Visitor satisfactions, impact perceptions, and attitudes toward management options on the Kepler Track

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Gordon Cessford

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Great Walks visitor research programme

This report is the second from the Great Walks visitor research programme. Reports from other track samples are published through the same series. While data were collected predominantly during January-February 1994, those visitor responses still provide valid indications of visit experiences and evaluations. Any significant management or use-pattern changes since then can be interpreted in light of these results. The main change that has occurred on the Kepler Track has been an upgrade of the two main huts, which included an increase in hut capacity from 40 to 60 bunks. Management reports indicate that use-levels have maintained a small but steady growth of around 5% per year.

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Abstract

Walkers on the Kepler Track were surveyed during 1994, as part of a wider study of track users in New Zealand. Their visit evaluations were highly positive, suggesting little dissatisfaction or any need for urgent management action. Other results indicated that further improvements to visit quality would be best achieved through improving the use of space in huts. Perceptions of crowding and social and physical impacts indicated that visit-experience problems would emerge with future increase in use-levels, particularly due to hut congestion difficulties, with which crowding was highly associated. Visitors favoured information-based management to address these increasing use-pressures rather than more regulatory controls or facility developments. Attitudes were largely split towards booking systems. New Zealand visitors tended to be more resistant to most options for management of their recreation activities, particularly if based upon more direct types of controls.

Executive Summary

This report summarises key results from a survey in 1994 of 454 walkers on the Kepler Track. The survey was undertaken as part of a broader study of people doing overnight trips on the "Great Walks". It provides information about visitor satisfactions with their visit experiences, about which aspects of visits may be detracting from the quality of these experiences, and about management options to address these issues.

Evaluation

Evaluations of the visit were very positive. Overall satisfaction scores were very high, and compared with visitors to other tracks, more Kepler visitors rated the experience better than they expected. In addition, most Kepler visitors in summer indicated they expected use-levels higher than those they experienced. However the overall satisfaction measure was not linked to any other variables in the survey, which limits its practical value as a possible tool for any monitoring of the quality of visit-experiences. High crowding perceptions indicated visit experiences were being compromised in some way, but there was no relationship between these perceptions and how the trip was evaluated overall (e.g., overall satisfaction scores). However these crowding perceptions were found to have strong association with impact perceptions related to hut congestion. In general, crowding scores appear to represent a more sensitive measure of compromises to visit-experiences.

Satisfaction with facilities and services

Satisfactions with specific facilities and services were high, and there were no links between these specific satisfactions and the overall visit evaluations. While overall satisfaction results did not highlight any important satisfaction issues, the significant differences between the satisfactions of different visitor groupings did highlight some issues related to crowding perception (uncrowded/crowded) and age-group (under and over 40 years). In summary, crowded visitors were less satisfied with hut conditions and information services; and younger visitors were less satisfied with information services and track conditions. While quite simplified summaries of complex results, these points highlight satisfactions with hut conditions and information services as being particularly variable, and the prominence of lower satisfactions among crowded visitors for hut conditions, particularly with bunk numbers and space to relax in huts. Both crowded and younger visitors were less strongly satisfied with information services, although this was not substantial. Overall, these results suggest there is no immediate need for significant management interventions. Attention to the space and facility capacity in huts appears the only area where any further enhancement of visit experiences may be currently achieved. These aspects of hut conditions appear to be the ones where growth in dissatisfactions is most likely should use pressures continue to increase. Some questions are raised with regard to information services, but these represent long term concerns of lesser priority.

Impact perceptions

Visitors were aware of high levels of some social and physical impacts, but the proportions of visitors specifically bothered by these impacts rarely exceeded 30%. The social congestion conditions in huts, trampling effects on the tracks, and perceptions of water hygiene were particularly prominent sources of impacts. Some types of impacts appeared to be seen as particularly unacceptable (e.g., associated with litter, toilet paper/waste, wood cutting), but these were not reported at notable levels.

The significant differences between the satisfactions of different visitor groupings did highlight some impact perception issues related to crowding perceptions (uncrowded/crowded). In summary, crowded visitors were more bothered by most types of impacts, but most particularly those associated with hut congestion conditions. These impact perception distinctions between uncrowded and crowded visitors are important for long term management considerations, but given the high overall satisfaction and the generally consistent satisfaction with facilities and services among different visitors, are not of immediate concern for managers. However, given the strong link between crowding perceptions and hut congestion impacts (e.g., too many in huts, insufficient bunk numbers), management actions to minimise any future compromises to the quality of visit-experiences should focus first on hut conditions, as should any related monitoring. With increasing use levels, any future detrimental effects will arise first among the perceptions of physical and social impacts associated with pressure on hut conditions.

Attitudes toward management options

Visitors were most positive toward the use of information to encourage better choices of trip timing and appropriate behaviour on them, including promoting smaller group sizes. Attitudes were generally split toward options encouraging alternative types of visits (e.g., alternative tracks, cheaper alternatives, more campsite facilities), and applying rationing systems (e.g., bookings, permits). Most were strongly opposed to options involving manipulation of use to discourage visits (e.g., pricing, reducing facilities), developments to increase accommodation options (e.g., more huts and hut capacity, more camping freedom, guided trip huts), and some more direct controls (e.g., make track one-way only).

While overall attitudes to management options highlighted use of information as most preferred and developments and direct controls as most opposed, the significant differences between the attitudes of different visitor groupings did highlight some management preference issues related to nationality (New Zealand/overseas) and age-group (under and over 40). In summary, New Zealand visitors were more opposed to manipulating use conditions, and information management to a lesser extent; younger visitors were more opposed to information management but less opposed to manipulating use conditions. While quite simplified summaries of complex results, these points highlight attitudes toward manipulating use conditions and information management as being particularly variable, and in particular the greater opposition to manipulating use conditions among New Zealand visitors. New Zealanders appeared generally less tolerant of their visits being managed, disagreeing more than overseas visitors with both the most preferred options (e.g., related to

information management) and least preferred options (e.g., related to manipulation of use). There were no distinctions apparent for the other types of management options assessed (e.g., more facility options, alternative activity/ accommodation options, use-rationing options).

Recommendations

While there were no urgent needs for immediate management actions to address current problems, the most productive directions for preventative actions to minimise future compromises to the quality of visit-experiences appear to be:

- Specific attention to the facility capacity and bunk capacity of huts
- Optimising/reconfiguring the use of space for comfort and facility access in huts
- Provision of general information about the features of the Kepler Track, and for undertaking visits to it
- Provision of information approaches which forecast visitor numbers and hut loadings in advance, accompanied by suggestions on visit timing and operation
- Consider other management options based on long-term information use before any application of a booking system.

Most initial gains should be made by concentrating upon short-term physical changes to hut facilities and their operation, complemented by more long-term promotion of beneficial behavioural changes through information use. Appropriate research and information back-up could include:

- Assessing options for optimising the use of space and facilities in huts
- Assessing the effectiveness of information-based techniques in influencing visitor use
- Investigating differences in the expectations and evaluations of visits by different visitor groups, particularly by age-group and nationality (e.g., New Zealand *vs* overseas visitors)
- Investigating the greater perception of impacts by crowded visitors
- Investigating the distinction between noticing impacts and being bothered by them
- Investigating the general resistance by visitors toward the more direct management approaches, and the greater resistance to management in general by New Zealand visitors and younger visitors
- With reference to any insights from the investigations above, evaluate the outcomes of different management options on visit experiences and visit patterns, comparing booking systems with other short and long term options
- Investigating the apparent summer and Easter differences in the accuracy of visitor expectations of use-levels.

Any monitoring of visit-experience quality should concentrate first upon hut congestion conditions at key huts, particularly during the high-use period at Easter. Emphasis should be on a variety of approaches as simple measures of overall satisfaction are unlikely to provide a useful means to monitor changes in these conditions.

Acknowledgements

The overall Great Walks study covered a wide variety of different track and recreation situations, and raised a number of large operational and analytical challenges. Help and advice on statistical approaches to these analyses was provided at various times by Margaret O'Brien and Ian West of Science and Research Division, and Roger Wilkinson of Landcare Research. Data entry for the project was carried out very effectively by the Tourism Green project team of Michael Chan, Victor Keo and Sulia Aumua. Ian Mackenzie of Science and Research Division provided the overall editorial assistance for final production of the reports. Thanks are also due to other Departmental staff who viewed the draft reports and made useful suggestions on their overall approach and contents.

For this specific report, overall co-ordination was managed by Paul Wilson of Southland Conservancy Office, and Ross Kerr and Ken Bradley of Te Anau Field Centre. The actual application of the survey in the field was carried out by hut wardens on the Kepler Track

1. Introduction

The Kepler Track is a 2–4 day loop track traversing forested valleys and alpine terrain in Fiordland National Park. This survey was undertaken as part of a broader study of people doing overnight trips on the "Great Walks". Tracks classified and managed as Great Walks are the primary locations for multi-day walking trips in the New Zealand backcountry. They are of high scenic and recreational value, and are characterised by high and increasing use-levels. This use pressure, and the need to provide for quality outdoor recreation experiences, requires that these tracks be specifically managed to provide high levels of facility and service provision without compromising the quality of the visit experience. To achieve this outcome, managers require information about visitor satisfactions with their visit experiences, and what aspects of visits may be detracting from these experiences. On this basis, the objectives of the "Great Walks" study were to:

- Provide brief description of overnight visitors to the "Great Walks".
- Identify visitor satisfactions with the facilities and services provided.
- Identify visitor perceptions of crowding and use-impacts.
- Identify visitor attitudes towards management options

Departmental staff at key huts administered standardised questionnaires to visitors on each track[1] on their last trip night. Overall, 454 Kepler Track visitors completed the survey questionnaire. These comprised 403 during the main 1993/94 summer season, and a further 51 during the high use Easter period of 1994. After data coding and entry, preliminary results were initially presented to managers as percentage tables. These descriptive results are summarised here in the questionnaire format (refer Appendix 1).

Other analyses were carried out on the database, and this report summarises the main findings derived from these descriptive and analytical results. The report presents overall evaluations by visitors of their visit experiences, and then investigates the specific aspects of facility and services satisfactions, social and physical impact perceptions, and attitudes toward different management options. Analyses are undertaken which assess how these specific responses vary between different groups of visitors, and how they relate to the overall evaluations. This approach enables any significant current or potential compromises to the quality of visit experiences to be clearly identified.

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[1] A standardised questionnaire (Appendix 1) was developed for overnight walkers on the Great Walks system, which comprises the Abel Tasman, Heaphy, Kepler, Milford, Rakiura, Routeburn, Tongariro, and Waikaremona tracks, and the Wanganui River journey. Surveys of the Travers-Sabine and Dart-Rees track circuits were also included, although flooding prevented any work being possible on the latter. A sample of sea-kayakers was also collected in Abel Tasman National Park. Some site-specific questions were used where required, particularly for questions related to boat use on the Wanganui River and the Waikaremoana and Abel Tasman Tracks; some non-applicable questions were omitted on the Milford Track; and it was possible to survey at Easter on the Kepler, Heaphy, and Tongariro Tracks. German and Japanese translations were provided.

2. Visitor information

In summary, visitor characteristics were representative of a young and international group of people, largely unfamiliar with the Kepler Track and generally inexperienced at the backcountry walking activity. Short hut-based trips predominated. Some summary findings included (refer Appendix 1 for details):

- A predominance (60%) of males
- Only 25% were from New Zealand, compared with 20% German, 17% British, 11% USA
- Most (79%) were aged between 20-40, only 8% were aged 50 or more
- Most (94%) were on a first visit to the track, 12% were on their first overnight walking trip, and only 18% had done more than 20 such trips
- Their group sizes averaged a little under 3
- Most (91%) stayed 2 to 3 nights, with 94% in huts only, compared with 3% only camping.

Visitors at Easter were distinguished by a higher proportion of New Zealanders (47% *vs* 22% in summer), a younger age distribution (82% *vs* 56% under 30 in summer), larger group sizes (mean of 3.26 *vs* 2.92 in summer), and shorter trip durations (mean of 2.19 *vs* 2.35 in summer). Easter trip durations were shorter due to the higher proportion of visitors spending two nights or less on the track (78% *vs* 57% in summer).

New Zealand visitors represented a broader age-range, came in larger groups, had more previous experience of the Kepler Track and of overnight walks in general. Overseas visitors were more often in the 20-40 year age-range (86% *vs* 54% for New Zealand visitors), had smaller group sizes (mean of 2.60 *vs* 4.05 for New Zealand visitors), were more often on first-visits to the track (97% *vs* 88% for New Zealand visitors) and done fewer overnight walks (63% had done five or fewer *vs* 41% for New Zealand visitors). In general, experience levels appeared to be low for almost all visitors.

Comparisons were also made of the of the characteristics of visitors who indicated they were either 'crowded' or 'uncrowded'[2]. However, the only notable differences were the larger group sizes of those who were crowded (means 3.18 *vs* 2.53), and their slightly greater experience of doing similar types of walks (mean score 3.03 *vs* 2.49). For uncrowded visitors, 24% were on their first such walk, compared with only 13% of the crowded visitors. While neither group had greater previous experience of the Kepler Track, this difference in the numbers of similar walks done suggests that the crowded visitors may be more experienced. However, this difference is slight and no conclusions can be drawn from these results. Overall, the crowded and uncrowded visitors could not be distinguished from each other on the basis of their descriptive characteristics.

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[2] Refer to Section 3.2 and Appendix 3 for descriptive discussion of this crowding distinction.

3. Evaluation of the quality of visit experiences

Overall evaluation of the quality of visit experiences was assessed through four questions related to overall satisfaction and perceptions of use-levels (refer Appendix 1 for question details).

3.1 EVALUATION OF OVERALL SATISFACTION

Two questions allowed visitors to evaluate the quality of their overall visit experiences:

- An *overall satisfaction* score (how satisfied or dissatisfied with the trip—Question 5)
- An *expectation fulfilment* score (was the trip better or worse than expected—Question 4)

Positive responses from visitors to these questions represented their evaluation that they had achieved high quality recreation experiences on their visit. Figures 1 and 2 show that satisfaction on the Kepler (and other tracks) was very high (94%), and most experiences were as good as had been expected, or better (94%).[3] The proportion who indicated the visit experience was better than they expected was considerably higher on the Kepler Track than elsewhere (68% *vs* 53% on the other walks). Virtually nobody indicated they were dissatisfied with their trip. The main conclusion drawn from these overall evaluations is that visitors are achieving quality experiences on the Kepler that are frequently better than they expected.

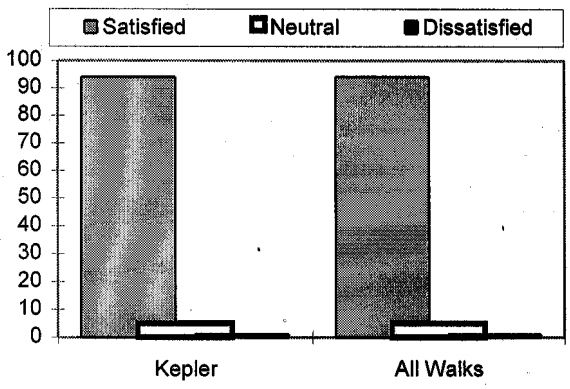

Figure 1. Overall satisfaction.

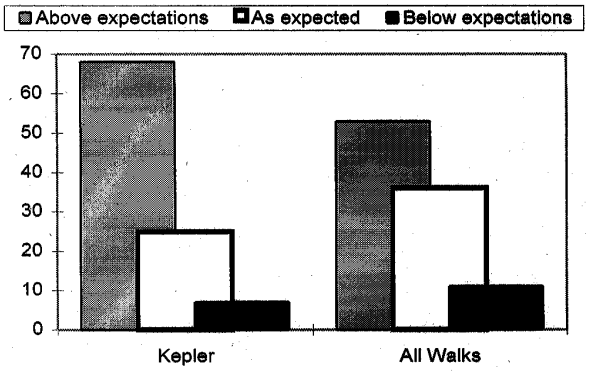

Figure 2. Fulfilment of trip experience expectations.

[3] While these responses were similar in degree, they were only moderately correlated with each other (r = 0.42).

3.2 EVALUATION OF USE-LEVELS

Two further questions allowed visitors to evaluate the quality of their visit experiences in relation to use-levels:

- A score for perception of *crowding* (overall, did they feel crowded on the trip—Question 2)
- An evaluation of *expected visitor numbers* (seeing more/same/less than expected—Question 3)

Positive responses from visitors indicating low levels of crowding, and not seeing more people than expected, would have reinforced overall evaluations of achieving high quality visit experiences. However, Figures 3 and 4 show that crowding perceptions were substantial, and that many visitors saw more others than they expected. These crowding and expected use-level evaluations were moderately correlated with each other (r = .5), indicating those who experienced higher use-levels than they expected generally gave higher crowding scores[4].

However, while higher crowding was indicated by Easter visitors (86% *vs* 63% in summer), there was little difference in the proportions who experienced higher use-levels than they expected (21% in summer *vs* 24% in Easter). Explanation for this unexpected result may be related to the background information that influenced the use-level expectations. Other information summarised in Figure 4 indicates summer visitors tended to over-estimate expected use-levels, while Easter visitors had more accurate expectations. More summer visitors experienced use-levels lower than they expected (33% *vs* 21% at Easter), while more Easter visitors experienced use-levels the same as

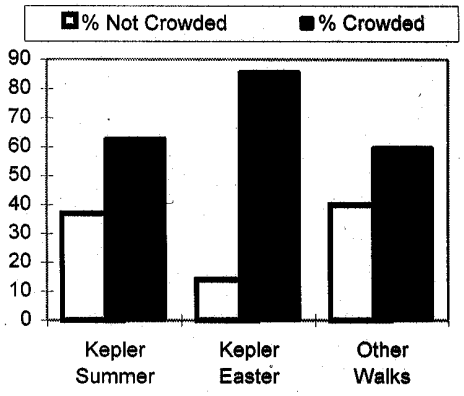

Figure 3. Crowding perception summary.

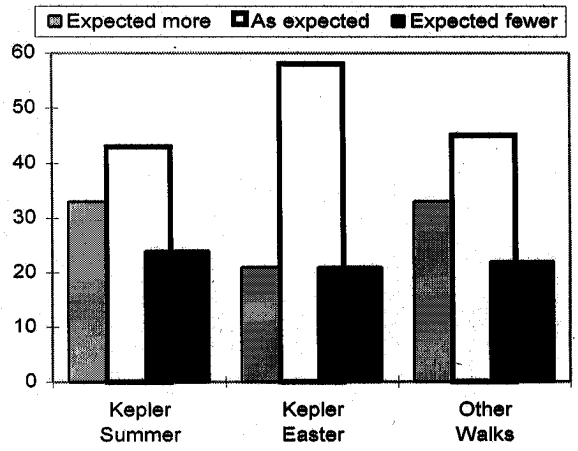

Figure 4. Fulfilment of visitor number expectations.

[4] In addition, an ANOVA test (F(2,454) = 71.01, signif.. F = .0000) showed mean crowding scores increased from those expecting more people (2.69), through those expecting the numbers seen (3.85), to those expecting fewer people (6.00). Similar analyses found no significant differences between use-level expectations and overall satisfaction mean scores.

they expected (58% *vs* 43% in summer). This difference was not found to be due to the higher proportion of New Zealanders present at Easter (refer Section 2). This suggests the sum of all information gained by visitors preparing for Kepler Track visits may be generally more accurate for conditions at Easter rather than during summer. This may account for why more Easter visitors did not indicate they experienced higher use-levels than they expected, despite the higher crowding scores.

Other questions were asked which aimed to identify any focal points for crowding perceptions on the Kepler Track (Question 3). Overall, 60% of visitors indicated that some places were more crowded than others, and of these visitors, 96% included hut sites in their examples while 10% included track sections. Appendix 1 summarises other crowding information from Question 3, which indicates that Luxmore Hut, and to a lesser extent Iris Burn hut, were the focus for the crowded hut sites. The track section around Luxmore Hut was the focus for the relatively few crowded track sites. These results indicated issues related to hut use were the key to crowding perceptions, with track issues being only minor influences.

Although substantial crowding perceptions were reported, and these could be interpreted as representing use-levels which are approaching 'social capacity'[5], they were not significantly linked with overall satisfaction. In other words, higher crowding perceptions were not associated with higher evaluations of dissatisfaction with the trip, or it being considered worse than expected. While some visitors indicated they did experience crowding, and many experienced higher use-levels than they expected, this did not appear to affect how they felt about their overall trip.

Despite this finding, the high crowding levels themselves suggest strongly that some degree of compromise to the quality of visit experiences was occurring (refer Appendix 3). Subsequent sections in this report present analyses which indicate where some of these compromises may occur in relation to satisfactions with particular facilities and services (refer Section 4.2), or with perceptions of particular social and physical impacts (refer Section 5.2).

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[5] Appendix 3 discusses management interpretations of the crowding scores, and presents comparative responses from other tracks.