

Applying the Beneficial Outcomes Approach (BOA) to protected area management planning on Stewart Island/Rakiura, New Zealand

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Kay Booth

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Cover: Cook Arm, Port Pegasus/Pikihati, 2008, looking west. The peaks in the distance are Gog and Magog.

Photo: Phred Dobbins.

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ABSTRACT

This study critiqued the Beneficial Outcomes Approach (BOA) for application in management planning for New Zealand public conservation lands. It particularly focused upon the community consultation parts of the process. A BOA community workshop process was derived and applied to the Department of Conservation's (DOC'S) Stewart Island/Rakiura management planning process. Using an action research approach, the workshop model was tested and refined via application at six workshops held to elicit community views about specific places on Stewart Island/Rakiura and at two workshops about hunting. The study also identified potential social benefits/outcomes and principles for measuring the achievement of outcomes. The BOA process has merit; its utility lies in its positive fit with DOC's strategic planning direction ('outcomes at places') and its flexibility across place- and issue-based applications. More specifically, the BOA workshop process developed in this study proved to be a good method for identifying participants' values for places.

Keywords: Beneficial outcomes approach, outcomes, benefits, public participation, national park, management planning, Stewart Island/Rakiura, New Zealand

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1. Introduction

1.1 WHAT IS THE BENEFICIAL OUTCOMES APPROACH?

The Beneficial Outcomes Approach (BOA) is a management planning process developed in the USA for government and public agencies managing natural resources. The BOA framework is structured around identifying the outcomes for which areas are to be managed, and which direct management objectives and policies. It asks the question: ‘why should a particular action be taken by a public agency?’ and responds in terms of positive outcomes to be provided and negative outcomes to be avoided (within the context of the agency’s legislative mandate and resource constraints). By focusing upon the ‘end-points’ (outcomes), the BOA process helps make public agencies more accountable and responsive to the community.

Natural resource management results in both biophysical and social outcomes. Not unexpectedly, management has tended to focus on biophysical outcomes. The BOA seeks to acknowledge that social outcomes are also important, and provides a framework to select those that warrant targeting. Recreational use benefits are a major component of the array of social outcomes commonly identified, but other social outcomes—such as economic, appreciative and spiritual benefits—are also important. The BOA process does not exclude biophysical outcomes. Rather, it allows all types of outcomes to be incorporated into management systems.

Throughout the BOA management planning process, attention is focused on *outcomes*, defined in terms of value added to, or detracted from, individuals or society, including the values humans attach to ecosystem protection and management. Under the BOA, no outputs are produced unless it is clearly understood and articulated (either as policy goals or managerial objectives) what beneficial outcomes are intended to result from those outputs. These outcomes may result from the production of outputs (such as employment opportunities from track maintenance) or the use of outputs (such as health benefits from recreational use of tracks). Thus, the BOA shifts attention in protected area and recreation resource management beyond inputs and outputs to also encompass outcomes.

The BOA emphasises community involvement in defining current and desired outcomes, and outcomes to be avoided. These outcomes are prioritised and translated into outputs (described in terms of management objectives and actions), as appropriate within the legislative and policy context for the protected area. Through the production and use of these outputs, it is intended that the desired outcomes will be attained or the undesirable outcomes prevented. Managers then evaluate the success in achieving the targeted outputs and consequent outcomes.

1.2 BACKGROUND TO THIS STUDY

This report responds to the Department of Conservation's (DOC's) interest in determining how useful the Beneficial Outcomes Approach (BOA) would be for management planning for the public conservation lands it administers. DOC wished to 'test' the BOA model by applying it to a 'real' DOC management planning situation. However, the long timeframe of the management planning process in comparison with the relatively short period allocated for this study, confined the study to implementation of the community consultation steps of the BOA process. In addition, the study addressed outcome monitoring and outlined the range of outcomes that derive from public conservation lands and their management.

This report builds on a previous review of the BOA prepared for DOC by Booth et al. (2002). The earlier report discussed principles of the BOA, its implementation process and critical factors associated with its adoption. Booth et al. (2002) recommended, amongst other things, that DOC:

1. Adopt the BOA
2. Apply it via a few simple case studies, and monitor and evaluate these
3. Develop the 'New Zealand version' of the BOA as a result of the lessons learned from case studies

The current report partly responds to these three recommendations. It helps to fill a gap within the international literature for published work detailing applications of the BOA.

1.3 STUDY PURPOSE AND OBJECTIVES

The study purpose was to test an application of the BOA within an existing DOC statutory management planning process, in order to evaluate its suitability for DOC management planning. The study had four objectives:

1. Identify the social benefits/outcomes derived from public conservation lands and their management.
2. Develop participatory processes so that community-defined expressions of beneficial outcomes can be obtained.
3. Apply the participatory processes to a specific case study.
4. Define principles for outcome specification and measurement.

1.4 STUDY SCOPE AND APPROACH

As a planning process, the BOA follows steps common to most similar planning processes: establish a planning team, gather information (including community values) and interpret these data, develop a plan and associated management strategies, and implement the plan with appropriate monitoring and refinement as necessary. This study focused upon one part of the BOA process—gathering information about community values.

The scope of the study was:

- To comprehensively list the social outcomes that derive from the provision and management of public conservation lands (study objective 1)
- To adapt and apply the BOA within New Zealand’s statutory planning framework, with emphasis upon the community consultation aspects of the planning framework (study objective 2)
- To test the community consultation aspects of the BOA by applying it to a ‘live’ management planning process (study objective 3)
- To outline the principles for defining indicators to allow measurement of outcomes (study objective 4)

As well as its emphasis upon community consultation, this report comments upon other aspects of the BOA process. Although not tested directly, information gathered from consultation with DOC management planners was used to critique other parts of the process and identify likely implications for DOC management planning.

This study used a three-phase approach (Fig. 1).

1.4.1 Phase 1: design of approach

Phase 1 adapted the BOA model for New Zealand conditions. A review of the international literature was carried out, and from this, it was apparent that little formal documentation existed about *how* to implement the BOA. Rather, the literature reflects the early stage of development of the BOA—it tends toward the generic and justification of why the approach should be adopted. Given this gap, direct communication with North American practitioners and researchers was pursued (in particular, Don Bruns¹; Bev Driver²; Steve McCool³).

Figure 1. Study approach.

PHASE 1	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Literature review March/April 2007</div> <div style="border: 1px solid black; padding: 5px;">Contact with practitioners 2007</div>	Design of approach
PHASE 2	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Ulva Island Workshops: 15 & 17 May 2007</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Mason Bay Workshops: 14 & 16 August 2007</div> <div style="border: 1px solid black; padding: 5px;">Port Pegasus/Pikihatiti Workshops: 4 & 6 September 2007</div>	Case study applications
PHASE 3	<div style="border: 1px solid black; padding: 5px;">Cocurrent with workshops</div>	Evaluation

¹ US Bureau of Land Management: BOA developer and practitioner.

² Primary BOA developer, retired US Forest Service scientist.

³ Retired professor, University of Montana, USA.

1.4.2 Phase 2: case study applications

Phase 2 was the application of the approach as part of a 'live' DOC management planning process. The joint planning process underway for the Rakiura National Park Management Plan (RNPMP) and Stewart Island/Rakiura Conservation Management Strategy⁴ (SIRCMS) was chosen for this. The Stewart Island/Rakiura process was selected (in consultation with DOC National Office management planners) because it was at an early stage in the planning process, the local planners were willing to be involved, and Stewart Island/Rakiura provided case study sites which would test the BOA under differing circumstances.

DOC structures its management plans around 'outcomes at place'; that is, the plans express outcomes (and objectives and policies) for identified geographical places which comprise those parts of the conservation area which require more specific management direction—they are those areas to which the plan will give special attention. Three 'places' identified within the RNPMP/SIRCMS process were treated as case studies for the BOA application. These were: Ulva Island, Mason Bay and Port Pegasus/Pikihaiti. More detail on the Stewart Island/Rakiura context for the study is provided in sections 3.2 and 3.3. In addition, the BOA was used for hunting workshops facilitated by the DOC management planner. Although this issue-based application was not part of the formal research project, it is discussed in this report, as it provides information about use of the BOA for issues other than those just relating to 'place'.

As a result of this study, the public participation process used for these three case study areas (and hunting) was structured around the BOA process. Material gathered from this study was used in the preparation of the management planning documents (RNPMP and SIRCMS) for public conservation land on Stewart Island/Rakiura.

1.4.3 Phase 3: evaluation

Phase 3 comprised evaluation of the adapted BOA approach in terms of its applicability and utility for DOC management planning. Evaluation was undertaken concurrently with Phases 1 and 2. In particular, debriefing sessions held following each public workshop (Phase 2) proved very fruitful for identifying the advantages and disadvantages of the approach with respect to public participation.

1.5 COLLABORATION BETWEEN MANAGEMENT PLANNING AND RESEARCH

This research project is an example of 'action research'; that is, it represents a collaborative enquiry between researchers and management planners, to understand the utility of the BOA (a *research* outcome) while seeking to produce an *action* (the development of management plans). While the study did not follow a step-by-step action research methodology, it utilised the principle of 'learning by doing' in an experiential and reflexive manner to examine the research proposition (the utility of the BOA) (see Heron 1996). A principle of action research is to focus upon improving a situation (in this case,

⁴ A Conservation Management Strategy (CMS) is a plan for all public conservation lands within a defined (large) area.

management planning in DOC) and to add to public knowledge (for this study, the understanding of the BOA). In addition, action research may create learning opportunities for self-help (this occurred with respect to local management planners being exposed to new ways to undertake public participation) (see, for example: http://learningforsustainability.net/research/action_research.php, viewed 30 November 2007).

The research team was the researcher (KB) and the DOC Southland conservancy management planners who were running the Stewart Island/Rakiura planning process, since the research was integrated fully into the planning process. A positive working relationship was established between the researcher and the planners, which was critical for the successful implementation of this project. All aspects of the public participation process were discussed between the planners and researcher. In particular, the researcher provided comment on drafts of publicly-circulated documents and the structure of each public workshop was developed jointly.

Inevitably, a tension was inherent in this work between the desire to test a process, and the need to engage with the community and produce two planning documents⁵. For this reason, some decisions were taken that were not driven by the research agenda (e.g. the circulation of a paper prior to each workshop). However, such concessions were relatively minor and their effects were far outweighed by the positive contributions gained from being able to use a 'live' planning process.

The researcher established contact with DOC National Office management planners, and maintained this throughout the research process to ensure that the approach being taken stayed aligned with the rapidly changing direction of DOC management planning. The researcher kept up with developments via several meetings (in person and by telephone) and through attendance at the South Island DOC planners' workshop held on 8 November 2007. This helped ensure an appropriate context for the BOA application in DOC and facilitated feedback on the relevancy and 'fit' of the BOA for DOC.

1.6 REPORT STRUCTURE

Section 2 is the literature review while section 3 provides the study context with respect to DOC management planning and Stewart Island/Rakiura. Sections 4–6 describe and critique the application of the BOA in this study. This includes the design of the BOA for the New Zealand context and its case study applications. Section 7 evaluates the BOA against selected criteria. The development of monitoring indicators is discussed in section 8, and section 9 presents study conclusions and recommendations.

⁵ Two separate planning documents are required: the Rakiura National Park Management Plan (RNPMP) and the Stewart Island/Rakiura Conservation Management Strategy (SIRCMS). At the time of writing, it was uncertain whether they would be published jointly in one volume.

2. BOA literature review

2.1 BACKGROUND

In recent years, the Beneficial Outcomes Approach to management has been promoted as a holistic management framework through which both recreation and the protection of natural areas can be managed more effectively. The BOA extends earlier recreation management frameworks that were either activity-based or experience-based applications, the Recreation Opportunity Spectrum (ROS) being an example of the latter. The Benefits Approach to Leisure (BAL) has featured since the early 1990s and conceptualises recreation outcomes into three types: activity opportunities, experience opportunities and benefit (or outcome) opportunities (McCool et al. 2007). It shifts managers' focus from inputs (such as facilities) to the outcomes or results from outputs (such as increased environmental understanding).

In a management capacity, the concept has been called Benefits Based Management (BBM), whilst in a planning capacity it has been referred to as Benefits Based Planning (BBP). In response to claims that 'benefits' was too narrow a term, the name was changed to the Net Benefits of Leisure (NBAL), and more recently has appeared as the Beneficial Outcomes Approach (BOA), Outcomes Focused Management (OFM) and the Beneficial Outcomes Approach to Leisure (BOAL) (Moore & Driver 2005). A distinguishing factor is that the BOA is focused upon recreation-related outcomes, while OFM also encompasses other related amenities (Driver 2009a). This report uses the BOA terminology and considers BOA to have the same meaning as OFM (after Driver 2009b).

Much has been written about the benefits approach. As the BOA was conceived within the recreation literature (and remains largely housed within it), it is not surprising that the benefits from recreation participation are well-documented and supported by research (see, for example, Sefton & Mummery 1995; Roggenbuck & Driver 2000). Extensive benefit lists have been compiled, with benefits generally grouped into categories that reflect personal, social/cultural, economic and environmental domains. A comprehensive list of specific types and general categories of benefits attributed to leisure is shown in Appendix 1. More pertinent to this study, is a recent benefits list highlighting the wide range of benefits from protected areas in Australia and New Zealand, compiled by the IUCN World Commission on Protected Areas (Table 1). The IUCN typology places emphasis upon economic and environmental values, while Moore & Driver (2005) place comparatively more stress upon personal and social-cultural benefits. Benefit categories are not mutually exclusive; for example, many economic benefits are also community benefits. The two lists provided in Appendix 1 and Table 1 typify (and provide an up-to-date synthesis of) the various benefit typologies that appear in the literature.

TABLE 1. BENEFITS FROM PARKS AND PROTECTED AREAS IN AUSTRALIA AND NEW ZEALAND.

(Provided by Penelope Figgis, IUCN World Commission on Protected Areas, 2006).

<p>1. ECONOMIC VALUES</p> <hr/> <ul style="list-style-type: none"> • Enhancing property values for those neighbouring parkland • Commercial marketing/promotion based on parkland provision/lifestyle by the land development industry • Providing the most vital resources of the Australian and New Zealand tourism industries • Promotional use of images for tourism attraction purposes • Providing the key resource which sustains the outdoor recreation/adventure/dive equipment retail industry • Stimulating local/regional economies, etc. • Supporting sustainable commercial and recreational fisheries • Supporting sustainable utilisation of wildlife resources by indigenous communities • Providing valuable community services (e.g. free recreational and meeting spaces) • Commercial promotional ‘use’ of the value of the environment by green power and other businesses • Willingness to pay (evidence of community’s willingness to pay park rates, travel costs associated with visit, etc.) • Providing settings for films and photography—value of pictorial coffee table books, field guides, tourism publications, etc. • Lowering health costs through providing settings for preventative and therapeutic health interventions <hr/> <p>2. ENVIRONMENTAL VALUES</p> <hr/> <p>Biodiversity</p> <ul style="list-style-type: none"> • Protecting the evolutionary richness of millennia • Maintaining ecological balance • Minimising habitat and species loss; including opportunities for species to respond to global climate change (the need for places to move to) • Providing opportunities for education • Providing opportunities for bio-prospecting (an economic value as well) • Providing opportunities for science/research <p>Sustainability</p> <ul style="list-style-type: none"> • Sustaining vegetation cover for carbon dioxide absorption; water recycling/treatment; avoidance of pollution, siltation (again, should be an economic value as well) • Sustaining fisheries (economic, ecosystem services or sustainability?) • Supporting sustainable utilisation of wildlife resources by indigenous communities <p>Ecosystem services</p> <ul style="list-style-type: none"> • Water quality/water quantity • Slope and soil stability • Carbon credits • Air cleansing • Protection against natural disaster—flood, storm, wind • Sources of pharmaceutical research • Habitat for agriculturally useful predators and pollinators <hr/> <p>3. PERSONAL OR INDIVIDUAL VALUES</p> <hr/> <p>Providing:</p> <ul style="list-style-type: none"> • Joy—aesthetic and spiritual uplift from experience of wild nature • Health—physical and mental, preventative and restorative, childhood development • Fun, camaraderie, enjoyment • Awareness, learning, understanding • Preserving ‘place’; ‘escape’; solitude; places to commune with nature • Sights, sounds and smells—stimulation and contrasts to an urban world • Family quality experiences—memories • Sense of awe <hr/>

Continued on next page

Table 1 continued

4. COMMUNITY OR SOCIO-CULTURAL VALUES
Providing:
<ul style="list-style-type: none">• Images which define a nation• A sense of connectedness; civic pride; sense of community• Equitable opportunities for varying demographic communities (e.g. ageing; young families, etc.)• Opportunities to address anti-social behaviour problem (link between the quality of parks and user behaviour)• Life enhancement opportunities through volunteering (helping people achieve their maximum potential)• Opportunities for environmental education• Equitable opportunities across socio-economic status communities• Equitable opportunities across socio-health status communities• Parks as the great democratiser
4. CULTURAL VALUES
Proving for protection of and inspirational qualities of:
<ul style="list-style-type: none">• Cultural/heritage sites (Indigenous and European)• Spiritual places• Settings and opportunities for multi-cultural and ethnic needs• Indigenous cultural landscapes• On-going indigenous knowledge and land management• Art—paintings and sculpture• Moral ethical values such as inter-generational equity• Respect for the intrinsic rights of other species• Religious concepts of honouring creation

2.2 LITERATURE REVIEW SCOPE AND APPROACH

In line with the objectives of this research project, this review considers literature that addresses applications of the benefits approach, rather than the identification of benefits per se. The following topics within the benefits literature are of particular interest and relevance to this project:

1. Identification of social benefits/outcomes
2. Applications of the BOA in specific place contexts
3. Development of participatory processes to identify community-defined expressions of beneficial outcomes
4. The development of indicators of outcome measurement

Material for the literature review was sourced in three ways:

1. Electronic database searches and use of Google/Google scholar search engines
2. Targeted searching using authors' names and referenced material identified from the core body of literature
3. Direct contact with practitioners in North America

Some issues arose during the search phase. First, the use of the terms 'benefit' and 'benefits based management' within various academic and business fields made it laborious to locate material specific to protected areas. The changes in terminology employed within the benefits movement (already noted) also presented challenges when searching for material. Second, some governmental agency reports were not freely available. Similarly, much of the benefits literature is housed within conference papers, only some of which are published as proceedings. This second problem reflects the 'cutting edge' nature of this area of work.

2.3 APPLICATION OF THE BOA: AN OVERVIEW

A considerable body of literature has addressed the *identification* of the benefits/outcomes of leisure and protected areas. Considerably less attention has been paid to the *applications* of the BOA, in a practical sense, to management planning and actions. One conclusion of this literature review is the lack of assistance the published literature provides for practical applications of the approach. McCool et al. (2007) suggested that the lack of an easy-to-implement and definitive set of steps or processes is a key factor limiting the uptake of the BOA, together with its complexity and greater information requirements. McCool et al. (2007: 104) concluded that the BOA 'is more a conceptual approach to how one may think about the purpose and objectives of provision of recreation opportunities on public lands than a practical decision-making framework'.

Some authors have reviewed planning frameworks used in natural areas. The absence of mention of Benefits Based Management (BBM) is a notable feature of many of these reviews (e.g. Nilsen & Taylor 1997; Newsome et al. 2002; Moore et al. 2003). In part, this may be because benefits-based planning and management frameworks have been a recent development in natural resource planning. The benefits approach builds on both activity-based and experience-based frameworks. The commonly used Limits of Acceptable Change (LAC), Visitor Experience and Resource Protection (VERP) and Visitor Impact Management (VIM) frameworks are transitional systems between these two approaches, whereas the Recreation Opportunity Spectrum (ROS) represents an experience-based system (Moore & Driver 2005). Newsome et al. (2002), however, pointed out that it is unusual to find management documents with any of these planning frameworks as their central focus. While the principles of ROS and LAC, for example, implicitly appear in many management plans, no management plans explicitly describe the frameworks or how they have been applied in producing the plans. Reviewers have noted that ongoing stakeholder support is not likely to be engendered by such a lack of transparency (e.g. Newsome et al. 2002).

Newsome et al. (2002) noted that despite considerable research associated with the various benefit-based planning frameworks (such as LAC, ROS or BOA), their uptake has been surprisingly limited. They suggested a number of reasons for this. The specific requirements of these planning frameworks are often difficult to accommodate within management plans that must cover broad resource management concerns. Also, there may be confusion surrounding the exact purpose of each framework. Newsome et al. (2002) argued that lack of resources has restricted the degree to which these planning frameworks have been adopted, especially as many are reliant on the collection of extensive biophysical and social data, require the (often difficult) selection of indicators and involve considerable ongoing monitoring. The additional requirement within benefits-based approaches for public involvement throughout all planning stages presents even greater challenges to managers. Sutton (2004: 411), in a review of planning frameworks in New Zealand (which did include the benefits approach), noted that the BOA 'encourages managers to look at the greater social influences of protected areas on people and their communities and vice-versa'. The problem remains as to how to do this, especially as it can, in some cases, be difficult to establish a direct cause and effect link between management actions and societal benefits and support (Sutton 2004).

Knopf et al. (2004, cited in McCool et al. 2007) suggested six factors required for successful application of the BOA:

- A paradigm shift for public land agencies, from being providers of facilities to producing 'value-added' changes for individuals and communities
- Explicit management objectives oriented towards identifying specific benefits
- Objectives linked with specific management prescriptions
- Marketing programmes designed to accomplish objectives
- Monitoring programmes designed to inform planners and managers about how well objectives are being achieved
- Engagement of all key 'service provider' partners (public land recreation providers, private sector business and host communities)

A number of papers have outlined specific planning steps involved in the implementation of the benefits approach (see, for example, Allen 1996; O'Sullivan 1999; Booth et al. 2002). These planning steps are based on traditional planning frameworks: needs assessment → identification of goals and objectives → programme construction → implementation → evaluation (O'Sullivan 1999). Looking at recreation opportunities, Allen (1996) noted that benefit and opportunity identification is the first and most critical stage of implementing a benefits process. This stage requires that managers and stakeholders work together to identify which core benefits are to be targeted, and to select specific recreation activities and settings that address the target benefits. This requires a structural analysis of each recreation opportunity being offered (Allen 1996). Driver & Bruns (2009) suggested that the application of ROS may be useful in this respect. O'Sullivan (1999) also noted that if an agency is changing to a benefits approach, they need to ask the following questions: what ongoing activities can be modified? How can services be changed to deliver important benefits? In what ways can existing administrative practices integrate benefits management?

According to Allen (1996), the duration of the implementation phase is dependent on two factors: the extent of modifications to existing settings and practices that are necessary in order to address targeted benefits, and the thoroughness of the monitoring and evaluation component. The benefits approach is iterative and a final evaluation and documentation phase is important as a means of documenting and disseminating information learned throughout the planning process. It is important to keep stakeholders 'in the loop' throughout these final stages of the process (Allen 1996). Sutton (2004) identified three useful process steps that increase the scope of generic planning models to incorporate benefits approaches (see Table 2).

TABLE 2. TRADITIONAL MANAGEMENT PLANNING FRAMEWORKS AND BOA EQUIVALENTS (FROM SUTTON 2004: 413).

GENERIC PROCESS STEP	BOA EQUIVALENT
Identify area issues and concerns	List positive and negative outcomes currently created by management
Define and describe resource classes, public consultation	Involve stakeholders to explicitly define desired outcomes and prioritise them
Implement management options	Prepare a marketing programme, inform customers about types and locations of benefit opportunities

2.4 IDENTIFYING BENEFITS

In recent years, considerable effort has been put into the identification of social benefits that accrue from natural areas, particularly those related to recreation. Early benefit lists primarily focused on the benefits accruing to individual recreationists. In more recent literature, a broader purview has been taken to consider the benefits accruing to society in general as well as to non-users, including local communities. Within user group studies, attention has focused on the identification and measurement of benefits for different types of users, on the relationship between benefits, activities and settings, and the relationship between on-site experiences and off-site benefits. Some studies have also addressed the social benefits generated by individual actions (see, for example, Eckhart & Allen 1998). Use of the BOA has also extended beyond management of protected areas (see, for example, Borrie & Roggenbuck 1994).

Compared with the extensive research into how individuals benefit from public lands, recreation opportunities etc., considerably less attention has been paid to identifying and testing the benefits to the wider community (Anderson et al. 2000). According to Stein et al. (1999), a valid and reliable set of benefits has not been articulated for communities. In part, this is because many community benefits are more abstract than those associated with participation by individuals. Stein et al. (1999) identified economic values as the most studied type of community benefits.

2.5 APPLYING THE BOA IN MANAGEMENT PLANNING

The management implications identified from a range of benefit studies are described in this section. These studies address both individual and community benefits. While many authors note the implications of their findings with respect to management actions, few set out explicitly how practical application of the BOA might be achieved. As a result, the information gleaned from these studies is somewhat 'piecemeal' and does not lead to a cohesive set of recommendations on how to apply the BOA.

2.5.1 Individual benefits

Studies of the benefits experienced by certain types of people, or those involved in various types of recreational activities, have been examined. Eckhart & Allen (1998), for example, reported on the application of a benefits-based planning (BBP) model to a pre-existing senior adult walking programme. They found that the implementation of BBP principles strengthened the programme by helping both staff and participants realise the benefits of participating in the programme. Philipp (1997) examined the relationship between race, gender and leisure benefits based on a Benefits Approach to Leisure (BOAL) framework in a metropolitan area in the American south. Results suggested that the 'desired conditions' of leisure were not universal (applicable across all groups of people); nor did 'all people have the same degree of need for similar desired conditions' (Philipp 1997: 204).

A useful review of studies on personal benefits of recreation in the wilderness was presented by Roggenbuck & Driver (2000). They examined the benefits of non-facilitated use of wilderness areas (users who visit alone or in small groups and who do not follow an imposed programme) and found complex linkages between environment, experiences and benefits. The environmental parameters within which experiences and benefits are constituted were found to vary considerably. The experiences and benefits realised by participants were also found to evolve over time. The preferred, expected, and lived experiences associated with leisure activities, and their relationship with subsequent improved or maintained personal conditions (such as physical fitness), could be described at varying levels of specificity. These variations in experience have implications with respect to the appropriate levels of analysis for management, planning and research decisions. The authors questioned the extent to which the 'diversity of values, meanings, preferences, reflections and behaviours disclosed can be integrated usefully into the management of recreation, park and other amenity resources' (Roggenbuck & Driver 2000: 47).

Stein & Lee (1995) surveyed users in a Colorado recreation area in order to investigate the relationship between the benefits desired by recreationists and the activity and setting characteristics that facilitated the realisation of those benefits. According to Stein & Lee (1995), understanding the role of the provider (or recreation manager) in facilitating benefit opportunities is a critical element in the application of BBM. They found some benefits to be setting-specific while others could be realised in a variety of settings. The link between benefits and particular activities was not as strong, with similar benefits able to be realised across multiple activities.

In a similar survey of users in a Korean national park, Shin et al. (2001) identified 12 domains of desired benefits. These were:

- Relationship with nature/scenery
- Escaping pressure
- Learning about nature
- Family togetherness
- Introspection
- Exploration
- Autonomy/achievement
- Being with friends
- Leading others
- Skills/learning
- Risk taking
- Meeting/observing new people

These benefit domains were then linked to setting characteristics. Two strong correlations were found—between the domains of 'relationship with nature/scenery' and the setting attributes 'forest/water', 'attractive nature' and 'facility/maintenance', and between the domain of 'escaping pressure' and setting attributes 'attractive nature' and 'social'. The authors argued that these relationships support BBM planning approaches. Park planners could, for example, develop criteria on how park resources contribute to visitor benefits through a combination of an inventory of physical features, knowledge of social factors and consideration of management decisions (Shin et al. 2001).

Pierskalla et al. (2004) collected data from nine benefits-based management studies to examine the relationship between recreation opportunities, activities and settings. They found that not all outcomes require certain types of settings, and noted that outdoor recreation providers may need to manage benefit opportunities differently because settings were more important for some outcomes, activities more important for others (Pierskalla et al. 2004). Six benefits were strongly affected by activity type. These were:

- Keep/get physically fit
- Feel healthier
- Improve skills and abilities
- Feel more self confident
- Gain a greater sense of independence
- Feel stronger spiritually

In comparison, setting type only significantly affected the attainment of one benefit: 'to learn about natural history'. This review highlighted that some benefits were more difficult to quantify. Benefits associated with 'learning more about nature', the 'release/reduction of tension' and 'maintenance of a sense of self-pride' presented challenges in this regard (Pierskalla et al. 2004).

Walker et al. (1998) provided one of the few benefit studies to directly investigate the relationship between on-site experiences and off-site benefits to individuals. One finding of their study was that the quantity of benefits recollected by individuals varied according to how long after on-site visits they were recalled.

A benefits-based activity planning model for youth in at-risk environments was proposed by Allen et al. (1996). These authors noted that recreation experiences have the potential for addressing significant social issues. Their model did not assume that recreation experiences were inherently beneficial or positive for the individuals involved. Other authors have suggested that it may be premature to equate an improved condition in an individual with a benefit for society (Dustin & Goodale 1997). Other critiques of the benefits approach have raised the issue of social equality with respect to beneficial outcomes (More 2002). More (2002) pointed out that while some groups benefit directly through visitation or participation in recreation activities in natural areas, others benefit only indirectly as a result of existence value (i.e. the value of knowing that something exists irrespective of current or likely future use), which results in unequal apportioning of benefits.

The benefits and effects of participation by different types of organised groups in wilderness areas have been studied (Ewert & McAvoy 2000). These authors have suggested that management objectives need to address questions of priority. For example, should one group be favoured over another? How much influence does the wilderness (setting) component have? What takes preference—beneficial participant outcomes or resource protection?

Some more recent benefit studies have extended beyond the generation of benefit lists and have asked 'what benefits are most important in any given setting?' This is partly because of a growing awareness that not all benefits can be realised or provided for (e.g. Pierskalla et al. 2004; Stein & Lee 1995). With respect to the needs of management, O'Sullivan (1999) asked 'what criteria can be used for selecting benefits—do you optimise benefit opportunities or capture a specific benefit?' A similar distinction was made by Driver (1998). This raises

questions relating to who is involved in the identification of benefits, and how the participation processes work. More (2002) suggested that the opportunity costs of benefits are not always considered.

The findings of this section of the Literature Review are summarised in Table 3.

TABLE 3. SUMMARY OF FINDINGS FROM THE LITERATURE SURVEY—INDIVIDUAL BENEFITS.

GENERAL FEATURES OF INDIVIDUAL BENEFITS	IMPLICATIONS FOR MANAGEMENT AND APPLICATION OF THE BOA
<ul style="list-style-type: none"> • The interaction between benefits settings and activities is complex • Benefits are often setting-specific • Benefits associated with activities are the easiest to quantify • Visitors may use a variety of settings • Some benefits are difficult to quantify • Correlating on-site and off-site benefits is difficult • Some people benefit through direct participation, others gain benefits more indirectly 	<ul style="list-style-type: none"> • Benefits need to be prioritised • It is not possible to provide all possible benefits • Individual benefits are often place- and/or user-specific • Benefits have social equity issues—how can they be apportioned fairly? • In most situations it is possible to provide a range of activity opportunities

2.5.2 Community benefits

Fewer studies have addressed community benefits. Stein et al. (1999) looked at how two state parks in Northern Minnesota benefited rural communities. Mail-back questionnaires were used to identify stakeholders' perceived important community benefits, the degree the parks contributed to those benefits and management techniques that can better provide for benefits. Stakeholders were closely involved with questionnaire development. Two groups of stakeholders (one for each park) were selected from park staff and citizen advisory committees who lived in the local communities, because of their expert knowledge of the parks and park/community relationships. A list of 24 community benefits attained from state parks was generated from the stakeholder meetings and then presented in the questionnaire to survey respondents, who were asked to identify the 'top seven'. The research found that while six of the seven most important benefits were the same for both parks, their order of importance varied (see Table 4).

The same study made an attempt to link benefits to management actions. Stein et al. (1999) found that the type of interaction with park staff desired by stakeholders varied depending on the relationship the community had with the park. While the benefits identified in each park were similar, the communities differed in the ways they thought park managers should provide for the benefit opportunities. An important benefit identified by both communities, for example, was the feeling that their community was a special place to live. The stakeholders from one community thought park managers could provide for that benefit through environmental education opportunities, whereas stakeholders from the other community equated the realisation of this benefit with greater community access to the park. There was also a call to balance visitor benefit opportunities and community benefit opportunities (Stein et al. 1999).

TABLE 4. BENEFIT RANKINGS IDENTIFIED FOR TWO STATE PARKS IN MINNESOTA (FROM STEIN et al. 1999).

COMMUNITY BENEFIT	IMPORTANCE (PARK 1)	IMPORTANCE (PARK 2)
A chance to attract tourism dollars to the community	1	5
A place to preserve/conservate various natural and unique ecosystems	2	2
A chance to experience unique outdoor recreation opportunities	3	1
A natural setting in which your community takes great pride	4	7
A greater understanding of your natural environment	5	*
A feeling that your community is a special place to live	6	6
A sense of security that the natural environment will not be lost	7	3
A chance for local people to maintain an outdoor-orientated lifestyle	*	4

* Benefit not in top seven

Although stakeholders in both communities thought that park managers were doing an adequate job providing opportunities for benefits, they also indicated that parks could contribute more to those benefits. There were variations in how those surveyed thought this should be done. Stakeholders who had previously worked with park staff, for example, thought that community members should initiate greater interaction with park staff, whereas stakeholders who had no previous interaction with park staff thought the initiative to involve community members lay with park staff. Stein et al. (1999) noted that while qualitative methods can provide data on the benefits desired and the relationships between communities and parks, more studies of a quantitative nature are needed in order to understand the magnitude of those benefits.

In a study of a lake watershed in Minnesota (Stein & Anderson 2002), benefits-based management was combined with ecosystem management for landscape planning. Group meetings with stakeholders and community leaders (local politicians, chamber of commerce presidents), along with some individual interviews, were employed to generate baseline data on the rural community residents' values for a natural landscape. Then, questionnaires were used to quantitatively examine stakeholders' perceptions of the natural landscape in relation to community services. Stakeholders' valued ecological features, benefits and desired management actions were also examined. For the 17 management actions suggested, greatest agreement was evident for resource professionals to focus upon means to deal with the growing population and to improve communication between local government, land management agencies and residents. Stein & Anderson (2002) pointed out that planning frameworks need to be holistic and take account of the more abstract values residents have with respect to landscapes and the natural environment. For example, the stakeholders in this study were found to value experiential, abstract qualities of their landscape which might be difficult to capture in community and landscape plans (Stein & Anderson 2002).

Similar problems have been identified in other research. Marriott (2002) reviewed some of the community benefit issues raised in a redevelopment proposal for an aquatic centre in Australia. Shortcomings identified by Marriott, with respect to net community benefits, included: statements that claimed local identity benefits to be, at best, vague and, at worst, disingenuous; no definition of local was

provided; much evidence of community benefits was anecdotal; and many of the claimed benefits were generic in nature. Marriott (2002) also found that few of the beneficial outcomes identified in leisure research were considered by, or designed into, the proposal and that the proposals did not reflect many known needs of the community.

Obviously, communities know best what they need and should therefore participate in benefits-based management processes that affect them (Borrie & Roggenbuck 1994). In an urban-based pilot application of BBM conducted in two communities in Portland, Oregon, focus groups were held with general community members, community leaders and people involved in various community planning efforts. Individual interviews were also conducted with key informants identified from within the communities. The experiences and features of the communities in question, and their needs, were identified through the focus groups and interviews. Whilst it was acknowledged that the local park agency was ideally suited to help meet some of the needs identified within the two communities, this pilot project contributed little to any practical application of BBM (Borrie & Roggenbuck 1994).

Yuan et al. (2004) suggested that consideration of recreation values and public use of protected natural areas brings many issues surrounding place attachment and place identification into play. They note that surveys may not be the best way to understand values, as 'the values expressed by people may depend on who is asked, when and under what circumstances' (Yuan 2004: 286). The authors argue that a values-based approach based on the meanings the public hold for places is better suited to developing models of collaborative planning than traditional expert-driven, rational decision-making models. For managers to respond realistically to public expectations they must:

- Recognise that the nature of public planning is such that scientific, objective expertise is only one of the data sources that inform the planning processes
- Explore methods that incorporate a broader range of data inputs including place, place meanings and values
- Experiment with technologies that make the outcomes of management practices more transparent and accessible to affected publics (Yuan et al. 2004: 292)

Anderson et al. (2000), in a review of BBM pilot tests, suggested that there was a need to understand the characteristics of communities themselves, their demographics and their relationships with parks (including their distance from parks, size, community functions and so on). They also noted that research on community benefits has focused on key stakeholders within communities, rather than randomly selected groups of community residents. This can have implications for research results. For example, some studies have reported relatively high response rates for questionnaires, primarily because the people being surveyed are identified stakeholders and, in many cases, have had direct input into the research process. Stein & Anderson (2002), for example, found high levels of agreement with the management options suggested—but noted that this would be expected as the list of options came from the same group of people. According to More (2002), another criticism of the benefits selection processes is that they may favour the upper classes, where people are more articulate and attuned to processes of public involvement.

Findings from this section of the literature review are summarised in Table 5.

TABLE 5. SUMMARY OF FINDINGS FROM THE LITERATURE SURVEY—COMMUNITY BENEFITS.

GENERAL FEATURES OF COMMUNITY BENEFITS	IMPLICATIONS FOR MANAGEMENT AND APPLICATION OF THE BOA
<ul style="list-style-type: none"> • A range of methods can be used to identify benefits, e.g. focus groups, interviews, surveys • Community values and benefits can be abstract • Community benefits may be difficult to quantify • Benefits need to be prioritised as they are not uniform across communities • Relationships with parks vary across communities 	<ul style="list-style-type: none"> • Identifying benefits is time and resource intensive • The importance of particular benefits is place-specific • Involving stakeholders in processes can be time and resource intensive • Stakeholders should include local community residents, as well as those with special interests in parks • Community/management interaction needs to go beyond just the identification of benefits

2.6 PUBLIC PARTICIPATION PROCESSES

It is clear that processes employed to involve communities in benefits-based management are not always ideal. Difficulties include the identification of relevant stakeholders and the nature of relationships between communities and parks, along with more general issues associated with community involvement in planning processes.

Barriers to achieving good public participation have been addressed in studies of planning approaches which include such participation. For example, Lachapelle et al. (2003) studied four western US park plans. These were selected on the basis of the type of planning issue (e.g. recreation, freshwater management), the focus of planning effort, the spatial scale of the planning process, the bodies responsible and the nature of planning meetings. The study revealed five dominant barriers that impeded one or more of the four planning situations. These were lack of goal definition; lack of trust; procedural obligations; inflexibility; and institutional design (Lachapelle et al. 2003). The authors noted that these barriers are unlikely to occur independently of each other, and suggested that effective planning requires the identification of a clear, specific set of goals. They attributed the failure to achieve clear goals to a lack of effective communication between planning teams, upper management and the public (Lachapelle et al. 2003).

There appears to be general agreement in the literature that involvement of the wider community in planning processes is difficult to achieve. A report produced for the Australian Committee on National Parks and Protected Area Management outlined the benefits and disadvantages of public participation in planning (Parks and Wildlife Commission of the Northern Territory 2002). The benefits of a 'robust' participation process that they identified included improved agency understanding of community expectations, user group needs, and stakeholder relationships, and improved public understanding of agency responsibilities. Disadvantages included time-consuming processes, the likelihood of high financial costs, the need for staff training and capacity building within organisations, and difficulties in obtaining constructive debate when interest groups are entrenched

in their views. The report identified good/best practices in public participation techniques and provided examples of participation techniques and performance indicators for various participation levels (Parks and Wildlife Commission of the Northern Territory 2002).

A number of resources that describe participation techniques are available. The International Association for Public Participation (2006a) outlines a public participation spectrum that illustrates the range of different levels of public impact possible in planning processes. For each type of involvement—inform, consult, involve, collaborate and empower—associated promises to the public and examples of implementation techniques are presented. A more detailed public participation toolbox is also available that describes a range of participation techniques and points out both the benefits and potential downfalls associated with each (International Association for Public Participation 2006b).

The Canadian Parks and Recreation Association have compiled a practical guide and toolkit for applying outcome-based planning (Canadian Parks and Recreation Association 2008). The guide addresses issues associated with the determination of outcomes, the development of outcome statements and the ways an outcome model can be used as a planning tool. The toolkit outlines the following:

- Ways to identify benefits and determine what desired beneficial outcomes might be
- Planning tools that link desired outcomes and various elements of planning resources
- Tools that can be used to identify and design ways to measure benchmarks and results for the desired outcomes
- A range of tools to assist in the communication and implementation of outcome-based management strategies

A range of practical tools (including focus group scripts and outlines of on-site user surveys) have also been developed to help implement the benefits approach (Canadian Parks and Recreation Association 2008).

Booth & Grocke (1998) identified some issues associated with public participation in sports ground management in New Zealand. The use of focus groups, in particular, presented challenges in terms of keeping the process simple; anticipating what users interpreted as a 'benefit'; educating participants about processes and outcomes of the process; and managing preconceived ideas. They also found problems with the BBM approach in general, including: loss of detail from taking summaries of benefits and issues; difficulties with involving non-club participants; and participants desire to know what the outcome of their involvement will be (Booth & Grocke 1998). These issues are all common to planning processes that involve communities.

A study in south-east Queensland examined the ways in which collaborative planning and management could be applied to rock climbers and associated stakeholders in protected areas (Steele 2006). The study found that barriers to collaborative planning included issues of representation, process, decision-making, power and responsibility. Collaborative planning had the potential to improve understanding between planners and climbers regarding issues relevant to climbing, such as the changing culture of climbing, agency resources and agendas, and environmental concerns (Steele 2006). A number of strategies for

a more collaborative approach to protected area planning emerged from the research. These included: better coordination and streamlining of resources; ensuring appropriate representation; providing a range of avenues for discussion and learning as a means of promoting trust and coordinated action; recognising that planners and managers are as complex, transient and diverse as outdoor recreation communities (Steele 2006).

A description of comprehensive public participation in community planning was reported in an Australian study focused on improved decision making about water and related management issues for the Lake Mulawa area of the River Murray system (McIntyre et al. 2006). A ‘water benefits’ approach allowed for the explicit expression and inclusion of a much greater range of values and benefits than would normally be provided for in water resource management. Water benefits were defined as ‘people’s perceptions of their wellbeing as a result of water, its use or management’ (McIntyre et al. 2006: 2). Consultation led to the identification of six benefit domains or categories for the case study area: environmental improvement; increased tourism industry; foreshore management and development; more enjoyable recreation; promotion of indigenous culture; and greater understanding of the broader River Murray system. It was also recognised that the agencies, organisations and individuals with responsibilities in the plan needed to demonstrate how they were going to work together to achieve the identified outcomes.

DOC has commissioned research to examine the effectiveness of its own public participation processes (Airey 1996; CRESA 1998; James 1990; Warren 2002a, b). The results of these studies indicate room for improvement, but are not reported in detail in this report, as other research is currently addressing these concerns, and this report’s focus is the BOA process rather than community consultation per se.

Findings from this section of the literature review are summarised in Table 6.

TABLE 6. SUMMARY OF FINDINGS FROM THE LITERATURE SURVEY—PUBLIC PARTICIPATION PROCESSES.

GENERAL FEATURES OF PUBLIC PARTICIPATION PROCESSES	IMPLICATIONS FOR MANAGEMENT AND APPLICATION OF THE BOA
<ul style="list-style-type: none"> • Relationships between stakeholders need to be clearly defined, particularly who has what role in the planning process • Outcome goals must be clearly defined, but this is difficult to do • Public participation methods are complex • Stakeholders often have entrenched opinions • Ongoing communication is vital • Public participation processes need to be transparent • Some resources are available on best practice for collaborative planning • Identification of performance indicators is important 	<ul style="list-style-type: none"> • Implementing public participation processes is time- and resource-intensive • The most appropriate method of participation needs to be considered • People’s roles in the management planning process need to be made explicit • Public involvement needs to go beyond the planning stages of any process • The views of management representatives may be as diverse as those of other stakeholders

2.7 OUTCOME INDICATORS

The literature suggests that public participation needs to go beyond the identification of benefits and the planning stages of management. An iterative relationship is recommended that maintains public involvement through to the implementation stages of management plans. A beneficial outcomes approach requires the identification of indicators which can be used to assess benefit outcomes and applied management actions. There is a great deal of literature about monitoring recreation in protected areas, but not much that specifically addresses indicators of beneficial outcomes.

Balmer & Clark (1997a) noted that indicators need to provide measurement tools that allow performance audits to focus on what is really important, not just on what is easily measured. The challenge is to develop measurement indicators and standards for outcomes, quality and efficiency rather than just for outputs. Balmer & Clarke (1997a) suggested that two levels of indicators need to be considered: general global or social indicators that relate to the community at large, and more specific or direct indicators that focus on individual participants or groups. Balmer & Clarke (1997b) reported on a series of workshops which were conducted in five Canadian cities to develop, adopt or adapt measurement techniques that related to community priorities and benefit outcome statements for parks and recreation. A sample group was constructed from community leaders in each city. Half of the people in each group had vested interests in the field of parks and recreation, and half represented wider perspectives. For each city, a number of benefits related to parks and recreation were identified and ranked by importance. Workshop participants then identified indicators and measurement tools that might be applied to each of the priority benefits and programmes/services (Balmer & Clarke 1997b). Although the measures suggested have not been applied in the field, the two publications that report on this project offer an extensive collation of possible indicators and measurement tools (Balmer & Clarke 1997a, b).

The Lake Malawa study (McIntyre et al. 2006) collected some useful information on benefit indicators—the measures respondents indicated as being important or relevant when assessing the success of the implementation of different actions in the management plan. Most of the indicators suggested required the establishment of an initial baseline against which changes could be measured. There was potential for community involvement in baseline data collection and ongoing monitoring (McIntyre et al. 2006). The indicators offered by the community showed management agencies what to concentrate on when trying to deliver the benefits identified. While there was little argument between different stakeholder groups as to the identification of benefits and their achievement possibilities, the research showed that the implementation process may generate conflict unless the community is involved in the process (McIntyre et al. 2006). As the ‘best practice’ participation report (Parks and Wildlife Commission of the Northern Territory 2002) noted: ‘even following an agreed public participation process it is unlikely that all participants will be completely happy with all decisions made. The important thing is that they are satisfied with the process’.

An American study reported on a project that sought to develop or refine social and biophysical indicators and standards for visitor and community benefits, and resource quality in the watershed area of two Minnesota lakes (Schneider

et al. 2006). Several recreation benefit factors were identified as important across the watershed. These were: recreating in a natural environment, achievement, autonomy, recreating with similar people, and learning. Although the study found that most of these factors were attained most of the time, it was also shown that they were primarily attained in only three of several available areas. This suggested future possibilities of crowding, disproportionate resource impacts and possible safety concerns. The authors suggested that the best indicators of benefits will be determined by on-site teams, but acknowledged that a number of possible indicators exist for each of the benefits sought. Possible indicators associated with the attainment of 'recreate in a natural environment', for example, include the following measurable features: the amount of erosion/shoreline, the amount of development within the project area, water quality, scenery quality, the number and types of signs, and access type and visitor numbers (Schneider et al. 2006).

As observed in other benefit research, Schneider et al. (2006) found that benefits sought varied according to activity type and visitor or setting locations. According to these authors, such differences suggest a need for differentiation in marketing and planning in order to optimise experiences for different user groups. They also suggested that marketing strategies are needed to enhance place attachment, and to provide educational and learning opportunities for visitors. Study respondents generally agreed, for example, that the lakes and recreational use of them were economically important to the local area. There was less agreement that commercial navigation was important to the area, suggesting that an opportunity existed to educate visitors about the importance of this. Schneider et al. (2006) noted that managers might want to monitor benefits that they consider critical, such as health and safety.

The marketing of benefits, and their importance, is critical as a means of communication between those involved in recreation and protected area management and stakeholders with their diversity of interests. The Canadian Parks and Recreation Association (2008) outlines some useful strategies for adopting a social marketing approach in benefits-based management. Compared with traditional marketing, this approach seeks long-term or permanent change, long-term investment and has a broad scope and approach.

Findings from this section of the literature review are summarised in Table 7.

TABLE 7. SUMMARY OF FINDINGS FROM THE LITERATURE SURVEY—OUTCOME INDICATORS.

GENERAL FEATURES OF INDICATORS	IMPLICATIONS FOR MANAGEMENT AND APPLICATION OF THE BOA
<ul style="list-style-type: none"> • Baselines need to be established before outcome measurement starts • All parties must agree on which indicators should be measured • What the best indicator is for each outcome must be established • Using indicators usually requires a long-term approach to monitoring and management • Using indicators provides opportunities for community involvement 	<ul style="list-style-type: none"> • Establishing baselines requires managers to have clear ideas of the expected outcomes of their management actions • Long-term outcomes need to be measured, as well as short-term outputs • Identifying and applying indicators provides opportunities for visitors and communities to be educated about benefits • Marketing is important as a means of communication

2.8 CONCLUSIONS

The published research and practice literature lacks adequate documentation of BOA applications. In order to understand how to implement the BOA for this study, direct contact with practitioners was required.

The benefits literature has developed in parallel with the various stages of the BOA process itself. The greatest amount of research effort has been in the identification of benefits, with an increasing volume of work examining public participation processes and methods (as part of a broader field of literature) and, more recently, the beginnings of a literature on outcome indicators.

The BOA is underpinned by a collaborative style of planning. Communities/stakeholders are inherent in the process, and their engagement is pursued in a variety of ways. Because of the emphasis on collaboration, several planning principles must be emphasised. These are:

- Communication is necessary at all stages of the process
- Procedures must be transparent
- An iterative approach should be used

It is not possible to realise all the benefits that might be desired from a particular place. Ultimately, managers must have a clear understanding of the benefit outcomes to be targeted at each place.

3. Context for the trial BOA application

This section addresses the characteristics of DOC management planning and the case study sites in order to provide context for the BOA study. The legal, policy and planning framework within which the Stewart Island/Rakiura process is subsumed is reviewed. This review provides the context for the case study applications, as well as institutional information relevant to the evaluation of the BOA's utility for DOC. In order to understand the case study context, section 3.2 outlines the nature of the DOC Stewart Island/Rakiura management plans, and section 3.3 briefly describes Stewart Island/Rakiura and its resident community.

3.1 DOC POLICY AND PLANNING APPROACH

DOC is increasingly taking an outcomes-focused approach to its management of protected areas and recreation resources. This shift has been documented by Booth & Edginton (2009), and their conclusions are summarised in this section.

Since the early 2000s, DOC has moved to a strong social outcomes focus within its strategic documents. This is beginning to filter down into management planning documents. To date, the written specification of outcomes is a mixture of output and outcome statements. DOC has moved from a narrow definition of social outcomes, and a strong emphasis upon satisfying site-based users, to recognition of a full spectrum of outcomes for the public. While, philosophically, DOC is 'thinking outcomes'; prior to the current study it had not made the shift to *applying* the BOA process at a specific place, or used the approach to address a specific issue or operate a programme.

3.1.1 Strategic plans

DOC's strategic direction document (DOC 2009) uses an outcomes orientation and acknowledges the human dimensions of conservation management. It is headed by the outcomes-related statement that 'New Zealanders want their natural and historical heritage conserved' and describes DOC's purpose as 'to increase the value that New Zealanders attribute to conservation' (DOC 2009: 11). Five objectives are listed to achieve this goal, including that 'the Department will seek to entrench conservation as an essential part of the sustainable social and economic future of New Zealand' and 'the Department will actively promote outdoor recreation for New Zealanders, especially through fostering recreation, use, and enjoyment on conservation land' (DOC 2006: 11).

The strategic direction makes plain the *public* outcomes of DOC's work rather than simply the recreation-related benefits. It therefore embraces the BOA model of a broad definition of social outcomes.

On an annual basis, DOC prepares a long-term strategic business plan, known as a Statement of Intent (SOI). Analysis of DOC's SOIs between 2001 and 2009 indicates a significant reframing of recreation management strategy from outputs

to outcomes management. The social benefit outcome statement (called ‘the appreciation outcome’) for the 2006–09 SOIs stressed benefits and people’s connection with conservation: ‘People enjoy and benefit from New Zealand’s natural and historic heritage and are connected with conservation’ (DOC 2006a: 71). ‘Benefits’ are defined within the document as follows: ‘Benefits means to enhance or improve social conditions (such as community health) or to receive some personal or individual advantage, gain or profit through passive or active involvement with New Zealand’s indigenous biodiversity for a range of reasons, including recreation, education, tourism and business at places managed by the Department of Conservation’. Benefits are explained as encompassing ‘household and community benefits, personal benefits (such as better mental health, physical health, personal development and growth, personal appreciation and satisfaction, and physical fitness), economic benefits and environmental benefits’ (DOC 2006a).

3.1.2 General policy

Two general policy statements relating to DOC were published in 2005. One covered national parks (NZCA 2005), while the other encompassed all other types of protected area (DOC 2005). These documents provide ‘guidance for consistent management planning for the wide range of places and resources administered or managed by the Department’ (DOC 2005: 9). This guidance is constructed around the notion of ‘outcomes at place’, thereby establishing an outcomes orientation for DOC’s statutory planning framework, although the general policies stop short of presenting outcome statements per se.

Outcomes are defined as ‘a goal or end result of conservation action or a series of actions’ (DOC 2005: 59) and are integral to management planning, in that ‘The starting point for determining the management objectives for a place is to identify the values of the place ... which need to be preserved and protected. Management objectives can then be formulated to achieve planned outcomes that are consistent with the intrinsic values’ (DOC 2005: 12). Through the policies they express, these documents cement outcomes-focused planning. Examples include:

- Each national park management plan will identify the outcomes planned for places within the national park consistent with the values of those places identified in the planning process (General Policy for National Parks, policy 8.1a).
- Recreation opportunities will be provided on public conservation lands and waters. Where provided, they should be consistent with the values and outcomes planned for places (Conservation General Policy, policy 9.1a).
- People and organisations interested in national parks will be consulted when statutory planning documents for national parks are developed, including outcomes sought for places within national parks (General Policy for National Parks, policy 3d).

The importance of the general policies relates to the direction they provide for the management planning documents: CMSs and national park management plans (NPMPs). The two General Policy documents provide the framework to ensure national consistency with respect to interpretation of the legislation and its enactment in CMSs and NPMPs.

3.1.3 Conservation management strategies and management plans

Conservation management in each of the conservancies that comprise DOC's regional structure is guided by a document which expresses the strategic management direction for the conservancy. This document is called a Conservation Management Strategy (CMS). In 2007, a national framework was prepared to guide CMS content. This specifies that a CMS will include:

- National statements that apply across a CMS area
- A framework for statements about particular conservation issues, such as pest animals/plants, that apply across a CMS area
- Standard objectives and policies that apply across a CMS area
- The requirement to include more focused outcome-based management for specific places within a CMS area

The framework also includes a companion document that outlines what nationally-agreed tools should be used for implementing the directions contained in the framework. This includes guidance on what can be included as 'places' and a simplified recreation opportunity classification system to be used as the foundation for describing the range of opportunities available:

The operative components of each CMS will be: (1) management objectives and policies (general direction across/among places or for resources not included in specified places); and (2) place objectives, outcomes and policies. For each 'place' identified within a CMS, the strategy will identify

1. *An outcome statement.* This comprises 'word pictures' of a future desired state as it will be experienced by visitors to that place. This may be broadly similar to, or better than, the present state. The language of the outcome will be written in an appealing or inspiring manner.
2. *An objectives statement.* This lists the actions required to achieve the desired outcome(s). 'Objectives' are statements of a future desired state at a place, which may not necessarily relate to the experience of a visitor, that are clear and specific about the end result sought in terms of its nature, extent or scale. 'Place objectives' in a CMS may be time bound, but this is not a requirement.
3. *Policy statements.* Policies for places establish principles or courses for action and can be decision-making tools that help achieve the outcomes or objectives.

The terminology used by DOC (above) differs from the BOA literature (section 2); however, the intention is similar. CMS documents will identify the outcomes being planned for (by way of 'outcome statements'), and then describe the objectives and policies to achieve these outcomes.

CMSs provide one avenue for defining an outcome-based approach to conservation management. In order to achieve all facets of the broad social outcomes mandate established by DOC's strategic direction, including recreation-related benefits that accrue off-site (such as health benefits), DOC will need to pursue non-place outcomes via other mechanisms. This may include, for example, enhanced societal attitudes toward conservation/recreation.

Management plans currently under review, including the RNPMP, are being written to execute the outcomes approach required by the General Policies. As these plans are still in draft form, or in preparation, it is too early to comment upon them.

3.1.4 Collaboration with stakeholders

Critical to the successful implementation of the BOA is the involvement of stakeholders. As is usual practice now in public agencies, DOC encourages public participation. Other than an overarching reference to the Treaty of Waitangi⁶ (and thus a requirement for a relationship with Maori), public participation clauses in conservation legislation are not detailed in terms of *how* to seek public engagement and *who* should be the focus of this engagement. The process laid out in the National Parks Act 1980 (section 47) for the preparation/review of national park management plans is illustrative of the statutory requirements imposed on DOC:

1. Consult with the Conservation Board.
2. Through notices in newspapers, notify the public of the intention to prepare review the management plan and invite written suggestions.
3. Prepare the draft management plan in consultation with the Conservation Board.
4. Through notices in newspapers, invite written submissions from the public on the draft management plan.
5. Write to those people who provided written suggestions earlier in the process, inviting written submissions on the draft management plan.
6. Provide free inspection copies of the draft management plan.
7. Hear oral submissions from submitters who request this opportunity.
8. Amend the draft plan as appropriate and send to the Conservation Board for its consideration.
9. Send revised plan to the New Zealand Conservation Authority for its approval.
10. The Authority to consult with the Minister of Conservation in its deliberations.

While this particular process provides for public participation, it is silent on how best to do this, other than referring to public notices and hearings. However, conservation legislation does not limit public engagement to the measures outlined in the statutory process (such as those mentioned above). Instead, it leaves the design and execution of the public participation process to the discretion of DOC planners.

The norm for public participation in DOC processes is for the public's views to be sought on documents (various forms of written statements to which the public can respond). A typical approach for public involvement is for the planner to call a public meeting when a planning document is released (e.g. discussion document, draft management plan). The planner will explain the purpose and content of the document (often using an audio-visual presentation), outline how the public can communicate their views to DOC and answer any questions. Informal discussion usually occurs over a cup of tea at the conclusion of the meeting. Prior to the public meeting, key stakeholders may have been consulted (e.g. local authorities, iwi, key conservation and recreation groups, concessionaires).

⁶ Te Tiriti O Waitangi/the Treaty of Waitangi was signed in 1840 between Britain and more than 500 Maori chiefs, establishing New Zealand as a British colony. The Treaty has an important and increasingly recognised role within New Zealand's legal, social and economic fabric; however, its interpretation remains contested.

In their design of an outcomes framework for DOC, Booth et al. (2002: 31) concluded that 'the Department's work with stakeholders places emphasis on site-based users ... off-site consumers do not receive the level of consultation equivalent to the magnitude and significance of this group'. Furthermore, the same authors noted that community involvement appeared to be viewed by DOC as a prerequisite for achieving conservation goals, rather than with any view of promoting the benefits to stakeholders from their participation.

A key point is that while DOC has standard practice with respect to public participation, the form of engagement, as outlined above, has scope for improvement with respect to greater participation by the community. With reference to the public participation spectrum (International Association for Public Participation 2006a), DOC could move from the 'inform' end of the spectrum towards the 'empower' end. This provides the opportunity for innovation by applying processes such as the BOA.

3.1.5 Lessons and challenges

Booth & Edginton (2009) concluded their review of DOC's shift towards an outcomes approach with a set of lessons and challenges. These comments are re-presented here; lessons are discussed first.

First, the 'outcomes at place' notion that is integral to DOC's planning framework was born out of a lack of resources to manage all places intensively. The identification of 'places' (that is, the important parts) in CMS documents and management plans provides a lesson about the need to be strategic and put resources into the places that matter most. By preparing strong strategic documents (general policies and CMSs), the need for detailed conservation management plans is reduced and planning resources are used more effectively.

Second, the initiative for adopting the BOA into DOC processes was strongly influenced by the New Zealand Government's 'whole of government' focus on outcomes. This set the stage for DOC to follow suit. When it did so, recreation management was a key driver, based on the visitor strategy (DOC 1996) which specified goals and defined outcomes for different visitor group experiences. This indicates that recreation can lead other facets of park agencies' work in applying BOA principles.

Third, a shift in DOC's focus from on-site visitors to the wider public of New Zealand has been highlighted in the Department's Strategic Vision ('New Zealanders want their natural and historical heritage conserved') and in the SOI documents which now describe benefits from, and connection with, conservation. This fits with the BOA approach. The Department is now collecting relevant data on public values to inform this approach.

Despite the organisation having made some progress, Booth & Edginton (2009) identified challenges DOC faces in further integrating the BOA into its work. In particular:

- Prior DOC experience with the adoption of recreation planning tools (such as the Recreation Opportunity Spectrum (ROS)) indicates that the uptake of the BOA may be slow and its initial application may be inconsistent. DOC's institutional culture has been one of output management and it will take several years to change this through the implementation of 'place-based outcomes' in the CMSs.

- Skill development in terms of public engagement and the written specification of outcomes will require refinement, as planners develop these skills and ‘learn by doing’.
- Consistency will be required across DOC staff (not just planners) in terms of engagement with the community for plan development and implementation.
- It cannot be assumed that agreed outcomes will be achieved and DOC must do more than simply measure output achievement. Output measurement is important and can indicate a certain level of outcome achievement, but it is critical to also directly measure outcomes. A corollary is that before outcomes can be measured, there must be well-written outcomes statements.
- DOC is faced with the issue of measuring outcomes outside of ‘place’, specifically:
 - How to incorporate benefits from recreation into the national health bill when DOC’s mandate is restricted to managing protected areas.
 - How to measure outcomes at place. What do you measure and how do you judge success? The best means to achieve such measurement remains unclear, but it is apparent that DOC is not resourced to measure all potential outcomes and that it will take a multi-agency approach to achieve this.

3.2 STEWART ISLAND/RAKIURA PLANNING PROCESS

The BOA was tested as part of the review of the existing Stewart Island/Rakiura Conservation Management Strategy (SIRCMS) and preparation of the first Rakiura National Park Management Plan (RNPMP) (the National Park was gazetted in 2002). These two plans were being developed in tandem, with a joint public participation process, since Rakiura National Park comprises 85% of Stewart Island/Rakiura. The joint process provided the opportunity to test the BOA in both forms of DOC management planning (CMSs and management plans). In practical terms, combining the processes had negligible effect upon the BOA application.

The three ‘places’ used as case studies in this study represented the areas identified early in the planning process as warranting special attention within the planning documents. Subsequent to the study, the remaining national park land was subsumed within two additional ‘places’. Thus the total land area of RNP was included within a ‘place’.

The statutory process for the RNPMP/SIRCMS is given in Appendix 2, with an indicative timeline. Table 8 outlines the planning steps relevant to the BOA application.

Subsequent steps in the planning process (see Appendix 2) will provide the test of the BOA, in that submissions on the draft planning documents will be one means to judge the success of the process in obtaining community views. Ultimately, implementation and achievement of outcomes can be assessed only on the completion of the 10-year life of the management plan.

TABLE 8. RNPMP/SIRCMS PLANNING PROCESS STEPS RELEVANT TO THE BOA APPLICATION.

Note: This table illustrates that considerable public involvement had already taken place before the BOA study was undertaken

DATE	ACTION	DESCRIPTION	RELATIONSHIP WITH BOA APPLICATION
Sept 2005	Community meetings	Community advised of future planning process. A 'blank sheet' approach with respect to planning for the whole island was used, i.e. people asked what they wanted to see (and not see) in 20 years' time.	Undertaken prior to BOA application
Aug 2006 and ongoing	Consultation with Conservation Board	Conservation Board consulted on pre-draft notification process. Updates at each Board meeting.	Undertaken prior to BOA application
Sept 2006	Discussion document	Te Rūnanga o Ngāi Tahu advised. Public was notified of intent to review CMS and prepare draft NPMP and asked for suggestions for the drafts. 406 feedback responses received in response to this document by early 2007.	Undertaken prior to BOA application
Sept 2006	Community meetings	Meetings arranged to take place when discussion document was released. Planning process and purpose of discussion document explained.	Undertaken prior to BOA application
Sept 2006 onwards	Development of draft planning document(s)	Draft CMS and NPMP developed in consultation with the Conservation Board and other persons/organisations as practicable and appropriate.	BOA application forms part of this step, providing means for consultation with 'other persons/organisations' and information for the draft CMS/NPMP

3.3 STEWART ISLAND/RAKIURA: THE PLACE AND ITS PEOPLE

Stewart Island/Rakiura has a permanent population of approximately 400 residents, all of whom live in or around Oban township. The 175 000-ha island is predominately public land (mostly national park) with some private land (mostly in Maori ownership). Figure 2 provides a map of the island, with arrows indicating the location of the three case study sites: Ulva Island, Mason Bay and Port Pegasus/Pikihatiti.

The island is a 20-minute flight or one 1-hour ferry journey from the South Island. As became apparent during the public participation process of this study, a strong sense of place attachment pervades some Islanders' sense of belonging to the island.

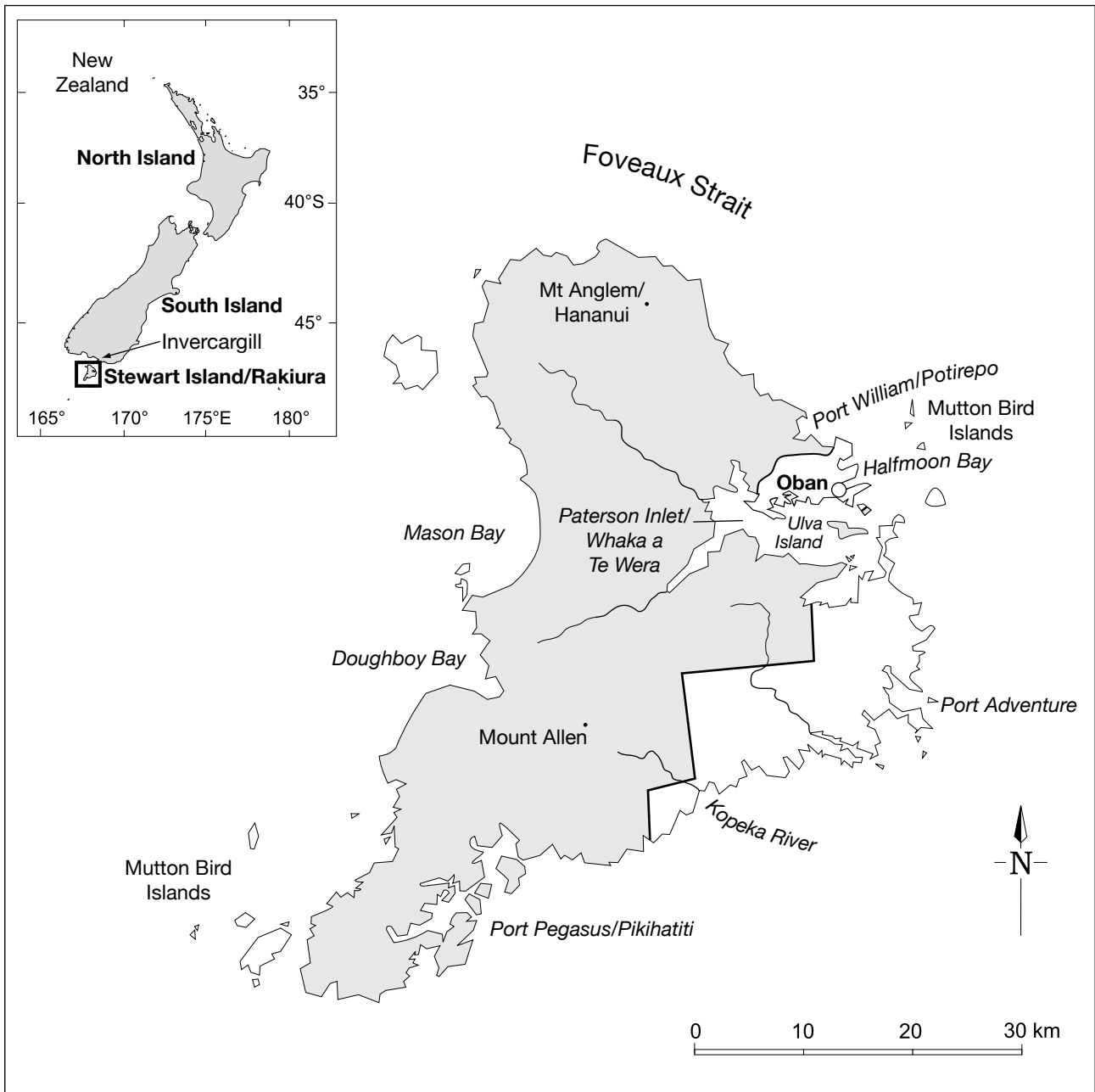


Figure 2. Map of Stewart Island/Rakiura showing extent of Rakiura National Park (shaded area), main settlement (Oban) and other localities mentioned in the text.

As the national park status suggests, the island has national importance in terms of biodiversity (e.g. its kiwi population) and some recreational activities (particularly hunting). For this reason, the public participation process was not confined to the Island (this is discussed further in section 5).

4. Adapting the BOA model for application by DOC

The BOA was developed for implementation in the USA. Different planning and institutional arrangements in New Zealand suggested a certain amount of adaptation of the process was required before it was suitable for application in DOC management planning. Therefore, the *principles* of the BOA were followed, with some adaptation of the community consultation steps that had been followed elsewhere. The rationale for this decision included the lack of clearly prescribed implementation steps for the BOA, the successful adaptation of the Recreation Opportunity Spectrum to suit DOC's requirements in the early 1990s (Taylor 1993), and literature suggesting that the principles were the most useful part of the BOA (e.g. McCool et al. 2007). Furthermore, incremental application of the BOA model has been encouraged by some of the model's architects, endorsing the 'learn as you go' style of implementation (Driver & Bruns 2009). Refinement of the approach for DOC purposes was achieved by:

- Identifying the steps in the BOA process used within the USA
- Using this knowledge to develop a process appropriate for New Zealand

4.1 APPLICATION IN THE USA

Because of the lack of formally published material outlining the BOA implementation process, this section draws upon information gathered directly from practitioners and from chapters of a book intended to fill this gap (Driver 2009c). The drafts of these chapters became available in the later stages of this research project, so were used during the study evaluation phase rather than the design phase. Nonetheless, they are presented in this section, as they represent the only examples of BOA applications that have been written up for publication. Several of the chapter authors identified phases and steps in the BOA process. Modified versions of these are presented in Table 9.

From Table 9, key stages in the BOA process can be identified (adapted from Driver 2009a):

1. Undertake *demand and supply analyses* to determine recreation desires of identifiable markets and then, considering available alternative supplies, select the primary recreation/tourism market segments (i.e. decide what type and number of people will be served, where and when).
2. Define *recreation management zones* and their corresponding recreation/tourism market niches.
3. Specify target *outcomes*.
4. Develop *management objectives* that specify targeted outcomes for specific facilities, sites, management units, and definable recreation/tourism 'niches' within management units.
5. Develop *setting condition prescriptions* to maintain the essential setting characteristics needed to attain targeted outcomes.

6. Develop an *implementation plan*, including management, marketing and monitoring actions (monitoring to identify the degree to which targeted outcomes have been attained, as well as monitor attainment of management objectives and setting prescriptions) and supportive administrative actions (funding, staffing, managing partnerships engaging other service providers, and implementing partnerships for project implementation).
7. *Implement, revise* (as required) and *evaluate* the plan.

Two stages of the BOA process are most critical to this study, given its focus upon community consultation and monitoring. These are: the means by which demand information may be gathered and analysed (Phase 2 in Table 9) and development

TABLE 9. STEPS IN THE BOA PROCESS (AFTER LEE & STAFFORD 2009).
Note that some of the material in this table is explained in greater detail elsewhere in this report, and some of the terminology differs from that used in this report.

PHASE	STEPS
1. Preparatory actions	<ul style="list-style-type: none"> • Ensure that supervisors endorse Outcomes Focused Management • Organise the planning team • Understand responsibilities and constraints, identify critical issues and concerns • Consider additional collaborative and public involvement efforts • Identify critical issues and concerns • Ensure that all members of the planning team understand the BOA
2. Gather and analyse information about supply and demand	<ul style="list-style-type: none"> • Define market segments • Identify logical recreation management zones and special recreation niches • Assess and interpret the preferences of your likely on- and off-site customers
3. Develop the management plan	<ul style="list-style-type: none"> • Identify beneficial outcomes and determine which outcomes can and should be targeted in a set of feasible alternatives within each management zone • Develop management objectives • Identify and prescribe the essential setting characteristics • Rank alternatives and select the preferred alternative • Define the essential recreation-tourism service environment
4. Develop an implementation plan	<ul style="list-style-type: none"> • Identify management actions to be implemented • Identify marketing actions to be implemented • Identify monitoring actions • Identify supporting administrative actions • Provide ample opportunities and time-frame for review of the proposed plan
5. Implement the plan	<ul style="list-style-type: none"> • No steps specified
6. Revise the plan as required	<ul style="list-style-type: none"> • No steps specified
7. Report on performance	<ul style="list-style-type: none"> • Ensure that evaluations document the realisation of targeted outcomes

of a monitoring plan (Phase 4, step 3—identify monitoring actions). Monitoring measures are discussed in section 9. The remainder of this section highlights practice in the USA for identifying values and preferences from on- and off-site ‘customers’ (Phase 2—demand assessment).

Demand studies may take various forms, but questionnaires, surveys and/or focus groups are commonly used. Bruns et al. (2009a) suggested the use of a combination of informal interviews, focus groups, and in-depth mail-back studies to conduct recreation preference assessments. In their application of the BOA to the McInnis Canyons National Conservation Area (managed by the USDI Bureau of Land Management (BLM)), these authors concluded that focus groups and facilitating two-way iterative communication produced the most useful results. They also noted that informal interviews have tended to be undervalued in such information-gathering processes, and surveys overvalued. However, they noted that no one method produces adequate results, hence the need for a combination of approaches.

Focus groups of homogeneous types of people (e.g. motorised users, residents) have been used by BLM to identify current and desired outcomes and define them explicitly. Public workshops were found to provide information of too general a nature. Multiple focus group meetings have been held, with each focus group representing an identifiable sub-group within the community. Meetings with focus groups can be iterative (i.e. as many meetings with each group as is necessary to complete the process).

Within the Alpine Loop Backcountry Byway BOA study, three separate data-gathering methods were developed and employed (Virden et al. 2009). First, a series of focus groups was conducted with local residents, community leaders and tourism industry providers in the surrounding communities. This phase of the research was used to identify the important issues, activities, setting preferences and benefits according to the various stakeholder groups. The focus groups provided insight into the issues and questions that needed to be incorporated into a subsequent round of visitor and resident surveys. Second, an on-site and mail-back survey was administered to 1200 visitors. Third, a mail survey was administered to residents from each of the three local communities to assess their preferences and attitudes toward tourism in the Alpine Loop Backcountry Byway. The authors note that focus groups cannot provide information representative of the views of a whole community or particular community segments—traditional surveys with random sampling do this better.

More detail about the use of visitor surveys for the BOA process is provided by the Gunnison Gorge National Conservation Area study (Bruns et al. 2009b). Visitor preference surveys were used to identify recreation use patterns, associated preferences for psychological experiences, other outcomes, recreation settings, possible alternative management actions, information sources, economic expenditure and demographic variables. Results helped to determine which kinds of experiential and other beneficial outcomes are most important to specific groups (the BOA calls these ‘customer markets’). The aim was to link outcome preferences to setting character preferences and also to the various management actions required to achieve them and facilitate desired outcome attainment.

In summary, a range of participatory methods has been used in the USA to gather information on community values and outcome preferences as part of BOA planning processes. The use of a variety of methods for collecting this information has been recommended.