

Social impacts of visitors to conservation lands

Part 1. Research and information needs

SCIENCE & RESEARCH INTERNAL REPORT 171

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A workshop entitled *Social impacts on the recreation experiences of visitors to protected areas* was convened by the Department of Conservation, in Wellington, on 13–15 May 1998. This report provides a synthesis of the main research and information needs summarised from the workshop, as the basis for developing a research action plan. A companion report containing the proceedings of the workshop will be published under the title: 'Social impacts of visitors to conservation lands. Part 2. Workshop proceedings', *Science & Research Internal Report 172*.

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Abstract

Introduction

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Abstract

A workshop to investigate social impacts on the recreation experiences and socio-cultural values of recreation site visitors and interested non-visitors, was convened by the Department of Conservation, in Wellington, during 13-15 May 1998. A key objective of the workshop was to provide the basis for developing a research action plan for addressing social impact issues. The scope of social impacts was spread beyond individual on-site interactions, to include the wider range of physical, social, and managerial conditions that interact to influence how social impacts are generated. The main research and information conclusions identified at the workshop are presented under the headings: Identifying recreation demand characteristics, Defining social values at recreation places, Identifying and managing recreation conflict, and Evaluating and monitoring management outcomes. This summary provides a basis for developing a research action plan for the future.

1. Introduction

1.1 BACKGROUND

Following a successful workshop on the physical impacts of visitors on natural and historic resources (Cessford & Dingwall 1997; Cessford 1997), the Department of Conservation held a workshop on the social impacts of visitors on the recreation experiences of others. The main purpose of the workshop, convened in Wellington, on 13–18 May 1998, was to identify the Department's research and information needs in this area. To achieve this result, which was essentially a problem identification and research planning task, the selection of participants was oriented towards departmental staff who were required to manage visitor impact problems. This brought together some 50 departmental management and research staff, along with other New Zealand and United States advisors, in a planned discussion on social impacts.

Over the three days of the workshop this discussion covered the following:

- A general overview of impact examples and issues
- Identification of key impact themes and information needs
- Development of research and information themes

To set the scene, presentations were made giving the latest legislative and policy background to the Department's visitor impact management responsibilities. State-of-knowledge summaries on social impacts and management processes were also presented from the United States perspectives of Alan Watson, a Research Social Scientist at the Aldo Leopold Wilderness Research Institute, and Laurel Boyers, the Wilderness Manager at Yosemite National Park. In addition, several New Zealand case studies were discussed as examples of impacts problems and means to achieve solutions. The bulk of the work undertaken at the workshop took place in the working groups, where all participants contributed in directed discussions to identify the types of social impact problems, and the research and information needs associated with them.

A summary of the research questions directly specified by working groups is presented in Appendix 1. A separate Workshop Proceedings Report is in preparation, and will be published as *Science & Research Internal Report 172*. This will be a comprehensive record of the many written and verbal contributions made during the plenary discussions, presentations, working groups, and summary sessions at the workshop.

1.2 THIS REPORT

This report is a summary of the main research and information needs identified at the workshop, and provides the basis for developing a research action plan to address these needs. The overall findings are discussed under these three main headings:

- Understanding social impacts

- Identifying key social impacts
- Research and information needs

This report is a synthesis of the outcomes from workshop plenary sessions, working group sessions, and presentations, and establishes a framework for developing a social impact research plan.

2. Understanding social impacts

Before commencing the summary of findings from the workshop itself, it is important to specify some working definitions of key concepts in social impact development. This includes consideration of how social impacts are related to social values, how visitor effects and impacts at sites are distinguished, and how the various components of the recreation-experience interact.

2.1 SOCIAL IMPACTS AND SOCIAL VALUES

Social impacts are those human effects on physical and social conditions at a site that detract from the social values associated with that site and its recreation opportunities. So what are these social values? In a wilderness management context, the 'social values' associated with human activities at places have two interrelated, but distinct components: recreation-experiences and socio-cultural perspectives.

Social values associated with recreation-experiences are the outcomes anticipated from engaging in chosen activities at chosen places, and can form the basis for the specific recreation management priorities at those places. They relate directly to active on-site participation by visitors in recreation activities. Opportunities to achieve desired recreation experiences at a site may be compromised in many ways by the presence and behaviour of other visitors (e.g. recreation conflict and crowding).

Social values associated with socio-cultural perspectives have a different context. They relate to the wider societal values attributed to different sites for different reasons, and derive from the natural, historic and cultural heritage features present at, or associated with, different sites. They can form the basis for specific conservation and heritage management priorities at those sites. But these may not necessarily involve any direct site visit, and are commonly expressed from off-site perspectives. The presence and behaviour of people at some sites may compromise a variety of wider socio-cultural values associated with those sites (e.g. conservation status, cultural importance).

2.2 DISTINGUISHING EFFECTS FROM IMPACTS

While the presence and activities of recreation visitors can have widespread and diverse effects on the social values at sites, these effects will not always represent negative social impacts. Visitor effects are simply the physical consequences associated with the visitors being in recreation settings, and sharing them with others. These effects are inevitable processes, but may not necessarily result in generation of adverse visitor impacts. For example, some visitors may notice effects from the presence and behaviour of other visitors at sites, but they may not consider that these have negatively affected their own visit experiences. In this situation, can impacts be said to occur?

Visitor impacts emerge when the physical and social consequences of visitors at sites specifically detract from the desired socio-cultural or recreation-experience values of others. Here it should be emphasised that the natural heritage conservation values, which underpin most conservation management of biophysical resources, are themselves no more than a component of wider socio-cultural values. Negative impacts on such heritage conservation values at sites may be derived from those effects that degrade particular species, assemblages, physical natural features, or historic/cultural heritage features. Negative impacts on the other social values associated with sites may be derived from those effects that generate negative perceptions about the other people encountered, the perceived integrity of the site relative to socio-cultural expectations, and the quality of the recreation-experience outcomes achieved. Clear distinction between visitor effects and impacts is an essential if the significant impact problems are to be clearly identified, and then addressed most effectively by research and management processes.

The most important baseline information required to identify and assess visitor impact problems is better definition and prioritisation of the key socio-cultural and recreation-experience values (including the heritage conservation values). Without these clearly specified, it is unlikely that any generic impact monitoring methodologies would otherwise provide sufficient focus to ensure resources are effectively directed to the most pressing management needs.

2.3 UNDERSTANDING INTERACTIONS COMPRISING THE RECREATION EXPERIENCE

Identifying and managing social impacts at sites also requires an understanding of what the 'recreation experience' is. It includes the three main stages of any recreation engagement: the anticipation, the on-site recreation activity participation, and the post-activity recollection. Figure 1 illustrates the relationships between the underlying motivations and expectations for undertaking a recreation visit, the achievement of recreation experiences on the visit, and the satisfaction evaluations of the recreation experience outcomes. Some of the key roles for management and research are also indicated. Briefly, these relationships are as follows.

Figure 1. Recreation experience interactions.

Motivations and expectations

The motivations and expectations of individual visitors are the inputs they take into a recreation experience. Management agencies can indirectly influence these motivations and expectations, particularly through the use of pre-visit strategies based on information. This allows potential visitors to make better choices of activity and setting combinations that will be more likely to fulfil their needs. Research and information in this area can better inform managers about visitor demands, needs and experience expectations.

Recreation experiences

The recreation experiences are encompassed in the on-site perceptions of the social conditions, physical conditions, and expectation fulfilment that individual visitors have while engaging in an activity at some setting. Visitor expectations of these experiences may be exceeded, fulfilled or diminished. Negative evaluations of expectations indicate where any significant social impacts are most likely to be occurring. Management agencies can directly influence these recreation experiences by controlling the physical and social conditions present for different activities in different settings. Research and information in this area can direct managers toward the best combinations of physical and social conditions they should promote, and suggest the best means of achieving this.

Satisfactions

The satisfactions expressed by visitors are their evaluations of the degree to which their recreation experience needs were fulfilled. Depending on the degree to which their visit expectations and related visit-experience needs were fulfilled, visitors could report simple and direct satisfaction; satisfaction not entirely as desired that has been compromised in some way; or simple and direct dissatisfaction. Understanding the personal compromises made by visitors, through the various coping strategies they may apply when reconciling unfulfilled expectations is also important. These compromises can mask significant changes in the fundamental nature of the recreation experience being provided. These changes may result in progressive erosion of those visit-experience opportunities that are relatively more susceptible to social impact disturbance. Active management to protect these susceptible visit-experiences will be required in many cases. At the same time, management will also be required that allows equitable opportunities for the more intrusive activities themselves. Research and information in this area can identify the development of social impact issues, and assist evaluation of the effectiveness of consequent management actions.

Social impacts

The social impact issues, where effects of some visitors have negative consequences for the experiences of others, are largely generated during the activities at the time of the site visit. However, the motivations and expectations are also significant as they contribute to the personal attitudinal context each visitor brings to the site. Certain combinations of motivations and expectations will be relatively more susceptible to these social impacts than

some others. With improved understanding of motivations and expectations, many potential social impact issues may be anticipated before they develop. Where the social impacts are already established, the satisfaction component is particularly important as it represents the visitor's evaluation of the experience. The significance of any social impact issues, and the degree to which management responses are successful in mediating them, can be monitored through targeted satisfaction-type indicator evaluations.

Research and information in all of these areas will improve both the preventative and restorative aspects of social impact management. Most progress will be made where these investigations increase knowledge about how these components interact, and the ways in which management can affect these interactions. The original workshop objectives emphasised identification of social impacts research and information needs as the main priority. What also emerged most significantly during the workshop sessions was the importance of integrating the motivation, expectation and satisfaction elements into any meaningful consideration of social impacts. These elements are clearly expressed in the research and information conclusions summarised in section 4. However, before these can be presented, the range of social impact issues identified by the workshop process is summarised in section 3.

3. Social impact themes

Workshop participants formed working groups to explore various social impact issues, based on their diverse experience and knowledge. From this open discussion, the following prominent social impact variables emerged:

- The consequences of different management actions
- Different cultural and spiritual perspectives on appropriate uses and behaviours
- Distinctions between individual and group values
- How visitors evaluated their encounters with other groups of visitors
- The expectations and satisfactions of different visitors
- Perceptions of crowding and over-use
- Motorised versus non-motorised activities
- New applications of equipment and technology in activities
- Distinctions between inter-activity and intra-activity conflict
- Different social values and ideologies
- Impacts from adjacent land uses
- Differences in the relative intrusiveness of different activities and behaviours
- The influence of different activity settings on how intruding factors were interpreted
- Perceptions of the commercial provision of some recreation services

Some of these were considered implicit in all social impact issues (e.g. social-cultural perspectives; individual and group values; visitor expectations and satisfactions). However, five distinct social impact themes were consistently identified. These were social impacts generated by:

- Management intervention
- Inter-group encounters and conflict
- Intra-group encounters and conflict
- Inappropriate uses and behaviours
- Off-site intrusions

While significant overlaps among these themes were acknowledged, this structure provided a pragmatic typology for more specific exploration of the main issues then undertaken by each self-selected working group. (Working group findings are reported fully in the Workshop Proceedings volume, see under I. Introduction, above.) Summary descriptions of these findings are provided below for each of the social impact themes, including the initial research and information issues raised.

3.1 MANAGEMENT INTERVENTIONS

Management interventions are intended to change the physical conditions of sites, and/or the social conditions of related visitor experiences. They affect the types of direct and indirect physical and social impacts that might occur. Direct impacts may be from deliberate management choices providing for the specific recreation experiences of targeted groups, such as provision of certain facilities, or imposition of particular use-rationing approaches. The impacts will be positive for some visitors and negative for others.

Indirect effects may arise from management actions targeting other non-recreation objectives such as heritage conservation, visitor safety, or facility maintenance. Impacts here may also reflect different visitor perceptions of the management techniques themselves, based on different attitudes towards perceived freedom in recreation activities; the degree of management regimentation; the appropriateness of user charges; and the acceptability of commercial provision of recreation opportunities. In all cases an array of direct and indirect, planned and unplanned, and positive and negative consequences will result from management interventions. Managers need a good understanding of all such consequences. The following examples of management action were discussed:

- Use restrictions
- Imposing charges for access or use
- Changes in access provisions
- Provision of information services
- Provision of more on-site staff presence
- The mix of commercial and non-commercial uses
- Other management operations (e.g. pest control)

These were summarised into four main categories of management intervention that contribute to the generation and management of social impacts:

- Use restrictions and controls
- Provision of visitor facilities and services
- Management conservation operations
- Use of information services

The other context for management-derived impacts concerned the effects of management inaction. The development of social impacts can accelerate and diversify when managers are unaware of changing social and physical conditions. Even if managers are aware, they may lack the time, resources or knowledge to take some action. This highlights some of the important monitoring and priority-setting information needs of managers.

The main information needs identified at this stage pointed to the need for assessment and evaluation processes to determine what are the social, physical and management outcomes of different management interventions. Of particular interest was how the impacts of these interventions differ for different visitor groups. Key questions included:

- What are the attitudes of visitors toward different management options?
- What is the relative effectiveness of different interventions?
- How effective are visitor satisfaction measures in management evaluation?
- How important to evaluating management success is a clear specification of management objectives?

Of secondary importance were a group of research needs dealing with the flexibility available to managers to develop new or different management options under current operating frameworks (e.g. funding, legislation, policy, and partnerships). This involves research on management processes, and their interactions with legislation and policy development.

3.2 INTER-GROUP CONFLICTS

Social impacts among recreationists and other stakeholders are most often expressed through negative perceptions of the presence, behaviour and characteristics of different groups. This is most commonly expressed as recreation conflict. Conflicting groups are typically participating in different activity types that are sharing the same sites, and are competing there for access to their desired recreation experiences. The most common example is of motorised versus non-motorised activities.

There is also growing recognition of wider social impact perspectives. This commonly includes the perspectives of other stakeholders, many of whom may not make site visits. The sources of these perceived impacts may also range from the effects of direct physical contact with people on-site, to indirect and abstract disapproval felt from an off-site perspective about people using a particular site, and the ways they may be behaving there. Common examples relate to the perspectives of locals versus tourists; rural versus urban residents; traditional versus new activities; management versus users; private versus public uses; commercial versus non-commercial uses; conservationists versus extractive users; and the varied value-perspectives of different cultural-groups. In many of these cases, the conflict issues are related to different perceptions of relative ownership or attachment to particular sites and activities (e.g. sense of place). The following examples of inter-group conflict issues were explored in more depth:

- Commercial versus non-commercial uses

- Conflict and competition between different activity groups
- Varying degrees of compliance with regulations
- Different perceptions of ownership and attachment to the activity and setting

Two types of preliminary information need arose here. Firstly, developing an understanding of recreation conflict processes for achieving clearer problem definition. Research here can improve the identification of those factors contributing most to how different visitors evaluate each other in different situations, answering the basic question: What is this conflict really all about? Secondly, research on assessing the effectiveness of information approaches, for evaluation of the best options for solutions. Using information to influence visitor choice of particular activities and sites, and how they evaluate other visitors, is commonly considered a priority means to address conflict issues. How effective are different information strategies and techniques in preventing or reducing conflict?

3.3 INTRA-GROUP CONFLICTS

Principles of inter-group conflict apply at a more subtle level within an activity group. Specific attention to intra-group conflicts gives a more detailed perspective on the underlying causes of all social impacts. Perspectives on intra-group conflict have commonly focused on recreation crowding. Crowding has little to do with absolute numbers or use-levels; rather, it reflects how different use-levels and behaviour-styles within an activity are interpreted as being appropriate. Simply, intra-group conflict may arise between people involved in the same activity, but who differ significantly in terms of the primary qualities they expect to experience. Conflict can arise where others, through their perceived or real behaviours, are attributed with having different values for these qualities. The following examples of intra-group conflict issues were considered:

- Types of inappropriate behaviour
- Crowding and conflict perceptions
- Different values and attachments for settings and activities
- Traditional versus non-traditional cultural use
- Different activity orientations
- Guided versus independent participation
- The degree of regulation compliance
- The degree of fee compliance

The main information needs identified for managing the social impacts of intra-group conflicts were based on the need to improve understanding of inappropriate behaviour and crowding. This was based on defining and describing different behavioural and crowding problems, and understanding both the common contributing factors applying in most cases, and the unique factors specific to certain activity types or sites. How do these factors relate to on-site management for specific recreation experience goals? Are these goals made apparent to visitors to influence their expectations prior to their visits, and their behaviours while on their visits?

3.4 INAPPROPRIATE USES AND BEHAVIOURS

Some types of activity have more obtrusive effects in both inter-group and intra-group conflict situations. These are the activities, use-styles and behaviours most likely to consistently generate social impacts with others that consider such effects 'inappropriate'. Specific focus on what comprises these more 'intrusive' impact effects is important. It can allow better anticipation of the future conflicts likely to arise in changing recreation situations. It can also aid prediction of the likely outcomes from management actions taken specifically to reduce particular conflict-generating effects. The following examples of inappropriate use styles were considered:

- Use of new technology
- Motorised vehicle use for recreation
- Motorised vehicle use for access
- Commercial provision of recreation opportunities
- Commercial competitive events
- Other outdoors events
- Anti-social or criminal behaviour

The main information needs identified for managing inappropriate uses and behaviours emphasised improving the understanding of interactions between different visitors, activity styles, place and activity dependence, group values and individual values, and perceptions of place. What makes some particular types of recreation activities, experiences and visitor groups more or less susceptible to impacts than others? What visitor characteristics and behaviours have disproportionately greater impact effects? General review research was favoured here. Also emphasised was a need for research that provided processes for systematically defining social and environmental values at defined places. This would also require investigation of how people's values and sense of place could change over time. Such information could provide an improved management capacity for specifically identifying elements of social and physical quality, and the appropriate and inappropriate behaviour types, in different situations and sites.

3.5 OFF-SITE INTRUSIONS

Significant social impacts can arise on natural area visits due to human activity on the land, water or sky beyond the direct control of the management agency. For example, aircraft overflights, motorboat activities on lake and river surfaces, and both recreation and land-use activities on adjacent lands are often managed without reference to the experiences being managed for on the conservation lands. Intrusions from consequent external effects such as noise, smoke, light, and the visible presence of activities, developments or land-uses perceived to be 'inappropriate' can have negative impacts on recreation experiences.

In addition, off-site perspectives of the on-site recreation activities and management conditions can lead to impacts on broader socio-cultural values in society. For example, social impact issues may arise in relation to the social values associated with natural heritage conservation, or with the integrity of

cultural value attachments to places. In the wider socio-political context, these impacts may have real implications for applying some on-site management practices. This represents the broader perspective of social impacts beyond simple on-site competition. The following examples of off-site social impact issues were considered:

- Inconsistent management controls on adjacent areas of land, air and water
- Socio-cultural values for places
- Visitor expectations generated from media, marketing and promotion activities
- Non-user perspectives and non-use issues
- Change in socio-economic conditions
- Pressures from public participation processes

The basic questions raised here emphasised the importance of identifying interactions between off-site and on-site factors; defining the relationships and components; and determining means to alter these as required. While investigation of the social impact issues raised here is already implicit in the general questions addressed in recreation conflict research, particular attention was paid to the positive value in specifically engaging in off-site management actions to influence on-site conditions. The main questions here related to using information approaches to influence off-site perspectives and on-site behaviours, and which techniques were most effective?

4. Research and information conclusions

The research and information conclusions from the workshop are summarised here in two ways:

Impact questions raised from workshop discussions

These were various specific questions identified by the working groups. They are fully documented in the Workshop Proceedings report (see 1. Introduction for details), and a summary is presented in Appendix 1 (below). Some of these questions may provide the basis for developing specific proposals for research and information investigations.

Overall research and information needs

These represent overall research and information themes that require specific attention to allow the Department to achieve best practice in visitor impact research, assessment and management. These provide the basis for developing a research and information plan.

The main research and information themes are derived from the social impact issues described in Section 2, and the associated discussions from the workshop working groups (see Proceedings report). Although these themes are described

individually below, they are all inter-related and presented in no particular order. The main research and information themes were:

- Identifying recreation demand characteristics
- Defining social values at recreation places
- Identifying and managing recreation conflict
- Evaluating management outcomes

4.1 IDENTIFYING RECREATION DEMAND CHARACTERISTICS

Key Question—What are the volumes, patterns and trends of demand for different recreation opportunities?

Accurate data on visitor numbers, characteristics, and motivations are the essential baseline information required for achieving various visitor management objectives. The basic characteristics of visitor demand that underlie most other visitor experience management include:

- Visitor numbers
- Demographic and visitor group characteristics
- Recreation motivations for activity and site preferences
- Patterns of activity participation and site choice
- Trends in visitor demand characteristics

With improved expressions of these elements, the research and management solutions derived to address the more complex social impact issues can be more effectively applied. The outcomes of site management for visitor experiences will be most often measured in terms of participation levels and indicators of visitor satisfaction. Neither of these measures can be applied effectively at visitor sites if there is no reliable record of visitor numbers, or refined knowledge of what visitors want from their site visits.

The main research and information topics that require priority attention for improving the understanding of recreation demand include:

- **Visitor counting technologies.** Innovation of new counter hardware applicable to a variety of locations, and new software applications for managing count data.
- **Visitor counting systems.** Develop models for strategic deployment of counters to allow extrapolation of counts across wider visitor systems, and for monitoring trend indicators.
- **Visitor characteristics, trends and projections.** Develop methodologies for the systematic recording of standardised demographic indicators in visitor monitoring programmes, and in any complementary visitor survey research.
- **Visitor motivations and expectations.** Summarise of the state-of-knowledge on visitor motivations for recreation participation in outdoor settings, including reference to generic motivations; those motivations more

specific to different activities, visitor-groups and site categories; and how these relate to visitor expectations. This contributes to enhanced specification of visitor needs.

- **Site-dependence and supply.** Identify the relative site dependence of different visitor/activity groups, and review these needs relative to the current and potential supply of appropriate recreation opportunities.

4.2 DEFINING SOCIAL VALUES AT RECREATION PLACES

Key question—Can we systematically define, classify and specify the socio-cultural and recreation-experience values associated with different recreation settings and specific recreation management sites?

A consistent theme throughout the workshop was that the social values (refer section 2.1) that are being provided and protected at places managed for visitor use need to be better identified, characterised and specified as management objectives¹. Improved specification of such recreation-experience and socio-cultural management objectives for defined places can provide the basis for:

- Assessing the likelihood of any social impacts developing at places
- Evaluating the options for management interventions that may be applied at those places
- Defining the particular types of measurement approaches and indicators required to monitor the social outcomes being managed for at those places
- Determining the optimum topics and approaches for any information provision services at those places

However, it was also clear that there is a significant gap between the limited body of knowledge available on understanding recreation experience values, socio-cultural values, and their associations with place; and the practical application of these values to defining specific site management objectives.

The Recreation Opportunity Spectrum (ROS) was discussed as one example of a framework that goes part way towards fulfilling this need. But the consensus view of workshop participants was that this largely conceptual framework applied at a level too coarse for effective site-specific management. The ROS classes can provide the physical and social background setting for more site-specific visitor-management areas, but these will themselves require more site-specific and explicit management objectives. The Department of Conservation has developed a framework of more specific visitor-management sites through

¹ The baseline importance of specifically defining such management goals and objectives has been increasingly recognised in recent times. A recent status review of the Limits of Acceptable Change (LAC) planning system acknowledged that it had omitted a key first step - specification of the desired state (goals) for social and physical conditions at sites (Cole and McCool 1997). The importance of this step in other planning systems was also highlighted in other review papers (e.g. Hof and Lime 1997; Nilsen and Tayler 1997). And when concluding their comprehensive review of visitor impact management, Kuss et al (1990) emphasised that managing visitor impacts must begin with setting specific objectives.

the Visitor Asset Management system (VAMS), but these sites currently lack any specifications of management objectives for their desired social and physical conditions.

Such specification of management objectives does not appear to be systematically provided in any of the other major recreation planning frameworks being applied to management situations closely comparable to New Zealand. Yet to most readily identify where social impacts are occurring, or more important, where they might be anticipated, managers need a systematic framework for clearly identifying the particular recreation-experience and socio-cultural values they are managing for at different sites. Some social values may be largely generic, such as those represented by the broad experiential specifications of social conditions in the ROS classification; the widespread lack of tolerance for seeing litter in natural areas²; and the cultural values related to maintaining clean water. Others may be more case-unique, characterising particular value-associations formed by visitors and non-visitors with specific types of places and activities. There was clearly a need for a level of more site-specific definition of social values. Such a framework does not currently exist, and deriving a methodology to better define these values is a primary need.

Greater clarity in establishing the meanings and characteristics of the 'experience', 'value' and 'sense of place' elements will allow managers to be more prescriptive in defining what social and physical conditions are appropriate or inappropriate for different places. With an understanding of these types of distinctions, managers will be able to define the more specific management objectives for social conditions that are required. With these identified, and should the need arise, managers would be then also be able to apply more appropriate and effective management actions and monitoring methodologies.

Systematic definition of social norms (i.e. shared values) has been proposed as one basis for determining site-specific management objectives, which reflect the recreation-experience and socio-cultural values associated with particular places³. This type of approach can provide one means to collate and classify diverse experiences and values into more pragmatic management objectives within wider management frameworks. The array of options for different systems of value classification needs to be reviewed.

The main research and information topics that require priority attention for improving the understanding of social values at places include:

- **Defining social values.** Summarise the state-of-knowledge on distinguishing and defining recreation-experience and socio-cultural values, particularly within recreation management frameworks.
- **Defining sense-of-place.** Investigate the nature of 'place' values associated with defined sites (e.g. sense-of-place, attachment, ownership, or

² Extensive studies of a variety of Great Walk visitors found that they consistently had distinctively low tolerance for seeing any litter at huts and campsites, and on tracks and beaches (Cessford 1998).

³ A special issue of the journal *Leisure Sciences* (Volume 18, numbers 1 and 2) includes papers that represent a comprehensive contemporary summary of recreation norm research.

dependence), and how these may vary between different activity, visitor and non-visitor groups.

- **Social value classification.** Investigate options for generalising and classifying shared values, and for distinguishing those other values unique to certain groups. Identify the similarities and differences in social value patterns among different types of visitor groups and activity groups. Derive any systematic suites of site prescriptions for social conditions.
- **Evaluate social norm applications.** Summarise the principles of social norm definition, their practical utility for providing a characterisation of different social values, and how exception values are dealt with.
- **Linking values to expectations.** Summarise the state-of-knowledge on any relationships between the social values attached to places, activities at places, and the formation of visit expectations for those places, and the role of information in these processes.
- **Defining social value management objectives.** Review recreation management planning processes for specification of site-specific management objectives that provide for particular recreation-experience opportunities, and protecting particular socio-cultural values.

4.3 IDENTIFYING AND MANAGING RECREATION CONFLICT

Key question—How are socio-cultural and recreation-experience values compromised by people’s presence and behaviour in recreation settings?

The processes generating social impacts through conflict and crowding perceptions have been widely researched⁴. When the desired socio-cultural and recreation experience values at particular sites can be defined and specifically managed for, the main social impact issues that occur will generally arise when peoples expectations of the social and physical conditions prevailing at a site are inconsistent with those they expected. Having an explicit set of experience-based management objectives for any given site or area will make these social impact inconsistencies more transparent, and thus more readily predictable and manageable. This baseline knowledge can lead to the specification of particular social and physical conditions as quality indicators, with the associated standards and measurement processes being more clearly defined.

The main research needs here relate to how people determine that their social values and/or preferences for recreation-experiences are compromised. What are the influences and effects of their perceptions of management actions; inter- and intra-group conflicts; inappropriate uses; and off-site considerations? Perceptions of conflict and crowding appear the main ways in which these

⁴ Major reviews highlighting conflict and crowding perceptions include Manning 1986; Shelby and Heberlein 1986; Hammit 1989; Manning and Lime 1996; and a special issue of the journal Leisure Sciences (1995 - Volume 17, number 3).

compromises are negatively perceived. However, people demonstrate various coping strategies that limit the utility of simple cause-effect relationships in understanding and managing the generation of social impacts (e.g. rationalisation, product shift, displacement). Moreover, different visitors, visitor groups, activity groups and non-visitors all have different value perspectives. How can we equitably manage sites used by and valued by a diversity of people?

Without taking account of such intervening processes and variables, management may fail to identify progressive erosion of more impact-sensitive recreation experiences and social values. These can be replaced by more impact-tolerant ones in a process often termed 'recreation succession'. The generation of social impacts is a perceptual process with a number of stages and intervening variables. In the context of an overall visitor management framework, improved understanding of how these elements interact, and some pragmatic 'best-practice' specification of what assumptions can be reasonably made, will promote improved management to prevent and reduce social impacts.

The following main research and information topics require priority attention for identifying and managing social conflicts:

- **Social conflict processes.** Summarise the processes of social conflict generation, emphasising identification of characteristic patterns and notable exceptions, and including definition of any management generalisations and assumptions that can be made in different situations.
- **Inter-activity conflict characteristics.** Define any characteristic conflict patterns among different activity groups or different types of visitors, emphasising any salient features of differences in motivations, appearance and behaviour that most stimulate conflict perceptions.
- **Coping strategies.** Summarise the state-of-knowledge about social impact coping strategies; their effects on visit evaluations, and any processes of recreation-experience site succession that occur.
- **Enhance site capacity.** Identify any changes to social and physical conditions that can most enhance the capacity for different groups to share sites or to tolerate dissimilarity, and what management actions can most promote those changes. Investigate examples of successfully shared sites to identify any common factors.
- **Link sense-of-place to conflict perception.** Investigate relationships between different sense-of-place values, the development of conflict perceptions, and the mediating role of information.
- **Distinguish socio-cultural value issues.** Identify distinctive conflict types related to both on-site and off-site perspectives from different socio-cultural values, and characterise the distinctive types of conflict generating activities and behaviours.
- **Identify conflict indicators.** Define the more impact-sensitive social values for sites, and derive a suite of pragmatic indicators of site quality for monitoring, based on clearly defined site management objectives.

4.4 EVALUATING AND MONITORING MANAGEMENT OUTCOMES

Key question—How can we improve our choices of, and successful outcomes from our recreation management actions?

This research need, to aid management technique selection and monitoring, generated the largest volume of specific research questions during the workshop (see Appendix 1)⁵.

Managers firstly need to know what management options they have available, to what situations each option applies best, and then, if the actions they are taking are achieving the required outcomes. In other words, what is the best-practice management in different situations? As well as this, they also need to know what problems arise from the social and physical changes they create. To better distinguish these positive and negative outcomes through monitoring and evaluation, managers must have first specified their objectives for taking those specific actions. For example, what are the objectives for making provision for concession-based recreation opportunities? It is important to distinguish such specific process-oriented 'management-action' objectives from the higher level of 'management-outcome' objectives that relate to the overall social conditions created at a site.

Developing more accurate means of assessing visitor satisfaction will be a key component of evaluating management effectiveness. This was a strongly expressed need from workshop participants. Where notable levels of dissatisfaction are identified among visitors at specific sites, or among people about specific sites, it is likely that the social and physical conditions created there by management actions are inconsistent with people's expectations. These expectations may reflect recreation experience values and/or socio-cultural values. Where this dissatisfaction represents visitor expectations that are fundamentally inconsistent with management objectives for a site, the problem may be one of communication, where managers are not effectively informing people of the appropriate social and physical conditions at the site. Where this dissatisfaction represents compromised visitor experiences due to inadequate services and facilities, or negative perceptions of other visitors, specific on-site management actions may be required.

The strategic use of information as management tool was highlighted by workshop participants as a particularly preferable means of influencing visitor choices of site and activity, and their expectations of these⁶. An improved understanding of social values, and the experience outcomes from different management actions, will allow better application of this information tool. As with other management options, evaluation of the effectiveness of different information strategies, and the techniques most suited to different visitor groups and conflict issues is important. Direct on-site approaches by credible

⁵ Evaluating management has also been expressed as a key research area in other syntheses of social impact research needs (e.g. Jenson 1981; Manning and Lime 1996; McCool and Christensen 1996; Vander Stoep and Roggenbuck 1996; Hof and Lime 1997, Machlis 1996).

⁶ Extensive studies of a variety of Great Walks visitors found that they also had consistently higher preferences for information-based management options (Cessford 1998).

staff will be important in some situations, while indirect use of off-site media or publication sources will be important in others. The need to have a variety of indirect and direct options to meet different management needs was highlighted.

The following main research and information topics require priority attention for evaluating management outcomes.

- **Classify management options.** Summarise the different management options for influencing on-site social and physical conditions and pre-visit visitor expectations, emphasising social value management, and the characteristic positive and negative outcomes for different visitors associated with each option.
- **Monitor and evaluate management option effectiveness.** Review and summarise the relative effectiveness of different direct and indirect management options, with reference to different stages in visitor planning and decision-making processes, and with emphasis on the use of information. Derive techniques for monitoring management action effects where required.
- **Evaluate visitor satisfaction applications as a monitoring tool.** Summarise the effectiveness of visitor satisfaction monitoring measures in identifying social impact effects and determining the success of management interventions, and specify any limitations to the use and interpretation of such measures.
- **Define ‘management-action’ objectives.** Distinguish overall site management objectives from the objectives for specific management interventions, and identify respective indicator options for management-monitoring processes.
- **Evaluate management systems.** Summarise the state-of-knowledge on systematic recreation management frameworks and their changing strengths and weaknesses in different situations and scales of application.

5. Summary: the basis for a research action plan

Managers require pragmatic guidance on how to apply any new social impact research understandings at the operational site-specific level. The Department of Conservation is already establishing VAMS (Visitor Asset Management System) as its site-based framework for managing the facilities and services it provides for visitors. As part of this development, further processes are underway to define the physical and social conditions required at these visitor sites to promote the social values being managed for. In line with this direction, a social impact research plan is required to better define social values and impacts, and to integrate these with the setting of site-specific visitor management objectives.

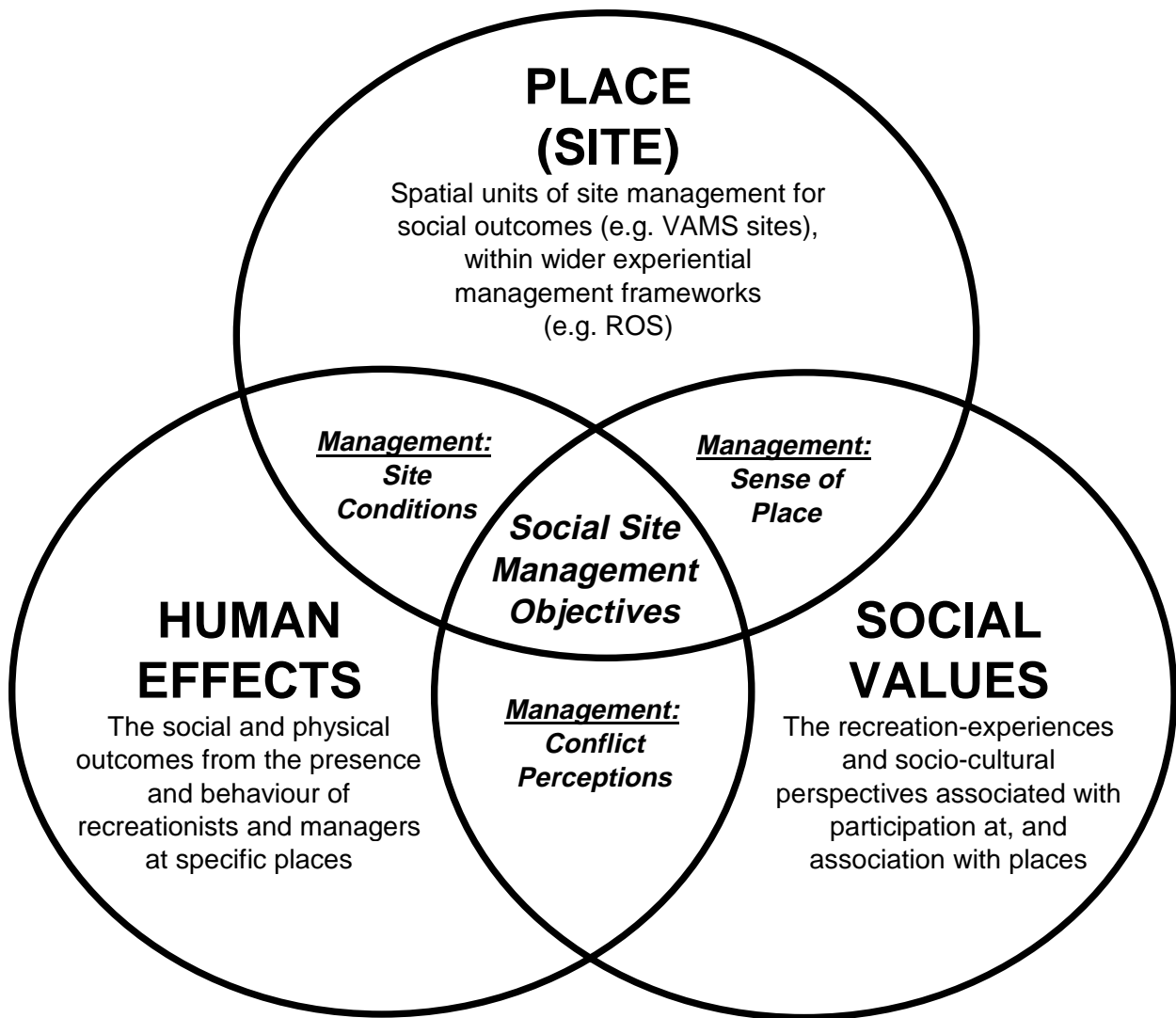


Figure 2. Interacting factors in social impact generation at sites.

Figure 2 summarises how the findings from the social impact workshop can contribute to developing such a research plan. The key elements here are the interactions among human effects on social values at specific places. Here the focus of research need is clearly on improving the specification of management objectives, based on the key socio-cultural and recreation-experience values at different visitor places (sites), and the various human effects acting on them. Without these clearly specified and targeted management objectives, it is unlikely that any generic monitoring methodologies will sufficiently sensitive to the variety of subtle social impact processes that occur, to ensure resources are effectively directed to the most pressing social impact management needs.

Research can contribute to fulfilling management needs for specific impact information and guidance at a variety of levels. At more general levels, the descriptive investigation and classification of different types of human effects and social values can increase overall background knowledge and

understanding of social impact issues. Investigations that focus more on the interactions between these human effects and social values can increase understanding of how social conflict perceptions are generated, and how these might be managed.

Investigations that will be of more direct operational relevance to management agencies will focus on how these human effects and social values relate to social impacts at sites, and managing specific site conditions. Managers can then use the results of such investigations to define more site-specific social management objectives. Research results that promote a more site-based categorisation of desired social and physical site conditions, sense-of-place perspectives, and conflict perceptions will be of particular value in making management decision-making more robust and defensible.

Above all, the work reported here highlights the management need for a research framework and process that progressively incorporates different levels of research in a systematic site-based context. Progress will be incremental as the results from different research and information sources are incorporated into any overall framework. Work to establish such a process framework should be given priority in overall research planning.

The key to assessing and managing social impacts is to have a clear understanding and specification of:

- The recreation-experience and socio-cultural values being given management priority at places (e.g. the site conditions desired from the priority social values).
- The types of factors that lead to conflict perceptions (e.g. the social impact processes from human effects).
- How these conflict factors are related to specific perceptions of places (e.g. the sense-of-place attachments and associations).
- The management frameworks that can be applied to systematically attach specific social value criteria to specific places (e.g. as site management objectives).

When considering overall research and information priorities, greatest priority should be assigned to work that assists the systematic definition of key social values at VAMS sites, and relating these to specific site management objectives. This should start by specifically identifying any generic recreation experience and socio-cultural values that are widely held and can be considered to apply relatively equally at all sites. These could be considered to represent the baseline indicators of site management quality, and would provide the basis of generic monitoring processes. More specific research will be required to identify any social values that are characteristically associated with particular types of sites, activities or visitor-groups. With these characterised, the relevant monitoring options would become more apparent.

The range of options for other more issue-specific research are illustrated by the summary research and information topics listed in section 4, and the preliminary questions generated directly from working group sessions (Appendix 1).

6. Acknowledgements

Participants at the May 1997 social impact workshop should also be acknowledged as their input to that extensive forum provided the basis from which this synthesis was derived.

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⁶ Note 10 other reports in this study series: Kepler Track (SFC70); Lake Waikaremonana Track (SFC73); Abel Tasman Coastal Track (SFC76); Sea-Kayakers at Abel Tasman (SFC79); Rakiura Track (SFC80); Heaphy Track (SFC82); Milford Track (SFC87); Wanganui River Canoeists (SFC90); Travers-Sabine Circuit Track (SFC91); and Routeburn Track (SFC92).

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Appendix 1

RESEARCH AND INFORMATION NEEDS IDENTIFIED AT THE WORKSHOP

These were the specific research and information needs identified by the working groups during the workshop. Participants were requested to distinguish between the needs that could be addressed by some management action; the needs where new research may be required; and the needs where monitoring of known conditions was required. It was acknowledged that fulfilling some of these needs will involve a mix of research and management action. The current state-of-knowledge on the respective needs has not been assessed, and in some cases there may be solutions already available. However, some of these needs will directly represent current issues for managers, and may provide the basis for development of new research investigations (refer Appendix 2). In addition, some of the needs raised may also represent topics of interest to other stakeholders and research providers. Priorities were not specifically requested in this process, as the primary purpose for the limited time available was to achieve identification of the main needs. The bulk of this report has summarised those main needs. This Appendix refines and arranges the specific needs raised at the workshop according to the four main research and information themes developed from it (refer section 3):

- Identifying recreation demand characteristics
- Defining social values at recreation places
- Identifying and managing recreation conflict
- Evaluating and monitoring management outcomes

Specific needs related to identifying recreation demand characteristics

Monitoring use patterns

- Identify the key indicators of baseline user data such as visitor numbers, socio-demographic characteristics such as age, gender, nationality, income, and ethnicity, activity-use patterns, and visit motivations and expectations. Also determine how these characteristics vary for different visitor groups and types of facilities and services.
- Establish monitoring systems to track trends in these indicators of visitor numbers, characteristics and activity-use patterns.
- Track international and national trends in recreation styles and management to enhance the anticipation and prediction of future visitor demands, and of likely social impact management issues.
- Define the types of changes in visitor numbers, characteristics and use-patterns that can arise from different types of management restrictions, and determine how to monitor for any such changes.

Understanding and anticipating visitor demand

- Identify characteristic visitor profiles for the designated visitor groups and activity participants, and relate these to the facilities and services provided at sites provided for their use, to determine the physical standards to which these sites should be maintained.
- Identify characteristic visitor needs expressed by the designated visitor groups and activity participants, and relate these to the facilities, services and visit experiences provided at sites provided for their use, to determine the physical and social standards to which these sites should be maintained.
- Develop an understanding of supply. What are the recreation experiences being provided or created by the facilities, services and visitor management in different sites, and settings?
- Specify the key audiences for information provision, including the different visitor groups, stakeholders and in the wider public for the purpose of targeting information approaches to influence their expectations and evaluations.

Specific needs related to defining social values at recreation places

Understanding social values

- Develop an understanding of expectations. What are the visitor expectations of the different sites we manage? How are they formed? How do they differ between different visitor groups?
- What are the underlying factors that contribute to people's perceptions of inappropriate activities and use by visitors to recreation sites? To what extent does the definition of 'place' and 'values' represent the central issue.
- What components of social values contribute to different sense-of-place perceptions (e.g. perceptions of attachment, ownership, and association with particular sites and activities)? How do these sense-of-place perceptions vary in content and importance between different types of sites and for different visitors, visitor groups, and other stakeholders?
- What are the differences between what opportunities DOC seeks to provide and what is actually experienced?
- What are the fundamental characteristics of outdoor recreation experiences? How do the components of these characteristics vary between different visitors and visitor groups?
- How do different cultural values affect on-site experiences, and what factors are most influential?
- What are the key implications of different cultural values on management of parks and protected areas?
- What are the key Maori cultural values in an outdoor recreation context, and what are their implications for recreation activities and management?
- What differences occur in social and cultural attitudes towards different types of conservation management operations? In particular, what are the

different attitudes toward the purposes and methods of pest and weed control?

- What factors drive people such as private individuals, visitor groups, interest groups, and concession operators to voluntarily adopt appropriate behaviours and conservation practices as promoted by management agencies (e.g. codes of practice, low-impact codes, environmental care codes), and to also advocate these to others?
- What filters of income, location and culture operate to affect the perceived values associated with the visitor experiences and visitor sites?
- What are the social values held by those owning or managing land, water and air spaces adjoining lands managed for conservation and recreation, and what do they perceive as their roles and responsibilities in this respect?

Defining social values at sites

- Identify, classify, and inventory the different social values related to different types of places, and assign them to specific sites. This must be linked to consultation with stakeholders, particularly at place level. These types of values would include ecological values, personal values (e.g. preferences, expectations), and group values (e.g. norms, cultural and economic values).
- What are the social values that are being held for different sites, and how do they help us distinguish what social and environmental conditions are appropriate or inappropriate?
- How can articulation of social values lead to specification of what physical and social conditions are appropriate at different sites, and how can this contribute to some sort of 'zoning scheme'.
- Identify tools and processes to be used in defining social values for places. Undertake case-studies using some key sites such as Milford Sound.
- Identify tools and processes to be used in defining environmental values for places. Undertake this by integrating existing environmental knowledge, priorities and values.
- What are the places, activities and subjects where differences in cultural values are most significant for generating social impacts?

Monitoring changes in social values

- Establish baseline studies to begin measuring changes over time in attitudes towards and values for conservation lands and recreation opportunities (e.g. use some case studies of key sites).
- If social values at sites can change, what are the implications for changes in what physical and social conditions are considered appropriate or inappropriate?
- Establish representative-site case-studies to identify trends in the social values associated with different types of places.

Specific needs related to identifying and managing recreation conflict

Understanding and anticipating recreation conflict

- How do the perceptions of problems and conflicts differ between different visitors and stakeholders? Investigate the different problem perceptions of managers versus visitors, different visitor groups, and visitor-groups versus advocates.
- What are the generic incompatibilities and differences between different types of visitors, both real and perceived? Undertake review and research work, particularly investigating examples from shared-use settings, and also emphasising the psychological, visual, and behavioural differences, the activity-type differences, the visitor group differences, and differences according to visitor characteristics (e.g. age, gender, nationality, local/visitor status).
- What are the acceptable degrees of diversity within and between different visitor groups and activity-groups in different settings?
- How do visitors construct their perceptions of dissimilarity in these different settings?
- What are the factors or conditions that promote perceptions of crowding? Undertake a review of contributing factors, and identify any patterns for different visitor groups.
- Determine the dimensions of the crowding issue by identifying the locations, sites, and geographical extent of crowding perceptions. Specify what is actually happening at those places, and identify any links between these situations and the standard of facilities and services provided. Identify where research is required to interpret the situations.
- What are the conditions that promote perceptions of inappropriate behaviour by others in an activity group? Undertake a review of contributing factors, and identify any patterns for different visitor groups.
- What are the characteristics of appropriate and inappropriate behaviours in different sites and setting types? Undertake reviews and qualitative assessment processes to determine what behaviours are acceptable or unacceptable for different visitors at different sites.
- What are the appropriate behaviours and related social conditions at different sites? Undertake exploratory review and research.
- What are the relationships between visitor expectations, visit experiences, and achieving visitor satisfaction? Can a model of generic relationships be defined?

Monitoring change in recreation conflict perceptions

- What are the patterns and locations of crowding and conflict issues throughout New Zealand? Identify any 'hot-spots' for crowding perceptions or examples of conflict-generating inappropriate behaviours.
- Investigate the changing problem perceptions of visitors according to different times of day, week, and season.

- How do perceptions of conflict change over time? Undertake longitudinal assessment of conflict perceptions to monitor how perceptions change and evolve. Do conflict perceptions decline as users adjust to and learn about each other? Are displacement processes occurring, and if so, how?
- What are the social impacts and related issues arising from incremental development of concession recreation and general recreation diversity? This includes impacts on other concession recreation clients, and on any other visitors and stakeholders. How does this affect any displacement process that may occur?
- What are the main differences in cultural attitudes towards different management operations (e.g. pest and weed control)

Specific needs related to evaluating and monitoring management outcomes

Identifying objectives for management

- More specifically define the management goals and objectives for the visitor experiences to be provided at different sites.
- Develop clear objectives for the facilities and services provided, based on the needs of the primary visitor groups being catered for.
- How do we define management goals for different sites, and are they linked well to visit experiences and satisfaction assessments? Undertake research to assess the extent to which management goals match visitor expectations and actual visitor experiences. Include review assessments of what factors can disrupt these expectation and experience links.
- How are management goals for different places communicated to visitors, and how accurate are these in representing the visit experiences likely at particular sites?

Assessing the options available for different management solutions

- More pro-actively apply existing social impact management strategies such as zoning different activities in space and time, applying more regulation and allocation techniques, developing specific visitor facilities and opportunities, and enhancing the content and delivery of information services.
- What are some of the alternative options for recreation management, what are their implications, and are they applicable to the DOC management situation?
- Identify and define 'best practice' research and management techniques and processes that have been applied elsewhere for managing social conditions.
- Review what provisions are made in existing management plans, strategies and legislation for specifically addressing social impacts. This may involve consideration of approaches engaged in by other agencies in New Zealand and overseas.

- Establish what opportunities are available to make changes to the external legislative and statutory framework, and to the internal DOC strategic management framework that together govern DOC processes for solving short and long-term social impact issues (e.g. the role of changing by-laws). If required, what opportunities are there to make changes to facilitate better processes and practices for managing social impacts?
- What types of actions can DOC take to better ensure visitor expectations match what is being provided?
- Identify what resource allocations and staff contributions may be required to best provide information services.
- What are the current and potential practices used to involve park management staff in advocating appropriate visitor behaviours, and for promoting among visitors a better understanding of others? Undertake a review of New Zealand and international staff advocacy and participation practices, and the evaluations made of their management outcomes.
- Establish what are the existing opportunities for more active staff involvement in advocating appropriate visitor behaviours. This would include options of partnerships with other agencies, educational systems and public groups (e.g. putting a 'face' on DOC). Also consider what potential opportunities might be available for more active staff involvement; and what changes might be required to facilitate this.
- What are the effects of the land/air and water activities that can take place on adjoining lands under different management conditions outside of direct DOC control?
- What options are possible for DOC managers to influence these uses of adjacent lands to be consistent with experiences being provided on their lands?
- Determine the options for defending the management actions taken.
- Track international and national trends in recreation styles and management, for prediction of possible issues.
- What are the processes, forums and protocols through which issues of different cultural values can be addressed?
- Identify how management philosophy is changing and adapting over time

Applications of research

- Improve the application and evaluation of research tasks undertaken for management.
- What is the capacity to fund the research important to DOC through the Public Good Science Fund and other external funding sources?
- Clearly identify the research resources, providers and collaborators potentially aligned with the types of research and information needs of DOC, and develop strategies for extending the pool of research support available.

Applications of consultation processes

- Identify tools and processes for consultation with stakeholders.

- What are the potential public participation processes used to address social impact issues, particularly issues related to recreation conflicts and different cultural perspectives? Undertake a review of New Zealand and overseas public participation practices, and the evaluations made of their management outcomes.
- Review the opportunities currently available for consultative involvement in management processes by affected groups (e.g. in reviewing CMS or other DOC policy documents, through interpretation and advocacy, and including DOC staff as an 'affected' group), and evaluate what other options may be available.
- How can DOC managers work co-operatively with cross-boundary managers to maintain or enhance visitor experiences?

Monitoring and evaluation of management effectiveness and outcomes

- Investigate ways in which we can evaluate the effectiveness of different management actions (e.g. facility and service decisions).
- Investigate how change to visitor facilities and services can impact on the recreation expectations, experiences or evaluations made by different visitors and visitor groups.
- Undertake more direct evaluation and monitoring of the existing strategies, techniques and tools used to manage social impact issues (e.g. booking systems, zoning, information approaches)
- How effective are the management techniques and information messages being applied? Undertake this evaluative research to underpin the requirements for monitoring that are specified as management needs (e.g. monitoring to evaluate effectiveness of the management techniques and of the targeted information messages being promoted).
- Evaluate the management approaches, techniques and tools available for influencing visitor behaviours (e.g. the way activities are conducted, degree of compliance, what people do and do not do)
- Evaluate the management approaches, techniques and tools available for influencing visitor compliance behaviours (e.g. the degree of compliance, what promotes compliance, the market conditions of price and pricing, the expectations from having paid, the reasons for not paying)
- Monitor compliance in general (e.g. with fee requirements, concession conditions and with the types of behaviours considered appropriate at different sites).
- Monitor the effectiveness of influencing actual behaviour through information messages and techniques, and other management approaches (e.g. how effective are the messages, and the methods used to communicate them)
- Define the threats and changes to use patterns from different management restrictions, and to monitor for any changes.

- Which activities are affected by imposition of management restrictions or changes in how they are applied? How they are affected? And what is the extent of these effects?
- Which visitor groups are affected by imposition of management restrictions and changes in how they are applied? How they are affected? And what is the extent of these effects?
- What are the effects of different DOC operational tasks on visitors and visitor groups, and what is the extent of these effects?
- How do management restrictions affect the wider public?
- How do management restrictions affect the tourism industry and related business (e.g. the local and regional economies)?
- Is the level of risk to visitor groups acceptable, or should management restrictions be put in place to reduce those risks?
- Undertake reviews that assess the different levels of risk to the safety of different visitor groups. Establish processes for the evaluation of the effects of different management actions related to provision of facilities and services
- Do any of our management restrictions contribute to some increased risks for some of our visitor groups?

Information management options and effectiveness

- What are the best options for providing and dispersing information from DOC to visitors, and which work best for different visitor groups and in different situations.
- Identify means to monitor the effectiveness of different information provision and dispersal approaches, and particularly those operating outside DOC sources.
- What are the key components of effectiveness in different communication strategies? Undertake evaluations that could include reviews of wider communication and advocacy research, knowledge, experience and methodologies, the role of staff presence (e.g. 'uniformed' staff on-site), role of 'credibility' and 'credible' sources, identification of key components of approaches and styles (e.g. what works best), the relative values of general versus targeted messages in different situations, and the importance of the location and timing of messages.
- What are the effects of domestic and international tourism marketing on visitor expectations (and the experiences they achieve)?
- What communication strategies work best, and what are the key components of these?
- Determine how to approach and liaise with the target group for applying restrictions, and the audience for undertaking advocacy related to this.
- Inform visitors and the public about the management goals associated with pest control operations.

- Determine how to address the disruptions to visitor use, and loss of some recreation opportunities resulting from pest control operations (e.g. 1080 drops).
- What is the information type, scope and detail required to fulfil visitor expectations, preferences and needs.
- Decide on the main sources of information provision, determine the different methods to be used, and identify the best means of dispersal.
- Monitor information provision from non-DOC sources, and provide input to these where required (e.g. media, guidebooks, word-of-mouth)
- Specify the key audiences for information provision (e.g. public, stakeholders, visitor groups), and the purposes for targeting information approaches to each of these
- Reassess what messages we are already conveying to these different audiences, and develop prescriptions for the key message themes in the future.
- Identify options for integrating and co-ordinating wider dispersal of information messages.
- What are the needs for, and benefits from incorporating advocacy of conservation principles and appropriate behaviours into external programmes? This could include evaluations of educational curricula at schools and other training institutions, codes of conduct for park use, codes of conduct developed by activity groups, concession conditions, volunteer programmes, and any opportunities identified (and what might these be?).
- Provide consistent information on what visitors should expect to experience at different sites, including consultation with users and other stakeholders on what the accepted behaviours and codes should be.
- Develop better communication networks and information exchanges with user groups and other stakeholders, identify the best practice approaches for information techniques and processes for raising user and stakeholder awareness.
- Provide consistent information on the site conditions and behaviours that are appropriate to the experiences being provided.

Appendix 2

POST-WORKSHOP INVESTIGATIONS

(Completed, underway, or approved for the 1999/2000 year)

Research planning for the 1998/99 year began following the social impact workshop, and it was possible to immediately address some of the research needs identified at the workshop. Current research investigations include:

- Development of improved track-counters for monitoring visitor numbers.
- State-of-knowledge literature reviews on visitor satisfaction monitoring methodologies; visitor experiences at sites managed for historic-heritage values; the applications of information as a management tool; and social impacts from recreation noise.
- Undertaking an inventory of areas of natural quiet.
- An analysis of recreational noise issues and examples from protected areas in New Zealand.
- Investigating walker attitudes toward mountain bikes before and during the seasonal exclusion of bikes on the Queen Charlotte track.
- Development of visitor satisfaction monitoring tools and methodologies.
- Social impacts among independent and concession-based visitors to the Fox and Franz Josef Glaciers.
- Evaluating the social outcomes/benefits from the management of public conservation lands.
- Evaluating management practices for the systematic allocation of recreation concession opportunities.

The directions finally synthesised from the summary of workshop findings will provide the basis for future research and information investigations, and will be combined with the research directions for physical impacts into an overall visitor management research strategy.