakes. Carry wash water to campsite, Drain into absorbent soil and cover with dirt.
- (13) Use gasoline stoves rather than fire.
- (i) Dead wood is an important part of nature's cycle, and is scarce in many areas.
- (ii) Campfires are prohibited in many areas, especially in subalpine zones due to the scarcity and slow replenishment of dead wood.
- (14) Use existing fireplaces - destroy on leaving.
- (i) Fireplaces tend to become increasingly dirty and to multiply. "There are now by actual survey, a hundred times as many fireplaces as are needed in the High Sierra".⁵
- (15) Keep camp-fires small to conserve wood.

E2 Lessons for New Zealand

- * The promotion of a minimum impact code of back country use, if commenced early enough, is the only non-restrictive means of preserving the back country in an unimpaired condition.

5 'The Care and Enjoyment of the Mountains', 1971 The Sierra Club, San Francisco, California.

F. REGULATING USE

F1 Carrying Capacities

Most Wilderness areas have been subdivided into ecological management zones, and capacities determined for each zone. Initially these capacities were arbitrary levels set to curtail increasing use and allow time to study user impact on the ecology of each zone. Sociologists are involved in research towards determining an acceptable level of user density.

F2 Wilderness and Back Country Entry Permits

Entry permits have become the major management tool available to administrators, and have come into general use during the last two years. Only one (Crater Lake) of the seven U.S. National Parks visited does not have a back country permit system, and all Wildernesses within National Forests have Wilderness Permits.

The Canadian National Parks in the Rockies restrict use by safety requirements, and by the capacities of huts which require the issuing of use permits.

All back country and Wilderness users are required to obtain a permit from a ranger station if any overnight use is intended. If the desired zones of use are 'full' then the overflow is directed to below capacity zones, if available.

There is general acceptance of these restrictions as the users can see the necessity for them. In the Mt McKinley National Park, no one in the back country has been found to be without a Back Country Permit in the two years of operation of restrictions. The success of the permit system is due to the direct contact made between rangers and users before and after each trip, allowing extensive gathering of detailed information and feed-back from users.

The extent of the management problem in California can be measured by:

"A Rae Lakes Loop Visi-tag will be attached to the outside of the pack..... This will ease the job of checking the Wilderness Permit on the trail".⁶

Administrators can see no alternative to restricting use, and the permit system is there to stay. However, carrying capacities are variable and may be raised in some areas, dependent on future reduction of impact by present levels of users.

F3 Lessons for New Zealand

- * The time margin between back country use and over-use is very narrow.

⁶ 'Plan for Regulation of Back Country Use of the Rae Lakes Loop Trail', June 20, 1972 Sequoia National Park, Three Rivers, California.

- * There is no alternative to restrictive regulations in an over-use situation.
- * The quality of user experience becomes more important with increasing use.

G. BACKCOUNTRYMANAGEMENTPLANS

G1 Three Sisters Wilderness - Oregon

(a) Introduction

- (i) The management of this Wilderness is worthy of study due to the close similarities in population between Oregon and New Zealand.

Table I Population Comparison between Oregon and New Zealand

	Area	Population	Population Density
Oregon	96,000 sq. miles	2,000,000 ¹	21/sq. mile
New Zealand	103,000 sq. miles	2,800,000 ²	27/ " "
North Island	44,000 sq. miles	1,960,000	45/ " "
South Island	59,000 sq. miles	840,000	14/ " "

1 1970 Census figure

2 1970 estimate

The distribution of population in Oregon is uneven, as in New Zealand, with the majority living west of the Cascade Mountains. The semi arid interior and east is more sparsely populated, and comparable in density to the South Island.

- (ii) There is no shortage of recreation lands in Oregon with a third of the State as National Forests.
- (iii) The Three Sisters Wilderness is an area of 196,700 acres astride the Cascade Mountains in Central Oregon. The Sisters are surrounded by associated peaks of similar volcanic origin, and reach an elevation of 10,000'. Timberline reaches 6500'. There are approximately 240 miles of trail within the Wilderness, leading to mountain climbing take-off spots, alpine meadows, and to more than 300 lakes. The Pacific Crest Trail traverses the Wilderness for 40 miles. The Wilderness is generally accessible about 4 to 5 months a year, dependent on winter snow accumulation.
- (iv) Usage trends are outlined in C5. The majority of users are West Coasters escaping their wet climate, although the more populous California contributes some of the use.

(b) Management Plan - Selected Extracts

(i) Present Situation and Problems:

“The need to educate users in good wilderness

7. Personal Interview with Recreation Staff Officer, Deschutes National Forest, Bend, Oregon.

practices resulted in assignment of the first wilderness ranger..... in 1964. Five wilderness rangers patrolled the area during peak season months of 1971. Their principal duties were furnishing information, collecting management data and cleaning up campsites and trailsides”.

“The Three Sisters Wilderness provides opportunities for back-packing, horse travel, hunting, fishing, mountain climbing, photography and many other outdoor activities”.

“High density recreation use adjacent to the highway is inconsistent with wilderness objectives.”

(ii) Characteristics

“The Wilderness can be viewed as three areas:

(a) Remote -

- No trails, no structures or other facilities.
- Usually larger than 5,000 acres. Generally cannot be reached in less than three hours hiking time.

(b) Intermediate -

- Usually two hours or more hiking time from nearest road.
- Trails and minimal facilities..... sometimes are present.

(c) Peripheral (areas close to roadheads) -

- Access easy.
- May have reached or is approaching maximum capacity.
- Needs special user management to maintain wilderness qualities.
- Trails and minimal facilities..... are often present”.

(iii) Management Situation and Basic Assumptions:

Pacific Crest National Scenic Trail:

- “Heavy traffic along the trail creates a dust problem during the summer season.”

Green Lakes:

- “Heavy use over a long period of time has resulted in campsite and trail damage similar to that along the Pacific Crest Trail.”

Linton Meadows:

- “Some of the more commonly used campsites

show evidence of over-use. Trampling damage is quite noticeable around Eileen and Husband Lakes’.

“Considerable wear is noticeable at campsites... People occasionally get lost because of the profusion of maintained (Forest Service) and fisherman trails in this area”.

“There is considerable evidence of use particularly around Horse Lake where the administrative site and a trail shelter have served as focal points. These installations were removed in 1972’.

“The shelter and toilets formerly located in the meadow have been removed to discourage the concentration of people at the site”.

“The volume of mountain climbing traffic, particularly on the Three Sisters Peaks, has become heavy. On mid-summer weekends it is necessary to wait for preceding parties to pass through certain areas on North Sister. Accumulations of litter must occasionally be removed from the summit areas”.

Basic Assumptions:

- (a) “Use will continue to increase unless administratively restricted”.
- (b) “The spiritual value of the wilderness experience including the opportunity for solitude, as discussed in the Wilderness Act, diminishes as use intensifies”.
- (c) “Alternative use areas outside Wilderness will expand’.

“Five trail shelters remain in the Wilderness..... These shelters, in themselves, serve as locales for concentrating recreationists”.

Basic Assumption:

- (d) “The presence of trail shelters is not consistent with the intent of the Wilderness Act’.

Trails:

- “Relocation and reconstruction of many existing trails and construction of some additional trails are needed to accomplish wilderness management objectives”.

Basic Assumption:

- (e) “Modest trail additions, betterment or reloca-

tion of existing trails and possible, elimination of some existing trails are needed to accomplish the following wilderness management needs:

- Facilitate desired distribution of users.
- Eliminate unnecessary trails.
- Move primary access trails away from key attractions and areas of concentrated use (spur trails will provide access to key use areas).
- Make trails less obtrusive”.

Information and Education:

- “Wilderness Permits provide user contact and use information”.

Basic Assumptions:

- (f) “The Information and Education function is a management tool and an education tool”.
- (g) “Wilderness Permits will continue to be required”.

“Improvement of data collecting systems, e.g. Wilderness Permits, is a part of the overall goal of more sophisticated wilderness administration”.

(iv) Management Decisions:

(1) Recreation

“Recreation use will be regulated as necessary to maintain the values unique to wilderness, i.e. opportunities for solitude and mental or spiritual renewal, and an ecological baseline, and preserve the resource for the enjoyment of future generations”.

“Management practices which may be utilised for this purpose include, but are not limited to, the following:

- Entry permit system.
- Limitations on numbers of people and horses.
- Restrictions on size of groups.
- Designating areas for day use only.
- Restrictions on bathing, using soap, and cleaning fish in lakes”.

“Wallowa type toilets are premissible at heavily used sites only when clearly needed for protection and management of the wilder-

ness resource. Comfort of the users is not a consideration',

(2) Facilities.

"Existing shelters and the cabin at Muskrat Lake will be eliminated".

"All vacated development sites will be restored to natural conditions".

(3) Trail System

"Although most of the Wilderness should remain trailless, the following will serve as a guide for needed trails:

Trail location and relocation objectives -

- Locate to take advantage of vistas and scenic areas.
- Locate to avoid campsites.
- Where possible locate to stay a minimum of 200 feet from lakes and to avoid meadows.
- Avoid straight alignment.
- Leave some lakes and other attractions untapped by trails.

Trail construction -

- Class of trail and tread widths will be minimum needed to accommodate the type of use anticipated.
- Use fords instead of bridges when practical".

(4) Signing

"The emphasis in Wilderness should be on discovery",

"The number of signs will be held to the minimum needed for keeping wilderness users properly oriented".

(5) Information and Education

'Actions amounting to 'advertising' Wilderness will not be taken.

G2 Mt McKinley National Park - Alaska

(a) Introduction

- (i) The circumstances leading to this Park's back country management plan are unique in North America. Unlike parks in the lower 48 states, not only were administrators able to predict increases

in use, but they evolved a management system designed to prevent over-use problems developing.

- (ii) Mt McKinley National Park is an area of 3,030 square miles located in the interior of Alaska, dominated in its southern portion by the Mt McKinley massif and the Alaska Range, with gentle, rolling tundra lowlands reaching to the low Outside Range on the northern boundary. In the valleys and along the foothills, Grizzly bear, caribou, mountain sheep, wolves and moose roam the tundra undisturbed. Only one road traverses the Park, for 87 miles through the prime wildlife area between the Alaska and Outside Ranges.
- (iii) Alaska's population is 310,000 (1974) with a large influx of summer visitors.

(b) Visitor Trends*

Table II Mt McKinley National Park - Visitation 1971-1974

Season	Management Changes	Back Country Visitation			Total Park Visitors
		Permits Issued	Persons	Man/days	
1971 Summer	Highway Completion ¹	600 Fire Permits	"Very Few"	"Negligible"	50,000
1972 Summer					300,000
1973 Summer	Shuttle bus established	1300 back country	2923	8821	360,000
1974 Summer	Back country restrictions	?	?	9000 (limit)	360,000 (approx)

¹ Fairbanks - Anchorage Highway

1971: Summer visitation remained at similar levels to previous years, due to there being no direct road access. However, a railroad serviced the Park daily from Anchorage and Fairbanks. During the Fall, the Anchorage to Fairbanks Highway was completed, providing a direct connection on to the long established Park road.

1972: The 500% increase in total Park visitors is a measure of dependence on the automobile. Back country hiking jumped from "negligible" in 1971 to 2868 man/days, although half of this was confined to 5 popular areas comprising only 16% of the total useable area.

8. Data supplied at Mt. McKinley National Park Headquarters, McKinley Park, Alaska.

1973: To relieve traffic congestion on the Park road, private vehicles were prohibited and a shuttle bus service was introduced. This was the first year of Back Country Permits, although no carrying capacities were set and no restrictions imposed. However, rangers encouraged hikers to disperse and this was aided by the shuttle bus system. Most hikers do not have their own transport, so the bus system contributed towards a 200% increase in back country use from the previous year.

1974: Data collected from Back Country Permits in 1973 was correlated to observed use impact. It was then decided to hold use at the 1973 level.

(c) Back Country Management Zones

20% of the Park area was considered not requiring management by Back Country Permits. The remaining 2,490 square miles was then zoned into 31 areas ranging in size from 14 to 790 square miles with an average area of 83 square miles. Zone boundaries were generally located along ridges, and enclosing river catchments. These were designed to coincide with animal habitats and established hiking 'corridors' along riverbeds.

(d) Carrying Capacities

Both ecological and recreational parameters were established before setting capacities. Even mosquito abundance was, for good reason, considered under a 'recreation' parameter. A third of the zones were considered to be over-capacity at 1973 levels, so these were reduced and dispersed to other zones. Monthly capacities for each zone, were then determined from a normal distribution curve over the five month visitor season, peaking in July.

Table III Mt McKinley National Park - Back Country User Density on any one day of July 1974

Density	Minimum	Mean	Maximum
Persons/sq. mile	0.03	0.05	0.35
Persons/zone (sq. miles)	3.4/114	4.2/83	7.0/20

(e) Summary

- (i) The features of this management system are -
 - Over-use problems were prevented.
 - Dispersed, low density use will never require trail construction and other facilities.

- User restrictions limited to entry; no restrictions on areas of use within management zones.
 - A 'Wilderness experience' is maintained.
- (ii) A 'trail mentality' has developed in North America to the extent that many visiting hikers find the open, trail-less tundra of Mt McKinley National Park, too wild for their use.

G3 Lessons for New Zealand

- * There is a danger that track and trail formation could be over done.
- * Shelters and toilets cause localised concentration of users, and are attractions in themselves. There is a general trend away from such facilities in North America.
- * Actions amounting to 'advertising' and encouraging mass public use of fragile back country areas should not be taken.
- * The preventive management system devised in Mt McKinley National Park may have application in New Zealand, as it maintains a less restrictive user pattern and a high quality of user experience.

H. SUMMARY

H1 The New Zealand Situation

New Zealand's mountainous back country has long been in demand for recreation. A small group, in relation to total population, has been actively tramping, climbing and hunting throughout the mountains, benefiting from and taking for granted, the largely unmodified and dispersed nature of their pursuits.

Throughout the 1960's a marked intensification of outdoor recreation developed to the point of widespread public acceptance of adventurous recreations as desirable components of the education system. The small scale promotional work and back country skills training undertaken by many mountain clubs, rapidly became secondary to that of schools, training colleges and youth groups.

The 1970's are, to date, marked by central government recognition of sport and recreation as desirable promotions, playing an important political and social function within the policies of the Government. The recent establishment of an 'Adventure Fund' by the Ministry of Sport and Recreation, and the development of Walkways, indicates that the financial resources of central government will become increasingly directed towards encouraging greater public useage of the back country.

Therefore, the lessons from North America's 'Back Country Boom' are of immediate relevance to New Zealand.

H2 Unique Back Country Experience

Several factors have contributed towards making a N.Z. back country experience, unique for developed countries. The ruggedness of the mountains and the notorious unreliability of the weather have kept these areas relatively unspoilt, as well as tempting only a peculiarly hardy breed of enthusiasts into very passionate recreational use. A measure of this uniqueness is the international impact New Zealand trained mountaineers and adventurers have had in many remote and wild corners of the Globe.

Some components of the 'user experience' can be isolated -

- (1) Lack of restrictions - being fundamental
- (2) Spontaneity of action - due to (1)
- (3) Independence and self reliance - have been essential
- (4) Expeditionary style trips - providing elements of discovery and adventure.

These spiritual components have been as real in creating the total back country experience, as the grandeur of the mountains themselves.

H3 Application of Lessons

(Basic Assumption: That the uniqueness of the back country experience should be maintained).

(a) Minimum Impact Education

An ethic of back country use, related to the individual, must be promptly and actively promoted at all levels - Federated Mountain Clubs, National Parks Authority, Forest Service, schools, Ministry of Sport and Recreation, Walkways Commission etc.

(b) Gui de Books

Before proposals by the N.Z. Alpine Club and individual publishers to complete coverage of all mountain areas are proceeded with, full evaluation of guide book effect on density and type of back country use must be made.

(c) Recreation Promotion

Promotion of outdoor recreation should not extend beyond preserving existing use areas, and providing freedom of access to other suitable lands especially near urban populations. Unlike most other sports and recreations, over-promotion of an adventure resource will destroy it. Spiritual well-being for the community can come from the knowledge that wild, adventurous areas are available for use, IF they are required.

(d) Carrying Capacity Research

As some areas are at, or approaching capacity usage, research should be undertaken of potential capacities in most areas, based on ecological and quality recreational parameters. Many of the National Parks could be in a position to undertake this research. If administrative restrictions became necessary, this ground work will ensure management systems preventive of over-use.

(e) Co-ordinated Recreation Planning

Independent planning by National Park Boards, Forest Service, Walkways, and regional authorities, must be related to a national recreation objective, recognising that over-use problems do not stop at administrative boundaries.

(f) Forest Parks and State Forests

The tendency to overdevelop these lands with high standard tracks, bridges and numerous huts, is conducive to the generation of an over-use situation. A review of objectives is required.

(g) National Parks

The degree of recreational development varies greatly

between Parks. Over-all objectives should be set by the National Parks Authority. Zoning for back country development should not be administered too literally. The integrity of undeveloped Wilderness Areas, near well tracked and developed National Environment and Facility Areas, could come into question.

It should be noted that Congress has considered it necessary to designate Wildernesses, under the 1964 Wilderness Act, within many U.S. National Parks.

(h) Walkways

The concept of long distance walkways of a continuous nature as a planning objective, is unrelated to existing recreation patterns of segmented activity. This linear concept should be incidental to a prime objective of retaining and extending areas suitable for recreational walking, wherever the demand exists.

The development of walkways as access to, or through natural areas (National Parks, Scenic Reserves) should only be as a counter to competing uses (e.g. roading). For instance, a Greenstone Valley walkway can be justified in terms of the route providing the only unroaded low level pass across the southern half of the Southern Alps suitable for family walking, rather than as an essential portion of a national walkway from North Cape to Bluff.

Other functions include -

- (1) Legalisation of foot-only right of way through rural and other multiple use lands where this access, does not exist, with marking and formation of these 'ways', the minimum necessary for protection of surrounding land uses.
- (2) A priority of constructing trails, at a minimal standard consistent with anticipated use, as walkway networks in close proximity to urban areas. These should be regarded as natural extensions of urban open space and urban recreation facilities.

GLOSSARY OF TERMS

- Hiking - back country walking without camping out.
Backpacking - hiking of an extended nature, requiring the carrying of overnight equipment.

(APPENDIX I)

WILDERNESS PERMIT

U.S. Department of the Interior, National Park Service

_____ Wilderness or primitive Area
When signed below, this single visit Permit authorizes

1	2
(Code)	

_____ (Name)

_____ (Address)

_____ (City) _____ (State) _____ (Zip Code)

to visit this Wilderness or Primitive Area
and to build campfires in accordance
with applicable regulations,

8-9	10-11	to	12-13	14-15			
(Mo.) (Day)			(Mo.) (Day)				

The number of people in the group will be

16	17

The number of pack or saddle stock used will be
(enter "0" if no stock will be used)

18	19

The place of entry will be _____
(Location)

20	21

The trip will end at _____
(Location)

22	23

I agree to abide by all laws, rules, and regulations which apply to this area,
and to follow the rules of behavior listed on, or attached to this permit. I will
do my best to see that everyone in my group does likewise.

_____ (Date) _____ (Visitor's Signature)

_____ (Date) _____ (Issuing Officer's Signature)

**The visitor must have this permit in his
possession during his visit to the wilderness**

This section for optional use of issuing officer.

Planned travel route, duration, and location of camps.

Travel Zone (see map)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	24-25	26-27	28-29	30-31	32-33	34-35	36-37	38-39	40-41	42-43
Nights of use by zone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	44-45	46-47	48-49	50-51	52-53	54-55	56-57	58-59	60-61	62-63

Remarks or special instructions.

APPENDIX II

CRO - 1005

For Administrative
Use Only

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
SEQUOIA AND KINGS CANYON NATIONAL PARKS
Three Rivers, California 93271

June 20, 1972

PLAN FOR REGULATION OF BACKCOUNTRY USE
OF
THE RAE LAKES LOOP TRAIL

OBJECTIVES

The objectives of the control regulations are to help maintain the backcountry environment in its natural state and to establish improved contact with Park visitors and to assist and orient them in proper use of the backcountry.

CONTROLS

The controlled area includes the entire Rae Lakes Loop Trail, Sixty Lake Basin, Charlotte Lake and Kearsarge Lakes. (See CRO- 27, 4/72, Rae Lakes Loop Camping Restrictions).

The number of overnight users departing from Cedar Grove (Road's End) will be limited to a maximum of 60 people per day and from Onion Valley (east Side) 50 people per day. Ten days is the limit for travel around the 50-mile loop.

Hikers going north and south through the Rae Lakes Basin on the John Muir Trail will be considered in the overall maximum of 15,000 visitors for the period June through September. John Muir Trail travelers will be permitted only one night stop between Woods Creek Junction and Vidette Meadow, a distance of 12 miles.

A Rae Lakes Loop Visi-tag will be attached to the outside of the pack of those entering the Loop from Cedar Grove and Onion Valley. This will ease the job of checking the Wilderness Permit on the trail.

Parties holding previously issued permits will be allowed entry, since a number of permits were issued by mail before these controls were established.

PERMITS

Wilderness Permits for the Loop should be issued only at Cedar Grove and Onion Valley. Any deviation from this will require clearance from these two issuing stations since they will be responsible for maintaining control of daily entries. All permits will be issued on a

first-come first-served basis, except for those holding permits previously issued by mail. Permits will be available no more than 24-hours in advance. Permits will be issued before entry to the backcountry and not after the individual reaches a remote Ranger Station. The whole permit concept implies that a permit be obtained prior to entry. Cedar Grove, Onion Valley, Woods Creek and Vidette Meadow Stations will report each previous days travel to the Sierra District Office at the regular 8 a.m. check in time.

On peak travel days, alternate hiking areas will be recommended. All Park entrances and information desks must have current information on travel loads so visitors may be informed if the Loop is full. This information will be disseminated by the Chief Ranger's Office.

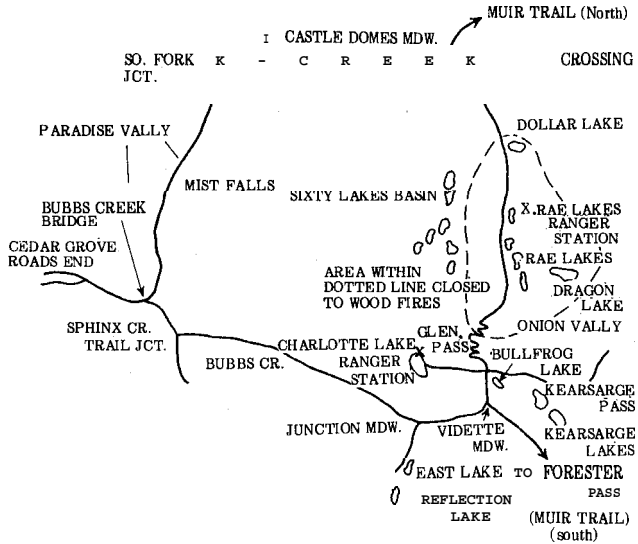
MINIMUM IMPACT

Since 1972 is the first year for controls of this nature, it follows that our best efforts must be directed toward education and toward giving adequate explanation of the need for preserving the quality of the visitor's experience by limiting the number of people. Minimum impact camping will be stressed.

ENFORCEMENT

Enforcement for non-compliance will be by backcountry Rangers who will issue a courtesy warning on a Field Interrogation Card. This will be accompanied by a reminder that permits are to be obtained prior to entry and will serve as a record of how many and where backcountry travelers are being missed at points of entry. Repeated cases of failure to obtain a permit will result in a regular citation issued under the authority of the Superintendent to regulate the use of Park areas.

RAELAKESLOOP



RAE LAKES LOOP CAMPING RESTRICTIONS

Because of extremely heavy visitor use on the Rae Lakes Loop Trail the following restrictions are necessary in order to insure minimum impact to this fragile high country.

1. A one-day camp limit is imposed for each camping area in and around the entire loop. This includes Paradise Valley, Woods Creek, Rae Lakes, Sixty Lake Basin, Charlotte Lake, Kearsarge Lakes, Lower Vidette Meadow and Bubbs Creek.
2. No wood fires are permitted in the Rae Lakes area from Glen Pass to below the lowest lake, commonly called Dollar Lake, on the north end of the Rae Lakes basin. Camping is permitted with the use of gas stoves.
3. All camps are to be located at least 100-feet from lakes and from stream shore areas.

Thank you for your cooperation,
National Park Service
Sequoia-Kings Canyon National Parks

NOTES

