

6. Visitor attitudes towards management options

Attitudes toward 18 options for managing future increases in track use-levels were surveyed, with visitors indicating the degree to which they agreed or disagreed. These options included increasing the capacity of accommodation, dispersing use pressures, imposing use-limits, and providing pre-walk information (refer Appendix 1, Question 8). The complete list of responses, as summarised in Figure 9, indicates a variety of visitor attitudes.

Visitors generally indicated greatest support for using pre-walk information to influence visitor choices about making track visits. Over 50% of visitors agreed with these approaches, fewer than 10% disagreed, and the remaining responses were neutral. Visitors also indicated similar levels of support for providing more camping opportunities and facilities, developing alternative options, and controlling motorboat access. Disagreement was much higher with the more direct control methods such as reducing facilities and services in order to discourage use, making peak times cost more for visits, and having booking systems for campsites, with over 50% of visitors disagreeing with these. Rationing options such as requiring permits and imposing booking systems for huts and campsites were generally opposed by a majority of visitors. For many of the other options, the proportions of visitors either for or against were more similar. For example, the options related to allowing more freedom for campsite choice, building more huts, providing more bunks in huts, promoting smaller group sizes, making alternatives cheaper, and allowing more guided options were all received similar degrees of positive and negative response.

Overall these results indicate a pattern of preferences by visitors for different management options (also refer Table 3 and Figure 10). Indirect information-based approaches appear most generally favoured by visitors, as were provision of more camping facilities and alternative options for the activity. Management options involving provision of more accommodation capacity and options, providing cheaper alternatives, and encouraging smaller group sizes tended to split visitors more evenly for or against. More direct actions to specifically control and manipulate were clearly least favoured.

6.1 EFFECTS OF AGE, GENDER, NATIONALITY, AND CROWDING PERCEPTION

6.1.1 Background to analyses

Additional analyses were required to assess whether these management items varied significantly among the visitors according to age group, gender, nationality and crowding perception. Table 3 and Figure 10 show the attitudes to management scales created for these analyses (refer Section 4.1.1).

TABLE 4. ATTITUDES TO MANAGEMENT SUMMARY SCALES (REFER APPENDIX 2).

SCALE	DESCRIPTION
Rationing/use-limits	Hut/camp booking systems, limited permits
Manipulate use conditions	Cheap options, small groups, facility reduction, high peak costs
Information management	Encourage use elsewhere, promote low impact behaviour
Increase accommodation	More hut/camp capacity, guided options, camping freedom, new tracks

(extra individual items – control motorboat access)

6.1.2 Significant findings

Differences in these management scales according to age-group (over and under 40 years), gender (male/female), nationality (New Zealand/overseas), and crowding perception (uncrowded/crowded) were analysed (refer Section 4.1 for method). The significant effects and interactions associated with the analysis using these independent variables are summarised in Table 5. These results indicate significant differences in attitudes towards management options which occur according to nationality and age-group.

TABLE 5. SIGNIFICANT EFFECTS ON ATTITUDE TO MANAGEMENT SCALES.

SOURCE OF SIGNIFICANT EFFECT	SIGNIFICANT ATTITUDE SCALES	MEAN VALUES (ADJUSTED)*		
		New Zealand	Overseas	
Nationality effect F(4,531) = 3.79, p = .005	Increase accommodation	2.86	3.24	
	Manipulate use conditions			
	F(1,534) = 5.381, p = .021	3.28	3.05	
Age/Nationality interaction F(4,531) = 2.412, p = .048	Increase accommodation	New Zealand		
		Under 40	2.85	3.38
		Over 40	2.87	2.94

* Mean values for the summary scales are divided by the number of constituent items to allow interpretation using the original question categories (e.g., 1 = Strongly agree; 3 = Neutral; 5 = Strongly disagree),

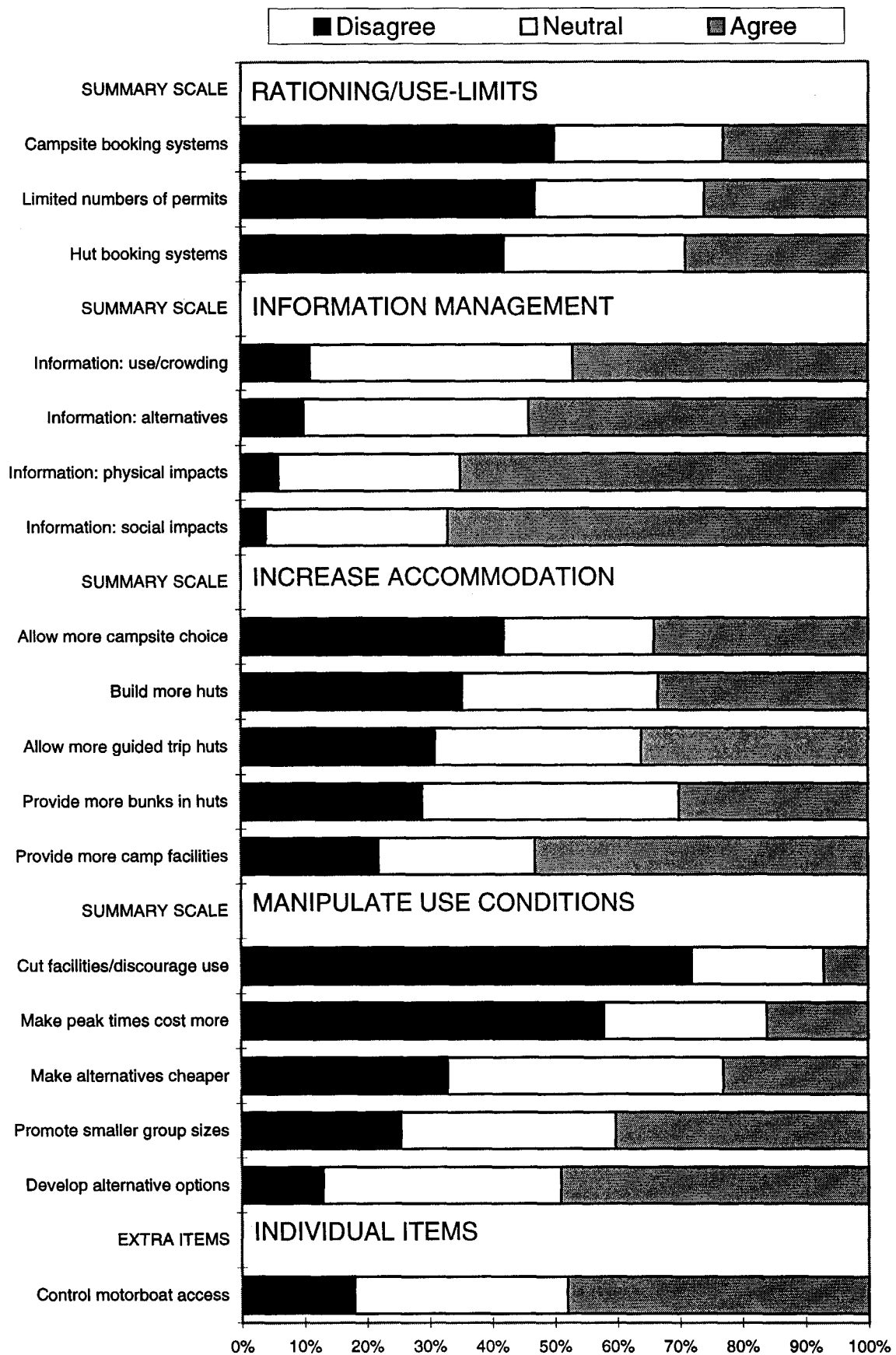


FIGURE 10. ATTITUDE TO MANAGEMENT RESPONSES IN SUMMARY SCALE STRUCTURE.

Crowded effect

New Zealand and overseas visitors had significantly different attitudes towards management options to cope with increasing use-levels. Compared with overseas visitors, New Zealand visitors were less negative toward increasing the accommodation capacity of the track, but more negative toward manipulating use conditions. Additional exploration of the 'increase accommodation' scale indicated that New Zealand visitors were particularly more positive toward providing more bunks in huts, and building more huts. To a lesser extent they were also more positive toward allowing more guided trip opportunities, and more freedom of campsite choice. Additional exploration of the 'manipulate use conditions' scale indicated overseas visitors were particularly more positive toward encouraging smaller group sizes. To a lesser extent they were also more positive toward making peak times more expensive. Overall, New Zealand visitors appeared relatively more supportive of development options to increase or enhance accommodation capacity, while overseas visitors were more supportive of use management options, particularly to reduce group sizes (possibly reflecting the pattern of much smaller group sizes among overseas visitors).

Age/nationality interaction

A significant interaction between age-group (under and over 40 years) and nationality (New Zealand/overseas) was based largely on attitudes toward the management options of increasing accommodation capacity. Younger overseas visitors were most negative toward increasing accommodation capacity, while older overseas visitors were more similar to New Zealand visitors. Their attitudes were generally less negative than those of overseas visitors, particularly among the younger visitors, and were largely consistent between the age-groups. Additional exploration of the 'increase accommodation' scale indicated that this effect was most apparent for the options of increasing the numbers of bunks in huts, and for building more huts. This effect was also apparent to a lesser extent for allowing more guided opportunities and more freedom of campsite choice. Overall, younger overseas visitors appear distinctly more negative toward management options which involve increasing accommodation capacity, particularly if related to but development.

Extreme responses

Because visitor attitudes were sometimes substantially split for or against a management option (refer Figure 10), additional exploration of these data were undertaken. The top and bottom 25% of scores for each of the management option scales were selected, representing the more 'extreme' attitudes of those who most strongly agreed or disagreed with the options. Differences in the proportions of these extreme positive and negative attitudes were apparent according to age-group, nationality, previous visits and crowding perceptions. Older visitors with these extreme 'agree/disagree' responses indicated higher levels of extreme disagreement with manipulating use conditions than did younger visitors (57% vs 43% extremely disagreed). New Zealand visitors indicated higher levels of extreme agreement with increasing accommodation options than did overseas visitors (60% vs 33% extremely agreed). Previous visitors indicated higher levels of extreme disagreement with rationing/limiting use through booking systems and permits than did first-time visitors (80% vs

45% extremely disagreed). And crowded visitors indicated higher levels of extreme agreement with manipulating use conditions than did uncrowded visitors (61% vs 44% extremely disagreed). Some of these extreme attitude differences reflect the age-group and nationality differences identified in the multivariate analyses. Other differences suggest areas where further analyses may be useful if these options are to be considered further.

6.2 RELATING MANAGEMENT PREFERENCE SCALES TO OVERALL TRIP EVALUATIONS

There were no significant links between the overall visit evaluations (e.g., satisfaction and crowding), and any scales of the attitudes towards management options. These results suggest that preferences for different management options were unaffected by any experiences on the track visit.

7. Summary and discussion

7.1 OVERALL VISIT EVALUATIONS

Overall levels of dissatisfaction were negligible, and very few considered the experience was below their expectations. In addition, perceptions of crowding were at low levels and few visitors saw more others than they expected. These findings suggest that no major use-level issues are apparent on the Whanganui journey at present, and visitors are having highly positive visit-experiences.

However, some caution is required when interpreting these satisfaction findings, particularly as most visitors to the Whanganui journey are on a first visit. There is a tendency for such visitors to give approval to the status-quo of social and environmental conditions they experience on a visit. They usually lack previous experience of the site and any strong expectations as to what might constitute the appropriate and acceptable conditions which occur there. In a situation of changing use conditions over time, the overall satisfactions of such visitors can remain consistently high despite considerable changes in visit experiences. Those first-time visitors with strong, but inaccurate, expectations of social and physical conditions, or repeat-visitors with expectations based on previous conditions, are those most likely to indicate overall dissatisfaction. These types of visitors are usually also those most likely to be displaced to different sites, times, or activities, and are more likely to give negative feedback about their experiences to others. Other visitors may recognise that elements of the visit-experience may not be what they would prefer, but are prepared to rationalise some of their preferences in the interests of an enjoyable overall visit. All these considerations suggest that reliance on overall satisfaction measures as a monitor of visit-experience quality can be misplaced. However, should considerable levels of dissatisfaction feature in such measures, it is likely that major problems are already well-established. Clearly this was not the case on the Whanganui journey.

7.2 SATISFACTION WITH FACILITIES AND SERVICES

No notable levels of dissatisfaction were apparent for any of the facilities and services on the Whanganui Journey. Comparisons were made between the satisfaction responses of different visitor groupings, but these did not indicate any notable differences. The high levels of satisfaction across all the facility and service types indicated a lack of any specific visitor problems with management infrastructure, and suggested there were no immediate needs for management interventions beyond normal maintenance. The only concerns which may possibly require some consideration related to dissatisfactions with landings along the river (24%), and campsite water supply and washing-up facilities (both 16%). When considering the status of landings along the river, determining what visitors consider to be the good and bad features of landings may be useful. The

role played by different river flows in the convenience of different landings may be an important additional variable. When considering the status of campsites on the Whanganui journey, and their relatively high use compared with huts, these campsite issues may warrant further attention if priority is given to any future development programmes. Some simple comparison of responses from hut-users and campsite-users did suggest that campsite-users may be less satisfied with many facilities and services, although this distinction appeared small, and occurred in the context of generally high satisfaction levels. Further research and investigation would be required before any conclusions could be drawn about the relative levels of satisfaction between hut and camp-users.

Many visitors were also neutral rather than positive in their satisfactions with the information and advice received from visitor centres. No visitor centres are located close to the Whanganui River, and this may be reflected in these neutral responses. In this situation, investigation of the particular information strategies used by Whanganui journey visitors may be useful if use of information is likely to be an important component of future management processes.

7.3 PERCEPTIONS OF IMPACTS

While negative social impacts were not generally prominent, almost half the canoeists were bothered by encounters with motorboats on the river. Many visitors were aware of other social impacts such as seeing too many in huts, boat users at huts and camps, and perceived overdevelopment of huts, tracks and signs, but most of these visitors were tolerant of these impacts rather than being bothered by them. Understanding the distinction between simply noticing these impacts and being specifically bothered by them appears an important research issue. Visitors also appeared to have very little tolerance of particular types of impacts which very visibly represent inappropriate behaviour (e.g., seeing litter, toilet paper/waste, and woodcutting). While these were not prominent impacts overall, they do suggest particular visitor sensitivity to such 'inappropriate' behaviour in natural settings.

Visitors were generally most bothered by perceptions of various physical impacts. These were based most upon perceptions of uncertain water hygiene, water and toilet facilities, and littering. Perceptions of uncertain water hygiene were most negative, bothering 56% of visitors. However, it was not apparent that this perception represented any actual conditions experienced on the trip. However, other issues related to toilets, water and hygiene were apparent from perceptions of insufficient toilets and water supply. Around half the visitors perceived these as being insufficient, and over 25% were bothered by them. Fewer visitors indicated they noticed toilet/paper and waste, although most of those who did were bothered by it. Litter appeared to be a notable secondary issue, with around 25% of visitors being bothered by seeing litter around campsites, on the river and beaches, and on the riverside tracks. There appeared to be very little tolerance for seeing litter. Perceptions of water and toilet conditions, and observations of litter and waste, appear important physical impact issues for management concern, although they were not linked to visit satisfaction.

While overall impact perceptions highlighted mainly physical impact issues, variation in the impact perceptions of different visitor groupings highlighted social impact issues relating to crowding perceptions. In summary, while crowded visitors were significantly more bothered by all types of impact perceptions, they were particularly more bothered by impacts related to social congestion and conflict. Most prominent were the congestion impacts related to campsite use, seeing too many canoeists on the river, and seeing too many big groups. While the negative perceptions of these overall congestion impacts were not generally high overall, they were linked with greater perceptions of crowding. If crowding perceptions increase in future, it is likely that any compromises to the quality of visit-experiences will be first apparent from perceptions of impacts related to campsite congestion, and the numbers and types of groups encountered on the river. Given the emphasis on camping, but use does not appear to represent a prominent focus for social impact perceptions. And while encountering motorboats was a very prominent negative social impact, it appears to be a simple recreation conflict issue of motorboats versus canoes, and was not linked with overall crowding perceptions.

Overall, the physical impact perceptions related to littering, and water, toilets and hygiene are most prominent. Management attention may be required to first address these issues. However, these perceptions do not appear likely to change substantially should use pressures increase. In that situation, social impacts related to campsite congestion and on-river encounters (particularly with large groups and motorboats) appear to represent the areas where visitor experiences are most likely to be compromised. Lack of major dissatisfaction issues and relatively low crowding scores suggest that management actions are not urgent. However, these findings indicate where any additional management may be best directed to improve current conditions, and to minimise any future compromises.

7.4 ATTITUDES TOWARD MANAGEMENT OPTIONS

When considering management options for addressing future increases in visitor use-levels, most visitors were positive toward information management. That is, the strategic use of information to better match visitor expectations with likely experiences, and to give prospective visitors a better basis to choose visit timing and location that better suits their preferred visit experiences. This may be a particularly important component of any general improvements undertaken in visitor information services. These results indicated clearly that such information management approaches were considered most preferable among all types of visitors. The main question this poses for managers is whether such information management approaches represent an effective tool of practical value. This is an area where additional investigation should be encouraged, as it offers the possibility of developing management approaches with much higher degrees of visitor (and public) support.

Most visitors were also positive toward increasing opportunities and facilities for camping, developing alternative canoeing opportunities, and limiting

motorboat access. For many other options, visitors were more evenly split either for or against. These options included allowing more camping freedom, providing more huts and bunk numbers, promoting smaller group sizes, providing cheaper alternatives, and allowing more guided trip opportunities. Given that greater proportions of visitors are opposed to these options, they could be considered to be best suited as secondary-level actions should more immediate changes to visitor use be required.

By contrast, most visitors were highly opposed to other management options related to rationing or manipulating-use to channel or reduce visitor numbers (e.g., booking systems, permits, peak pricing, reduce facilities). The strength of apparent opposition to these approaches indicates that considerable background research would be required, and ongoing consultation with visitor-groups, before any of them could be implemented ahead of the more acceptable options of information use and campsite development. These analyses do not provide any explanation of the generally negative attitudes of visitors toward added management controls, but it appears that specific investigation of visitor attitudes towards such control of their visit freedom would be appropriate.

While most visitors appeared opposed to additional management, significant differences in these attitudes between different visitor groupings highlighted issues relating to nationality and age-group. In summary, overseas visitors were more opposed than New Zealand visitors to increasing accommodation capacity; New Zealand visitors were more opposed than overseas visitors to manipulating use conditions; and younger overseas visitors were most opposed to increasing accommodation options. While a quite simplified summary of complex interactions, these points highlight areas where attitudes to management options were most variable.

Differences between New Zealand and overseas visitors highlighted different visitor attitudes toward increasing accommodation options and manipulating use conditions. New Zealand visitors appeared more development-oriented, through their greater support for increasing the accommodation capacity along the river. Younger overseas visitors were the most opposed to such development options, particularly if they involved increasing but capacity. Overseas visitors in general appeared more control-tolerant, having a relatively lower degree of opposition to manipulating use conditions. They were particularly more supportive of promoting smaller group sizes, possibly reflecting their own group sizes which were on average smaller than those of New Zealand visitors.

Comparisons of extreme attitude results reinforced the findings that New Zealand visitors tended to agree more with development options, while overseas visitors tended to agree more with manipulating use conditions. In addition, these comparisons suggested that older visitors were more opposed to manipulating use conditions, but that crowded visitors were less opposed. These results suggest areas for further investigation should developments in crowding conditions or visitor age-group characteristics focus more attention on these aspects of visitors.

Overall, attitudes toward management options tended to be often strongly positive or negative, and any inter-group differences in these were relatively minor. However, these distinctions highlight the more 'management-resistant'

sectors among the visitor-groupings, and identify some visitor-groupings where the negative attitudes towards some management options are more variable. These results suggest where further investigations may be required to help minimise conflicts arising from any proposed management changes.

7.5 CONCLUSIONS AND RECOMMENDATIONS

Perceptions of physical impacts related to litter, toilets, water supply and perceived water hygiene indicate there are some physical conditions which will require management action. However, analyses indicated that these conditions did not substantially compromise visitor experiences. On the basis of maintaining visitor experiences, these conditions do not represent urgent problems which require immediate management attention beyond normal maintenance processes. While there were no urgent needs for immediate management actions to address these physical setting issues, other visitor responses did indicate that there were social impact issues particularly related to perceived congestion effects on the river and at campsites. While these effects appeared to be largely tolerated, with many visitors indicating they were not bothered by them, the results linking crowding with these perceptions of overall congestion impacts indicated some of these evaluations would be becoming more negative at higher use-levels. Overall these results indicated that while preventative actions to minimise future compromises to the quality of visit-experiences will need to be considered, particularly with regard to campsite conditions and encounters with other canoeist, big groups and motorboats on the river, these are not critical issues at present.

If management control is required, visitors indicated a preference for such actions to be based most upon information use to guide visitor choices, rather than any more direct regulation/manipulation approaches to limit or channel visitor opportunities. Initially some development of long-term information approaches could be undertaken, as stringent controls do not yet appear essential. How the information system operates for trips on the Whanganui journey will need to be determined more clearly, as the use of visitor centre sources does not appear prominent. And, different visitor groupings indicated varying patterns of support for the different types of management options. Any proposed actions would need to allow for the different effects of management options on the perceived sense of recreational freedom of different visitor groupings. In summary, the main management actions which could be undertaken include:

- Identifying any physical impact 'hot-spots' related to littering, water or hygiene issues, and initiating any additional problem-solving management beyond normal maintenance processes to reduce the scale of any notable problems to sustainable levels.
- Identifying any situations where landings pose difficulties for visitors, particularly if this limits or discourages use of some sites.
- Improving water supplies at campsites, where not already done, and providing information on water hygiene (of the water supply, or of any other water sources).

- Evaluating campsite opportunities for different group sizes, and identifying any alternative trip patterns which may spread use and help to reduce the potential for conflict encounters.
- Provision of general information about the features of the Whanganui journey, and for organising and planning visits to it.
- Provision of specific information approaches which
 - forecast visitor numbers and but/camp loadings in advance
 - indicate where and at what times 'bottlenecks' are most likely along the river
 - indicate when large groups are most likely to be travelling the river and how both large and small groups might conduct their trips to minimise impacts conflict, particularly at campsites and huts
 - indicate what motorboat activity takes place on the river
 - provide general suggestions on visit timing and organisation to minimise any 'crowded' or 'conflicting' visit experiences.

Most initial gains should be made by concentrating on reducing any physical impact hot-spots, and making whatever simple improvements are possible in the use of campsites. This may involve initiating investigations of visitor preferences for the standards of facilities at huts. The latter information options require generating behavioural change among the visitors rather than the physical changes to facilities and services. Promoting beneficial behavioural changes through information use represents a more long term approach, will be based largely on pre-visit information, and may require greater involvement with external agencies. Any consideration of these approaches will require additional investigations in a number of areas to assess the potential effectiveness of information use as a practical management tool. Some investigation of how the visitors to the Whanganui journey obtain information about doing a river trip appears necessary. The role of visitor centres and similar information sources in directly communicating information may also require specific attention, as many visitors gave neutral satisfaction responses for these. This may reflect the lack of any central visitor centre being associated with undertaking trips on the Whanganui Journey. And although specific facility and service dissatisfactions were not prominent, future investigation of the facility and service expectations of different visitor groupings should be considered.

More regulatory management options were not highly favoured, and do not appear to be necessary in the short term. However, given the possibility of such options being considered in the future, additional investigations should be encouraged to explore the reasons for the largely negative visitor attitudes toward management options, and the extent to which perceived freedom from external controls is an element of preferred recreation experiences. Due to the low levels of crowding and impact perception, such investigations need not be carried out specifically in relation to the Whanganui Journey, although the issues related to river-use are clearly more unique to this situation.

Monitoring of the quality of visit experiences should not rely on overall visit satisfaction scores. Crowding scores offer a more sensitive overall measure. Any specific monitoring of visit-experience quality should concentrate first upon identifying visitor numbers, and their most common use-patterns along the

river. Periodic assessment of congestion conditions could then be undertaken at key campsites in particular. Some assessment of average daily encounter levels and encounters with large groups may provide a useful indicator of change in potential crowding and conflict situations. For the Whanganui journey, this could initially concentrate upon visitor experiences at the main campsites or huts where most visitors spend the last night on their trip. Some additional investigation of the different trip patterns on the Whanganui journey may be appropriate (including the short and long river trips).

Appendix 1

Summary of Whanganui journey questionnaire responses

This presents the basic response percentages for the questions asked in the survey. These percentages are presented in the format of the original questionnaire, although some lists of responses are attached, where their format is incompatible with this approach. Where appropriate, some distinction is also made between the responses of but and campsite users (at least 1 night).

1. Can you give us a brief description of yourself?

- GENDER 60% Male 40% Female ● NATIONALITY NZ 87% Other 13% (see attached, a)
- IF a New Zealander, are you - 7% NZ Maori 89% NZ European 4% NZ Other
- AGE Under 20 20-29 30-39 40-49 50-59 60 and over
 29% 16% 18% 23% 10% 4%
- Group size? 15(mean) people in group ● Have you done this trip before? 20% Yes 80% No
- How many nights is your trip here? _ nights - (in huts on _ nights, in campsites on _) (see attached, b)
- How many overnight walking/tramping trips have you done before?
 0 1-5 6-10 11-20 21-50 51-100 100+
 21% 34% 14% 12% 9% 4% 6%

2. Overall, did you feel crowded on this trip?

Not at all Crowded		Slightly Crowded			Moderately Crowded		Extremely Crowded	
1	2	3	4	5	6	7	8	9
40%	18%	17%	9%	4%	5%	4%	1%	1%

3. Were some places on this trip more crowded than others? 59% YES 41% NO

- If YES, where? (n = 325) 60% In huts - (where?) (see attached, c)
 42% At campsites - (where?) (see attached, c)
 6% On the river - (where?) (see attached, c)
 3% Other places - (where?) (see attached, c)
- Overall, I expected there would be (more 24% / the same 49% / less 28%) people on this trip.

4. Was your trip better or worse than you expected it would be?

1	2	3	4	5
Very much better than I expected	A little better than I expected	It was just like I expected	A little worse than I expected	Very much worse than I expected
28%	31%	32%	7%	2%

5. Visitors may have impacts on the environment, the facilities, and other peoples' experiences. For each impact listed below, please circle the number that best describes your experience of it on this trip.

POSSIBLE IMPACTS FROM VISITORS (n = 559) (h) - those who used huts (n =204) (c) - those who used campsites (n =484)	I did not experience this impact	This impact did not bother me	This impact bothered me a little	This impact bothered me a lot
SOCIAL IMPACTS				
- not having enough bunk spaces in the huts (h)	78	12	8	2
- having to rush in the morning for a bunk at the next hut (h)	80	11	7	2
- having to rush in the morning for a space at the next campsite (c)	65	21	9	5
- seeing too many others kayaking on the river during the day	55	37	6	2
- seeing too many others in the huts during the evenings (h)	70	19	9	2
- seeing too many others at the campsites during the evenings (c)	53	30	13	4
- seeing too many big groups of people	53	31	12	4
- seeing people on guided trips of the river	44	44	9	3
- some people being loud in huts in the evenings (h)	70	20	7	3
- some people being loud at campsites in the evenings (c)	56	30	11	3
- hearing aircraft fly overhead/ aircraft landing	54	37	6	3
PHYSICAL IMPACTS				
- seeing litter along the riverside tracks	66	12	14	8
- seeing litter around the huts	75	12	8	5
- seeing litter around the campsites	62	13	17	9
- seeing where people have taken shortcuts off the main track	63	26	9	2
- track damage where people avoided wet/muddy/rough areas	49	31	15	4
- seeing human waste/toilet paper where it should not be	70	10	10	10
- seeing plants and trees damaged by wood cutting for fires	70	15	9	6
- seeing places where people have camped out by the river	67	27	5	1
- uncertainty about water always being safe to drink	24	21	34	21
FACILITY/SERVICE IMPACTS				
- inadequate toilet facilities	45	29	19	7
- inadequate water supply	40	29	23	8
- too much development of huts and their facilities (h)	60	34	4	2
- too much development of campsites and their facilities (c)	54	41	4	1
- too much development of riverside tracks	58	40	2	0
- too much development of signs	52	43	4	1
OTHER				
- Disturbance by motorboat/jetboat groups at huts/campsites	42	39	11	8
- disturbance by motorboats/jetboats on the water	25	41	21	13
- seeing litter on the river/riverbank	56	19	16	9

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