Protected area planning in Victoria, Australia, 1987-2007

An assessment of planning process and planning effectiveness

A thesis submitted in fulfilment of the requirements for the degree of

Doctor of Philosophy

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November 2010
Declaration

I certify that:

a) except where due acknowledgement has been made, the work is mine alone;

b) the work has not been submitted previously, in whole or in part, to qualify for any other academic award;

c) the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program;

d) any editorial work, paid or unpaid, carried out by a third party has been acknowledged; and

e) ethics procedures and guidelines have been followed.

Brian Vincent Martin

November 2010
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ABSTRACT

Protected areas are places set aside for the long-term conservation of nature, they include national parks and other types of reserve. The purpose of the research undertaken for this thesis was to examine protected area planning in Victoria, Australia, in the period 1987 to 2007. The intent was not only to examine how this planning was done but also to assess the effectiveness of that planning. The motivation for doing this research was based on the conviction that our system of national parks and other protected areas are not only key factors in nature conservation but also major contributors to human health and welfare—all the more reason that they are planned and managed well.

The research focussed on management plans, documents which set out the management approach and goals, together with a framework for decision making, to apply to a protected area over a given period of time. This was not only because it had become accepted wisdom amongst protected area managers that a management plan was an essential document but also that management plans are often the only publicly available document that explains how a protected area will be managed and the only opportunity for the public to comment on proposed management.

The research questions were:

- What are management plans for protected areas? What are they meant to do and how do they do it?
- How were protected area management plans prepared in Victoria in the period 1987 to 2007?
- How do you measure effectiveness in protected area management plans?
- How effective were management plans prepared in Victoria in the period 1987 to 2007?
- Can protected area management planning be made more effective?

It became clear from the review of literature that there had been little academic discussion on this form of planning and that there was little agreement on how to
assess planning effectiveness, so it was necessary to adapt the work in related fields including systematic conservation planning, evidence-based conservation planning, and town and regional planning.

The research methodology employed to answer the research questions used three methods—document analysis to examine the content of relevant papers and reports, case studies to look in detail at management plan content and planning procedures, and changes over time, and interviews to provide expert input from planners and managers on some of the major issues being considered.

To answer the first research question there were text books and professional guidelines which dealt with process and content. Nevertheless, the research found that there was significant disagreement on the inclusion in the plan of comprehensive resource information, discussion of alternative approaches, detailed action plans, performance measures, priorities for implementation, cost estimates, staff required and measurable objectives. There was also no consensus on the style and extent of public consultation, how monitoring and research data is incorporated in planning, at what stage management issues are resolved, the value of publicly available issues papers, the method of implementation and how monitoring and review programs provide input to adaptive management.

The question of whether a management plan should contain both detailed prescriptions and broad strategic guidance was not completely resolved although the research showed that detailed plans were seen to be most useful to field managers. Some management plans give broad, strategic guidance to the management of a protected area over ten or fifteen years but do not contain specific management strategies, priorities and cost estimates—presumably these functions are supplied by other management systems; other plans provide a direct mandate to the management agency for a particular management program.

The professional literature assumed that a management plan would be the principal guiding document for management for a particular park, however the interviews revealed that, at least in Parks Victoria, the situation was very different and that there was little connection between the contents of Parks Victoria management plans and what actually happened on the ground. The management
Abstract

plan set strategic directions but on-ground programs were largely determined by other management systems.

The second research question was addressed by the case studies and interviews which showed that the content and format of management plans changed significantly between 1987 and 1997. The later plans were shorter and contained less resource information, and plans for different parks had similar contents due to the guidelines that had been introduced.

The third research question, measurement of the effectiveness of protected area management plans, was one of the most difficult questions to answer. There was no accepted methodology available and there had been very little consideration of this issue. I adapted work in town and regional planning to assess plan quality—inputs, process and outputs—a conformance-based approach. To assess overall planning effectiveness I used a performance-based approach to measure outcomes. It became clear that this methodology was lengthy and complex, and was limited by the availability and accessibility of information, and that many of the criteria for assessing outcomes required specialist evaluation techniques.

Regarding the fourth research question, the research found that Parks Victoria had devoted considerable resources to the production of management plans, but the case studies showed that the planning process was inadequate in many respects and that the resulting plans were not particularly effective in terms of the criteria that I had adopted. The interviews, in particular, showed that, during this period the management plan gradually lost its relevance and changed from an essential management tool to a more general and less useful document.

Regarding the fifth research question, the research concluded that it is feasible to make protected area planning more effective. Recommendations included better legislation, better integration with local government and other public land planning, more dynamic planning, the use of specific and measurable objectives, providing cost estimates for proposed actions, use of evidence-based planning, development of effective audit and monitoring programs, and the reinstatement of the importance of management plans.
Chapter 1

1

INTRODUCTION

1.1 Background

1.1.1 The purpose of the research

The purpose of this thesis was to examine protected area planning in Victoria, Australia, in the period 1987 to 2007. The intent was not only to examine how this planning was done but also to make an assessment of the effectiveness of the planning. A focus on Victoria was chosen because it had both a well developed protected area system and well developed procedures for planning these protected areas. In many respects the planning and management of Victoria's protected area system is a typical example of modern professional practice, therefore an examination of these planning processes and planning effectiveness is likely to be able to be applied to similar systems in other parts of Australia and other parts of the world. The time period chosen—20 years—was sufficiently long to enable some judgements to be made on the evolution of planning processes, and management plans in this period were subject to formal guidelines whereas in earlier times the planning process was less well developed.

A major motivation for undertaking this research was that I had been involved in some way or another in protected area management and protected area planning for the last 35 years; in early times as a commentator on government processes for non-government organisations such as the Federation of Victorian Walking Clubs; later as a manager and head of planning for the then Australian National Parks and Wildlife Service; and for the last 15 years as a consulting environmental scientist and planner. In that time I had dealt with very many management plans for protected areas and had been either principal author or contributing author of 18 management plans including 13 in Victoria. This planning work ranged from dealing with some of Australia’s most significant national parks—Kakadu National Park and Uluru (Ayers Rock-Mount Olga) National Park—to major national parks and other protected areas in Victoria.
While undertaking this planning it often occurred to me that there might be better ways to approach the work but there was little guidance in the academic literature, and the professional guidelines and textbooks tended to focus on process and the content of management plans. This left open the questions of: Were there better planning techniques available? Were the management plans useful and did they result in good outcomes? How do you judge planning effectiveness and can you measure it? This led to the current research which is both a close examination of past practice but also an attempt to adapt planning evaluation methods from related disciplines to protected area planning. It is my hope that this research will lead to better planning and, hence, better management of our system of protected areas.

1.1.2 National Parks and other protected areas

The concept of protected areas has been in existence in many countries and cultures for at least 2000 years. Areas were set aside to conserve game, protect forests and provide for spiritual and recreational purposes (Anderson 2000). The modern concept of a national park originated in the United States in the latter half of the nineteenth century due to widespread support for the protection of nature and landscapes. This movement resulted in the declaration of the first national park—Yellowstone National Park—in 1872. In general terms, a national park was intended to be an area of outstanding natural beauty with its wildlife and forests largely unaffected by modern development and available to visitors for recreational, educational, scientific and spiritual purposes. These areas were proclaimed in national legislation and were to be maintained in perpetuity.

The Scottish-born American naturalist John Muir was a major influence in this movement and a strong advocate for national parks, and the following quotations are taken from his 1912 book on Yosemite National Park (Muir 1962, p. 203-206). In 1864 the Yosemite Valley was granted to the State of California by the United States Congress for the purpose of a national park. The legislation said that the valley ‘… shall be held for public use, resort, and recreation; shall be inalienable for all time …’ Later legislation, in 1890, passed control of the park to the Secretary of the Interior and required him to make regulations for ‘… the
preservation from injury of all timber, mineral deposits, natural curiosities, or wonders within said reservation, and their retention in their natural condition’ and also provide against ‘… the wanton destruction of the fish, and game found within said reservation, and against their capture or destruction, for the purposes of merchandise or profit.’ These principles continue to the present day and set the tone for modern legislation.

By the early twenty-first century national parks and other protected areas had been established in most countries in the world. By 2003 the United Nations recorded 102 protected areas covering 18.8 million square kilometres throughout the world (Chape et al. 2003). In Australia, the first national park—The National Park (later Royal National Park)—was established near Port Hacking, south of Sydney, in 1879. The first national park in Victoria was established in 1898—see below.

The definition of protected areas has also evolved considerably. Dudley (2008, p. x) raises the issue of whether:

… the word “protected area” should be a general term that can embrace a very wide range of land and water management types that incidentally have some value for biodiversity and landscape conservation, or instead be a more precise term that describes a particular form of management system aimed at conservation.

He observed that countries differ in their interpretation but that the International Union for Conservation of Nature (IUCN) favoured the latter approach.

In the 1970s IUCN recognised the need to define a set of categories which classify protected areas in terms of their management objectives. This was intended to create a common understanding of protected areas both within and between countries. The most recent version of the IUCN protected area categories identifies and defines six categories; this categorisation is recognised by the United Nations and many national governments including Australia. A simplified description of the system is given at Table 1.1.
Table 1.1  The IUCN protected area categories

<table>
<thead>
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<th>Category I a: Strict nature reserve</th>
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<tr>
<td>Primary objective: To conserve regionally, nationally or globally outstanding ecosystems, species (occurrences or aggregations) and/or geodiversity features: these attributes will have been formed mostly or entirely by non-human forces and will be degraded or destroyed when subjected to all but very light human impact.</td>
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<th>Category I b: Wilderness area</th>
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<td>Primary objective: To protect the long-term ecological integrity of natural areas that are undisturbed by significant human activity, free of modern infrastructure and where natural forces and processes predominate, so that current and future generations have the opportunity to experience such areas.</td>
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<th>Category II: National park</th>
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<td>Primary objective: To protect natural biodiversity along with its underlying ecological structure and supporting environmental processes, and to promote education and recreation.</td>
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<th>Category III: Natural monument or feature</th>
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<td>Primary objective: To protect specific outstanding natural features and their associated biodiversity and habitats.</td>
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<th>Category IV: Habitat/species management area</th>
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<td>Primary objective: To maintain, conserve and restore species and habitats.</td>
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<th>Category V: Protected landscape/seascape</th>
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<tr>
<td>Primary objective: To protect and sustain important landscapes/seascapes and the associated nature conservation and other values created by interactions with humans through traditional management practices.</td>
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<th>Category VI: Protected area with sustainable use of natural resources</th>
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<td>Primary objective: To protect natural ecosystems and use natural resources sustainably, when conservation and sustainable use can be mutually beneficial.</td>
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Source: Dudley 2008.

It is of note, however, that individual jurisdictions both within Australia and overseas name their protected areas according to their own inclinations and traditions and they do not necessarily correspond with the terminology used by IUCN. For example, some ‘national parks’ in the United Kingdom are managed as
Chapter 1

Category V reserves. So some interpretation is needed in determining how a particular protected area is managed.

This situation exists in Victoria where there are many different names for protected areas, each signifying the type of management applied to the area. All of these reserve names can be related to the IUCN Categories. For example, national parks are set aside for nature conservation and compatible enjoyment, recreation and education and fall within IUCN Category II. Most protected areas in Victoria are proclaimed under the National Parks Act 1975 (Vic)—hereafter called the National Parks Act or the Act—and listed in the Schedules to the Act (Appendix 1). This thesis addresses specifically planning for the protected areas listed in the Schedules to the Act.

Management of national parks and other protected areas has changed significantly since 1872. In earlier times, parks were managed by people with extensive practical experience of land management who used that experience to determine how a park should be managed. There were few guidelines or regulations. Current day managers responsible for managing protected areas are subject to a large range of government policies, guidelines, reporting procedures and management practices.

The evolution of new systems of management has given rise to protected area planning as one of the essential components of management. That is, modern management practice requires managers of protected areas to consider the significance of the natural resources they are managing, how the community would like the area to be used, and how the natural resources can be preserved while allowing for community use. The consideration of these issues needs to be developed in a structured way with involvement of the general public as well as key interest groups, and requires the production of a document, or set of documents, to describe the issues confronting management and how the park will be managed for a nominated period of time. That document is called a management plan. Management plans for protected areas are discussed below.


1.1.3 Management plans

Dr Kenton Miller, the then Chair of the IUCN World Commission on Protected Areas said in the introduction to the IUCN guidelines on management planning for protected areas (Thomas and Middleton 2003, p. vii) that: ‘Management Planning is an essential step towards ensuring the proper management of protected areas’. This sentiment is repeated in many texts. Worboys, Lockwood and De Lacy (2005, pp. 189-190) listed 11 major reasons for protected area planning and maintained that the list ‘justifies governments and management agencies placing a high priority on achieving high quality planning.’

Thomas and Middleton (2003, p. 1) defined a management plan as ‘a document that sets out the management approach and goals, together with a framework for decision making, to apply in the protected area over a given period of time.’

While there seems to be general agreement in professional circles that all sites managed for nature conservation should have a management plan there are some problems associated with them. Sorensen and Auster (1998, p. 146), in a discussion of urban statutory planning, assert: ‘Perhaps there has always been a gap between what academics think planners should do and what planners actually do.’ The same might be said of protected area planning. Alexander (2008, p. 7) posed the question: ‘Why are so many sites managed without plans, and why do plans so often lie unused, forgotten on shelves or lost in computer folders?’ He suggested that:

So many managers have direct or indirect experience of abysmal management plans, produced at great cost but which deliver nothing, that there is a collective lethargy and aversion for planning.

This thesis examines these questions and proposes more effective ways of undertaking planning.

1.1.4 Protected areas in Victoria

In 1866 Tower Hill in western Victoria, a place noted for its geological features, was reserved as a public park. This was the first area in Victoria to have its natural
features protected and made available for recreation. Other small areas at Fern Tree Gully and Arthurs Seat were given reserve status in the 1880s. The first national parks in Victoria were declared at Wilsons Promontory and Mount Buffalo in 1898. This was a response to calls from the public for areas to be set aside to protect landscape and wildlife and provide for outdoor recreation (Anderson 2000). By 2008 the protected area estate in Victoria covered 3.95 million hectares which is about 17 per cent of the State. It included 40 national parks, 27 state parks, 13 marine national parks, 11 marine sanctuaries, three wilderness parks, 31 metropolitan parks and 57 other parks. It also included 2,789 natural features and conservation reserves, 8,400 formally registered aboriginal cultural heritage sites and 2,500 non-Indigenous historic places (DSE 2006, Parks Victoria 2008). Figure 1.1 shows the extent of Victoria’s parks and reserves estate.

Figure 1.1 Victoria’s protected area estate

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In 1956 a *National Parks Act* was proclaimed. It created a National Parks Authority responsible for administering the 13 existing national parks (Anderson 2000). The parks were managed by Committees of Management. The *National Parks Act 1970* (Vic) created a new National Parks Service. In 1975 new legislation—the *National Parks Act 1975 (Vic)*—resulted in re-establishment, reorganisation and expansion of the National Parks Service which took over responsibility for field management from Committees of Management (Hodges 2006). This Act, with numerous amendments, remains in force today. The last major change to administration occurred in December 1996 when Parks Victoria was established (NRE 1997). The *Parks Victoria Act 1998* (Vic) later established a legislative basis for the organisation. Parks Victoria continues to be the management agency for protected areas in Victoria.

A summary of the various organisational changes of the agencies responsible for protected area planning in Victoria in the period considered by this thesis is given at Table 1.2.

**Table 1.2 Administration of protected areas in Victoria**

<table>
<thead>
<tr>
<th>Period</th>
<th>Department</th>
<th>Division of the Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983-84 to 1986-87</td>
<td>Department of Conservation, Forests and Lands</td>
<td>National Parks Service (reformed)</td>
</tr>
<tr>
<td>1987-88 to 1988-89</td>
<td>Department of Conservation, Forests and Lands</td>
<td>National Parks and Wildlife Division</td>
</tr>
<tr>
<td>1989-90</td>
<td>Department of Conservation and Environment</td>
<td>National Parks and Wildlife Division</td>
</tr>
<tr>
<td>1990-91 to 1991-92</td>
<td>Department of Conservation and Environment</td>
<td>National Parks and Public Land Division</td>
</tr>
<tr>
<td>1992-93 to 1995-96</td>
<td>Department of Conservation and Natural Resources</td>
<td>National Parks Service</td>
</tr>
<tr>
<td>1996-97 to 1998-99</td>
<td>Department of Natural Resources and Environment</td>
<td>Planning and Development Division</td>
</tr>
<tr>
<td></td>
<td>Parks Victoria</td>
<td></td>
</tr>
<tr>
<td>Period</td>
<td>Department</td>
<td>Division of the Department</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>1999-2000 to 2001-2002</td>
<td>Department of Environment and Conservation</td>
<td>National Parks Division</td>
</tr>
<tr>
<td></td>
<td>Parks Victoria</td>
<td></td>
</tr>
<tr>
<td>2002-03 to 2006</td>
<td>Department of Sustainability and Environment</td>
<td>National Parks Division</td>
</tr>
<tr>
<td></td>
<td>Parks Victoria</td>
<td></td>
</tr>
</tbody>
</table>

Source: Hodges 2006.

It will be seen that, in the period considered by this thesis, the agency responsible for protected area management and planning had experienced considerable changes in name and in function. This appears to be both due to changes in government and to changes in management philosophy. Hodges (2006) argued that the agency culture also changed significantly in the 1990s and early 2000s with the imposition of a ‘business culture’ and the adoption of corporate management systems to complement, or supplant, existing planning systems. These matters will have had an effect on the way protected area planning was undertaken and are discussed later in the thesis.

### 1.1.5 Definitions

A number of terms used in the thesis need to be defined at this time. Other technical terms will be defined later in the thesis.

*Management effectiveness evaluation:* ‘the assessment of how well the protected area is being managed – primarily the extent to which it is protecting values and achieving goals and objectives’ (Hockings *et al.* 2006).

*Management plan:* also called a *plan of management*, is ‘a document which sets out the management approach and goals, together with a framework for decision making, to apply in the protected area over a given period of time’ (Thomas and Middleton 2003, p.1).
**National park**: A park belonging to Category II of IUCN protected area categories ‘large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities’ (Dudley 2008, p. 16).

**Planning effectiveness**: this is closely related to management effectiveness. It is an assessment of the inputs, process, outputs and outcomes of planning. This is discussed in detail in Chapters 3, 5 and 6.

**Plan quality**: an assessment of the planning process and plan outputs. This is discussed in Chapters 3, 5 and 6.

**Protected area**: The IUCN definition is ‘a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values’ (Dudley 2008, p. 8). For the purposes of this thesis it refers to all of those areas set aside as parks and reserves in the National Parks Act and listed in the Schedules to the Act (Appendix 1).

It should be noted that inappropriate and loose use of planning terms is a widespread shortcoming of management plans. The words *vision, goal, aim, objective, outcome, indicator, policy, strategy, output and action* etc. are used frequently in management plans and their exact meaning can vary from agency to agency or within an agency over time. In this thesis, such terms are used in accordance with Parks Victoria practice at the time or are given specific definitions.

### 1.2 The scope of the research

As I indicated above, this thesis sought to examine not only how protected area planning was conducted in Victoria in the period 1987 to 2007 but also explored whether that planning was effective and whether, in fact, it is feasible to measure
planning effectiveness. The research was structured according to five research questions.

1.2.1 The research questions

1. What are management plans for protected areas? What are they meant to do and how do they do it?

It is important to establish what this form of environmental planning is meant to do and what form it should take. What should management plans contain and how should they be prepared? Are they meant to give detailed prescriptions for management or just give broad strategic guidance? Are management plans the principal guiding document for management of particular parks or are they just one component of a complex management system?

This component of the research was based on an a review of literature on protected area planning and related fields.

2. How were protected area management plans prepared in Victoria in the period 1987 to 2007?

This question was intended to establish a factual basis for the research. Victoria was chosen for the case studies because of its well developed planning and management systems and because of reasonably good access to documentation and people for interviews. What was the process and content of management planning? Were the outcomes of the planning process known? This component of the research was based on case studies, interviews and the examination of available documentation.

3. How do you measure effectiveness in protected area management plans?

This is a key question and involved a number of methodological difficulties. There was little written on evaluating effectiveness of protected area planning so it was necessary to adapt techniques developed for urban and regional planning to this purpose. Even so, these techniques are still in an early stage of development and there appears to be no consensus on the best way to evaluate plan quality and
planning effectiveness—defined above. This issue was examined through a review of literature.

4 How effective were management plans prepared in Victoria in the period 1987 to 2007?

This posed the questions: Were the management plans of this period effective and by what criteria should that be judged? The criteria developed for planning effectiveness were tested in the case studies. This was intended not only to make a review of protected area planning in that period but also to make a preliminary assessment of the methodology for measuring planning effectiveness.

5 Can protected area management planning be made more effective?

This was the endpoint of the research and drew together the lessons learned from the literature, examination of current planning practice and interviews with practitioners. If current planning practice is judged to be deficient in some way: How can it be improved? How do you judge whether changes in procedure will make it more effective? Is the evaluation methodology developed in this research a practical tool?

It is important to confirm what the research intended to accomplish and what was beyond its scope. The thesis investigated how protected area planning was done in practice, as distinct from planning theory. It examined methodology for evaluating planning effectiveness, adapted it to the evaluation of protected area planning and tested the methodology in case studies.

The thesis did not attempt to examine in detail the individual technical issues dealt with in a management plan, for example fire management, recreation management and species management—these are major subjects in their own right—but sought to examine the process whereby government policy, technical information and the views of the public are drawn together to form a comprehensive plan. Similarly, the development of indicators for all issues affecting planning effectiveness would require major studies and was seen to be beyond the scope of the thesis. For example, developing indicators for the conservation status of flora communities is
a major work in itself. Instead, a few indicators were developed to test the viability of the evaluation methodology.

1.3 Structure of the thesis

The professional literature on management planning for protected areas, both national and international, was reviewed to establish what were the planning practices and policies in the period in question (Chapter 2). The literature included textbooks, guidelines, a review paper, legislation and technical reports. There was relatively little academic discussion of this subject.

Other relevant academic and professional literature on related subjects was also reviewed to see what concepts and methodology could be adapted to protected area planning (Chapter 2). The subject matter included management effectiveness, systematic conservation planning and evidence-based conservation planning.

The academic literature on plan quality and planning effectiveness was reviewed, again to see if this work could be adapted to protected area planning (Chapter 3). The material came from the literature on urban and regional planning and was generated in the United States, New Zealand and Australia, the United Kingdom, the Netherlands, Canada and Portugal.

The methodology used to investigate the research questions is summarised in Chapter 4. It became apparent that three approaches were needed—document analysis to examine the content of relevant papers and reports, case studies to look in detail at management plan content and planning procedures, and changes over time, and interviews to provide expert input from planners and managers on some of the major issues being considered.

The nature of protected area planning was then examined in detail (Chapter 5). This relied on the literature already reviewed but also on personal professional experience. The components of planning effectiveness were examined and identified as inputs, process, outputs and outcomes. In turn, this led to the development of a list of key issues for protected area planning. The key issues formed the basis for the development of criteria for planning effectiveness.
The evaluation of planning effectiveness was then considered in detail (Chapter 6). The literature review was revisited to draw out what could be learned specifically about planning effectiveness and how it could be adapted to protected area planning. This led to the formulation of a draft set of issues for planning effectiveness, criteria for assessment and proposed methods of measurement. Indicators, data sources and an overall rating system were developed for several issues to demonstrate the full evaluation method. No attempt was made to develop indicators for all issues as that was beyond the scope of the thesis.

Three case studies were undertaken to determine how, in practice, protected area planning was conducted in Victoria, whether it corresponded with planning theory and published guidelines and how planning practice changed over time (Chapters 7, 8 and 9). The draft criteria for planning effectiveness were also applied to the case study management plans to determine whether they were a practical evaluation tool.

Interviews were conducted with a number of people who had extensive professional experience of protected area planning and who had a range of backgrounds so that different perspectives could be obtained of the issues involved (Chapter 10). The interviewees were Parks Victoria planners and senior field managers, a planning officer from a related department, a senior town planner/academic and several environmental planning consultants. The interviews were designed to explore more deeply how protected area planning was actually done in Victoria in the nominated period and to help make an assessment of the effectiveness of the planning.

All of these matters are then brought together in the Conclusions to make a summary of the findings of the thesis (Chapter 11). It made an overall assessment of how protected area planning had been done, whether it was effective and whether improvements could be made. It also made recommendations for further research. The conclusions set new directions for protected area planning.

In plain language, the research plan was intended to establish:

- what theory supports protected area planning
• a factual basis for how this planning was actually done
• how planning effectiveness can be evaluated
• whether the planning in the period was effective
• what improvements could be made to this planning.

The intent was not only to investigate what theoretical bases are available for protected area planning but also to establish how this form of planning was done in practice. Much work was done on examining how planning effectiveness can be evaluated and how that work can be applied to this form of planning. A draft methodology was constructed and applied to case studies. Interviews confirmed some of the details. The conclusions identify the good and bad points of such an evaluation process and suggest improvements to the planning process in the future.

The research plan at Figure 1.2 shows how the various elements of the research relate to each other. In practice, this is a simplified version as there were many feedback loops which refined the research method and the direction of the thesis. For example:

• a list of key issues for planning effectiveness was compiled early in the process but this required modification once the full literature review was completed and the results of the case studies analysed
• it was originally intended to do a full assessment of planning effectiveness for the case study plans but the process proved to be too complex and, instead, only examples were used.
Figure 1.2 The research plan

Information inputs

- ANZEOCC guidelines
- IUCN guidelines
- Textbooks
- Case studies of management plans
- Parks Victoria documentation
- Auditor-General’s report
- National Parks Act
- Interviews
- Urban & regional planning literature
- IUCN guidelines
- Literature on systematic conservation planning and evidence-based conservation planning
- Parks Victoria
- State of the Parks
- Case studies of management plans

Research questions

- What are management plans for protected areas?
- What are they meant to do and how do they do it?
- How were protected area management plans prepared in Victoria in the period 1987 to 2007?
- How do you measure the effectiveness of protected area management plans?
- How effective were the management plans prepared in Victoria in the period 1987 to 2007?
- Can protected area management planning be made more effective?

Findings

- Identification of key issues for planning
- Draft criteria for planning effectiveness
- Refined criteria for planning effectiveness
- Conclusions
- Recommendations
2

LITERATURE REVIEW

PROTECTED AREA PLANNING

2.1 Introduction

The research for this thesis was complicated by the fact that there has been comparatively little academic discourse specifically on the subject of management plans for protected areas and their effectiveness. There was, however, adequate material available from related fields and from professional literature, based on academic work, in the form of guidelines for the production of management plans.

The literature review was split into two chapters, due to its length and because of differences in subject matter. This Chapter identifies the principal documentary sources that refer directly to protected area planning. The review gives a brief summary of the major sources of information and links the contributing literature to the research undertaken in the thesis (Table 2.1). Although some of the documents, such as the legislation and published management plans, might not be regarded as part of the literature they have been included here as they make an important contribution to the investigation.

Chapter 3 explores the literature on plan quality and planning effectiveness from the field of urban and regional planning.
Table 2.1  Contribution of key documents

<table>
<thead>
<tr>
<th>Key documents</th>
<th>Contribution to the thesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information and guidelines on Australian park planning practice:</td>
<td>These documents provide factual information on the form and content of Australian management plans and the procedures used to prepare them. Documentation on Parks Victoria management systems proved hard to obtain. The published management plans are analysed in detail in the case studies in later chapters. The interviews supplement this documentary evidence—details are in Chapter 10. These documents are used to establish the nature of park planning in Victoria. Unfortunately, they add little to the understanding of planning effectiveness.</td>
</tr>
<tr>
<td>ANZECC guidelines</td>
<td></td>
</tr>
<tr>
<td>Parks Victoria guidelines</td>
<td></td>
</tr>
<tr>
<td>Hodges (2006)</td>
<td></td>
</tr>
<tr>
<td>Published management plans</td>
<td></td>
</tr>
<tr>
<td>Special report by the Victorian Auditor-General 1995.</td>
<td>The report examined management and planning by the National Parks Service. It resulted in significant changes to management and planning practices.</td>
</tr>
<tr>
<td>Victoria’s State of the Parks reports:</td>
<td>These reports summarise the values of and threats to Victoria’s parks and assess the effectiveness of management programs. They were used in the evaluation of planning effectiveness.</td>
</tr>
<tr>
<td>Parks Victoria 2000</td>
<td></td>
</tr>
<tr>
<td>Parks Victoria 2007a</td>
<td></td>
</tr>
<tr>
<td>International guidelines on park planning:</td>
<td>This document is more comprehensive than the Australian guidelines and comes with the imprimatur of the IUCN. It helped to confirm preferred procedures but did little to explore planning effectiveness.</td>
</tr>
<tr>
<td>IUCN guidelines</td>
<td></td>
</tr>
<tr>
<td>Textbooks on protected area management:</td>
<td>Two textbooks were chosen. The first is written about the Australian context and is currently the best local text on protected area management. The section on park planning reviews some of the theory underlying park planning as well as describing process issues. The second gives an extremely detailed examination of park planning from a UK perspective. Both texts help to clarify fundamental approaches to park planning.</td>
</tr>
<tr>
<td>Worboys, Lockwood &amp; De Lacy 2005</td>
<td></td>
</tr>
<tr>
<td>Alexander 2008</td>
<td></td>
</tr>
<tr>
<td>Protected area legislation:</td>
<td>Management plans are prepared because legislation requires it. The requirements of the legislation strongly influence the type of plan produced and the process used, and hence the effectiveness of the plan.</td>
</tr>
<tr>
<td>National Parks Act 1975 (Vic)</td>
<td></td>
</tr>
<tr>
<td>Parks Victoria Act 1998 (Vic)</td>
<td></td>
</tr>
<tr>
<td>EPBC Act 1999 (Cwlth)</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 2

Key documents | Contribution to the thesis
--- | ---
Management effectiveness of protected areas: IUCN guidelines other authors | Work on management effectiveness of protected areas was instigated because it was realised that simply setting aside areas for nature conservation would not achieve that management objective—they must also be managed effectively. The principles developed for effective management have been adapted to the examination of planning effectiveness.

Systematic conservation planning: various authors | While systematic conservation planning is concerned with the design of reserve systems the principles can be adapted to the examination of planning effectiveness for individual parks.

Evidence-based conservation planning: various authors | This aims to provide the best scientific and empirical information to planners and managers and act as a structural support to the adaptive management model.

Chapter 3

Key documents | Contribution to the thesis
--- | ---
Assessing plan quality and planning effectiveness: various authors | While there has been little systematic examination of the effectiveness of management plans for protected areas there is a substantial body of work on assessing the quality of plans in other situations. This work has been adapted to protected area planning and strengthens the proposed methodology for assessing plan effectiveness.

2.2 The ANZECC guidelines

The first major review of best practice in protected area management planning in Australasia was undertaken by a working group of the Australian and New Zealand Environment Conservation Council in 2000 (ANZECC 2000). The working group comprised planners or policy officers from all States, Territories, the Commonwealth and the Department of Conservation, New Zealand. ANZECC was a Ministerial Council operating between 1991 and 2001. It comprised the
relevant Ministers from the Australian States and Territories, the Australian Commonwealth government and the New Zealand government. ANZECC provided a forum for member governments to develop coordinated policies about national and international environment and conservation issues. In 2001, the Council of Australian Governments reshaped the Ministerial Council structure. As a result ANZECC ceased to exist and its environmental protection components were taken over by the Environment Protection and Heritage Council (DEWHA 2008).

The review was part of a benchmarking and best practice program involving investigations into key operations common to all conservation agencies. Prior to that, park management agencies prepared management plans according to the particular requirements of their legislation and it would appear that there had been little effort until then to develop a national approach. The objectives of the review were (ANZECC 2000, p. 1):

1. To identify the purpose of and audience for management plans for protected areas.
2. To identify the processes used by Australian Federal, State and Territory and New Zealand park management agencies and any other relevant agencies to undertake management planning for protected areas.
3. To identify the processes and techniques used by these park management agencies to provide planning guidance in the absence of management plans.
4. To review these processes against published models for management planning.
5. To identify the range of content, detail and form of current management plans.
6. To determine best practice processes in the preparation, implementation, monitoring and evaluation of management plans and other planning products.
7. To determine best practice processes for monitoring and reporting on performance (at the organisational level) in the preparation and implementation of management plans for protected areas.
8. To provide a useful reference for park management agencies and establish
Chapter 2

a mechanism for continuing improvement in practices.

The study encompassed (ANZECC 2000, p. 1):

… the process of preparing management plans for protected areas *starting* with the decision to prepare a management plan for a certain protected area or group of areas and *finishing* with evaluation of the plan’s effectiveness, plan review and amendment or replacement.

All of the issues listed above were examined in this thesis. It is of interest, however, that the ANZECC review did not examine matters such as the adequacy of the legislation; the incorporation of research, monitoring and survey data; the identification of priorities and resources; identification of the planning area; the method of decision making; the ability to respond to changing circumstances; the use of decision support systems and the relationship of management plans to corporate planning systems. There was also relatively little discussion on the effectiveness of management plans. I will argue later in this thesis that all of these factors are essential components of an analysis of protected area management planning.

The review gave a brief history of protected area planning in Australia and New Zealand. It reported that (ANZECC 2000, p. 2):

Over the years there have been changes in the approach to and form of management plans. In the earlier years [the 1970s and 1980s] management plans tended to include a lot of resource information that was not directly relevant to management strategies. Also, the planning process was often drawn out and involved specialist planners or planning teams. Techniques for more effective public participation in management planning have been developed over the years.

More recently, the trend has been to leaner, more strategic, management plans.

The planning process had been streamlined to facilitate this trend. The review also commented on the changes to the involvement of park managers and consultants in the planning process, ‘ownership’ of plans, plans for multiple reserves, and the adoption of performance-based approaches.

These are also significant issues which will be examined later in the thesis.

24
The review posed the critical questions regarding monitoring and evaluating the effectiveness of management plans (ANZECC 2000, p. 2):

- to what extent are the prescribed actions in management plans implemented? Is there a clear link between priority actions listed in plans and on-ground management programs? To what degree are management plans actually used in budget planning and determining work programs?; and
- to what extent has management, under the plan, achieved the objectives of management?

These questions are central to this thesis and are addressed in later chapters.

The review then described the purposes of management plans (ANZECC 2000, pp. 2-3):

the interpretation and integration of a range of policies, treaties, strategies, business plans and legislative requirements … into a geographical overlay that provides an essential framework to guide management of a particular reserve and assure the public that the area is being responsibly managed.

Figure 2.1 shows how management plans for particular protected areas are positioned with respect to other planning activities.

The review noted that the planning processes used by all agencies were similar and went on to describe the most significant aspects of process adopted by individual agencies. These process issues are addressed in the discussion of best practice planning in Chapter 5.

Because of differing legislation, administrative arrangements and social settings it was decided to identify ‘good practices’ rather than a single best practice model. The discussion was structured as follows:

- audience for management plans
- format and content of management plans
- targets and timeframes
- public involvement
• boards, councils, advisory and consultative committees
• contracting out versus internal staff
• managers versus dedicated planners
• implementation
• monitoring, evaluation and review

This list of issues will contribute to the development of criteria for assessing planning effectiveness in Chapters 5 and 6.

**Figure 2.1**  Typical planning hierarchy

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It is of interest that a major review such as this did not come to terms with, or have any specific conclusions on, the critical questions of the effectiveness of plans —identified early in the report: Will the plans be implemented? How closely is planning linked with day-to-day management and the development of budgets? Do the plans achieve management objectives? These issues are considered later in the thesis.

It is also unclear whether the guidelines were based on research or management theory. The references given were mainly guidelines from overseas park management agencies, although it may be that these documents were based on academic work.

It is very difficult to make an assessment of the impact of this review on the practices of individual agencies, particularly as the report contains general guidelines rather than firm recommendations. Certainly park planning practice in the various agencies has changed since the report was written but there is no documentation to link the changes to the ANZECC guidelines. Nevertheless, the report remains an important starting point in identifying park planning practice in Australia and recommending best practice principles.

2.3 The IUCN Guidelines

Another major development was publication of the *Guidelines for Management Planning of Protected Areas* produced by the IUCN World Commission on Protected Areas (Thomas & Middleton 2003). IUCN, the International Union for Conservation of Nature, is the world’s oldest and largest global environmental network - a union with more than 1000 government and NGO member organizations, and almost 11 000 volunteer scientists in more than 160 countries (IUCN 2009). The World Commission on Protected Areas (WCPA) is a Commission of IUCN whose mission is to ‘promote the establishment and effective management of a world-wide representative network of terrestrial and marine protected areas as an integral contribution to IUCN's mission’ (IUCN 2009b).
Potentially, this was one of the most important documents to guide this thesis as it is an international guideline which deals specifically with protected area planning as distinct from town and countryside planning.

The Foreword to the guidelines written by Kenton Miller, the (then) chair of WCPA, was instructive. Miller said that management planning (Thomas & Middleton 2003, p. vii) ‘is an essential step towards ensuring the proper management of protected areas’ and that the ‘essential steps of good management planning embracing current best practice are not always understood by park agencies or planning practitioners.’ He went on to say that (Thomas & Middleton 2003, p. vii):

In past years, management planning was typically undertaken by a group of planning experts who were instructed by their organisation to research the relevant information, interpret it and devise the best possible plan based on their professional experience. Indeed some planners may never have visited the site. Today, as we move into increasingly complex planning environments, with higher levels of tourism and protected area resource use, it is not possible to continue in this way. Critical to the planning of protected areas is the widest possible consultation with stakeholders and the development of objectives that can be agreed and adhered to by all who have an interest in the use and ongoing survival of the area concerned.

These observations reinforced the importance of planning to good management, indicated that planning theory and practice are not always the same and that the nature of park planning was changing at the time.

These guidelines were very comprehensive and comprised a step-by-step description of most aspects of planning for protected areas (ch. 4): the background, the requirements for successful preparation and implementation of management plans, the process, consultation and the international dimension to management planning. The report did not delve deeply into the theory underpinning management plans. In many respects it was a ‘how to do it’ manual, concerned largely with process, and with examples of what works and what does not work in practice. Emphasis was given to public participation in planning, indeed a whole chapter (ch. 5) was devoted to this subject.
Chapter 2

The complexity of the process described appears to have been geared more to the requirements of agencies in developed countries than to developing countries, although there was a short discussion of abbreviated planning approaches at the end of the document (ch. 7). My experience of protected area management agencies in developing countries is that their resources are inadequate to cope with day-to-day management let alone undertaking sophisticated management planning processes. In these cases a much simpler approach than the one described in the guidelines would be appropriate.

Unfortunately, there was little discussion of the intellectual underpinnings of management plans, what they were supposed to achieve and how decision making should be undertaken. Surprisingly, there was little discussion on how to assess the effectiveness of the process and the outcomes of the plans. The text referred to the IUCN framework for assessing management effectiveness (Hockings, Stolton & Dudley 2000) which focussed on two aspects (p. 52):

... the appropriateness of management systems and processes: measured by assessing the management inputs required and the processes used; and the delivery of protected area objectives: measured by identifying the outputs and outcomes of management.

These issues are discussed in later chapters.

The planning process described in the IUCN guidelines was rather complex. There was a lengthy discussion on the requirements for successful preparation and implementation of management plans: the process used in plan preparation; the presentation, style and content; the context within which the plan must operate; resources, commitment and capacity; and problems encountered in planning and implementation. As described, the management planning process had 13 major steps from pre-planning at the start of the process to the decision to review the plan many years later. It was presented as a circular, continuous process (Figure 2.2).

Although the graphic is simple the guidelines leave us with a picture of a complex, expensive and time-consuming process with little indication of its overall effectiveness. The model appeared to be based on a five to ten year lifespan with a
preparation time of one to two years (Thomas & Middleton 2003, p. 53). Although
the guidelines recommended a flexible approach (Thomas & Middleton 2003, pp.
17-18) and the need for annual operational plans (Thomas & Middleton 2003, p.
7), my impression is that these guidelines would result in a relatively static plan
which does not respond well to changing circumstances. These matters are
discussed in later chapters.

Figure 2.2 The IUCN protected area management planning process

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The references used in this document are mainly professional guidelines although
some academic papers are cited.

2.4 The Parks Victoria guidelines

Parks Victoria has produced guidelines for the preparation of management plans
(CFL 1988, DCE 1992, CNR 1995). These documents straddled the years covered
by this thesis—1987 to 2007—and are reviewed below to give an insight into how
plans were produced in those years and how procedures have changed. It should
be noted, however, that, at the time of writing (2009-10), Parks Victoria was
reviewing its procedures with a view to establishing different processes and a
different style of plan. This is touched upon in the Postscript to Chapter 11.

In practice, it was difficult to obtain comprehensive documentation on the policies
and procedures that Parks Victoria had adopted over the years. However, the three
documents reviewed below give an indication of how procedures for the
production of management plans were developed between 1998 and the early
2000s. The documents do not deal with planning philosophy and focus instead on *procedure* and *presentation*.

### 2.4.1 ‘Park management plans’ 1988

The document *1.2P Park Management Plans* (CFL 1988) was developed before the creation of Parks Victoria in late 1996. The policy was included in the National Parks Service *Guidelines and Procedures Manual* (NPS 1993a). The policy set down the purpose of management plans, a set of policies and procedures governing the production of plans, an outline of the plan contents, further notes on the process, guidelines for public participation and a note on the governing legislation. It should be kept in mind that, at this time, many national parks did not have approved management plans so the policy specified levels of planning detail required for various categories of park. The policy indicated that it did not set out methods for park management planning and that a separate *Park Management Planning Manual* (NPWD 1989) had been prepared for that purpose.

Unfortunately, it was not possible to obtain that document. The intent here is to give a general idea of what documentation was available at the time and the changes in park planning that have occurred. The issue of the changes in procedure will be discussed in more detail in a later chapter when management plans from the period are analysed.

*1.2P Park management plans* (CFL 1988) was not a very detailed document but did attempt to establish a framework for the planning process. It recognised that large, complex parks require expensive and lengthy planning processes. It emphasised the need for close cooperation between park, regional and head office staff and that (CFL 1988, p. 1) ‘public participation is critical to successful planning and acceptance of the final plan’. It is of interest that it stated that (CFL 1988, p. 2) (a) plans will be prepared by regional staff, with head office staff being responsible only for ensuring state-wide standards and that the plan accurately implemented park policies; (b) staff responsible for the implementation of plans will be fully involved in plan preparation; and (c) consultants, exempt staff and senior tertiary students may assist in plan preparation. This model is significantly different from that adopted in some agencies where planning is undertaken by
specialist staff, often located in a head office.

The policy identified a standard format and process but did not deal with many of the issues discussed in this thesis. Perhaps some of these, at least, were dealt with in the planning manual that could not be located.

2.4.2 ‘Production and distribution of printed park management plans’ 1992

The document *1.2.1P Production and Distribution of Printed Park Management Plans* was also included in the abovementioned *Guidelines and Procedures Manual* (NPS 1993a). It was intended to supplement the *Park Management Planning Manual* (NPWD 1989) and focussed exclusively on plan format and distribution procedures. It would appear that, at around this time, a style sheet was introduced to standardise plan format. This does not add a great deal to the discussion in this thesis but is included for the sake of completeness.

2.4.3 ‘Park management planning’ 1995

Although published in 1995, *1.2P Park Management Planning* (CNR 1995) was still in use in the early 2000s after Parks Victoria had been created. This is a more recent document and more relevant to this discussion. The policy did not mention a separate *Planning Manual* (NPWD 1989), so presumably it superseded that document. It did refer to a *Management Plan Kit* which provided information on content, definitions, zones and documentation.

This policy was more comprehensive and more prescriptive than the earlier documents. It indicated the purpose of management plans; the documentation required; the content, style and format; the process and the roles of staff; the requirements for public consultation and the approvals process. It would appear that these guidelines introduced the practice of adding large amounts of standard text to the management plans, presumably to ensure consistency across Victoria.

It is clear that by 1995 management plans had become highly codified with well-defined processes and very similar appearance of plans due to the rigid structure and common text. This will be discussed later in the analysis of management plans.
These guidelines appear to be the principal document produced by Parks Victoria at that time guiding the production of management plans, so it is disappointing that they dealt exhaustively with *process* and *content* but did not address how planning should be accomplished. That is, they did not provide guidance on how the complex issues of ecological management, recreational management, fire management, heritage conservation etc. should be analysed, conflicts resolved and directions set. There was also no indication of any theoretical basis for park planning and the only guidance given was the references to the National Parks Act and Park Regulations. As we will see, the legislation also provides little guidance in these matters. The only exceptions to these comments is that management zones and overlays were defined and directions given in their use. It is ironic that while management zones can be a potent planning tool, zoning appears to be poorly understood by Parks Victoria field staff and planners and not used effectively.

The detailed directions regarding process and content contained in these guidelines had both good and bad effects. In a positive way the guidelines ensured a consistent State-wide approach to the appearance and content of the plans, an evolving but relatively consistent process and a comprehensive review of issues. On the negative side, the structure was so rigid and there was so much standardised text inserted that all of the plans began to look very much alike. There was also a requirement at about this time for the plans to be reduced in size and made more strategic rather than prescriptive. In practice, this meant that the plans became *generic* in nature, very general and bland, and without measurable objectives and management strategies. This is discussed further later in the thesis.

### 2.5 Special report by the Victorian Auditor-General

In 1995 the Victorian Auditor-General produced a Special Report on the operations of the National Parks Service (Auditor-General 1995) which was to result in significant changes to management and planning practices in the Service. The report acknowledged the importance of management plans but also reported a number of deficiencies.

The audit noted that the development of minimum performance standards should include (Auditor-General 1995, p.44) ‘an approved management plan
incorporating a range of performance measures and targets against which the management of the park can be assessed’. However it also noted (Auditor-General 1995, p. 7) ‘the critical position concerning the lack of timeliness and efficiency in the finalisation of park management plans’ due, it was said, to (Auditor-General 1995, p. 46) ‘the complexity and extensive magnitude of the task’ which resulted in scarce resources being diverted away from planning to attend to urgent management tasks. The audit also found that (Auditor-General 1995, p. 47):

… the NPS could not identify aggregate costs incurred in the production of plans and did not monitor the adequacy of progress or the level of incurred costs for individual plans.

This matter is discussed in Section 5.2.3.

The report stated (Auditor-General 1995, p. 48) that the National Parks Service had recently introduced initiatives to rationalise the planning process including streamlining the planning and approvals process, adoption of a more concise format for plans and production of a management planning kit. It should be noted that, at this time, many protected areas lacked approved management plans (Wescott 1995a, p. 219) and this may have been the reason for the accelerated process and more generic plans. These issues are discussed later in the thesis.

2.6 Victoria’s State of the Parks reports

Parks Victoria uses an Environmental Management Framework that uses a risk-based approach to management. It is a variation on adaptive management which is discussed in detail in Section 2.11.1. The application to the management of natural values in parks is shown at Figure 2.3.

Parks Victoria has produced two State of the Parks reports (Parks Victoria 2000, Parks Victoria 2007a). These documents summarise the values and threats to Victoria’s parks and assess the effectiveness of management programs. They are the core of the monitoring and reporting process shown in Figure 2.3. The reports focus on the key themes of:

- natural values management, including fire management
• cultural heritage management
• recreation, tourism and visitor appreciation
• community involvement.

Figure 2.3 The Parks Victoria *Environmental Management Framework*

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Source: Parks Victoria 2007a, p. 63.

Information for the 2007 report was obtained from a range of sources including (Parks Victoria 2007a, p. 1) ‘state-wide datasets, corporate information systems, commissioned studies, research and reviews, local park sources, monitoring programs and a comprehensive staff questionnaire conducted in 2005’. It is understood that similar reports will be produced in the future. The role of the *State of the Parks* report is shown at Figure 2.4.

These reports are an important source of information as they are publicly available and relatively impartial in their assessments. The disadvantage of the latter report is that it provides information only in summary form, rather than unprocessed data, and that the reporting is on a system-wide basis rather than for individual parks. The first report summarised the natural values for individual parks.
Nevertheless, these reports are relevant to the evaluation of planning outcomes.

Figure 2.4  The role of the *State of the Parks* report

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Source: Parks Victoria 2007a, p. 16.

2.7  A review of Victorian protected area planning

Hodges (2006) undertook a review for Parks Victoria of protected area planning conducted by Victorian government park management agencies. The review covered a period of 35 years, from the early 1970s to the early 2000s. This report is of particular interest because Hodges had long-term professional involvement in these matters—he was a senior park planner in both the National Parks Service and Parks Victoria. To the best of my knowledge, it is the only internal historical review of planning practice in the Victorian park management agencies. The nature of the review was an examination of what had happened in the past and proposals for what might be done in the future together with recommendations as to how organisational structure, management processes and plan format and content might be improved. It said little directly about how effective the planning process had been although many of the issues that it did deal with are relevant to planning effectiveness.

The report reviewed the evolution of legislation for nature conservation since 1970, particularly the National Parks Act, and the activities of the Land Conservation Council (LCC) and its successors, the Environment Conservation Council (ECC) and the Victorian Environmental Assessment Council (VEAC).
The role of VEAC is ‘to conduct investigations that are requested by the Victorian Government relating to the protection and ecologically sustainable management of the environment and natural resources of public land.’ (VEAC 2010).

The report noted (Hodges 2006, p. 5) that the 1975 National Parks Act required the preparation of management plans for all ‘national parks’ and ‘other parks’. This requirement was subsequently extended to parks listed under other schedules to the Act. It also pointed out (Hodges 2006, pp. 6-7) that Ministerial Directions were, at times, issued regarding management planning. The report also reviewed the changes in administrative arrangements since 1970 when Victoria’s protected areas were managed by a small National Parks Authority, to the expansion in 1975 when the new Act came in, to late 1996 when the operational elements of the National Parks Service were amalgamated with the Melbourne Parks and Waterways organisation to form Parks Victoria.

Hodges then reviewed the changes in agency culture. Certain issues stand out: ‘the imposition of a business culture’ in the 1990s and in the late 1990s to 2006; ‘acceleration of the development of Parks Victoria’s systems risk assessments, research and monitoring, thus laying basis for the development of adaptive planning’; and ‘encouragement of partnerships with communities and groups, particularly Indigenous communities’ (Hodges 2006, p. 11).

The history of park planning was then reviewed in five time bands from 1971 to 2006 (Hodges 2006, pp. 12–23). For each band the information was grouped under the headings: planning—what planning was done; organising—who did the planning; leading and controlling—who had responsibility for planning; and outputs—what was produced. The report then summarised the current issues faced in park planning (Hodges 2006, pp. 24–35).

Hodges had a comprehensive set of conclusions and recommendations. He maintained that (Hodges 2006, p. 36):

The cultural and organisational context in which management planning is conducted has evolved and changed greatly over three decades including the development of a variety of management systems, models and other planning processes. These processes are not well coordinated and this results in confusions...
and uncertainties in plan implementation.

He went on to say that (Hodges 2006, p. 37) ‘The scope, content and format of plans has changed continually, in response to stakeholder criticism’ and that ‘the core elements of management plans are the vision, management directions and broad strategies’ and that ‘Comments received on Draft plans frequently indicate the language used in plans has been misunderstood’. He noted that the current process for preparing plans ‘has been widely regarded as useful and sound’.

He made a number of recommendations regarding allocation of staff and expertise. He favoured the use of a regional planning coordinator, with input from head office on State-wide issues, and with involvement of field staff where possible.

Hodges (2006, p. 39) noted that ‘There is a widespread lack of appreciation of the complexity and difficulties of management planning and the knowledge, skills, contacts and experience required to prepare sound and satisfactory plans’ and that ‘The performance of projects depends to a large extent on the availability of information required for planning’.

As noted above, this document was strongly orientated towards process and organisational issues and did not deal with planning philosophy. While it was helpful in setting down factual material on the history of park planning and the processes involved, it did not come to grips with how effective that planning had been and how effectiveness might be improved—other than in details of process.

2.8 **Textbooks on protected area planning**

2.8.1 Protected Area Management: Principles and Practice

 Protected Area Management: Principles and Practice (Worboys, Lockwood & De Lacy 2005)—now a standard textbook—devotes a chapter to protected area planning. It provides a comprehensive and up-to-date review of park management planning in Australia. The text identifies four approaches to planning and identifies the strengths and weaknesses of each:

(a) **Rational comprehensive planning** (Worboys, Lockwood & De Lacy 2005, p. 191):

   … attempts an objective and exhaustive inventory of current conditions, analyses these conditions, develops possible solutions to issues based on those descriptions and analysis, and selects a preferred solution according to a set of measurable criteria (citing Briassoulis 1989)

This is a technical approach that requires good data and judgement by planners. It is a feature of Systematic Conservation Planning, reviewed below. It tends to produce a static plan. If not done well it may end up with a theoretical solution that does not take into account social and political factors. Nevertheless, it is often a useful component of protected area planning.

(b) **Incremental planning** (Worboys, Lockwood & De Lacy 2005, p. 192):

   … uses small incremental changes to deal with problems in an essentially uncoordinated manner. Decisions are made without reference to specific objectives.

This is *ad hoc* planning used to try to solve crisis situations. This style of planning is not recommended for the preparation of management plans, this is normally a more measured process. Notwithstanding, it can still creep in as each generation of planners makes its mark by inserting incremental changes instead of taking a strategic view of the issues. Worboys, Lockwood & De Lacy (2005, p. 192, citing Lindblom 1979) point out that, nevertheless, ‘strategic incrementalism’ can be a viable planning tool.

(c) **Adaptive planning** (Worboys, Lockwood & De Lacy 2005, p. 192)

   … treats management as an iterative process of review and revision, not as a series
of fixed prescriptions to be implemented (as in the rational comprehensive approach).

This type of planning is currently very popular and has been endorsed by IUCN as a guideline—reviewed below—and used by agencies such as Parks Victoria. Adaptive planning and adaptive management are dynamic processes whereby initial management interventions are made based on accumulated knowledge. The results of the intervention are then monitored to see if they have the desired outcome. If the outcome is not as desired the intervention is modified until an optimum result is obtained. This sounds good in theory but, in my experience, it is often made ineffective by poor information and misunderstanding of complex processes, and is dependent on accurate monitoring which is often inadequate or completely lacking.

(d) participatory planning (Worboys, Lockwood & De Lacy 2005, p. 194) is the involvement of members of the public, to a greater or lesser extent, in planning and decision making. It is often referred to as ‘stakeholder participation’. The intent, amongst other things, is to explain proposed management decisions, gain information, reduce conflict and gain consensus, and give the public some ownership of management decisions. Public participation is assumed as a fundamental part of planning and is required for the production of all management plans in Victoria. My experience is that public participation is sometimes not very effective; this is discussed later.

These approaches, of course, are not mutually exclusive and, in practice, planners use a combination of these techniques at different times.

The text then describes the various approaches that have been taken by planners and goes on to describe the steps required to prepare a typical management plan. Several case studies are provided. They maintain that (Worboys, Lockwood & De Lacy 2005, p. 196) ‘a good understanding of planning approaches is a prerequisite for high quality planning.’ They propose a preferred approach to planning and the features of a successful planning process. In conclusion, they summarise lessons learnt and principles for good planning. I will return to these matters in later chapters.
The advantage of this text, compared to those reviewed above, is that it is analytical and provides an intellectual basis for the planning process rather than just being a ‘cook book’ of the steps required to prepare a plan. It does not deal with all of the issues considered in this thesis but forms a useful basis for the review of current planning practice and analysis of its efficiency.


*Management Planning for Nature Conservation: A Theoretical Basis & Practical Guide* (Alexander 2008) is a comprehensive guide to the preparation of management plans. It has a European perspective but could be applied more widely. The text deals with a brief justification for planning; an overview of structure, preparation and the precautionary principle; details of the process of preparing a plan; more details of the planning process; recreation planning and case studies. For the purposes of this thesis, Chapter 1 ‘Why Plan?’, Chapter 6 ‘Adaptable Management, Review and Audit’ and Chapter 9 ‘Approaches to Conservation Management’ are of most interest. The first helps to set the scene, the second deals with adaptive management and the third deals with approaches to managing wildlife.

2.9 Published management plans

An analysis of the *effectiveness* of published management plans is a key component of this thesis. Criteria for assessing effectiveness are discussed in Chapters 3 and 6. Fortunately, management plans are in the public domain and there are many to choose from. Analysis of a number of management plans is the basis of the case studies in Chapters 7, 8 and 9. In contrast, supporting documentation regarding guidelines for content, format and process is not normally published and has proven difficult to obtain. Nevertheless, it has been possible to flesh out these issues in interviews with planners and managers (Chapter 10) and analysis of the guidelines reviewed above in Sections 2.2, 2.3 and 2.4.
2.10 Legislation

To a large extent, legislation determines what formal planning is done and what processes are adopted. The legislation most relevant to the matters examined in this thesis is the National Parks Act. This legislation sets down the requirements for management plans for protected areas listed in Schedules to the Act (Appendix 1). The Schedules define the category of protected area and, hence, the requirements for management. A summary of the requirements of the Act with respect to management plans is given at Table 2.2.

Table 2.2 Requirements for management plans in the National Parks Act

<table>
<thead>
<tr>
<th>Section</th>
<th>Type of park</th>
<th>Legislative requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>s. 17(2)(d)</td>
<td><em>National Parks, State Parks</em></td>
<td>Prepare a plan of management in respect of each national park and State park.</td>
</tr>
<tr>
<td>s. 17(2B)</td>
<td>(Schedule 2 &amp; 2B)</td>
<td>Re the <em>National Parks (Box-Ironbark and Other Parks) Act 2002</em>, sets out the actions required to achieve priorities through a management plan</td>
</tr>
<tr>
<td>s. 17B</td>
<td><em>Wilderness Parks</em></td>
<td>Within two years of the inclusion of each wilderness park in Schedule Two A, prepare a management plan in respect of the park which must be consistent with the principles set out for the management of wilderness parks.</td>
</tr>
<tr>
<td>s. 17D(c)</td>
<td><em>Marine National Parks and Marine Sanctuaries</em></td>
<td>Prepare a plan of management in respect of each marine national park and each marine sanctuary.</td>
</tr>
<tr>
<td>s. 18(2)(d)</td>
<td><em>Other Parks</em> including coastal, historic and other park categories, and flora and fauna reserves*</td>
<td>Prepare a plan of management in respect of each park</td>
</tr>
<tr>
<td>s. 19F(3)</td>
<td><em>Crown Land</em> managed as parks under s. 19B</td>
<td>The Schedule shows the provisions of the Act that apply.</td>
</tr>
<tr>
<td></td>
<td>(Schedule 4)</td>
<td>The provisions (above) relating to management plans apply to these parks.</td>
</tr>
</tbody>
</table>
Chapter 2

<table>
<thead>
<tr>
<th>Section</th>
<th>Type of park</th>
<th>Legislative requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>s. 32AE(2)</td>
<td>Alpine National Park (Schedule 2, Part 37)</td>
<td>The function of the Alpine Advisory Committee is to assist with the development of a management plan.</td>
</tr>
<tr>
<td>s. 37(8)</td>
<td>Alpine National Park (Schedule 2, Part 37)</td>
<td>With respect to certain guns or other weapons being carried or used, 'specified areas' includes areas specified in a management plan for the park.</td>
</tr>
<tr>
<td>s. 47D</td>
<td>Alpine National Park (Schedule 2, Part 37)</td>
<td>The Minister must cause a copy of a management plan to be laid before each House of the Parliament</td>
</tr>
</tbody>
</table>

A management plan may be disallowed by resolution of both Houses of the Parliament.

Notice of a resolution to disallow a management plan may be given in a House of the Parliament on or before the eighteenth sitting day of that House after the copy of the plan is laid before that House.

A resolution to disallow a management plan must be passed on or before the twelfth sitting day of that House after notice of the resolution is given.

If a House of the Parliament is prorogued or dissolved, the calculation of sitting days shall be determined as if there had been no prorogation or dissolution.


A number of issues arise from this summary. It is clear that the Act is not very prescriptive with respect to the process of preparing a management plan or the form that it will take. This may be because, at the time of drafting the legislation, it was thought that it was better to leave planning processes to be developed by the management authority as administrative procedures rather than as a legislative requirement, or may be for some other reason. It does not, for example, specify what consultation with the public should be undertaken, what the approvals process for most parks should be, the lifespan of a plan and the process for review or what the content of a management plan might be.
The Act requires management plans to be prepared for National Parks, Wilderness parks, State Parks, Other Parks, Crown land managed as parks, Marine National Parks and Marine sanctuaries—Schedules 2, 3, 4, 7 and 8 (s. 17D(c))—but does not have a specific requirement for Wilderness Zones and Remote and Natural Areas—Schedules 5 and 6. The absence of the requirement for Wilderness Zones and Remote and Natural Areas is explained by the fact that they are designated areas within national parks and would be included in the management plan for those parks.

One anomaly is that the Act contains more detailed requirements for the approval by Parliament of the management plan for the Alpine National Park (s. 47D) but does not specify an approvals process for any other park. One can surmise that this is because this section of the Act was written in relatively recent years and that more modern thinking was being brought into play, but it could also have arisen from the negotiations that were required to enable the legislation to be passed. Similarly, the Act establishes an Alpine Advisory Committee whose function it is to assist with the development of a management plan (s. 32AE(2)). This is different to the normal role of advisory committees whose role is to make recommendations on the care and control of the park (s. 15). This is the only park in Victoria with a specific requirement for involvement of an advisory committee in the preparation of a management plan.

Other than direct references to management plans, the Act also gives general guidance for management and planning in the Objects of the Act (Appendix 2) and management objectives for various categories of park (Appendix 3). While national parks, state parks, wilderness parks, marine national parks and marine sanctuaries and other parks have generally similar management objectives there are some important differences.

Only national parks and State parks have requirements regarding the protection of water supply catchments and water quality. Only wilderness parks have requirements for the control of indigenous fauna necessary for the preservation and protection of any species, and for provision of opportunities for solitude and self-reliant recreation. Wilderness parks do not have the requirement to protect the park ‘from injury by fire’.
The general conclusion to be drawn is that these sections of the Act provide little
guidance on the process of preparing a management plan or on the contents of that
plan. They also, perhaps not surprisingly, do not specify what philosophies should
underpin park planning and what the objectives or outcomes of the planning
should be. For the latter we must turn to the Objects of the Act.

The Objects of the Act are set down in Section 4 of the legislation (Appendix 2).
They are a very important part of any legislation and list in a concise form the
principles on which the Act is built. In this case they also set down, de facto,
objectives for park planning.

The Objects of the Act speak of protection and preservation of the natural
environment, flora and fauna, scientific studies and ‘responsible
management’—whatever that might mean—the protection of designated water
supply catchment areas and use by the public for enjoyment, recreation and
education. There are other specific requirements for Wilderness Parks and for
Schedule Three parks—Coastal, Historic and Other parks. It is not entirely clear
whether the Objects, as listed, are in decreasing order of importance, that is
whether preservation of the natural environment is more important than public
recreation, or whether they are of equal importance. However this is an important
point as some of the most difficult aspects of park planning revolve around
resolving conflicts between competing—legitimate—uses, for example, between
nature conservation and recreational use. Thus, the Act provides a number of
general objectives for park planning but does not give guidance on how conflicts
between objectives may be resolved.

Parks Victoria has been the management agency for protected areas in Victoria
since late 1996. Prior to that time, protected areas were managed by parts of the
State Government department responsible for the environment. See the
chronology in Table 1.2.

The Parks Victoria Act 1998 (the Parks Victoria Act) enables Parks Victoria to
provide management services for parks on behalf of the Secretary to the
Department for Sustainability and Environment. Section 20 (1) of the Parks
Victoria Act refers to three year corporate and annual business plans but not
management plans for parks. It is of note that s. 20 (7) of this Act states that ‘The plans, or any part of a plan, must not be published or made available, except for the purposes of this Part, without the prior approval of Parks Victoria and the Minister.’ Hodges (2006), in his review of park planning in Parks Victoria, concluded that corporate planning systems had to a large extent subsumed the role of management plans for parks. This was later confirmed in interviews (Chapter 10). This is a significant issue as management plans have a significant public input whereas, as noted above, corporate plans are generally not available to the public. This will be discussed in more depth later in the thesis.

In comparison with the Victorian National Parks Act the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act) contains quite detailed requirements for the preparation of management plans. It probably illustrates the changes in thinking with regard to legislative requirements over a period of 25 years. The major requirements under the EPBC Act (Subdivision E, Sections 365-373) regarding management plans are summarised below. The differences between it and the Victorian Act are noticeable.

- (s. 366) A management plan must be prepared for each Commonwealth reserve as soon as practicable after the reserve is declared and that a management plan should be in force at all times thereafter. Management plans may be amended or revoked and replaced.

- (s. 367) Management plans must provide for the protection and conservation of the reserve with a mandatory content for the plan and 11 specific requirements; may be divided into zones; must be consistent with IUCN management principles; may be for more than one reserve; and can provide for future extensions.

- (s. 368) Five main steps are given for preparing management plans including public notification, preparing a draft plan and calling for public comments on the draft plan.

- (s. 369) Resolution of disagreements between the Director and a Board of Management.
• (s. 370) The approvals process is detailed. The Minister approves the plan after consideration of public comments and the views of the Board of Management.

• (s. 371) The management plan must be laid before both Houses of Parliament and can be disallowed.

• (s. 372) A management plan may amend, revoke or replace earlier management plans.

• (s. 373) Management plans cease to have effect after 10 years.

Schedule 8 of the EPBC Regulations also sets down the following administrative principles:

• Community participation
• Effective and adaptive management
• Precautionary principle
• Minimum impact
• Ecologically sustainable use
• Transparency of decision making
• Joint management.

2.11 Adaptive management, management effectiveness and social policy learning

2.11.1 Adaptive planning and management

As noted elsewhere, adaptive management is an important component of the IUCN framework on evaluating management effectiveness (Hockings et al. 2006, pp. 5–7) and is a well-known concept in management theory. Adaptive management is based on the principles of scientific experimentation and is a ‘continuous, iterative and developmental process’ (Alexander 2008, p. 63). The principles of adaptive management can also be applied to adaptive planning. This iterative approach to planning is in stark contrast to static planning where plans are produced as an end in themselves. While static plans may be reviewed from time
to time they do not respond well to rapidly changing circumstances. Brody (2003) notes that (p. 192) ‘Planners must be able to react to constantly changing environmental conditions, sudden shifts in political interests and objectives, and a continuous barrage of new and often ambiguous information.’

There are various interpretations of adaptive planning. Brody (2003, p. 192) says it is ‘an evolving concept in which policies are designed as hypotheses and management is implemented as experiments to test those hypotheses.’ Alexander (2008) adopts a four-part model starting with an objective and then moving to rationale, implementation and review (Figure 2.5). The process is both cyclical and repetitive, that is, it can go around the loop many times until a satisfactory conclusion is reached.

**Figure 2.5  The adaptable planning cycle**

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Alexander (2008) uses the term *adaptable* management to distinguish this process from various interpretations of adaptive management and cites a model developed by Elzinga *et al.* (2001) as an example of *adaptive* management (Figure 2.6). This model is somewhat puzzling. According to the model, if the management objective is achieved you go back into the loop of developing models and setting objectives which seems unnecessary as you have achieved your objective. If you do not achieve your objective you go into a loop which allows for alternative
management but not refining your objectives. It should also be noted that this process starts with a model of a system or species. This is the sort of approach you might take with experimental environmental management but is not the approach normally taken in park planning.

**Figure 2.6 An adaptive management process**

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In that situation you would start by formulating a management objective based on government policy or guidelines or from professional experience.

Worboys, Lockwood & De Lacy 2005 present another variant of adaptive planning (Figure 2.7). It is a similar model to the cyclical process proposed by Alexander (2008) (Figure 2.5) but also includes the development of a conceptual model.

Hockings et al. (2006, p.6) describe adaptive management as a circular process (Figure 2.8). They note that: ‘monitoring, evaluation and planning should be very closely linked processes, with monitoring and assessment information providing the basis for assessing whether goals, objectives and strategies specified in the plans are being achieved.’
Figure 2.7  Another adaptive planning process

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Most authors agree that while adaptive planning and management offers many advantages it can also have drawbacks including excessive reliance on modelling, poor data and difficulty in involving the public in the process. Alexander (2008, p.74) notes that adaptable management is not a proven system as: ‘The response of habitats to management is slow, and there are no examples of adaptable management that have been in place for longer than 15 years’. Also, in practice, my observation has been that the process is often ineffective because monitoring programs are either poorly developed or non-existent, thus breaking the loop.
For the purposes of this thesis the term *adaptive planning* has been adopted. It is seen as a dynamic learning process wherein management objectives are defined, strategies are formulated to achieve these objectives using the best available knowledge, the strategies are then implemented and the outcomes monitored and assessed. The strategies are then modified, if necessary, depending on whether or not management objectives are being met. It is seen as a continuous process as distinct from plans which are reviewed at intervals of ten years or more.

### 2.11.2 Management effectiveness

The need to consider of *management effectiveness* in protected areas was brought to prominence internationally at the IVth World Parks Congress in Venezuela in 1992 and subsequently at the Vth IUCN World Parks Congress in Durban in 2003. In response, IUCN issued its first guidelines for assessing management effectiveness of protected areas in 2000 (Hockings, Stolton & Dudley 2000). After significant advances in the theory and practice of evaluation, revised guidelines were published in 2006 (Hockings *et al.* 2006). This work is strongly supported by academic discourse.
In this context, in the revised edition of the guidelines, management effectiveness evaluation was defined as (Hockings et al. 2006, p. 1) ‘the assessment of how well the protected area is being managed – primarily the extent to which it is protecting values and achieving goals and objectives’. The term was said to reflect three main themes:

- design issues relating to both individual sites and protected area systems;
- adequacy and appropriateness of management systems and processes; and
- delivery of protected area objectives including conservation of values.

The 2000 and 2006 IUCN guidelines on management effectiveness were intended to act as a framework for assessment within which different approaches might fit. Evaluation of management effectiveness is intended to enable and support adaptive management, assist effective resource allocation, promote accountability and transparency, and help involve the community.

The management effectiveness framework is based on a six stage management model (Figure 2.9). Planning—Where do we want to be and how will we get there?—is an integral part of this process.

The focus of evaluation for planning is (Hockings et al. 2006, table 1, p. 13) ‘Assessment of protected area design and planning’ and the criteria that are assessed are ‘Protected area legislation and policy’, ‘Protected area system design’, ‘Protected area design’ and ‘Management planning’. This thesis focuses on the last point—management planning.

Unfortunately, the IUCN management effectiveness guidelines do not offer any specific methodology for assessing whether management plans are effective or not. Instead, they speak in general terms of issues such as availability to managers, whether the plans are up-to-date, whether all values are addressed, the clarity and practicality of the aims and relevance to on-ground management. There is no discussion of the outcomes of management plans as distinct from the outputs (Hockings et al. 2006, p. 11). Nevertheless, they conclude that (Hockings et al. 2006, p. 20) ‘a good management plan will be the major source for identifying indicators and targets to be measured in the assessment.’
The IUCN management effectiveness framework is also of interest because the principles embedded in the management cycle might be adapted to assessing the planning process.

- **Context** – Status and threats. Where are we now?
- **Planning** – Where do we want to be and how will we get there?
- **Inputs** – What do we need?
- **Process** – How do we go about management?
- **Outputs** – What did we do and what products or services were produced?
- **Outcomes** – What did we achieve?

A related field to management effectiveness in protected areas is that of protected area governance, with governance being one of the factors involved in the measurement of management effectiveness (Hockings et al. 2006). Lockwood
(2009) investigated governance issues for terrestrial protected areas. By governance he meant (Lockwood 2009, p. 754):

the structures, processes and traditions that determine how power and responsibilities are exercised, how decisions are taken, and how stakeholders have their say.

He noted that, over the last few decades, powers and responsibilities had been extended from government agencies to the wider community including 'indigenous and local communities, NGOs and individual landholders, often working in partnership with each other'. He argued that with these changes (Lockwood 2009, p. 755) 'establishing and maintaining good governance across diverse ownership and responsibility arrangements is critical for the future of protected areas'.

Lockwood (2009) developed a framework for governance evaluation that includes a specification of how governance relates to management and to management effectiveness. Seven principles and associated good governance outcomes were defined (Lockwood 2006, p. 758):

- **Legitimacy** - the acceptance and justification of shared rule by a community … who is entitled to make rules and how authority itself is generated
- **Transparency** - stakeholders' right to know about matters that affect them
- **Accountability** - defined roles and responsibilities for governing bodies and personnel; governing bodies accept these responsibilities
- **Inclusiveness** - the opportunities available for all stakeholders to participate in and influence decision-making processes and actions
- **Fairness** - in the exercise of authority
- **Connectivity** - effective coordination and liaison
- **Resilience** - the amount of change or disturbance that can be absorbed by a system.
A number of these principles could be adapted to the assessment of the effectiveness of protected area planning.

Glenys Jones was the planner responsible for performance evaluation and reporting in the Tasmanian Parks and Wildlife Service. Commenting on management of the Tasmanian Wilderness World Heritage Area (TWWHA) she argued that evaluation of management effectiveness is an essential component of sound protected area management (Jones 2003; 2005; 2009). It is an outcomes-based system of performance evaluation and reporting and supports evidence-based decision making (see Section 2.11 below). Jones (2005, p. 555) pointed out that their evaluation system was designed to answer the question ‘How would we know if management under the plan was actually achieving its objectives?’, so it is very relevant to the investigations in this thesis. The evaluation system is shown at Figure 2.10.

The process is largely self-explanatory and is similar to those described above. However, because it was designed specifically to evaluate a major protected area, rather than to illustrate generic management, it is probably the most useful for the purposes of this thesis. The process placed the management plan in the context of an overall management process. It is of note that management plans are an integral part of the management process and are not developed in parallel with other management systems as was tending to happen in Victoria.

The cycle starts with the determination of management objectives. Performance indicators are then developed for each objective and appropriate strategies and actions are put in place to achieve the objectives. Monitoring and evaluation is undertaken to see if management is achieving the objectives and management strategies are adjusted if necessary. Periodically—in this case every 10 years—a major review is undertaken with the production of a new management plan. There is also a minor, five-yearly, review.

What is not explained is how often management strategies should be adjusted—the ‘adjust’ feedback loop—and how this flexible approach to management is incorporated in a plan with a life of 10 years. The ‘adjust’ process appears to be linked to publication of periodic reports on the monitoring program, the *State of*
the Tasmanian Wilderness World Heritage Area, and it is difficult to see how the management plan can be written to accommodate this process. This is an important issue and I will return to it later.

Figure 2.10  The TWWHA management evaluation system

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Source: Jones 2009.

Jones (2009, p. 7) noted that the first State of the Tasmanian Wilderness World Heritage Area was produced in 2004 (Parks and Wildlife Service 2004). It was a 300 page report intended to document the extent to which management had achieved the objectives of the first management plan (Parks and Wildlife Service 1999). It is unclear how long this report took to prepare and what resources were needed but both must have been considerable. It appears, therefore, that the ‘adjust’ cycle has five year intervals with a major review every ten years and a minor review every five years, although Jones indicates that adaptive responses can include (Jones 2009, p. 11) ‘immediate adjustments to operational activities’. It is not made clear how adjustments of five years and shorter term affect the approved management plan.
Jones (2009, pp. 11–13) posed five questions for planners and managers:

- What would we expect to see if management was (NOT) working well?
- What could we monitor or measure to reveal the outcomes that are being delivered?
- Where would we realistically expect to see improvements or changes if management was (NOT) working well?
- How will the findings of monitoring and evaluation be reported and/or used?
- Who will be responsible for doing the monitoring, evaluation and reporting?

The Tasmanian system used a small number of case studies with a consistent reporting framework as a cost-effective method of monitoring, evaluating and reporting on management effectiveness. It also included (Jones (2009, pp. 16–17) a performance snapshot, a ‘traffic light’ pictorial system for summarising the monitoring program (Appendix 4).

The system included a framework for performance measurement which provides a structured approach to monitoring and performance standards. It identified targets and limits for performance indicators showing a target zone, a cautionary zone and an unacceptable/unsustainable zone.

Jones (2009) pointed out the benefits of the adaptive management approach and made a compelling argument for adopting this process. The approach is very different to the planning process adopted by Victoria in the years reviewed in this thesis: it encouraged evidence-based decision making; it could respond to changing circumstances; information on which management is based was more readily available; it required transparent linkages between objectives and actions; it required systematic monitoring and review; and it encouraged reform of management systems. There is no doubt that there are still problems with the process including the magnitude of the resources required and that some of the more theoretical aspects need to be brought into practice.

Pollard, du Toit and Biggs (2011) provided an overview of the development of strategic adaptive management in Kruger National Park, Republic of South Africa, over a period of 10 years. This provides another example of a practical application
Chapter 2

of adaptive management and has many theoretical elements in common with the examples already examined but is also based on extensive empirical work. Roux and Foxcroft (2011, p. 1) argued that strategic adaptive management:

... is an appealing approach to deal with inherent uncertainty in complex and interactive social-ecological systems ... In short, adaptive management is about learning-by-doing in a scientific way, adapting behaviour and overall direction as new information becomes available. It provides a structured way for improving our incomplete understanding through an iterative process of setting objectives, implementing policy decisions and evaluating the implications of their outcomes for future decision making.

The adoption of this approach to management was said to derive from (Roux & Foxcroft 2011, p. 1) 'the existence of ecological complexity and social complexity and hence social-ecological complexity' and 'the existence of multiple stakeholders with diverse (and often divergent) perceptions, values and expectations'. According to Roux and Foxcroft (2011, p. 2), strategic adaptive management is 'designed to be strategic (facilitate action with foresight and purpose), adaptive (facilitate learning whilst we are doing) and participatory (facilitate engagement and empowerment of stakeholders)'.

Adaptive planning is a critical part of this process and has several components (Roux & Foxcroft 2011, p. 2):

- creation of a common vision in which stakeholders agree on the social, technical, economic, ecological and political contexts of the system to be managed
- reach agreement on values, or operating principles, which should guide management decision making in the future
- reach consensus on the vital attributes—the distinctive and special features of the system to be managed—and their determinants
- formulation of a vision statement based on the context, values and vital attributes to be managed
• developing a hierarchy of management objectives, the high-level objectives being intended to maintain the identified vital attributes through to more detailed objectives which are measurable, scientifically credible endpoints.

It should be noted that this planning procedure has elements in common with Parks Victoria planning practice, described in Chapters 7, 8 and 9, but also many differences. The major difference is that formulation of the vision is based on constructive dialogue with stakeholders and the identification of vital attributes, and results in the identification of strategic and more detailed objectives for management. These objectives are measurable and scientifically credible. It is not explained how consensus is obtained on these issues.

The last two components of strategic adaptive management are adaptive implementation and adaptive evaluation. Adaptive implementation requires (Roux & Foxcroft 2011, p. 3) 'the development of detailed action plans, allocation of the necessary resources and the implementation of those plans'. It also requires the development of monitoring protocols linked to measurable targets. Adaptive evaluation requires continuous evaluation and learning rather than being a single step at the end of the management cycle. These issues are discussed later in the thesis.

Strategic adaptive management includes the useful concept of thresholds of potential concern (TPCs) which describe the outer limits of acceptable change to vital attributes and is an important component of monitoring programs. See McLoughlin et al. (2011), van Wilgen et al. (2011) and Foxcroft and McGeoch (2011) for examples of the development of TPCs. Gaylard and Ferreira (2011) discuss the links between the objectives hierarchy and TPCs, monitoring and research and Biggs et al. (2011) provide a critical assessment of the concept. TPCs are similar to the Tasmanian framework for performance measurement discussed above and at Appendix 4.

2.11.3 Social policy learning

Allied to adaptive planning is social policy learning. The social learning approach is ‘concerned with the way in which learning takes place in society as a whole,
and how this learning can be advanced’ (Parsons 1997, p. 597). It is a collaborative approach which involves a redefinition of policy goals and objectives through more direct involvement of stakeholders and the community. Brody (2003, p. 193) says that ‘Learning occurs through “discourse” in which participants gain information on how proposals will affect them, while at the same time planners better understand the public’s values and interests.’

In the context of protected area planning this appears to equate with participatory planning as described by Worboys, Lockwood and De Lacy (2005).

2.12 Systematic conservation planning

Systematic conservation planning is a branch of conservation biology. It recognises that, while individual protected areas are a cornerstone of nature conservation, they are not sufficient to conserve nature in a whole landscape and that a systematic method is needed to assess biodiversity on a regional basis, identify threats and make recommendations for a comprehensive reserve system. There is an extensive literature on this subject so I have focussed only on recent work that is relevant to and can be adapted to the issues investigated in this thesis, that is, approaches to planning and planning efficiency for protected areas. I wish to acknowledge the work on this subject by earlier authors including Ratcliffe (1977) and Kirkpatrick (1983).

Margules and Pressey (2000) presented a major review of the evolution of systematic conservation planning. As noted above, this term has been coined to describe the process of locating and designing nature conservation reserves as a component of managing whole landscapes for biodiversity. While this thesis is not concerned specifically with the design of reserve systems it is apparent that some of the methods used in systematic conservation planning are applicable to planning individual parks and reserves.

The authors note (Margules and Pressey 2000, p. 243), citing Austin & Margules (1986) and Soule (1987), that the role of reserves is twofold, representativeness—‘the need for reserves to represent, or sample, the full variety of biodiversity’—and persistence—promoting ‘the long-term survival of species and other elements
of biodiversity they contain by maintaining natural processes and viable populations and excluding threats’. Systematic conservation planning deals with both the location of reserves and reserve design in terms of size, shape, and connectivity, and proposes a structured approach to this planning.

Margules and Pressey (2000, p. 243) argue that systematic conservation planning involves six major characteristics:

- clear choices about the features to be used as surrogates for overall biodiversity
- based on explicit goals, preferably translated into quantitative, operational targets
- recognises the extent to which conservation goals have been met in existing reserves
- uses simple, explicit methods for locating and designing new reserves
- applies explicit criteria for implementing conservation action on the ground
- adopts explicit objectives and mechanisms for maintaining conditions within reserves that are required to foster the persistence of key natural features, together with monitoring of those features and adaptive management as required.

Most of these characteristics can be adapted to the planning process for individual reserves; this is discussed in a later chapter.

The effectiveness of the approach was said to come from (Margules & Pressey 2000, p. 243) ‘its efficiency in using limited resources to achieve conservation goals, its defensibility and flexibility in the face of competing land uses, and its accountability in allowing decisions to be critically reviewed’. The authors acknowledged that the process was (Margules & Pressey 2000, p. 251) ‘riddled with uncertainty’ and the expected outcomes difficult to achieve in practice, but they quoted some successful applications, for example, mapping of biodiversity priority areas in Papua New Guinea (Margules & Pressey 2000, figure 2, p. 244), mapping of new forest reserves on the south coast of New South Wales (Margules & Pressey 2000, figure 5, p. 248) and mapping irreplaceability in the northeast forests of New South Wales (Margules & Pressey 2000, figure 6, p. 249).

The planning process was separated into six stages (Margules & Pressey 2000, pp. 245-251): measure and map biodiversity; identify conservation goals for the
planning region; review existing reserves; select additional reserves; implement conservation actions on the ground; and manage and monitor reserves. Again, this process can be adapted to planning for individual reserves.

Van Jaarsveld et al. (2003, p. 6) argued that traditional systematic conservation planning adopted a static view of life and that a rapidly changing and complex world requires a more explicitly defined risk management approach and that uncertainty needs to be built into conservation planning. In simple terms, they proposed a risk assessment process based on the formula:

\[ \text{Biodiversity risk to a site} = \text{probability of site loss} \times \text{conservation value of site} \]

In practice, applying this concept to conservation planning is very complex.

Wilson et al. (2005, p. 538) also recognised that: ‘information on threatening processes and the relative vulnerability of areas and features to these processes is imperative for conservation planning’. They discussed measuring and incorporating vulnerability into conservation planning. The authors gave vulnerability three dimensions: exposure, intensity and impact. They reviewed four broad methods to assess vulnerability.

Knight et al. 2006 distinguished between systematic conservation assessment—identification of priority areas for conservation—and conservation planning—systematic conservation assessment coupled with an implementation process and stakeholder collaboration. They reviewed the success of eight South African conservation planning processes in terms of their translation into conservation action. The authors noted that the assessment-planning gap and the planning-action gap can lead to failure in implementation of effective conservation action (Figure 2.11).

They identified seven key ingredients that underpin planning implementation (Knight et al. 2006, p. 743):

1. a systematic assessment, 2. identification of stakeholders and goals of the process, 3. assessments conducted at different scales, 4. attention to assessment design, 5. assessment teams that include implementing organizations, 6. focused collaboration to address stakeholders’ needs, and 7. interpretation of assessment
outputs and mainstreaming products.

These key points represented a South African consensus on the (then) current best practice for undertaking assessments.

**Figure 2.11  Conservation planning model**

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Source: Knight *et al.* 2006.

Pressey *et al.* (2007) argued that conservation planning is inherently spatial but it is not static and must deal better with two aspects of change: change in biodiversity generated by natural processes and change caused by human activity. That is, that (Pressey *et al.* 2007, p. 590) ‘most planning situations involve dynamic threats’. These comments apply equally to planning for individual protected areas. The authors also noted that practitioners need to catch up with science and adopt decision support tools in the form of computer analysis when planning for dynamic threats—this also seems to apply to park planning.

Knight *et al.* (2008) again highlighted the gap between conservation assessments and conservation action, the ‘knowing–doing gap’. They argued that the fascination with computer-based techniques for spatial analysis needs to be tempered with the need to produce practical products for implementation. They suggested that (Knight *et al.* 2008, p. 615; citing Whitten *et al.* 2001) ‘The science of conservation assessment has lost its way and become a displacement behaviour for academia’.

Bottrill and Pressey (2008) returned to the dilemma of the gap between the assessment part of planning and the implementation part. They noted that conservation planning is based on biology and ecology which emphasise representation and persistence of biological features and that little attention had been given to social and economic factors; the lack of connection between those designing conservation plans and those who implement them; and that consideration of implementation is left late in the process. All of these things result in ineffective conservation outcomes.

The authors developed a guide for the whole process of conservation planning, implementation and management. The latest version was given in the IUCN guidelines for systematic conservation planning (Bottrill & Pressey in press) (Figure 2.12).

There are 11 main stages. Some would be undertaken simultaneously and there will be feedback loops. The dashed rectangle contained the stages described in Margules and Pressey (2000). Shaded stages are particularly important for implementation of conservation action. Each stage can be broken down into a number of steps or actions.

These guidelines not only related to the general process of conservation planning but also put in context planning for individual protected areas. This is a somewhat different perspective to, say, the ANZECC hierarchy of planning (Figure 2.1) or the Parks Victoria management systems (Section 2.4). The guidelines will be examined again in following chapters.
Figure 2.12  An evolving guide to conservation planning

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Source: Pressey and Bottrill 2008.
2.13 Evidence-based conservation planning

Evidence-based conservation planning aims to base conservation policy—and, by implication, conservation planning—on the best scientific and empirical information available. It represents a conscious effort to bridge the gap between scientific research, the academic literature and policies and programs devised by practitioners and is intended to complement intuitive, experience-based planning. Scientific research and survey information are very important inputs to protected area planning—they provide a basis on which to develop management objectives and strategies. They are also a critical component of the adaptive management loop whereby knowledge gained by experience is fed back into research which, in turn, allows objectives and strategies to be modified.

Pullin and Knight (2001) introduced a framework for evidence-based conservation planning derived from practices used in medicine and public health. The framework was based on systematic reviews and evaluation of primary literature and the dissemination of this information. They later noted that ‘conservation managers are challenged with the task of compiling management plans in which they have to decide on appropriate actions to meet specific objectives’ and argued that (Pullin & Knight 2003, p. 83):

… support for such decision-making is poor and that decision-makers have little opportunity to capture and evaluate the evidence for effectiveness of alternative management options. The result is that decisions are often made without access to the best quality evidence thus increasing the probability that inappropriate management options will be adopted.

Evidence-based conservation planning is intended to add structural support to the adaptive management model.

Pullin and Knight (2003, p. 87) noted that, to achieve evidence-based practice, mechanisms are needed to bring scientists and practitioners closer together and to increase the flow of information in both directions. They also argue that the objectives and targets specified in management plans ‘should also contain targets for accumulation of evidence where more is clearly needed (this is almost
always), that is, the identification and costing of research needs. They propose a model for evidence-based practice (Figure 2.13). The main difference between this and other models is the insertion of step four where actions specified to achieve objectives are systematically reviewed and assessed for effectiveness, bearing in mind the scientific evidence that is available.

It is of interest that they introduced the possibility of using decision support systems—interactive computer-based systems, generally with a geographic information system base—used to help decision making in complex situations in analysing and reviewing data. Decision support systems have been used in Australia in recent years in, for example, the re-zoning of the Great Barrier Reef Marine Park in 2003 using the computer program MARXAN.

Sutherland et al. (2004, p. 305) argue that ‘Much of conservation practice is based upon anecdote and myth rather than upon the systematic appraisal of the evidence, including experience of others who have tackled the same problem’. They proposed two solutions to this problem:

- a central web-based database on conservation practice
- management plans to incorporate the process of collating and reviewing evidence as a fundamental component of the plan.

Pullin and Knight (2005) undertook the first formal assessment of the extent to which scientific evidence is used in conservation management through a questionnaire survey and follow-up interviews of compilers of protected area management plans in the UK and Australia. They concluded that (Pullin and Knight (2005, p. 1989):

… scientific information is not being used systematically to support decision making largely because it is not easily accessible to decision makers. This, in combination with limited monitoring and evaluation of effectiveness of management interventions, results in the majority of decisions being based on experience rather than on evidence.

This is an issue which is addressed later in the thesis in connection with my interviews with park planners and managers.
Figure 2.13 An evidence-based approach to conservation planning

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Source: Pullin and Knight 2003.

Pullin and Stewart (2006) provided detailed guidelines for undertaking formalised systematic reviews including planning and conducting a review, protocol formation, search strategy, data inclusion, data extraction, and analysis.
Head (2008) pointed out some of the challenges and limitations of evidence-based policy. He argued that policy decisions should emerge from politics, judgement and debate rather than being deduced solely from empirical analysis, and that ‘evidence’ is diverse and contestable (Figure 2.14). He also distinguished between technical and negotiated approaches to problem-solving.

From the point of view of this thesis, several important points were made:

• (p. 3-4) While some policy issues may be addressed by a ‘technical’ approach to problem-solving, ‘community engagement, multi-stakeholder consultation, and partnering across stakeholder sectors’ are becoming increasingly necessary to solve complex interlinked policy issues. The latter situation requires a ‘negotiated’ and ‘relational’ approach to problem-solving.

• (p. 3) ‘obtaining more data to fill the known gaps would not necessarily get us onto the highway toward good policy solutions, because much of the policy puzzle is about reconciling different value perspectives’

• (p. 4) ‘our ideas about “evidence-based” policy may change character as we move from a technical approach towards a more relational approach’ and that disparate bodies of knowledge become multiple sets of evidence that inform and influence policy rather than determining it

• (p. 4) ‘effective policy—its design, implementation, and evaluation—depends on several evidentiary bases’

Pullin and Knight (2005) argued that there are three important kinds of knowledge and corresponding views of ‘evidence’—political know-how, rigorous scientific and technical analysis, and practical and professional field experience.

Political knowledge includes all of the real-life machinations that occur when politicians, or their surrogates in the form of senior public servants, intervene in planning processes for a variety of reasons. It also includes situations where a government commitment has been made on an issue so that the issue is no longer subject to further debate—a ‘data-proof’ or ‘evidence-proof’ position. There are many examples of this type of intervention in protected area planning such as the
Kennett Government proposals for development at Wilsons Promontory National Park, Victoria, in the 1990s, discussed in Chapter 8.

Figure 2.14 Three lenses of knowledge and evidence

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Source: Head 2008.

*Scientific (research-based) knowledge* is (Pullin and Knight 2005, p. 6) ‘the product of systematic analysis of current and past conditions and trends, and analysis of the causal inter-relationships that explain conditions and trends’. Interdisciplinary approaches are often appropriate. In protected area planning this knowledge is derived from the accumulated research and monitoring of the physical, biological and social condition of the park. The challenge is how to incorporate this knowledge in park planning.

*Practical implementation knowledge* is (Pullin and Knight 2005, p. 6) ‘the “practical wisdom” of professionals in their “communities of practice” (Wenger 1998) and the organisational knowledge associated with managing program implementation’. ‘Best practice’ guidelines are often used but they may be overlain by organisational rules and protocols. In protected area planning this is the approach adopted by most professionals.

Head pointed out that there has been little research on how the three streams of knowledge can be combined and that this is a major challenge for implementation. That is certainly the case for protected area planning where the relative input from the three sources varies greatly in particular circumstances. Head (2008, p. 9)
summarised the three main challenges to the concept of evidence-based policy as:

- the inherently political and value-based nature of policy debate and decision-making
- information is perceived and used in different ways, by actors looking through different ‘lenses’ ... there is more than one type of relevant ‘evidence’
- the complex modern arrangements of networks, partnerships and collaborative governance are difficult to harness to the traditional forms of knowledge management, policy development and program evaluation in the public sector.

Mahan, Vanderhorst and Young (2009) provided an example of a natural resource assessment of two national parks in the USA as a major input to park planning. The study produced a ‘science-based planning framework’ which synthesized and interpreted natural resource information for planning and management purposes and identified information gaps and the significance of resources. It was intended as a possible blueprint and guidelines for natural resource assessment. It comprised four steps (Mahan, Vanderhorst & Young 2009, p. 1302):

1. identifying, collecting, organizing, and synthesizing existing data sets, technical reports, and relevant published literature;
2. assembling a cadre of scientific experts and natural area managers to provide additional information on all past and ongoing natural resource studies, to identify gaps in knowledge about the resources, and to suggest desired conditions and management prescriptions for natural resources;
3. conducting geospatial analyses to determine the spatial extent of significant assemblages of natural resources and their conservation significance, and
4. consolidating and presenting—both in writing and orally—all inputs (steps 1–3) in a manner that portrays the historical and existing ecosystems and identifies the intrinsically significant and most threatened natural resources at various scales (local, regional, national, global).

This is a classic example of what Head (2008) described as evidence-based knowledge based on applied scientific research. Its strengths are that it is systematic and rigorous and its outputs are tailored to park planning and management. Such comprehensive studies are rare in park planning in Australia and so we can learn a lot from this type of work. The weakness of the study was that it only considered natural resources and—deliberately—did not deal with social, economic or political considerations. Thus it is only one component of the
Chapter 2

range of issues that need to be integrated into a management plan.
3

LITERATURE REVIEW

PLAN QUALITY AND PLANNING
EFFECTIVENESS

3.1 Introduction

Measurement of plan quality has received much attention in the management literature, particularly since the 1990s, but there has been relatively little work on assessment of planning effectiveness and very little specifically concerning the assessment of the quality or effectiveness of management plans for protected areas. In this Chapter I have focussed on the literature on policy implementation analysis and program evaluation in various aspects of town planning which are relevant to, or can be adapted to, the subject of this thesis—protected area planning. Material is drawn from the United States, the United Kingdom, the Netherlands, Portugal, Canada, New Zealand and Australia. The review is loosely grouped according to the source of the material and is in chronological order within each group. This Chapter and later Chapters in the thesis seek to investigate the following questions:

- Can the processes, outputs and outcomes of planning be measured?
- What approaches are currently being adopted to achieve this?
- Can the approaches used in town planning and open space planning be adapted to protected area planning?

3.2 The United States

In the United States, research has focussed on methodology to assess the effectiveness of various aspects of urban planning and specialised areas such as planning for natural hazards.
Bryson et al. (1990, p. 194) refuted the then widely held notion that (urban) planning was largely unsuccessful and came to the defence of planners and planning. They concluded that planning:

… appears to make a rather dramatic positive contribution to the outcomes of major planned change efforts. Skilled planners also make a significant positive contribution to project planning success.

This is encouraging if it can be applied to protected area planning.

Berke and French (1994, p. 238), looking at the influence of State planning mandates on local plan quality, found that:

… the highest quality plans are characterized by the degree to which 1) fact basis defines local needs, 2) goals are clear and comprehensive in demonstrating commitment to address needs, and 3) policies are specific and action oriented in achieving plan goals.

They developed a checklist of 56 issues that should be included in a ‘quality’ plan using the major headings fact base, goals and policies. Each issue was assigned a score so that individual plans could be evaluated for quality. This methodology does not address plan outcomes. Other authors later developed and adapted this method of assessing plan quality.

Talen (1996a, p. 248) provided a review of planning evaluation methodology. She noted that ‘The planning community has shown a curious lack of interest in developing methods to evaluate how successfully plans are implemented.’ and that there is a ‘need to establish a separate, distinctive form of planning evaluation focused exclusively on evaluating the implementation success of plans’. Although the paper was directed towards urban planning I believe that the principles also apply to protected area planning.

Talen (1996a) noted the existing gap between policy and outcome and that plans are often updated without a review of the implementation of the original plan. This is largely the case with park management plans where the review is often just a checklist of actions completed—presupposing that they are specific enough to be measured—but with no real assessment of the achievement of objectives. She
makes the important distinction between planning implementation—i.e. process—with plan implementation—i.e. outputs and outcomes.

Not all of the evaluation methods reviewed in this paper are relevant to protected area planning.

Evaluation of alternative plans, particularly using mathematical modelling, is not particularly relevant to park planning. Alternative strategies are generally resolved by discussion of issues papers and in the public consultation process. This method could be used in sub-plans dealing with technical issues.

Analysis of planning documents is undertaken in general reviews by agencies of their planning process and the content and presentation of plans but I am not aware of discourse analysis or deconstruction, as described here, being used.

Studies of planning behaviour deal with what planners do and how they do it. The theoretical approaches described here do not seem to very relevant to the current practice of park planning.

Descriptions of the impacts of planning and plans as described here appear to apply more to the economic and social effects of town and regional planning. However Talen (1996a, p. 251) noted ‘The implementation of physical or spatially referenced plans is quite distinct from other forms of planning activity.’ and that ‘the analysis of plans must be differentiated from the analysis of implementing mechanisms’. This comment applies very much to park planning.

Policy implementation analysis and program evaluation seek (Talen 1996a, p. 252) ‘to determine what happens after a program or policy is enacted, including whether or not implementation has actually occurred’. This is concerned with the outcomes of social and economic policy rather than an analysis of physically based plans.

Evaluation of the implementation of plans can use either non-quantitative or quantitative methods. Non-quantitative methods are dismissed as ‘highly subjective’ with ‘poorly defined’ criteria although later she says that (Talen 1996a, p. 256) ‘quantitative approaches must account for the subjectivity of reality and
that the value of qualitative research cannot be usurped’. A number of approaches to quantitative assessment are cited including that of Alterman and Hill (1978) who used a grid overlay to assess the relationship between plans and actual land use; Calkins (1979) ‘planning monitor’ which used an inventory of measurable attributes to measure the difference between planned change and unplanned change; and Bryson, Bromiley and Soo Jung (1990) who used a subjective score for various parameters combined with statistical analysis. Some aspects of these methods may be relevant to assessing protected area plans but I don’t believe that they can be applied to protected area plans without considerable modification.

Talen (1996a) discussed the critical issues affecting the evaluation of plans. These were the ability of planning to effectuate change, the meaning of success, the issue of multicausality and the problem of quantitative evaluation in planning. These issues were described in terms of urban planning and need to be interpreted for protected area planning.

Talen (1996a, p. 256) concluded that, while there may be methodological problems, it should be possible to link goals in a plan with actual accomplishments. She noted that ‘Determining what planning has accomplished by examining the outcome of implemented plans tells us not only something about how planning decision-making operates (planning process) but also what constitutes effective planning practice in empirical terms (substance)’. She also argued that ‘The key to integrating dynamic elements into plans lies in incorporating evaluative methods upfront’, that is, an assessment methodology should be provided for measuring the achievement of each goal.

Talen (1996b) later proposed a method to assess the effectiveness of the outcomes of plans for urban areas. In this case it was the distribution of urban parks. She noted that the method only applied to the distributed goals of plans—goals with spatial characteristics—and that it was unlikely that the method could be readily adopted by planning practitioners because of time and resource constraints. It is conceivable that some aspects of this approach could be adapted to protected area planning using GIS technology.
Rather than looking at why plans fail, Talen (1997, p. 573) investigated what constitutes planning success. She noted that such an enquiry is problematical because:

- (1) there is no existent definition of what success is;
- (2) there is no empirical knowledge of when—in what circumstances—planning has in fact succeeded; and
- (3) there is no method for measuring planning success.

I suggest that these comments also largely apply to protected area planning. She set down the steps required to analyse why planning succeeds (Figure 3.1). She argues that attention has been given to some components but not to the process as a whole. I think that this sequence could also be applied to protected area planning.

**Figure 3.1  Analysing why planning succeeds**

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Talen advocated the need for conformance-based evaluation. She argued for object-orientated planning but admitted that, at that time, there was no methodology available to measure goals. My understanding is that, in this context, object-orientated planning refers to aspects of the physical development of urban areas rather than a focus on planning process.

Baer (1997) developed criteria to evaluate a plan while the plan is being formulated which he called *plan assessment*. The criteria are shown in Appendix 5. The criteria are very detailed and are, in practice, a checklist for process and content. They are grouped according to eight topics:

- *Adequacy of context* – the context and setting and purpose of the plan.
- ‘*Rational model*’ *considerations* – basic planning considerations.
- *Procedural validity* – the who and how of plan making.
Chapter 3

- *Adequacy of scope* – is the plan connected to the larger world?
- *Guidance for implementation* – this is self-explanatory.
- *Approach, data and methodology* – the technical basis of the plan.
- *Quality of communication* – this is self-explanatory.
- *Plan format* – does the plan format aid communication?

Most of these criteria could apply to park management plans or could be adapted to them. The criteria are, however, rather lengthy and are mostly subjective with no guidance given on how the criteria may be assessed or measured.

Baer (1997) noted that *post hoc* evaluation of the implementation of plans is only legitimate if the plan and its objectives are seen as ends in themselves and that evaluation of implementation is not relevant if the planning process itself is the object of the exercise. Note that his criteria address only process and content of plans, not the outcomes of the plans.

Brody (2003) examined plan quality associated with natural hazards. Again, some of the principles can be adapted to protected area planning. Brody examined how the content and quality of plans changed over time and whether adaptive learning improved policies. Plan quality was conceptualised as (Brody 2003, p. 194) ‘consisting of three equally weighted components: a strong factual basis, clearly articulated goals, and appropriately directed policies’. In general terms, these principles apply to protected area planning. Indicators for each plan component further defined plan quality.

The methodology used was that developed by Berke *et al.* (1996 & 1998). This was a semi-quantitative, statistical method of analysis of plan quality. First, the components of the plan were listed, in this case there were 63 components (Appendix 6). Note that they are directed towards natural hazard planning. Examples are:

- *Factual base* – type of data
- *Goals* – economic impacts
- *Actions* – awareness
Indicators were then assigned to each plan component.

- **Factual base** – type of data – delineation of magnitude of hazard
- **Goals** – economic impacts – any goal to reduce property loss
- **Actions** – awareness – educational awareness

Each indicator was then measured on a 0 to 2 ordinal scale. Equal weights were assigned to all of the indicators of plan quality.

0 – not identified or mentioned

1 – suggested or identified but not detailed

2 – fully detailed or mandatory in the plan

Overall plan quality was then calculated in a three-step process. The scores for the indicators for each plan component were added up. This number was divided by the maximum score for each component and then multiplied by 10. This gave the component a score on a 0 to 10 scale. As there were three components—factual base, goals and actions—this gave a maximum score of 30 for the plan.

The results for a range of plans were then subjected to statistical analysis using multiple regression analysis, a Chow test and other tests.

In my view this approach has several major weaknesses. While it purports to be a quantitative assessment, in practice the notion of quality of the plan is based on a highly subjective listing of the components of the plan and their indicators. If you alter that list you will substantially affect the overall score. The assignment of scores to each indicator is more straightforward, it should be a reasonably objective task to judge whether issues are identified and to what extent.

I also have doubts about the use of this type of statistical analysis based on this type of data. The base data are highly subjective and the scoring system is somewhat arbitrary. Use of this type of statistical analysis gives a quasi-scientific numerical output which does not reflect the quality of the input data and gives a misleading impression of accuracy. I suggest that, in protected area management plans, assigning a relative score is valid but that more complex statistical analysis
is not appropriate.

My most serious concern is that the methodology measures *outputs* of the planning process rather than *outcomes*. In other words, the methodology is geared to what the plan *says* rather than what the plan *does*. Note that the scoring system for each indicator reports only what is stated in the plan. As noted above, Talen (1996a) clearly distinguished between planning process and planning outcomes and argues the need for a form of evaluation that addresses the implementation of plans. I think that this type of approach to measuring plan efficiency could be suitable, with some amendment, to assessing the process side of park plans but is not suitable for assessing the outcomes of these plans.

Steelman and Hess (2009) examined the question ‘How does planning relate to the achievement of open space protection objectives?’ This study is included here because open space planning is closer to the thesis subject matter of protected area planning than is urban planning or natural hazard planning discussed elsewhere. The study used the plan evaluation matrix developed by Berke *et al.* (2006), suitably modified to address open space planning. The plan evaluation criteria are reproduced at Appendix 7. Like other authors they recognise that (Steelman and Hess 2009, p. 94) ‘although plan quality is often used as a proxy for plan effectiveness, little is known about the correlation of plan quality with the implementation and ultimate effectiveness of a plan or how these relationships hold up in the realm of open space planning’. The same could be said for protected area planning.

The methodology is similar to that used in earlier studies (Brody 2003; Berke *et al.* 1996; Berke *et al.* 1998; Baer 1997) in that criteria for plan quality were chosen using seven categories, scores were allocated and the results analysed statistically. Open space planners were then surveyed to get their perspective on aspects of open space protection and to measure perceived success in plan implementation. The authors note that it was difficult to obtain objective measures of plan implementation as many of the plans did not identify measurable, quantitative objectives. This applies to many protected area plans—measuring the success of plan implementation is a major challenge.
The primary criteria for plan quality were (Steelman and Hess 2009, p. 97):

- overview and organising principles
- breadth and strength of implementation recommendations
- measurable objectives and monitoring
- coordination with other plans and jurisdictions
- report organisation
- degree of citizen and stakeholder participation
- identification of priority areas.

The study had some interesting conclusions based on a relatively objective assessment of plan quality and a subjective analysis of implementation success (Steelman and Hess 2009, p. 101):

- plan quality was not significantly correlated with perceptions of plan implementation or open space protection
- plan implementation was highly correlated with planner’s perception of open space protection, suggesting that open space is protected when a plan is implemented, regardless of the quality of the plan
- the number of stakeholders involved during planning and implementation was consistently correlated with planner impressions of plan implementation and open space protection, that is, keeping stakeholders involved during the implementation stage is also important.

The authors conclude, amongst other things, that (Steelman and Hess 2009, p. 101):

the entire open space protection process is important, not just planning … a strong focus on implementation—actually protecting open space—may be more critical than creating a high quality plan

commitment to evaluating implementation progress also appears to be important

the absence of precise, quantifiable goals with established target dates … makes measuring progress challenging
less emphasis on plan quality and more emphasis on implementation and building relationships might result in more open space protection planning is necessary but not sufficient for protecting open space … planning is a means, not an end

These are just the results of one study and they may, or may not, be generally applicable to all planning processes, nevertheless they will be kept in mind when considering protected area planning.

### 3.3 New Zealand and Australia

A similar approach to assessing the quality of plans—not plan outcomes—was made by Eriksen et al. (2003) when looking at the implementation of the New Zealand Resource Management Act 1991. Criteria for evaluating plan quality were based on the work of Kaiser, Godschalk and Chapin (1995), Berke (1994), Baer (1997), Berke et al. (1999) and other authors. Eight major criteria were used, each of which had a set of questions or indicators. The full set of criteria are given at Appendix 8; the eight major criteria are shown below.

1. **Interpretation of the national mandate** – Articulation of how a legislative enabling provision is interpreted in the context of local (or regional) circumstances.

2. **Clarity of purpose** – Articulation of a comprehensive overview, preferably early on, of the outcomes the plan attempts to achieve.

3. **Identification of issues** – Explanation of issue in terms of the management of effects.

4. **The quality of the facts base** – Incorporation and explanation of the use of factual data in issue identification and the development of objectives and policies.

5. **Internal consistency** – Issues, objectives, policies, and so on are consistent and mutually reinforcing.

6. **Integration with other plans and policy instruments** – Plans should integrate key actions of other plans and policy instruments that are
produced within the agencies or by other agencies.

7  **Provisions for monitoring and responsibilities** – Plans should include provisions for monitoring and identify organisational responsibility.

8  **Organisation and presentation** – Plans should be readable, comprehensive and easy to use for both lay and professional people.

These criteria are relevant to the assessment of protected area management plans and could contribute, with some modification, to the proposed method to assess plan quality—but not the plan outcomes.

Miller (2003), commenting on monitoring and evaluation of plans under the Resource Management Act, found that there had been a limited number of studies on the quality of the planning. The ‘Planning Under a Co-operative Mandate (PUCM) Study’ used the plan coding process developed by Berke et al. (1999), noted above, to focus on the preparation of plans and their quality. Later phases of the work were to look at plan implementation and quality, and implementation outcomes with respect to environmental quality. Miller (2003, pp. 340–341) echoed many others in concluding that:

> If planning and its outputs are to remain useful and meaningful to communities, then it is essential that in some way they demonstrate that they do produce outcomes that improve the quality of both life and the environment. However, measuring planning outcomes and assessing processes is fraught with problems.

Nankervis (2003) examined the problems involved in measuring the quality of planning using the Victoria, Australia, residential planning code (*Rescode*) as an example. He appears to regard planning as a process towards future action rather than being prescriptive and therefore argues that, while an assessment of some aspects of the planning process may be possible, measurement of planning success is difficult or impossible. He points out three major issues in measuring plan quality:

- the difficulty of identifying what is a good outcome
- the problem of measuring complexity
- the problem of confusing quantity of inputs with quality of outputs.
Nankervis raises many difficulties but provides few solutions. He concludes that (Nankervis 2003, p. 325):

… measuring good planning may ultimately only be workable as an assessment done synoptically, and by those trained or expert in the field. Planning itself is an art, rather than a science, and is thus not easily amenable to a rigorous use of the ‘scientific method’.

I find this assessment overly negative and am encouraged by the other work reviewed in this section which indicates that, while there are methodological problems, assessment of plan quality is possible and that scientific method can have a role in the assessment.

3.4 The United Kingdom

In the United Kingdom there has been much work undertaken on the assessment of planning effectiveness, following the introduction in the late 1990s of the Performance Management Framework for local government planning which introduced the concept of a Best Value regime (Carmona & Sieh 2005). The Best Value regime is part of an approach to public administration which emphasises evidence-based policy and rational decision making.

Alexander and Faludi (1989, p. 127) identified three views of the planning process with their associated criteria for quality:

… planning as control for the future, implying that plans not implemented indicate failure; planning as a process of decision making under conditions of uncertainty, where implementation ceases to be a criterion of success, but where it becomes difficult, therefore, to give stringent criteria of the quality of a plan; and a view holding the middle ground, where implementation is still important but where, as long as the outcomes are beneficial, departures from plans are viewed with equanimity.

The authors drew on the policy-plan/programme-implementation-process (PPIP) model developed by Alexander (1985) and proposed five criteria for comprehensive evaluation occupying the ‘middle ground’ (Alexander and Faludi 1989, p. 135):
Conformity, encompassing whether the plan was implemented, and whether the effects were the ones desired.

Rational process, in particular whether the process was comprehensive, logically consistent, and involved the participation of all affected parties.

Optimality ex ante, or is the strategy optimal at the time of implementation, for example through assessing the relationship between aims and means.

Optimality ex post, or after-the-fact, was the strategy prescribed in policy optimal.

Utilization, or whether the policy of the plan was used as a frame of reference when making decisions, and if not, were the reasons for departing from it logical.

They did not specify how the criteria are to be measured. Nevertheless, these criteria are relevant to the consideration of how protected area plans might be evaluated.

Carmona and Sieh (2005) reviewed various approaches to evaluating town planning. A number of important points were made:

- systems planning approaches to decision making—technical interventions informed by comprehensive models—had not been particularly successful in this field
- measurement of planning effectiveness may need to use a matrix of outcome types including economic, environmental, social, democratic and governance issues using both quantitative and qualitative criteria (Gleeson 2002)
- understanding why planning succeeds should be one of the main occupations of planning theoretical and empirical inquiry (Talen 1997)
- evaluation of the process and the outcomes of planning are not mutually exclusive and both may be required (Talen 1997)
- there are two views on plan evaluation—that plan implementation is critical or that the influence on the decision making process is the most
important factor, regardless of the final outcome, i.e. the relative importance of outcomes and processes

- the practicalities and resources required to gather appropriate data make quality/effectiveness evaluation difficult

- work in the Netherlands has emphasised the performance perspective which proposes that seeking conformance between planning objectives and outcomes is less importance than the influence of planning in subsequent decision making (Mastop & Faludi 1997, Mastop & Needham 1997)

- measuring performance in planning remains problematic.

Carmona and Sieh (2005) surveyed planning authorities in the UK to assess performance measurement and planning quality/effectiveness. The study was intended to investigate and comment on current performance evaluation and did not seek to develop a preferred method of assessment. Three main questions were put (Carmona and Sieh 2005, p. 309): What is quality in planning?; How was quality delivered and performance measured?; and What were the underlying reasons for the approaches taken? The results were complex and not all of them are relevant to this thesis, however some points are pertinent.

They noted that there is a continuing tension between speed—in this case, the time required to process development applications—and quality of decision making. This comment also applies to the production of management plans for protected areas in Victoria where there have been conscious efforts made in recent years to streamline the production of management plans, simplify their content and reduce the requirement for existing management plans to be fully reviewed. The literature review in the study indicated that there was a general move towards evidence-based policy in UK planning authorities, although this was not completely supported by the case studies. This matter will be considered later in this thesis but the indications are that most protected area planning in Australia is experience-based rather than evidence-based. Another common theme was the lack of resources available to develop performance indicators and to conduct performance appraisals.
The study also concluded (Carmona and Sieh 2005, p. 328) that approaches to the assessment of planning quality were almost always ‘reductionist’ rather than ‘holistic’, that is, breaking down plans into more easily measured components rather than assessing the plan as a whole. This is a major issue in protected area planning as there are few, if any, measures of the effectiveness of a plan as a whole available and any assessment that does occur is normally of individual objectives or actions. Similarly, many of the actions in protected area plans are also in the ‘too hard to measure’ category.

Carmona and Sieh (2005, pp. 304, 328), citing Carter et al. (1992), noted the interesting concept of performance measures as either ‘dials’ (where a reading is taken) or ‘tin openers’ (used to reveal a can of worms) or ‘alarm bells’ (alerting when a situation gets critical) and concluded that this approach may need to be applied to most performance indicators. This is relevant to the assessment of protected area plans and will be discussed later.

Alexander (2009, p. 234), commenting on the above study, discussed the purpose and motivation for planning. He suggested that the study seemed to indicate that:

… the ultimate purpose of local land-use planning and development control is sustainable development: enhancing the community’s welfare in a balanced achievement of economic growth, social equity and environmental quality.

This raises the question: what is the purpose of protected area planning? Alexander reiterated that (Alexander (2009p. 235) ‘evaluation of planning and plans has adopted one of three distinct approaches: conformance-based, performance-based, or utilitarian (or modified-utilitarian) evaluation’. He concluded that planning evaluation can be either intended to enable better management and improve efficiency or to enhance the organisation’s image among critical stakeholders.

Carmona and Sieh (2008, p. 430), continuing to address the evaluation of planning in the United Kingdom, identified ten fundamental conceptual dilemmas in evaluating planning performance, only some of which relate to protected area planning. They noted that ‘planning is not, and is never likely to become, a perfect rational decision-making process’ because of political issues and public
involvement and that, with performance measurement, there is a danger of oversimplifying otherwise very complex information which can lead to simplistic conclusions and decision making. They also observe that a range of different measurement approaches may be required—some simple checklists but others more complex—and that this presents a considerable dilemma in how to integrate the results and come up with an overall assessment.

They proposed a new model for measuring performance in planning. This was based on a very comprehensive review of existing academic thinking and examination of current professional practice. Their analytical framework for performance measurement in planning is reproduced at Appendix 9. It will be seen that this is extremely complex and the processes and linkages are far from clear. It is based on three major components (Carmona and Sieh 2008, p. 437): planning service quality; organisational quality; and planning product quality. Planning service quality ‘encompasses the operation of the planning service itself, both within and outside of the statutory processes’. Organisational quality ‘encompasses the operation of the wider local government organisation, of which planning is just a part’. Planning product quality ‘represents the results from planning activity, and the results from the range of public sector services’.

The authors appear to be saying that planning quality has two major inputs: organisational quality—the leadership, skills, financial resources and integration with other activities that are needed for good planning; and planning service quality—the operation of the planning service itself whose inputs, processes and outputs can be measured by efficiency, effectiveness, economy and equity. The outcomes and impacts of the planning process—planning product quality—are measured by added value, stakeholder satisfaction, policy success and sustainable development. A much simplified version of the analytical framework is given at Table 3.1.
Table 3.1  A new model for measuring planning performance

<table>
<thead>
<tr>
<th>Components</th>
<th>Activities</th>
<th>Criteria</th>
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</thead>
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<tr>
<td>Key contributors to the quality of planning</td>
<td>Planning service quality</td>
<td>Inputs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Processes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outputs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisational quality</td>
<td>Coordination</td>
<td>Leadership</td>
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<tr>
<td></td>
<td>Investment</td>
<td>Skills</td>
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<tr>
<td></td>
<td>Regulatory</td>
<td>Resources</td>
</tr>
<tr>
<td></td>
<td>Maintenance</td>
<td>Integration</td>
</tr>
<tr>
<td>Key results from planning</td>
<td>Planning product quality</td>
<td>Outcomes and impacts</td>
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</table>

Source: adapted from Carmona and Sieh 2008.

The timescales and difficulty of measurement for measuring the various criteria vary greatly so that the quality of a planning exercise may not be able to be measured at a single point in time or without considering broader organisational and policy issues.

The authors note that the outcomes and impacts are closely related and contribute to each other, for example, planning can help policy objectives which in turn can help sustainable development. They saw stakeholder satisfaction as independent of the other three criteria although still contributing to the final outcome. The relationship is shown at Figure 3.2.

Although the model is very complex and is very much aligned to town planning the method could be adapted to protected area planning, particularly the criteria listed and some of the principles.
Figure 3.2 The fundamental dimensions of performance measurement in planning

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Source: Carmona and Sieh 2008.

3.5 The Netherlands

Mastop and Faludi (1997, p. 815), considering Dutch urban and regional strategic planning, observed that:

If implementation falls short of expectations, the plan (and the planner!) is said to have failed, whatever the reason, be it because others refuse to cooperate, because of lack of finance or simply because a forecast is inaccurate. Common though it may be, this is a narrow view. Plans cannot be judged solely in terms of conformance between a plan and final outcomes.’

They rejected the notion of a strategic plan as a blueprint and, instead, see the relationship between a plan and subsequent action as conditional rather than prescriptive, that is, that the application of strategic plans is discretionary. They noted that (Mastop and Faludi 1997, p. 816) ‘The message is counterintuitive: lack of conformance between a plan and final outcomes does not mean poor performance.’
They introduce the concept of *performance* in planning (Mastop and Faludi 1997, p. 820) ‘the way in which a strategic plan holds its own during the deliberations which follow its adoption’ as distinct from *conformance* ‘concurrence between the original plan and changes in the outside world’.

They distinguished between *project plans*—a blueprint for future action—and *strategic plans*—a non-prescriptive frame of reference for negotiations with an open future. They argued that a project plan can be evaluated by measuring conformance between the goals expressed in the plan and outcomes, even if the sums are complex. Evaluation of a strategic plan is more complicated as departures from the plan do not necessarily indicate ineffectiveness.

They conclude, amongst other things, that you cannot evaluate strategic plans but must analyse their component parts. This has some similarities with some types of protected area plans which are general, non-prescriptive and act as a framework for a set of subsidiary sub-plans.

For protected area planning this raises the questions: How alike are park management plans to strategic urban plans or project plans? Do the same principles apply? Are management plans meant to be completely prescriptive or are they only intended to set in train a process, or should they do both? The answers to these questions will radically affect the way you measure effectiveness or quality in planning.

Mastop and Needham (1997, p. 881), also considering Dutch strategic planning, pointed out the *implementation gap* in spatial planning whereby the intentions laid down in plans are not translated into changes in the physical environment. This presents problems about how planning is done and how it is evaluated. They argued that the governing principle for planning is the quest for effectiveness, that is, that planning should affect the environment. To put it another way, there should be a direct relationship between plan making and direct intervention.

They argued in favour of a *performance perspective* to planning which has a social interaction or communications approach, identifies all the actors in the process and can include various planning situations.
We will see later that there is an implementation gap in protected area planning and that performance and the assessment of outcomes is a critical factor.

3.6 Canada

Bronson and Noble (2006) developed a methodology to measure the effectiveness of Parks Canada’s *environmental management system* (EMS) with a case study of Riding Mountain National Park. The Parks Canada environmental management system was based on the 1996 ISO 14001 standard and is intended to provide a structured framework designed to achieve continual environmental improvement. It is a cyclical process (Figure 3.3).

*Figure 3.3  Principal components of an environmental management system*

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Source: Bronson and Noble 2006.

An examination of the diagram shows that it is an adaptive management process. The authors indicate that (Bronson and Noble 2006, pp. 103–104) ‘it is a generic process standard for identifying and reporting on aspects of industry environmental standards; it is not a performance standard and it does not seek particular outcomes’. Thus it is different from protected area plans which would normally be expected to determine some sort of outcome. They argue that (Bronson and Noble 2006, p. 104) ‘the link between meeting ISO standards and genuine improvement in environmental performance has not been clearly
established’. They also argue that, whether or nor ISO standards for environmental management systems are met (Bronson and Noble 2006, p. 105) ‘the real measure of EMS performance is whether or not significant environmental improvement is being realised’.

There are significant differences between environmental management systems and protected area plans but the reason this work is cited here is that the study has some useful commentary on contemporary program evaluation and it concerns management of a national park, so it has some implications for park planning.

The most significant conclusion of the study, from the point of view of this thesis, was the need for measurable environmental indicators and monitoring actions. The authors argue that an effective environmental management system should provide an action plan which includes specific targets as well as a detailed description of how those targets are being met from year to year. This is equally applicable to protected area planning. As we shall see later, most management plans for parks lack specific targets and an adequate monitoring regime.

### 3.7 Portugal

Oliveira and Pinho (2009, p. 36) described the design of an evaluation methodology for municipal plans for Portugal’s two largest cities, Lisbon and Oporto. The work drew on a three year project on evaluation in urban planning. They proposed a number of general principles to guide planning evaluation:

1) planning practice should be evaluated as well as plan documents;

2) the design of an assessment methodology must be clearly linked with planning evaluation theory;

3) the evaluation methodology should suit the object under appraisal;

4) the main elements of planning practice—policies, plans, programmes, processes, and results on the territory—must be subject to an integrated evaluation;

5) evaluation and planning processes should be developed together;

6) the evaluation methodology must have a balanced development in time;
and finally,

7) the presentation of evaluation results and the analysis of their use within the planning system should be evaluated.

Drawing on these principles they developed a methodology—*Plan-Process-Results* (PPR)—to assess the production and the outcomes of a plan. To put it in another way, it evaluates *rationality, performance* and *conformance* thus combining several approaches to planning evaluation. They suggest that the methodology is best suited to ongoing and *ex-post* evaluations but, with some limitations, could be applied to *ex-ante* evaluation to assess different plan alternatives. The methodology is very complex and only an outline is given here. As with other work reviewed above, it is possible to adapt some aspects of this approach to protected area planning.

The design of the PPR methodology involved an exhaustive review of the literature and existing methodologies and adopted some aspects of existing evaluation methods including the PPIP methodology noted above. The authors claim that the model highlights the role of the plan, the process and the results, but also the users, politicians, the planning framework and other planning activity. A summary of the full methodology is reproduced at Appendix 10. Ten criteria were proposed (Oliveira and Pinho 2009, pp. 40–41):

- Internal coherence—Interpretation of planning system—Relevance—External coherence—Participation in plan making—Plan utilisation—Commitment of resources—Participation during plan implementation—Effectiveness—Direction

Each criterion lists evaluation subjects, sub-criteria and the evaluation techniques and data sources. The evaluation techniques and data sources for the various criteria are wide ranging including reading of the plan, impact matrices, SWOT analysis, interviews and reading related plans—there are ten in all. To make the methodology a little clearer, here is an example of the evaluation process (Table 3.2).
Table 3.2  An example of PPR methodology

<table>
<thead>
<tr>
<th>Specific criteria</th>
<th>Evaluation subjects</th>
<th>Sub-criteria</th>
<th>Evaluation techniques/data sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal coherence</td>
<td>Plan</td>
<td>Relationship between the objectives and the land uses of the plan</td>
<td>Reading of the plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Relationship between the objectives and the urban systems of the plan</td>
<td>Impact matrices (different plan proposals)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Relationships between the objectives and the plan implementation mechanisms</td>
<td></td>
</tr>
</tbody>
</table>


Note that each of the criteria to be evaluated has different data sources and different evaluation techniques so that the overall conclusions from the evaluation need to be integrated. Because of the different evaluation techniques no attempt appears to have been made to assign numerical values to each of the criteria to arrive at a quasi-quantitative result; instead a simple A to D score was allocated and presented in a summary table (Oliveira and Pinho 2009, p. 54). It is not clear from my reading of the paper exactly how these scores were arrived at and how much subjective judgement was involved. This simple scoring system has some attraction as it gives an indication of where planning is doing well, or not so well, but to have much meaning it needs to be interpreted using the detailed analysis of each of the criteria.

The authors conclude that (Oliveira and Pinho 2009, p. 61) ‘despite the difficulties and the complexity of the task it is possible to evaluate planning practice in a systematic way’ and that ‘it is possible to design and apply a methodology for evaluating planning and plan implementation, with a strong physical dimension’. Note, however, that this method is highly dependent on good data and monitoring, and that the evaluation is highly labour intensive.
Chapter 4

4

METHODOLOGY

4.1 Introduction

This chapter describes the methodology adopted to answer the research questions posed in Chapter 1 and the reasons for adopting that methodology. The research questions presented a number of challenges in determining what research methodology should be used.

Research questions 1 and 2—What are management plans for protected areas? What are they meant to do and how do they do it? How were protected area management plans prepared in Victoria in the period 1987 to 2007?—demanded both factual information on existing professional practice and an interpretation of the role and intent of management plans.

Research question 3—How do you measure effectiveness in protected area management plans?—required an examination of planning theory and practice and the development of criteria for planning effectiveness.

Research question 4—How effective were management plans prepared in Victoria in the period 1987 to 2007?—required a structured analysis of planning practice supported by a detailed analysis of management plans.

Research question 5—Can protected area management planning be made more effective?—involved the synthesis of the earlier research questions.

The literature review revealed that there should be adequate sources of information on how protected area planning had been done in the nominated period but there was very little material on the theoretical basis for this planning and how the effectiveness of this planning could be assessed. There were professional guidelines on protected area planning and management effectiveness, and literature on measuring planning effectiveness in the field of town and regional planning, but little on the specific topic of assessing the effectiveness of protected area planning.
This implied that I needed to adopt a mixed methods approach to build up as complete a picture as possible of existing planning practice, the academic theory underpinning protected area and other land use planning and possible methods for measuring planning effectiveness. This approach was also necessary to identify and eliminate any preconceived ideas on my part on the issues involved and to base the discussion on the thinking of other practitioners and academics and empirical data, as well as my own experience.

In consequence, I adopted three types of research methodology—document analysis to analyse the content of professional guidelines, reports and management plans, case studies to look in detail at management plan content and planning procedures, and changes over time, and interviews to provide expert input from planners and managers on the key issues being considered in the thesis. It is also of relevance that I had used all of these techniques in my professional work and was confident that I could apply them effectively to this research.

The relationship between the research questions, the major sources of information and the research methodology are shown at Table 4.1.

<table>
<thead>
<tr>
<th>Research question</th>
<th>Major sources of information</th>
<th>Research methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are management plans for protected areas? What are they meant to do and how do they do it?</td>
<td>The ANZECC guidelines on protected area management planning.</td>
<td>Analysis of the literature.</td>
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<td>The IUCN guidelines on management and planning of protected areas.</td>
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<td>Textbooks on protected area management.</td>
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## Chapter 4

<table>
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<th>Research question</th>
<th>Major sources of information</th>
<th>Research methods</th>
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<tr>
<td></td>
<td>Publicly available documentation from Parks Victoria.</td>
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<tr>
<td>How do you measure the effectiveness of protected area management plans?</td>
<td>Literature on evaluation of urban and regional planning. The IUCN guidelines on management effectiveness. Literature on systematic conservation planning and evidence-based conservation planning.</td>
<td>Analysis of the literature and the development of criteria and indicators.</td>
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<tr>
<td>How effective were management plans prepared in Victoria in the period 1987 to 2007?</td>
<td>The case studies of management plans.</td>
<td>Application of the criteria and indicators to the case study parks.</td>
</tr>
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<td></td>
<td>Interviews with practitioners.</td>
<td>Analysis of the interviews.</td>
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<tr>
<td>Can protected area management planning be made more effective?</td>
<td>An assessment of current planning practice. An assessment of evaluation of planning effectiveness. An assessment of the practicality of applying the criteria and indicators.</td>
<td>Analysis of the results of the research, case studies and interviews.</td>
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### 4.2 Document analysis

Document analysis addressed research questions 1, 2, 3 and 4. The review of literature (Chapters 2 and 3) showed that, while there were professional guidelines on protected area planning and management effectiveness, the theoretical basis for these guidelines was unclear and that there was little academic writing on this
particular form of planning. However, the review did show that there was material available in related fields that might be adapted to protected area planning. This required revisiting the literature to examine what methodology had been used and how it might be adapted (Chapters 5 and 6). This resulted in the development of a set of criteria and a template for protected area planning effectiveness.

Scott (1990, pp. 5.15-5.17) categorised documents either as a reference for information, or as resources or topics. The first approach uses the document as a source of basic information, the second extracts more complex sets of data, and the third indicates that the researcher's main concern is to explain the nature of the documents themselves. He noted that the second and third approaches are interdependent and that documents must be considered from both points of view.

The second and third approaches have been used in this thesis. Analysis of the body of literature reviewed served as an important source of information on approaches to planning and on the assessment of planning effectiveness. Document analysis was also applied to the management plans examined in the case studies. Analysis of the management plans provided a valuable insight not only on the form and content of plans but also into the planning process. Content analysis was undertaken along the lines described by Forbes (2000, p. 5.42), that is by using representative texts and by carefully defining the issues for analysis.

Hodder (2000, p. 5.11) argued that:

Material culture, including written texts, poses a challenge for interpretative approaches that often stress the importance of dialogue with and spoken comment from participants.

Hence the need to supplement the analysis of management plans with interviews with expert witnesses.

### 4.3 Case studies

The case studies (Chapters 7, 8 and 9) addressed the second and fourth research questions. They had four main purposes:
Chapter 4

- to establish a factual basis for the content and style of management plans produced in Victoria in the period 1987 to 2007
- to examine whether the content and style changed over this period of twenty years
- to analyse the plans’ content in terms of the criteria for planning effectiveness developed in Chapters 5 and 6
- to determine whether the criteria are a practical method of assessment of planning effectiveness.

Therefore they were an essential input to the thesis providing both factual information and an opportunity to test the criteria that had been developed. They also provided a time series to demonstrate changes in planning practice.

Platt (1999, pp. 6.37-6.46) argued that there are two functions of case study material, rhetorical and logical. By rhetorical she meant that ‘… material is presented to show what is meant by an abstract term; this helps the reader without a background of experience in the field to grasp the implications of the discussion …’ and ‘… it aids understanding by offering an example.’ By logical she meant that a case study may ‘… suggest hypotheses, interpretations, empirical uniformities, for future (quantitative) investigation.’ and that ‘… the emphasis is on a main study yet to come … methods, approaches or policies are tried out to see what are the difficulties that need to be dealt with before the main study takes place.’

The case studies in this thesis perform both functions. They give real-life examples of what sort of a document management plans are and how they are prepared—rhetorical—but also provide an opportunity to apply the draft criteria for planning effectiveness—logical. The results of the trial of the criteria feed into the conclusions of the thesis and to further research.

The case studies focussed on one park—*Wilsons Promontory National Park*—and considered seven individual plans for the park, although not all of them in complete detail. Management plans for Wilsons Promontory National Park were chosen because the park is one of the most significant in Victoria: it is one of the
oldest national parks in the State; it is listed as a UNESCO Biosphere Reserve (ANCA 1993) and listed on the Register of the National Estate (AHC 1981, p. 3/134); and has a large range of natural, cultural, tourism and recreational values (Parks Victoria 1997a). For these reasons the park was likely to have received detailed and comprehensive planning. The other reason for choosing this park was that it is the only national park in the State to have three completed management plans in the period in question. Thus, the management plans might be considered ‘state of the art’ and some judgement could be made on how approaches to management plans changed over time.

The plans for the park comprised two draft plans and three final management plans for the whole park, and a draft and final plan for Tidal River, the administration and accommodation centre of the park:

- the 1987 management plan for the park (CFL 1987)
- the 1996 draft management plan for the park (NRE 1996a)
- the 1996 draft master plan for Tidal River (NRE 1996b)
- the 1997 management plan for the park (Parks Victoria 1997a)
- the 1997 master plan for Tidal River (Parks Victoria 1997b)
- the 2000 draft management plan for the park (Parks Victoria 2000a)
- the 2002 management plan for the park (Parks Victoria 2002a)

The case studies were based largely on these primary documents rather than on secondary documentation or the interviews in Chapter 9. For each plan the format and content was described and the proposed management summarised. Planning effectiveness was analysed using the draft criteria developed in Chapter 6. Changes to the draft management plan to form the final plan were also examined for the later plans to give an indication of the agency's response to public submissions.
4.4 Interviews

The interviews addressed second and fourth research questions. The document analysis identified key issues for good protected area planning and provided a basis for measuring planning effectiveness, and the case studies established a reasonably complete factual basis for plan content and the planning process, but there were still many questions left unanswered about how planning was done and how experts in the field viewed the utility of park management plans. In my view, the best way to obtain this information was through interviews with experienced protected area planners and managers. I agree with Taylor and Bogdan (1998, p. 84) that ‘… no other method can provide the depth of understanding that comes from directly observing people and listening to what they have to say …’ Other methods such as mail-back questionnaires were rejected as being likely to have a poor response—very busy people don't like filling in forms—and that a response to a questionnaire was unlikely to adequately address complex issues—which indicated that interactive dialogue was required.

Interviews can be classified as standardised or semi-structured or unstructured. The first uses a fixed list of questions and answers to allow comparison and classification of responses, the second explores a set of topics but with minimum structure and allowing the responses to be open-ended, and the latter is a completely open-ended dialogue without structure (Hessler 1992; Fontana & Frey 2000). For these interviews I adopted the second approach as I wanted to explore a particular set of issues in depth and also I wanted to be able to respond to individual expertise and different professional backgrounds. The interviews were designed to provide both quantitative data—factual material—and qualitative data—opinions. For these reasons I considered that both standardised and completely unstructured interviews would be inappropriate.

Interviews were conducted with selected individuals who had extensive professional experience of protected area planning and/or management, and who had a range of backgrounds so that different perspectives could be obtained of the key planning issues identified in Chapters 5 and 6. The criteria used for selecting people to be interviewed were as follows:
• people who have produced protected area management plans
• people who understood the Parks Victoria planning processes
• managers who have been involved in protected area planning
• members of other government agencies or academics with experience of protected area management planning.

In practice, this meant that people in the following categories could make a useful contribution:

• current protected area planners from Parks Victoria
• current or past senior protected area managers from Parks Victoria
• senior consultants with experience of protected area planning
• senior managers and/or planners from other government organizations or academia, with experience of protected area planning.

The interviewees were selected on the basis of conformance with the above criteria, willingness to be interviewed and availability.

In order to conduct interviews it was necessary to obtain ethics approval for research involving human participants. Application was made to the RMIT Design and Social Context Human Research Ethics Sub-Committee and approval was granted on 27 October 2006. The application was rated as a level 2 risk classification. RMIT has well developed procedures regarding informed consent, privacy and protection from harm but I was also conscious of comments by Kellehear (1989, p. 3.67) that ethics and methodology are intertwined and that ethical procedures must flow from the 'social and moral complexities of the research, the type of participants … and their social and political contexts'.

Risks to participants were minimised by:

• making participation voluntary
• allowing participants to withdraw at any time or request that some material is not used
• providing a consent form
• providing a copy of the subject matter to be discussed before the interview
• seeking approval before the interview for recording
• omitting subject matter that participants did not want to discuss
• providing a copy of the interview recording on request
• maintaining anonymity for participants, that is, personal information including their names not being disclosed in any publication or to any person or organisation, except if they gave specific written approval to quote them
• storing interview material in a secure manner
• destruction of the interview material at the conclusion of the research project.

Discussions were held with the planning manager, Parks Victoria, over a period of several months to discuss the research project and to seek cooperation from Parks Victoria. This was particularly important in gaining access to documents and obtaining approval from the organisation to interview its employees. The Deputy Chief Executive & General Manager Parks & Marine, Mr Geoff Vincent, wrote to me on 15 August 2006 giving approval to conduct interviews with Parks Victoria staff.

Interviewees were initially contacted by telephone and were then sent a Plain Language Statement. Most interviews were conducted at the interviewee’s place of work. The interviews generally lasted about an hour and were based on the set of issues listed above but allowed for free-ranging discussion. The interviews were recorded and the main points of the discussion were later transcribed.

Most of those interviewed did not want to be identified by name so that their views were labelled as Park planner A, Manager D, etc.

The content of the interviews was structured according to the first three major components of the planning process identified in Chapter 5, that is, inputs to the planning process and the planning process and outputs from the planning process. See Tables 5.11 to 5.13. Outcome-related issues were considered too complex to be considered in a short interview. Not all of the criteria for planning effectiveness
developed in Chapters 5 and 6 were included as this would have resulted in an
overly long interview and limited it to short questions and answers. Instead, a
shortened list of issues was used which allowed for more extensive discussion.
One additional question was asked regarding the relationship between
management plans and corporate planning to confirm whether other evidence
gathered was correct.

The interviews were structured around the following questions:

**Inputs to the planning process**

- What formal guidelines and procedures were used for
  planning and were they effective?
- Was there adequate information to prepare management
  plans?
- What resources and time were required for planning?
- Did planners, field staff and consultants all have a role in
  planning?

**The planning process**

- Can a single document successfully include long-term
  goals and short term actions and are the plans capable of
  responding to changing circumstances?
- Should management plans include motherhood/generic
  actions or should they be specific and measurable?
- Is it possible and/or desirable to set priorities in plans?
- Was decision making based on experience or evidence?
- Was scientific information incorporated effectively?
- Were decision support systems used and are they
effective?
- Were current methods of public participation successful?
Outputs from the planning process

- Were the plans capable of being implemented and will they be?

Additional question

- What was the relationship between management plans and other corporate planning systems?

In describing the outcomes of the interviews in Chapter 10 I allowed the interviewees to speak for themselves by providing direct quotations from the interviews. On occasion it was necessary to insert words in square brackets to make the meaning clear. Wherever possible I avoided paraphrasing their comments and only did this where the conversation was broken up, or digressed from the subject, and was difficult to quote accurately.
5

PROTECTED AREA PLANNING

5.1 Introduction

This chapter looks at the components of the planning process and provides an analysis of the key issues. It draws on the work reviewed in the literature review (Chapters 2 and 3) and personal experience. There are a large number of steps involved in the planning process and a great deal has been written about them—for example as summarised by Thomas and Middleton (2003) and Alexander (2008)—so it is not my intention to go over all of this ground again. Instead, I have provided brief comment on each of the major components and focussed on some key issues that I believe deserve more detailed examination.

The literature review indicated that there is no ready-made methodology to measure planning effectiveness as it applies to planning for protected areas so it was necessary to devise a set of criteria and develop a template against which existing management plans can be judged. This is done in Chapter 6. The methodology for assessing planning effectiveness was derived from work from related areas discussed in the literature review, suitably modified to apply to protected area planning. The planning issues discussed below provide an input to the criteria used in Chapter 6 to measure planning effectiveness. The criteria and template developed for planning effectiveness were then tested in the case studies in Chapters 7, 8 and 9.

ANZECC (2000) gives a generalised picture of the park planning process (Figure 5.1). Note that the process contains elements of the adaptive management models described in Chapter 2.
First, a word on terminology. While, no doubt, there are other ways of describing the planning process, the use of *inputs, process, outputs* and *outcomes* is logical and fits neatly into the IUCN framework for assessing management effectiveness.
(Hockings et al. 2006)—see Figure 2.9. These terms require some explanation. **Inputs** are all of those things needed to prepare a plan, for example; resource information, qualified planners, adequate time and resources, suitable guidelines and legislation etc. **Process** is the way planners go about preparing a plan including analysis of data, public consultation, method of decision making etc. but also includes the format and presentation of the plan. **Outputs** are the physical results of the planning study such as the management plan and subsidiary or operational plans, and the implementation of management strategies. **Outcomes** are what is achieved by the plan and the planning process. They can include better management of natural resources, improved facilities for and services to the public, and better communication with and support from the public.

The literature uses terms such as **planning effectiveness** and **plan quality** and, at first sight, they appear to mean approximately the same thing. However **plan quality**, in the work of authors such as Baer (1997), Berke et al. (1996 & 1998), Brody (2003), Eriksen et al. (2003), Steelman and Hess (2009), refers principally to the planning process and planning outputs, to some extent to the inputs to the planning process, but not to planning outcomes. It describes the quality of the planning document and the process. The term **planning effectiveness** is closely linked to management effectiveness and is intended to include assessment of the whole process, that is, inputs, process, outputs and, most importantly, outcomes and it is this approach that is used in this thesis. It is the term used by Hockings, Stolton & Dudley (2000), Thomas and Middleton (2003), Worboys, Lockwood & De Lacy (2005), Hockings et al. (2006) and Jones (2003, 2005, 2009). The relationship is shown at Figure 5.2.

This chapter examines the components of the planning process—inputs, process, outputs and outcomes—in turn. As indicated above, other authors have given guidelines for many aspects of the process and my comments are confined to those areas where I believe a more detailed examination is required.
As discussed above, inputs are all of the resources and information needed to prepare a plan. The literature indicates that the major inputs to the planning process are:

- suitable legislation and guidelines to underpin the planning process
- adequate information on natural and cultural values, and on recreational activity
- the availability of qualified people and adequate resources to prepare the plan
- a commitment by senior management to the planning process.

### 5.2.1 Legislation and guidelines

As noted in Section 2.10, the legislation most relevant to planning protected areas in Victoria is the National Parks Act, but the Parks Victoria Act also has some relevance. Quite a number of other Acts influence management of parks including the *Heritage Rivers Act 1992*, the *Reference Areas Act 1978*, the *Catchment and Land Protection Act 1994*, the *Aboriginal Heritage Act 2006*, the *Heritage Act*.
1995, the *Native Title Act 1993* (Cwlth), the *Flora and Fauna Guarantee Act 1988*, the *Wildlife Act 1975*, the *Environment Protection and Biodiversity Act 1999* (Cwlth) (the EPBC Act), the *Road Management Act 2004* and the *Forests Act 1958*. There are also many government policies, strategies, plans and guidelines which influence planning such as fire protection and operations plans, codes of practice for fire management, guidelines for ecological burning, indigenous partnership strategies, recreation and tourism strategies etc. While all of this legislation and these guidelines influence the management strategies and content of the management plan it is the provisions of the National Parks Act which determines what park planning is done and, to some extent, how it is done. This Act is supplemented by the National Parks Service/Parks Victoria guidelines on process and content (Section 2.4).

Most texts and guidelines indicate that appropriate legislation is necessary to form a sound basis for the preparation of management plans, but what is *appropriate* legislation? There is no single answer to this question but, in my view, legislation should provide general guidance on the main parameters of preparing a management plan while the fine detail of the process should be delegated to the management agency. The reason for this is that once matters are enshrined in legislation they are difficult to change and it may well be that as our understanding of management planning develops it will be necessary to change practices and procedures, so some flexibility is required. It is also likely that planning procedures may need to be tailored to the size and complexity of the park and this is difficult to incorporate in legislation.

The *Coastal Management Act 1995* gives an example of legislation guiding planning. This Act requires the production of a strategic plan—the Victorian Coastal Strategy—and provides for the production of more detailed Coastal Action Plans and Management Plans. For each of these documents the Act specifies the objectives, the public consultation required, and the approval and review process. This provides a hierarchy of planning documents from the strategic to the very detailed with specific directions on process and content.

In contrast, we have seen (Section 2.10) that the current National Parks Act provides little guidance with respect to the form, content, process and desired
outcomes for management plans. I propose the following minimum requirements for future legislation. The proposals draw on the provisions of the Coastal Management Act and the EPBC Act (Section 2.10).

**The requirement to prepare a management plan**

In my view, future Victorian legislation should require that a management plan is prepared for every protected area within a certain time from proclamation. This is to ensure that the features of the park are properly assessed and that appropriate management is applied at an early date. The current Act requires that a plan must be prepared but does not specify when the plan should be produced, except for Wilderness Parks (Schedule 2A) for which a period of two years is specified. This is a curious anomaly due, presumably, to Wilderness Parks being a relatively recent addition to the Act. In the case of the recently proclaimed marine national parks and marine sanctuaries the government made a commitment to complete management plans within a certain period, but this was not mandatory.

The EPBC Act requires that a management plan be prepared (s. 366) ‘as soon as practicable’. This is better than saying nothing but is open to interpretation. I propose that amended Victorian legislation should require that a management plan be prepared within two years from the date of proclamation for all National Parks and State Parks (Schedule 2 & 2B), Marine National Parks and Marine Sanctuaries (Schedules 7 & 8) and Other Parks (Schedule 3). This would replicate the requirements for Wilderness Parks. In my experience, this is a reasonable time to gather resource information, consult the public and prepare a plan as long as suitable resources are applied to the planning process.

Future Victorian legislation should also provide for the amendment, revocation or replacement of a management plan. Amendment is a particularly important provision as it is virtually impossible for ten-year plans to cater for changing circumstances, and changes to operational aspects of the plan would normally be needed within its life. The issue of the need for a dynamic component of management plans is discussed later.
The principles to be used as a basis for preparing a management plan

Embedding principles and objectives into legislation to guide the effectiveness of management plan preparation is possibly one of the most important, and difficult, challenges to be met in formulating new legislation. It is important because there is currently little formal direction on what is meant to be achieved by management plans and this results in plans of widely varying effectiveness. It is difficult because ‘There is no consensus among planners as to the best approaches and processes’ (Worboys, Lockwood & De Lacy 2005, p. 217).

The current Victorian legislation provides limited guidance with respect only to Wilderness Parks (Schedule 2A) and Marine National Parks and Marine Sanctuaries (Schedules 7 and 8) where there are principles set out for their management (s. 17A and s. 17D (3)). For all other parks, the Objects of the Act (s. 4) are the *de facto* objectives for planning (Section 2.10 and Appendix 2).

In contrast, the EPBC Act has detailed guidelines for the content of a management plan (Section 2.10). I propose that, as well as the Objects of the Act, future legislation should provide much more detailed objectives for planning and give their order of importance. It should also specify what issues the plan should address such as how the natural features are to be protected and conserved, indicate activities that are prohibited or regulated and link management proposals to the IUCN reserve management principles (or equivalent).

The planning and approvals process

As noted above, many aspects of the planning process may need to change over time and it would not be appropriate to lock in the fine details in legislation. The key components of the process are preparation of a draft plan, public consultation and the approvals process. None of these matters are mentioned in the current Act—except with respect to the Alpine National Park—but, in practice, most of the steps are followed using the Parks Victoria guidelines (see Section 2.4). These procedures have evolved over time (Hodges 2006). It is of note that the Minister does not currently have a formal role in the approvals process and that most Victorian park plans are not tabled in Parliament with provision for disallowance, and that there is no formal response to public submissions. Management plans—
other than for the Alpine National Park—are currently signed off by the Secretary to the Department of Sustainability and Environment and the Chief Executive, Parks Victoria. One must presume that the Minister receives thorough briefings on plans for major parks.

In my view it would be beneficial for the legislation to specify the approvals process, that is, who approves the plan—the Chief Executive Officer of Parks Victoria, the Secretary of the relevant responsible department, or the Minister—or whether the plan must be tabled in Parliament and reviewed by both Houses. Approval by Parliament would provide transparency in the decision making process and opportunity for public debate.

I propose that a minimum level of steps in the planning process should be specified, that is: that preparation of a plan should be announced by public advertisement; that a draft plan should be prepared involving public consultation; that the draft plan is exhibited and formal submissions from the public sought; that public submissions must be considered and a formal response to these submissions published (‘giving reasons’). I further propose that the approvals process should provide for the final plan for major parks to be presented to the Minister and then exhibited in both Houses of Parliament with provision for disallowance. This is similar to the EPBC Act process.

The requirement for public consultation

Much has been written on this subject but, for this thesis, it is sufficient to note the importance of public consultation to planning and to recommend that it becomes a mandatory part of the process. The Victorian National Parks Advisory Council—a statutory body which advises the Minister on the administration of the National Parks Act—distinguished between informing, consulting, involving, collaborating with and empowering the public (NPAC 2006). This described a spectrum of increasing level of public involvement. In brief, informing is providing balanced and objective information, consulting is obtaining feedback on project alternatives and/or decisions, involving is working with the public to ensure that issues are understood and considered, collaborating is forming partnerships with the public and agencies, empowering is placing part or all of the decision-making in the
hands of the public. All of these methods are used, to some extent, in current Victorian park planning with the exception of empowering which, to my knowledge, has not been used in the period considered by this thesis. It is clear that the legislation should specify at least a minimum level of public consultation. Consultation with and involvement of the public and key stakeholders is an integral part of modern-day planning and policy development. Worboys, Lockwood and De Lacy (2005, p. 194) state that:

Public participation is believed to legitimise planning outcomes, reduce citizen alienation, avoid conflict, give meaning to legislation, build support or agency programs, tap into local knowledge, provide feedback on program outcomes, contribute to community education, and enhance democratic processes by increasing government accountability.

In my view, the scale and style of public consultation needs to be geared to the size and complexity of the park and the political sensitivity of management issues. The current Act does not specify what public consultation should be undertaken.

I propose that future Victorian legislation should specify a minimum level of public consultation for the preparation of management plans involving informing and consulting. More direct involvement of the public could be employed in certain circumstances but probably should not be specified in legislation.

**The life of the plan**

The current Act does not specify the life of a management plan although, in practice in Victoria, management plans were reviewed every 10 years or so although I understand that, at the time of writing, Parks Victoria is intending to extend this period to 15 years. There is no formal requirement to review, replace or amend a management plan. Having such a provision in the legislation is, in my view, very important. At the very least, it is an essential component of adaptive management (Section 2.9). Worboys, Lockwood and De Lacy (2005, p. 217) note that plans are often reviewed every five years but that the process of monitoring and revision can be a continuous one, that is, that there is no necessity for a draft or final plan. Such continuous planning is an admirable objective but is difficult to reconcile with a formal approvals process set in legislation. This is discussed later.
in the thesis. Alexander (2008, p. 63-64) also argues that ‘Management planning should be regarded as a continuing, iterative process’ and further that:

Far too much emphasis is placed on the idea that it is somehow possible to prepare a definitive site plan that will last for ever, and an enormous amount of time has been wasted in this pursuit. The end-product of these attempts is usually an extremely expensive document that spends its life gathering dust, forgotten on a shelf. Even where there may have been an initial intention to review the plan at intervals (usually 5 years), this is forgotten, and then, some time in the future, a decision is made to rewrite this long-obsolete document and to produce yet another dust trap.

The Commonwealth EPBC Act requires that a management plan will cease to have effect after 10 years (s. 373) but there is provision to amend, revoke or replace the plan within that period (s. 372). Jones (2005) states that plans for the Tasmanian Wilderness World Heritage Area have a minor review every five years and a major review every 10 years.

In my view there is clearly a need to have a dynamic planning process and this view is supported by professional and academic opinion. I propose that the lifespan should be a maximum of 10 years—anything longer than this would result in a very generic, non-specific document with little or no direction on operational matters. I further propose that that legislation requires a three-year rolling program to determine priorities and a five year minor review with simplified planning process, but still with public involvement. These reviews would be supplemented by annual works/business plans which are already required by the Parks Victoria Act.

### 5.2.2 Information on natural and cultural values and recreational activity

An adequate knowledge base is essential for good planning and, in an ideal situation, there would be a comprehensive database of environmental, social and cultural information in place before planning commences. Unfortunately, this is rarely so and planning is generally done using inadequate information. This is not desirable but is not a catastrophic situation. Many of the natural systems encountered by park planners are very complex and waiting for complete
information before starting planning would mean that, in practice, the planning would never be done.

To help remedy this situation park management agencies make a substantial investment in research programs. As an example of the costs involved, Parks Victoria has a Research Partners Program whereby it enters into partnerships with research institutions to provide targeted research, monitoring and data collection. The results of this funded research feed into its environmental decision making processes and are organised according to five themes:

- flora in parks
- fauna in parks
- assessing conservation risks in parks
- developing conservation techniques
- assessing conservation issues across the parks network.

Parks Victoria indicated that the program had supported 129 projects over a five year period (Parks Victoria 2004, p. 15).

Some management plans such as those produced in previous years for Kosciuszko National Park (New South Wales) and Kakadu National Park (Northern Territory) incorporate extensive resource and visitor use information as part of the documentation. Parks Victoria no longer adopts this approach. There are arguments for and against the inclusion of resource information in a management plan but, in any case, it is desirable that this information be in the public domain and be accessible to ordinary members of the public. This is not always the case and it would be beneficial to devise ways in which it could be done most efficiently, perhaps with web-based systems.

It is likely to be difficult, in practice, to determine whether the information base was adequate to prepare a management plan for a particular park. The number of references cited means very little, the critical factor is how those references informed and influenced the content of the plan. Looking for direct links between the management strategies and the information base may be the key.
5.2.3 Resources to prepare the plan

The availability of suitably qualified planners and the provision of adequate resources are crucial elements in preparing a good plan.

Who prepares the plan?

Management planning can be undertaken completely by agency staff, consultants may be engaged, or both can be employed together. All of these options cost money and it is debatable whether employing consultants is any cheaper or more expensive than using staff over a longer period of time.

Using staff for park planning has a number of advantages including:

- it utilises on-ground experience
- planning expertise is built up in the organisation
- it can encourage a closer relationship between park planners and field staff
- staff may develop a closer ownership of the plan
- it encourages more direct involvement of the staff with the public.

Disadvantages are that:

- staff may not have the required experience and/or expertise in planning
- planning may have to be fitted in with other responsibilities resulting in an excessive time to produce a plan.

On the other hand, although funds need to be found to employ good consultants, they will:

- provide specialist expertise and experience
- normally get the job done within time and budget
- perhaps provide a broader perspective on some issues, that is, sometimes staff develop fixed views on issues and are resistant to change
• act as an intermediary between the management agency and members of the public who sometimes have difficulty in dealing with government agencies.

In practice, even if consultants are engaged, there will still need to be a major commitment of staff time to the project.

_How long does it take and how much does it cost?_

This is a very difficult question to answer and I have yet to see an accurate estimate of the total resources required to produce a management plan. Agencies do not publish this form of information. The total elapsed time, fees for planning consultants and scientific surveys and information on, for example, the public consultation program are sometimes available but this is only part of the picture. Staff time can be a major proportion of the resources required but these figures are not generally publicly available. Some years ago I made the following analysis (Martin 2006).

The guidelines for management plans prepared by the Australian and New Zealand Environment Ministers (ANZECC 2000, p. 11) suggest that ‘Timeframes for plan preparation and approval vary from 10 months to 2+ years’ and give the following information in Appendix 3 to the guidelines (Table 5.1).

My experience suggests that some of these figures are gross underestimates of the time required, except for very small reserves. Let me give two random examples. At the higher levels of complexity lies the Great Barrier Reef Marine Park, Queensland. Planning for this park is a good example of a large and complex planning exercise. In the late 1990s the management agency, the Great Barrier Reef Marine Park Authority (GBRMPA), recognised that the existing zoning plan for the park did not adequately protect the range of biodiversity known to exist in the park so a systematic program was commenced to prepare a new Zoning Plan. This process lasted from 1998 to 2003 and involved extensive public consultation, detailed scientific research and much detailed planning work (GBRMPA 2004). This planning work received international praise but must have consumed a large proportion of the resources of the Authority for a period of five years. I do not have figures for the total resources required but they may be available from
On a less complex level, between 2002 and 2006 I was engaged as a consultant to prepare a management plan for Dandenong Ranges National Park on the outskirts of the Melbourne metropolitan area. This park has an area of approximately 3200 ha and receives about a million visitors a year. The contract brief indicated that the plan should take 14 months to prepare. This is the same order of magnitude as the figure given in the table above. The Ranger-in-Charge was allocated 120 hours to work on the plan and, presumably, lesser amounts of time were allocated to other park staff and members of the steering committee. In addition, $50,000 was allocated for consultancy services which would represent, say, an additional 500 hours of work.

Table 5.1  Time for plan preparation

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Indicative time for preparation of a management plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
<td>About 24 months but could be much more.</td>
</tr>
<tr>
<td>Victoria</td>
<td>10 months</td>
</tr>
<tr>
<td>Western Australia</td>
<td>Gives details of process but no indication of total time required.</td>
</tr>
<tr>
<td>Commonwealth</td>
<td>Gives details of process but no indication of total time required.</td>
</tr>
<tr>
<td>Australian Capital Territory</td>
<td>Gives details of process but no indication of total time required.</td>
</tr>
<tr>
<td>Queensland</td>
<td>11 months</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>13 months</td>
</tr>
<tr>
<td>South Australia</td>
<td>Up to 29 months</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Time for consultation and preparation of draft plan not stated, then maximum of 14 months to approval.</td>
</tr>
<tr>
<td>Tasmania</td>
<td>14 months</td>
</tr>
</tbody>
</table>

In practice, I believe that thousands of hours were expended on the project, both by park staff and the consultant, and final approval of the plan was only achieved after four years. Accurate figures are not available but this is my best estimate. These comments are not made to criticise the individuals or organisations involved. If the work was done efficiently then the money was well spent. The main point that I wish to make is that planning often absorbs a great deal of staff time and funds and that it is very common to underestimate the resources required.

My best estimate is that, in Australia, a plan of management for a park of national significance will cost at least $0.5 million to $1.0 million, or perhaps rather more, and take three to five years to produce. This may well be an underestimate, especially for the very large, high profile parks.

In my view, who prepares the plan is much less important than the quality of the planning process and the quality of the final plan. Making an assessment of whether adequate resources were applied will be very difficult as the staff time and cost of the project are seldom published. One can only look at the content of the final plan and how long it took to produce.

### 5.2.4 A commitment by senior management to the planning process

A commitment by senior management to the planning process is also essential to the production of a good plan. In practice, this translates into providing adequate time and resources, and requiring a comprehensive public consultation program. ANZECC (2000, p. 11) recommends as a ‘good practice’:

> Gain high level (Ministerial/Agency) public commitment to planning targets and timetables – as a means of ensuring planning is initiated and completed.

In the Foreword to the IUCN guidelines on management planning for protected areas (Thomas and Middleton 2003, p. vii), Kenton Miller, the then Chair of the World Commission on Protected Areas, urged organisations with responsibility for management to:

> … make the strongest possible commitment to planning so as to avoid the long-term perils of management which lacks a strategic direction.
The authors of the guidelines went on to say (Thomas and Middleton 2003, p. 20):

Commitment to implement the plan should be secured across the organisation. Staff responsible for the implementation of the plan must be identified, and activity monitored. The planning process is stronger, and staff more committed to it, when there is clear support from senior management. The planning effort will be undermined if planning is not seen as a corporate priority nor as a specific ‘function’ of the organisation.

Alexander (2008, p. 12) reiterated these sentiments and, citing Krumpe (2000), warned of:

… the possibility of last-minute changes being made by people who were nor involved in the planning process and have no understanding of the compromises and tradeoffs that were considered and agreed.

The latter point is all too familiar to practising park planners who have had senior management or the Minister’s office intervene to amend draft plans to allow for political compromise or to satisfy influential lobby groups. Having said this, I accept that it a debatable point whether the technocrats or the politicians have the greatest wisdom.

It seems clear that planning will not be effective without a strong commitment by the Minister and senior management. Without this commitment the plan will be of poor quality, may not be completed and may not be implemented. Measuring the level of commitment is a difficult matter.

5.3 Process

Process is the way planners go about preparing a plan including analysis of data, public consultation etc. but also includes the format and presentation of the plan. Alexander (2008), Worboys, Lockwood and De Lacy (2005) and Thomas and Middleton (2003) summarise conventional wisdom on the subject. As indicated elsewhere, the current Act is not prescriptive regarding the planning process but the Parks Victoria guidelines (Section 2.4) give reasonably detailed instructions on process and content. Indeed, some would argue that their directions on content and
standard text are overly prescriptive which results in plans for different parks having very similar content.

### 5.3.1 Intended audience and function

When preparing a management plan it is most important to determine what audience the plan is written for—is it for the general public including key stakeholders, or for park management staff, or a combination of the two? The two categories of audience have significantly different requirements for process and the documentation that is produced. A plan designed for public consumption needs to be plainly written with a minimum use of technical terms and the process should involve extensive consultation and include background information with a discussion of management issues. An important part of the process is the need to educate some members of the public on management issues. This implies that the process may be a long one. A plan written specifically for park staff would still require debate on management issues but it could normally be assumed that the people involved had a good level of technical competency and had ready access to resource information. The implies that the planning process may be shorter and that the resulting plan could be a relatively short, technical document.

Alexander (2008, p. 31) noted that:

> Management plans should be made available to everyone who has an interest in the site. This will include people who do not have a scientific or technical background and may not necessarily have any interest in, or understanding of, wildlife or conservation management. Management plans are about communicating with this sometimes very wide and diverse audience.

The Act does not specify the intended audience for a management plan. The Parks Victoria park planning guidelines stated that (CNR 1995, p. 1):

> A management plan serves both as a public document and a working document for Departmental staff.

This, then, provides one of the bases for assessing Parks Victoria management plans. If the plan is to serve both purposes then it needs to be plainly written,
involve public consultation, provide access to resource information but still give specific strategies for management.

5.3.2 Relationship to local government and other planning

Looking at a map of Victoria you will see protected areas as ‘islands’ in a sea of private and other public land. (Figure 1.1) There are numerous interactions between parks and adjoining land and I suggest that integrated planning is highly desirable as most land management problems do not stop at arbitrary borders. Land surrounding parks can impact on the park through the introduction of feral animals or predatory domestic animals, spread of weeds, rubbish dumping and discharge of domestic waste water. In the opposite direction, parks can impact on surrounding areas through the spread of feral animals and troublesome native animals. Wildfire is no respecter of arbitrary boundaries and sweeps through public and private land without prejudice.

This suggests that park planning should be integrated with local government and regional planning. While this issue is generally recognised, it is clear that it has been difficult to achieve in practice (Gurran 2005).

Planning in land adjacent to parks comes in several forms: State and local government planning policies which operate through planning schemes to regulate land use and development; State forest planning which regulates commercial forestry but can also set aside areas for conservation and recreation; and other strategic State policies, such as the Victorian Coastal Strategy (VCC 1997), which guide development on both public and private land.

Integrated planning can be done in several ways: the park plan could be part of a regional planning program; planning could be integrated with adjoining areas on an issue by issue basis, for example fire protection planning or recreation planning; and cooperation in planning can be enshrined in formal agreements or undertaken in less formal ways. See, for example, the Memorandum of Understanding between Parks Victoria and the Shire of Yarra Ranges which influenced the 2003-06 management plan for Dandenong Ranges National Park (Parks Victoria 2002b).
It should be relatively easy to determine whether management plans are integrated with these other forms of planning, especially if there are written agreements. It is much more difficult to assess informal cooperation with other agencies. This issue will be looked at in more detail in the case studies of individual management plans.

5.3.3 Static versus dynamic planning

I have already touched on this issue in Section 5.2.1—*The life of the plan.* Management plans, in the era that we are discussing, were required to do several rather incompatible things: to give long-term strategic guidance to management of the park; to provide management strategies for the shorter term; and to allow for unforseen events such as major wildfires. To compound the problem, large and complex plans generally took several years from inception to approval and could easily be overtaken by events before they come into effect. This, then, required re-writing and further editing which even further delayed the final plan. This seems to recommend a quick and efficient planning process.

Providing a vision and long-term guidance to management of a park is a difficult requirement for a management plan as plans generally have a life of 10 years or more and a great deal of social and/or environmental change can occur over that period, most of it unforseen. Catastrophic events such as major wildfires and tsunamis can occur which are completely unpredictable in their timing and effects. Such events can require major alterations to the management strategies for the park such as diverting resources away from programmed activities to allow for fire recovery programs. These circumstances have generally resulted in the Vision, Management Directions and Aims being couched in very general terms, verging on ‘motherhood’ statements at times, intended to give some long-term direction but without being very prescriptive.

Another practical difficulty in providing specific long-term directions for park management is that there is normally no way to predict what funds and other resources will be available for park management from year to year. Although government budgets sometimes contain a multi-year commitment to funding certain things the annual allocation of funds to park agencies will vary according
to the economic situation and to other government priorities. This makes it impossible for park management agencies to make firm commitments on expenditure more than a year or so ahead, and certainly not using a ten year time horizon.

In contrast, setting down shorter-term management strategies is relatively easy. There is always a long list of what needs to be done. Nevertheless, as indicated above, there is no certainty of a budget to implement projects so that the management strategies, of necessity, become something of a ‘wish list’. It is also difficult to devise a structured work program over a period of ten years or more—views on detailed implementation of a management strategy will often change over that period.

Allowance for unforseen events is difficult, but not impossible, to write into management plans. Traditional park management plans, by their very nature, are about what you would like to do rather than about what you don’t want to see happen. Nevertheless, if management plans are to have relevance, they must provide for unforseen circumstances. In the words of Alexander (2008, p. 63), quoted earlier, ‘Management planning should be regarded as a continuing, iterative process’. In my view, as well as giving a structured, logical program of work, a good management plan should also include guidance for the processes to be followed in the event of catastrophic events that will cause major variations to the work program.

All of the above suggests that static management plans—my terminology—have difficulty in dealing with both long-term and short-term issues and with unforseen circumstances. By a static management plan I mean a plan which sets down objectives and strategies but is not reviewed or amended for 10 years or more. This is the type of management plan produced by Parks Victoria in the period examined by this thesis. In my view, what is needed is a dynamic planning process which implements adaptive management. There appear to be two major options; to do away with management plans altogether and use other more flexible planning systems, or to use a management plan process which gives both strategic direction but is also able to respond to changing circumstances. Parks Victoria appears to be taking the former path but I will be recommending the latter approach.
Parks Victoria continues to produce management plans for individual parks because that is what is required by the legislation but, in the period in question, they became more generic and less useful both to park managers and the public. As commented upon elsewhere, they appear to have been using other corporate planning systems to determine priorities and work programs but it is difficult to prove this conclusively as documentation on these matters or external review and comment are not available. Hodges (2006) alludes to this change of approach in his review of Parks Victoria planning and the interviews that I conducted with planners and managers (Chapter 10) appear to confirm the matter.

5.3.4 Format and content of the plan

There are many guidelines for the format and content of a management plan, see for example ANZECC (2000), Thomas and Middleton (2003), Worboys, Lockwood and De Lacy (2005) and Alexander (2008). In my view, if the content of the plan contains the critical elements and there is a good planning process then the specific layout of the plan is probably not critical. In other words, there are various formats and presentation styles that will be equally effective. Kismet Forward (2008, p. 19) undertook consultation meetings with external stakeholders as part of a review of Parks Victoria’s management planning and came to the following conclusions regarding presentation of management plans—it should be noted that these were written as working notes rather than as a final report:

- Clear, simple table of contents/structure, not too much information, brief
- Principles which are linked to a clear vision for the park
- A clear understanding of what principles, objectives, aims and actions are and the differences between them
- Logical flow from principles through to actions
- Understanding the integrated nature of park management and including all stakeholders and the community in the planning and management process. Showing respect and an understanding how inclusive relationships work
- Friendly and inclusive language
- Text which focuses on what will be done, action focussed
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- The use of icon symbols to guide people through the plan and link to objectives and actions
- Graphics which use clear and simple diagrams to communicate processes, issues and actions
- Photos showing natural, cultural and heritage values, threats to values and people using the park
- A clear context which outlines legislative and policy context, planning processes and how the plan fits within the organisation’s and communities overall objectives for the park and the park system, at regional and local level
- Actions that are clear, specific and give details about how they will be implemented and measured
- Implementation plans which detail actions against priority ratings and integrate program areas or themes

I agree with many of the points made in the above summary but it raises several issues: Does the plan adopt SMART objectives? Does the plan allocate priorities to management strategies? How does the plan deal with objectives for nature conservation?

The use of SMART objectives has been accepted practice in management for some time. Alexander (2008, p. 196) defined them as Specific—Measurable—Achievable—Relevant—Time-based. Setting objectives in this way is virtually essential for assessing the effectiveness of plans and for adaptive management to work. Specific means that it addresses a particular issue and defines what is to be achieved. Measurable is self explanatory but presupposes that the issue is capable of being measured. Achievable raises the question of the time scale in which an objective is to be achieved. Relevant refers to the relationship with other government policies and strategies. Time-based describes whether objectives are short-term, intermediate or long-term. The examination of management plans in Chapters 7, 8 and 9 will find that their management objectives and management strategies did not meet SMART standards.

A related issue is whether management plans allocate priorities to objectives and management strategies. Recent management plans produced by Parks Victoria do
not give priorities although earlier plans, such as those for the Alpine National Park (CNR 1992), gave a priority and indication of timing for each management strategy. This practice appears to have been discontinued sometime before 1998. A plan which does not allocate priorities for management strategies is not very useful for developing annual programs—this used to be a major function of management plans. As discussed elsewhere, it appears that the corporate management systems introduced into Parks Victoria in the late 1990s replaced management plans as the basis for annual programs.

One of the principal functions of a management plan for a national park or similar protected area is to define objectives and management strategies for nature conservation. In the period in question, Parks Victoria addressed this issue with a section in the management plan called Strategies for Conservation or equivalent. This part of the plan was sub-divided into sections on vegetation, fauna etc. The Aims for each of these sections were written in a very general way, for example (Parks Victoria 2002, p. 17): ‘Manage ecosystems to provide for the long-term protection and preservation of significant communities, habitats, and species.’ These objectives did not comply with SMART standards in that they were not measurable, perhaps not achievable, and not time-based. The 2006 management plan for Dandenong Ranges National Park (Parks Victoria 2006, pp. 54-57) adopted a different approach by identifying natural values management objectives for the park. These objectives set down a time frame and measurable objectives based on the Parks Victoria Environmental Management Framework. This approach does not appear to have been repeated in later plans, presumably having been replaced by state-wide systems.

5.3.5 Public consultation and involvement

This was discussed in Section 5.2.1 regarding legislative requirements. Public consultation and involvement is an essential part of modern planning practice, however some problems arise. There is sometimes a perception by members of the public that government agencies are just ‘going through the motions’ and that public consultation makes no difference to the outcome. This is particularly the case when final management plans show very little change from the draft plan.
This problem is compounded as there is no requirement in the legislation for a formal response to public submissions explaining why some comments have been accepted and others rejected.

Some issues associated with parks, such as the declaration of marine parks in Victoria, have been highly contentious. In that case it took approximately 20 years to resolve the controversy. It could be argued that better conflict resolution processes should have been employed in the lead-up to the declaration of the parks rather than relying on the public consultation process associated with preparation of the management plans.

Adequate consultation is often very time consuming and requires a major resource commitment. As an example, consultation on the 2003 Zoning Plan for the Great Barrier Reef Marine Park (Queensland) was conducted in two phases over more than a twelve month period. More than 10 000 submissions were received in the first phase and more than 20 000 in the second, all of which had to be recorded and analysed. Thousands of members of the public were involved in 360 meetings and information sessions (GBRMPA 2004). I have not been able to obtain an overall estimate of the total resources required but it is very likely that this exercise consumed a large part of the resources of the whole organisation over that period. Taking into account the very large number of public meetings, the production of information material and media involvement and the analysis of more than 30 000 submissions, this equates to, say, $0.5 million to $0.75 million dollars, and probably much more.

5.3.6 Review and monitoring

The need for regular review of management plans was discussed in Section 5.2.1. It is an essential component of adaptive management. Three levels of monitoring are shown at Figure 5.3.
5.4 Outputs

Outputs are the physical results of the planning study such as the management plan and subsidiary or operational plans and the implementation of management strategies. These are generally regarded as an essential component of planning but some argue—see, for example, Baer (1997), Mastop and Faludi (1997), Steelman and Hess (2009)—that the process is most important and that the outputs are relatively insignificant. I do not support this view as going through an extended planning process and producing a management plan with specific management strategies which are not implemented seems to be an exercise in futility.

For park planning in Victoria, the principal outputs of the planning process, or ongoing planning, are as follows.

Issues papers for public comment—these are not required by the Act and are not produced for all park plans but have been used more frequently in recent times. They describe a number of major management issues for the park and pose
questions about future management that can be used as a basis for public consultation. See Parks Victoria (2002a) as an example of issues papers for the management plan review for Dandenong Ranges National Park;

A draft management plan—this is not required by the Act but, in the period of this investigation, has always been produced for public comment. It has been, essentially, a full management plan but does not present options for management. See the draft management plan for Dandenong Ranges (Parks Victoria 2003) as an example.

The final management plan—this is the document required by the Act and sets down management directions and specific actions for the life of the plan. The life of the plan is not specified in the Act but, in practice, is often of the order of 10 years. During the period of investigation, these plans have varied from 350+ pages for a unit of the Alpine National Park (CNR 1992) to 44 pages for Reef Hills State Park (Parks Victoria 2007b). From discussion with Parks Victoria staff I understand that there has been a conscious policy in recent years to reduce the size of management plans and reduce the time and resources required to produce these plans.

Further planning studies—management plans often propose additional, more detailed, planning studies. This is discussed further in Section 5.5. These are generally more technical studies such as (Parks Victoria 2002):

- Complete and implement a comprehensive Environmental Action Plan for the park. (p. 16)
- Prepare detailed planting schemes for the various precincts within Tidal River which reinforce naturally occurring species, in line with activities and uses of the site. (p. 18)
- Prepare and implement an integrated program of monitoring and control for pest plant and animal species and pathogens … (p. 21)

These sub-plans are generally not available for public comment or review.
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Implementation plans flow from the management strategies in the plan. Management strategies are the most detailed components of the hierarchy and should probably be regarded as outputs rather than outcomes. They are (CNR 1995, p. 5):

Activities to be implemented which will work towards achieving the aims by addressing current management issues and other management requirements.

Management strategies are intended to form the basis of three-year rolling implementation plans. Unfortunately, some of the management strategies are still open-ended and vague, for example (Parks Victoria 2002, p. 17):

Discourage the feeding of wildlife by education of visitors.

This particular example raises the questions of: How would the education program be implemented? When would the education program be done and how long would it take? How do we know when visitors are suitably discouraged? None of these questions can be answered.

Fortunately other management strategies are more specific and but rarely have a time scale attached, for example (Parks Victoria 2002, p. 29):

Re-align the main vehicular access within Tidal River based on a two-way traffic ring road around the area giving access to facilities, camping areas, accommodation and recreation areas.

This gives a specific requirement for action, although it is light-on for details, but has no requirement for a completion date; so if it is implemented in, say, 20 years time can that be counted as an outcome of this management plan? This also raises an important issue about Parks Victoria management plans—they do not provide cost estimates for management strategies and do not provide a budget for implementation of the plan.

Another style of management strategy is to avoid proposing detailed actions on an issue but, instead, propose further planning studies—here is an example (Parks Victoria 2002, p. 29):
Prepare a traffic management strategy for the park, with particular attention to Tidal River.

This can be looked at in two ways, that the planning process has not come to terms with the issue and that the detailed planning has been put off for another time, or that the matter is a technical issue that is too detailed to be included in the management plan and that it deserves to be dealt-with in a sub-plan. At its worst, a management plan can be simply a list of further planning to be done, that is, no real planning is contained within the management plan so, while the document may be of some use in proposing future directions, it doesn’t progress planning very far. At the opposite extreme, all of the detailed planning could be included in the one volume. This would result in a bulky document and could considerably extend the time required to prepare the plan but would represent a complete planning process.

Plans of both types are produced in Australia but the Parks Victoria plans tend to be a mixture of both approaches with a combination of specific management strategies and recommendations for further detailed work. See, for example, the Wilsons Promontory National Park management plan (Parks Victoria 2002) quoted above. I support this approach but would prefer to see the management plan setting down objectives to guide later studies rather than just proposing further planning. This would give evidence that strategic directions are being given by the management plan.

The early park planning guidelines from Parks Victoria refer to (CNR 1995, p. 5) ‘three-year rolling implementation plans’. The 2002 Wilsons Promontory Management Plan (Parks Victoria 2002, p. 51) mentions that a:

management program for the park and reserves is prepared annually, in accordance with Parks Victoria’s Corporate Plan and as part of statewide prioritised programs.

By 2007, Parks Victoria management plans said (Parks Victoria 2007b, p. 61):

A range of approaches will be used to implement strategies in this plan. Some will be undertaken as part of routine management activities such as ranger visits; others will be addressed as part of regional programs undertaken across the State each year.
This gives a strong indication that, at this stage, management plans no longer directly determined programs which would be undertaken in the park and that regional programs, derived from other corporate planning programs, decided on what works would be done during the year.

Implementation of the management strategies is, perhaps, the most significant output from the planning process and the management plan. Management strategies are specific actions set down in the plan and intended to be implemented and to achieve a good outcome. Implementation would appear to be a straightforward issue but unfortunately it was not always so. The lack of funding for implementation of management plans appears to be one of the major points of criticism from the public.

Management plans of the period from Parks Victoria suffered from several, sometimes related, deficiencies—these will be discussed further in the case studies (Chapters 7, 8 and 9):

- there was no budget allocation to implement the management plan
- management strategies were not costed, so that they were difficult to include in an annual works program without much further work
- management strategies were not given a priority, so that it was unclear which action should be undertaken first
- management strategies were not given a time-scale so it was difficult to determine when they should be done
- budgets for individual parks were determined independently from the management prescriptions in management plans
- there appeared to be no systematic audit or review process to determine the success, or otherwise, of management plan implementation.

These are serious problems which devalued the usefulness of management plans of this period. Plans which are not implemented are, in my view, not very useful documents.
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A further complicating issue, discussed above, is whether the planning process is static or dynamic in nature. A static plan tends to encourage a large, comprehensive plan and one which takes a long time to prepare whereas a dynamic planning process leads to a shorter ‘framework’ plan supplemented by much planning activity between plan revisions.

The objectives stated in management plans tend vary from short-term to very long term. This poses a considerable dilemma in measuring the effectiveness of the plan—the short-term actions are relatively easy to audit but the nexus between the plan and long-term or very generalised objectives is far from clear.

The ‘setting aside’ table is an unusual provision in the Regulations under the Act (Park Regulations 1992)—I am not aware of similar provisions in other State and Commonwealth legislation. According to the park management planning guidelines of the time (CNR 1995):

As a document for Departmental staff, an Approved Plan provides the basis for formally ‘setting aside’ specific areas of the park for various permitted uses or activities or as areas where access is prohibited or restricted, as provided for in Regulation 7 of the Park Regulations 1992. This ‘setting aside’ provides the legal basis for enforcing many regulations.

Later Park Regulations (National Parks (Park) Regulations 2003) provide for the Secretary of the Department to ‘set aside’ areas of the park in order to permit or prohibit various activities.

5.5 Outcomes

Outcomes are those things which are achieved by the plan and the planning process. For plans for protected areas they can include better health of ecosystems, better management of natural resources, improved facilities for and services to the public, and better communication with and support from the public. Outcomes need to be thought of also in terms of both short-term and long-term guidance to management and whether both can be provided in the one document. There is some overlap with the outputs of the planning process, particularly the implementation of management strategies.
In practice, measuring outcomes is fraught with difficulties, nevertheless it is a critical component of the whole process. These problems are recognised in the literature—see, for example, Talen (1996a), Carmona and Sieh (2008)—and will be discussed in more detail in the Chapter 6. The outcomes mentioned above are often difficult to measure and are often not monitored in a systematic way, giving a poor basis for assessment of effectiveness.

What then are the desired outcomes from a Parks Victoria management plan? The stated objectives in its management plans are the:

- Park vision—that section which describes the condition and management of the park at a future time
- Management Directions—which set down very broad management directions
- Aims—which give management objectives for each section of the plan

Management strategies—the proposals for specific actions—are dealt with above under outputs.

The objectives are a hierarchy going from the very general and long-term to the more specific and short-term. This is logical and, in my view, a reasonable way to approach planning protected areas. If well written it forms a good structure for planning. Unfortunately, as we will see, the above objectives are often written in very general, non-quantifiable forms which makes the assessment of outcomes difficult. If the objectives written in the plan are found to be lacking one would have to fall back on the Objects of the Act (Appendix 2) which are also, by their very nature, broad and difficult to measure.

In a Parks Victoria management plan, the Park Vision section is (CNR 1995, p. 3):

*A picture of the Park in the distant future, the ultimate goal of park Management.*

The vision is the foundation of the management plan. It succinctly portrays the essential and on-going character of the park from the perspective of a future visitor to the Park who has no prior knowledge of the park or its issues. It describes the way the Park functions in a broader regional setting several decades hence.
In my experience, this is a most misunderstood and sometimes poorly written section. Many members of the public, and sometimes planners, find it hard to look into the future and regard this section as a statement of what will be done in the life of the plan or perhaps as a way of setting down wishful thinking about good outcomes for the future. It is also sometimes a wish list of ‘things to be done’ rather than strategic objectives.

An extract from the Park Vision statement in the 2002 management plan for Wilsons Promontory National Park illustrates the point (Parks Victoria 2002, p. 7):

A future visitor to Wilsons Promontory National Park finds an outstanding national park of international status. It is renowned for its conservation significance and natural landscapes and for the opportunities for recreation in a superb natural setting. It is also highly regarded for its high standard of environmental management and visitor services.

These aspirations are praiseworthy but there is nothing there that can be measured for success and nothing that can be directly pinned back to the management prescriptions in the plan.

The Management Directions are (CNR 1995, p. 3):

The dominant courses of park management that are shaped by the Park vision and provide a framework for developing the aims and management strategies.

They are intended to be more specific than the Park Vision and often tend to be only a summary of the Aims and major Management Strategies, for example (Parks Victoria 2002, p. 8-9):

A detailed Environmental Action Plan (EAP) for the park will be completed to address management of the park as a total ecological system.

Support services and infrastructure for managing the park will be concentrated within the Tidal River Recreation Zone.

but some are not all that specific and are aspirational and difficult to report on, for example:
Passive recreation activities will be encouraged around the Wilsons Promontory Lightstation, consistent with its remote setting.

*Aims* are (CNR 1995, p. 5):

The intent of particular aspects of park management, derived from a consideration of the management directions, the current management issues and other management requirements.

Aims are intended to be even more specific that Management Directions but, in practice, they are often very general and non-quantifiable, for example (Parks Victoria 2002, p. 13, p. 16):

Provide for the preservation, protection and study of features of geological and geomorphological interest.

Provide for scientific investigation that relates to the conservation of, and involves minimal disturbance to, the natural environment.

There are many other examples. It would appear that these Aims might have been better included in the Management Directions. In any event, they are not particularly useful in measuring the effectiveness of the outcomes of the plan.

Although the *vision-management directions-aims* approach is, in theory, an appropriate way to measure outcomes of the planning process, in practice, it is not likely to be successful as these parameters are often written in general terms which are not amenable to evaluation and measurement of success.

An alternative approach to the assessment of outcomes would be to use the *State of the Parks* reports produced by Parks Victoria. Two reports have been produced (Parks Victoria 2000, Parks Victoria 2007a). These reports are key documents and seek to summarise the values of and threats to Victoria’s parks and assess the effectiveness of management programs. The later report focussed on the key themes of:

- Natural values management
- Cultural heritage management
- Recreation, tourism and visitor appreciation
Chapter 5

• Community involvement.

The advantage of using these themes as a framework for evaluating planning effectiveness is that these reports are linked to monitoring programs so it is more likely that data will be available and that the outcomes can be linked to management actions. The disadvantages are that these reports look at system-wide performance, not at individual parks, and that the data is aggregated, making the establishment of a link between planning and outcomes difficult.
6

ASSESSING PLANNING EFFECTIVENESS

6.1 Introduction

As I have already indicated, there appears to be no ready-made methodology available for assessing the effectiveness of planning for protected areas. However, methodologies have been developed in related fields and these can be adapted to assessing park planning. This chapter will discuss the issues involved in developing such a methodology and will develop a set of criteria and indicators which will be tested in the case studies.

As discussed in Chapter 5, planning effectiveness includes the inputs, process, outputs and outcomes of the planning process. Plan quality refers mainly to the process and outputs. It would appear that measuring the effectiveness of the four components may need to be done in different ways. Some issues may simply be able to be listed and then ticked or crossed according to whether the action has been completed or not. Other issues can be listed but found to be difficult to assess as the relevant information is not available. Yet other issues, particularly the outcomes, may be very difficult or impossible to assess as the issues are too complex and the linkages between cause and effect too nebulous. Measuring planning effectiveness is likely to require a fusion of the various approaches described in the literature review.

6.2 Key issues

The central question is whether it is feasible to measure the effectiveness of this type of planning process and the effectiveness of the plans themselves. I believe that it should be possible. There are enough examples in the literature of reasonably successful attempts to assess town planning effectiveness and plan quality to indicate that park planning can be assessed in a similar way. The IUCN guidelines on management effectiveness (Hockings et al. 2006) obviously believe that it is possible. The issue is: how do you go about the assessment in a
meaningful way and what criteria do you use?

A secondary issue is how simple or complex the assessment procedure should be. A purely academic approach might result in hundreds of criteria, each with their own system of measurement. It could also involve semi-quantitative analysis and the use of statistics as was used, for example, by Berke and French (1994) and Brody (2003). This type of approach might well be rigorous but would be time-consuming and expensive to apply and might not be particularly useful to professionals in the field who are trying to assess the effectiveness of planning practice. Lack of data and complex interactions might also render this approach impractical.

This raises the question of whether a qualitative or semi-quantitative approach should be used. By qualitative I mean an assessment based on criteria but informed by professional judgement. By semi-quantitative I mean an assessment based on criteria but with scores or values assigned to each parameter; the scores are then assembled to give an overall rating. The major problem with the latter approach is that, to make sense, each of the parameters would have to be assigned a weight or relative degree of importance. In this field of planning, that is often difficult and sometimes not possible. For example, Brody (2003) looked at plan quality associated with natural hazard planning. Components of the plan were assigned a score of 0 to 2 depending on whether they were not mentioned, identified or fully detailed. Equal weight was given to all indicators of plan quality (Appendix 6). This meant that, for example, ‘delineation of location of hazard’ was being compared directly to ‘educational awareness’. While this approach isn’t entirely without merit it is probably best applied to the assessment of plan quality where the parameters—presence or absence in the plan—are more easily measured.

A final problem with a semi-quantitative approach is that data are likely to be unavailable or hard to get because monitoring is inadequate or the information is not publicly available.

For these reasons, I tended to favour a relatively simple, qualitative approach to effectiveness assessment.
6.3 Lessons from the literature review

Here, I return to the literature review (Chapters 2 and 3) and summarise the issues that can be used, either directly or indirectly, in assessing planning effectiveness for protected areas. The literature review shows that there are techniques for measuring plan quality which, when modified, may be able to be applied to protected area planning. It would appear, however, that assessment of outcomes is still fraught with difficulty, nevertheless an attempt will be made to apply what can be learned from town planning practice to park planning.

The information is grouped according to the headings in Table 2.1.

6.3.1 Information and guidelines on Australian park planning practice

This work was reviewed in Sections 2.2, 2.4 and 2.7. The ANZECC guidelines (ANZECC 2000) did not come to terms with overall planning effectiveness but did pose some questions that can be used in an assessment of effectiveness (Table 6.1). The first three issues in Table 6.1 relate to outputs, the fourth relates to outcomes (ANZECC 2000, p. 2).

Table 6.1 Analysis of ANZECC issues for effectiveness

<table>
<thead>
<tr>
<th>Issue</th>
<th>Can it be measured?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent are the prescribed actions in management plans</td>
<td>Yes, by an implementation audit.</td>
<td>Although implementation audits can be done the results are not generally in the public domain. The audit would need to be more than a yes/no summary and should give details of the degree of success of implementation.</td>
</tr>
</tbody>
</table>

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### Issue | Can it be measured? | Comment
--- | --- | ---
Is there a clear link between priority actions listed in plans and on-ground management programs? | Yes, by an implementation audit. | This presupposes that actions are assigned priorities. An audit should be able to relate actions listed in the plan with on-ground programs. Documentation within the management agency will indicate the origin of on-ground programs but will generally not be publicly available.

To what degree are management plans actually used in budget planning and determining work programs? | Yes, by examining the annual business plan and the three-year corporate plan and comparing with the management plan. | Again, this information is unlikely to be available to external reviewers.

To what extent has management, under the plan, achieved the objectives of management? | Perhaps, by ‘state of the parks’ reporting or equivalent, but surrogate measurements may be needed. management objectives need to be specific and measurable. | Establishing a nexus between the plan and the achievement of management objectives is very difficult. There are many issues outside the ambit of management plans which can affect outcomes. The subject matter is also very complex.

Source: adapted from ANZECC 2000.

The guidelines also identified (ANZECC 2000, p. 9-18) a list of issues, noted in Chapter 2, that relate to inputs, process and outputs (Table 6.2). Most of these issues will be developed as criteria for effectiveness.
Table 6.2  Analysis of ANZECC issues – process and content

<table>
<thead>
<tr>
<th>Issue</th>
<th>Can it be measured?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intended audience for management plans</td>
<td>Probably, by analysis of the style, format and language of the plan.</td>
<td>This was discussed in 5.3.1. While an assessment could be made it would be, nevertheless, a value judgement.</td>
</tr>
<tr>
<td>Format and content of management plans</td>
<td>Yes, by analysis of the plan.</td>
<td>This was discussed in 5.3.4. There are a number of important elements that should be included but the format of the plan is more a matter of individual preference.</td>
</tr>
<tr>
<td>Targets and timeframes</td>
<td>Yes, by recording the time taken to prepare the plan.</td>
<td>This was discussed in 5.2.1 and 5.2.3. It refers to the time taken to prepare a management plan after declaration of a park.</td>
</tr>
<tr>
<td>Public involvement</td>
<td>Perhaps, by examining the breadth and depth of consultation.</td>
<td>This was discussed in 5.2.1 and 5.3.5. The ANZECC guidelines offer only ‘best practices’ rather than specific criteria which can be measured.</td>
</tr>
<tr>
<td>Boards, councils, advisory and consultative committees</td>
<td>Yes, by recording their involvement.</td>
<td>I see this as a component of public involvement.</td>
</tr>
<tr>
<td>Contracting out planning versus use of internal staff</td>
<td>Yes, by examining annual reports but they don’t always give this level of detail.</td>
<td>This was discussed in 5.2.3. I have doubts whether this is a useful criterion for planning efficiency. Both contracting out and use of staff can be equally effective.</td>
</tr>
</tbody>
</table>
### Issue | Can it be measured? | Comment
--- | --- | ---
Field managers versus dedicated planners | Yes, this could be established verbally but is often not well documented. | This was commented on in 5.2.3 and is related to the issue above. Involving field managers in planning helps to give them ownership of and commitment to the plan.

Implementation | Yes, by examining operational plans such as the PV annual business plan and the PV three-year corporate plan and comparing with the management plan. | This is closely related to the third item in Table 6.1 and refers to the relationship between management plans and priority setting and budget allocation.

Monitoring, evaluation and review | Yes, by examining whether there are adequate systems in place and that they are being implemented. | This was discussed in 5.3.6. Documentation on these issues is often not available.

Source: adapted from ANZECC 2000.

The Parks Victoria guidelines (CFL 1988, DCE 1992, CNR 1995) are, in many respects, like the ANZECC guidelines above; they focus on procedure and presentation. They do not contribute to an assessment of effectiveness other than indicating how the plan should be prepared and what should be in it.

In his review of protected area planning, Hodges (2006) also talks about process and content but did not consider planning effectiveness.

### 6.3.2 International guidelines on park planning

This work was reviewed in Section 2.3. The IUCN park planning guidelines...
(Thomas & Middleton 2003) provided a complex, step-by-step description of the planning process. The planning process was described as 13 major steps (pp. 23-24):

1. Pre-planning – decision to prepare a Management Plan, appointment of planning team, scoping of the task, defining the process to be used

2. Data gathering – issues identification, consultation

3. Evaluation of data and resource information

4. Identification of constraints, opportunities and threats

5. Developing management vision and objectives

6. Developing options for achieving vision and objectives, including zoning

7. Preparation of a draft Management Plan

8. Public consultation on the draft Management Plan

9. Assessment of submissions, revision of draft Management Plan, production of final Management Plan, submission analysis and reporting on the results of the consultation process

10. Approval or endorsement of Management Plan

11. Implementation

12. Monitoring and evaluation

13. Decision to review and update Management Plan; accountability considerations

Each of these steps was accompanied by guidelines. Unfortunately, these guidelines were couched in such a way that they are difficult to measure and not readily amenable to being used as criteria for effectiveness.

Thomas and Middleton (2003, p. 52) noted that ‘In terms of assessing effectiveness, an evaluation of outcomes against objectives is the most relevant test’ and referred to the IUCN framework for assessing management effectiveness (Hockings, Stolton & Dudley 2000) for guidance on monitoring and evaluation. I will return to this matter later in this Chapter.
6.3.3 Textbooks on protected area management

This work was reviewed in Section 2.8. The chapter on management planning in Worboys, Lockwood & De Lacy (2005) does not offer an insight into how the effectiveness of planning can be measured. Their chapter on Evaluating Management Effectiveness (Hockings, Leverington & James 2005, pp. 553-568) is more helpful. They cite the first edition of the IUCN management effectiveness guidelines (Hockings, Stolton & Dudley 2000, pp. 558-559) which gave a framework for evaluation. The ‘elements of evaluation’ were: context; planning; inputs; processes; outputs; and outcomes. An example of the framework is given at Table 6.3.

Table 6.3 WCPA framework for management effectiveness

<table>
<thead>
<tr>
<th>Elements of evaluation</th>
<th>Explanation</th>
<th>Criteria that are assessed</th>
<th>Focus of evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning</td>
<td>Are the design of the area, planning systems, and plans adequate?</td>
<td>Protected area legislation and policy</td>
<td>Appropriateness</td>
</tr>
<tr>
<td></td>
<td>Assessment of protected area design and planning</td>
<td>Protected area system design</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reserve design</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Management planning</td>
<td></td>
</tr>
</tbody>
</table>


Hockings, Leverington and James (2005, p. 560) suggested the following questions/indicators for assessing planning in this framework:

- How adequate is protected area legislation and policy? Is the legal status and tenure of the site clear?
- How do site characteristics, such as size and shape, influence management?
- Is there an up-to-date management planning process?

This is still too general for the purposes of this thesis. The IUCN guidelines on management effectiveness (Hockings, Stolton & Dudley 2000; Hockings et al.)
Chapter 6

2006) are discussed below.

Alexander (2008) does not offer detailed criteria for assessing the effectiveness of management plans.

6.3.4 Adaptive management, management effectiveness and social policy learning

This work was reviewed in Section 2.11. It is clear from the literature that planning is an integral part of the adaptive management cycle. To put it another way, adaptive planning is part of adaptive management; they should not be seen as separate processes as is implied by Brody (2003).

The most recent edition of the IUCN guidelines on management effectiveness (Hockings et al. 2006, Table 1, p. 13 and pp. 18-20) contains a section on assessing planning. The structure is similar to that in the first edition, shown above (Table 6.3), with the focus of evaluation being assessment of protected area design and planning and the criteria that are assessed being protected area legislation and policy, protected area system design, protected area design and management planning. The criteria are not accompanied by indicators which can be measured. Protected area system design and protected area design fall outside the scope of this thesis but the principles used are discussed in Section 2.12 and under systematic conservation planning below.

6.3.5 Systematic conservation planning

This work was reviewed in Section 2.12. Systematic conservation planning is about the design of reserve systems and the design of individual reserves. As noted above, these issues are outside the scope of this thesis but the methodology used has some relevance. Margules and Pressey (2000) proposed six major characteristics of good conservation planning. They are reproduced in Table 6.4 with comment on their applicability to protected area planning.

The framework for conservation planning later proposed by Pressey and Bottrill (2008) deals with implementation and monitoring—stages 10 and 11 in Figure
2.12—but does not give details of assessment procedures.

Table 6.4 Characteristics of good conservation planning and applicability to protected area planning

<table>
<thead>
<tr>
<th>Major characteristics for conservation planning</th>
<th>Applicability to protected area planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear choices about the features to be used as surrogates for overall biodiversity.</td>
<td>Management plans should identify criteria and indicators to be used in assessing planning effectiveness. Surrogate measures may be needed.</td>
</tr>
<tr>
<td>Based on explicit goals, preferably translated into quantitative, operational targets.</td>
<td>Management plans should include explicit goals and targets linked to criteria and indicators that will allow measurement of effectiveness.</td>
</tr>
<tr>
<td>Recognises the extent to which conservation goals have been met in existing reserves.</td>
<td>Management plans should recognise the contribution of the reserve to regional nature conservation.</td>
</tr>
<tr>
<td>Uses simple, explicit methods for locating and designing new reserves.</td>
<td>Management plans should set down objectives and management strategies clearly and in plain English. The linkage between objectives and management strategies should be explicit.</td>
</tr>
<tr>
<td>Applies explicit criteria for implementing conservation action on the ground.</td>
<td>Management plans should contain criteria for assessing planning effectiveness.</td>
</tr>
<tr>
<td>Adopts explicit objectives and mechanisms for maintaining conditions within reserves that are required to foster the persistence of key natural features, together with monitoring of those features and adaptive management as required.</td>
<td>Management plans should have explicit objectives and management strategies. The plan should be an integral part of an adaptive management program.</td>
</tr>
</tbody>
</table>

Source: adapted from Margules and Pressey 2000.

Van Jaarsveld et al. (2003) argued for a risk management to provide more dynamic approach to conservation planning (Section 2.12). In Australia this approach is usually based on the *Australian Standard for Risk Assessment* (SA/SNZ 2004; SA/SNZ 2006; SA/SNZ 2009) and used for ecological risk assessment, for example, in the management of feral animals and weeds and for issues such as visitor safety and bushfire management (Carey, Burgman & Chee
2004; Carey et al. 2005). Risk management has the potential to offer some valuable planning tools but is not well developed at the present time with respect to protected area management planning.

Knight et al. (2006; 2008) noted the gap between planning and implementation of conservation plans (Section 2.12). This is a well-known problem with protected area plans.

**Table 6.5 The planning-implementation gap**

<table>
<thead>
<tr>
<th>Systematic conservation planning</th>
<th>Applicability to protected area planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address the ‘planning-action gap’.</td>
<td>The management plan should contain measurable objectives and management strategies, and an implementation plan. Social and economic issues may need to be included.</td>
</tr>
</tbody>
</table>

Source: adapted from Knight et al. 2003.

### 6.3.6 Evidence-based conservation planning

This work was reviewed in Section 2.13. Pullin and Knight (2003) proposed a model for evidence-based practice (Figure 2.13) and recommended the use of decision support systems. Sutherland et al. (2004) proposed web-based databases and that a review of evidence be a fundamental part of the plan. Head (2008) distinguished between technical and negotiated solutions to problems and argued that the ‘three lenses of knowledge and evidence’—political know-how, rigorous scientific and technical analysis, and practical and professional field experience—were all necessary for effective planning and the development of good conservation policy. This is summarised in Table 6.6.

In my view, this is one area where protected area planning could be improved considerably by the systematic review and inclusion of scientific information and monitoring data. Notwithstanding, I agree with Head (2008) that scientific information is only one, albeit important, input to the planning process and that political acumen and practical experience are essential additional components.
Table 6.6  

Applicability of evidence-based conservation planning to protected area planning

<table>
<thead>
<tr>
<th>Evidence-based conservation planning</th>
<th>Applicability to protected area planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorporate scientific research as well as empirical knowledge in conservation planning.</td>
<td>This is already part of protected area planning practice but is often done in an unsystematic way. The linkages between scientific reports and the objectives and management strategies are often not clear. The scientific reports used to prepare a management plan are not readily accessible to the public.</td>
</tr>
<tr>
<td>Collect evidence of the effectiveness of management actions.</td>
<td>Management plans should include a monitoring and review strategy and a mechanism to assess effectiveness.</td>
</tr>
<tr>
<td>Use decision support systems.</td>
<td>Decision support systems, combined with GIS technology, help to review management options and refine policies. They need to be simplified and made more user-friendly if they are to be used in day-to-day planning.</td>
</tr>
<tr>
<td>Use web-based databases.</td>
<td>All background reports should be made available to staff with the departmental computer systems and to the public via the internet. There should be an electronic database for each park.</td>
</tr>
<tr>
<td>Incorporate the process of collating and reviewing evidence as a fundamental component of the plan.</td>
<td>This is part of existing protected area planning practice but, as noted above, is often not done systematically.</td>
</tr>
<tr>
<td>Use the ‘three lenses of knowledge and evidence’.</td>
<td>Ensure that management plans have both evidence-based and experience-based inputs, and that it is recognised that negotiated as well as technical solutions may be required.</td>
</tr>
</tbody>
</table>

Source: adapted from Pullin and Knight 2003, Sutherland et al. 2004 and Head 2008.

6.3.7  Plan quality and planning effectiveness

This work was reviewed in Chapter 3 and discussed in Chapter 5. The literature falls into two broad categories: the assessment of plan quality (Berke & French 1994; Berke 1994; Kaiser, Godschalk & Chapin 1995; Berke et al. 1996; Baer
and the assessment of planning effectiveness (Alexander 1985; Alexander & Faludi 1989; Talen 1996a; Talen 1996b; Talen 1997; Mastop & Faludi 1997; Mastop & Needham 1997; Miller 2003; Nankervis 2003; Carmona & Sieh 2005; Bronson & Noble 2006; Carmona & Sieh 2008; Alexander 2009; Oliveira & Pinho 2009). As discussed in Chapter 5, plan quality refers to the planning process and planning outputs—and to some extent to inputs—and planning effectiveness refers to all of these matters but with emphasis on the outcomes of the exercise.

The techniques used to assess plan quality have many points in common. Generally, there is a long list of criteria by which to judge the plan as well as the process by which it is prepared. Take, for example, the work of Baer (1997) (Appendix 5). The criteria are listed under eight topics (Table 6.7). They are mostly subjective and no method of assessment or measurement is given.

### Table 6.7 Criteria for plan quality used by Baer (1997) and their applicability to protected area planning

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Applicability to protected area planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequacy of context</td>
<td>This refers to making a statement about the context and setting of the plan, the what and why of the document. Management plans should provide a context, explain the purpose of the plan and the role of agencies. They should also explain the planning process.</td>
</tr>
<tr>
<td>‘Rational model’ considerations</td>
<td>This refers to the planning approach taken and the criteria used to assess the planning process. Management plans should contain criteria by which their effectiveness may be judged. Consideration should be given to providing alternative management strategies in draft plans.</td>
</tr>
</tbody>
</table>
### Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Applicability to protected area planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedural validity</td>
<td>This refers specifically to the planning process. Management plans should state who prepared the plan, how the planning was done, how research and survey data was used to formulate policy and what the stages of the planning process were.</td>
</tr>
<tr>
<td>Adequacy of scope</td>
<td>This refers to broader matters of politics and social and economic considerations. Consideration should be given to costing management strategies and including economic and social issues in the plan.</td>
</tr>
<tr>
<td>Guidance for implementation</td>
<td>This refers to implementation—making the plan do something. Management plans should indicate how and when the plan will be implemented and the cost of implementation should be made explicit.</td>
</tr>
<tr>
<td>Approach, data and methodology</td>
<td>This refers to the technical basis of the plan. Management plans should be based on good science and survey data.</td>
</tr>
<tr>
<td>Quality of communication</td>
<td>This refers to how well the planners interact with the public. Management planning should include extensive public consultation.</td>
</tr>
<tr>
<td>Plan format</td>
<td>This refers to the way the plan is presented. Management plans need to be free of jargon and easily understood by the public. Modern forms of communication such as the Internet should be considered.</td>
</tr>
</tbody>
</table>

Source: adapted from Baer 1997.

Brody (2003) adapted the methodology developed by Berke et al. (1996 & 1998) to natural hazard planning but used a semi-quantitative method of analysis (Section 3.2, Appendix 6). As I have indicated above, I do not favour this approach, nevertheless he made several important points. He proposed that plan quality should be based on ‘a strong factual basis, clearly articulated goals, and appropriately directed policies’ (Brody 2003, p. 194). This applies equally to protected area planning. He also looked at whether the content and quality of plans changed over time and whether adaptive learning improved policies. This also is
pertinent to protected area planning and I have adopted this approach in the case studies in Chapter 7, 8 and 9, that is, I have examined the effectiveness of successive plans for a particular protected area.

The work of Steelman and Hess (2009) brought out a recurring theme, that is, that plan quality is often used as a measure of planning effectiveness but that the connection between the two is not clear. They came to the conclusion that a high quality plan did not necessarily correlate with a good outcome and that the planning process may be just as important, and that implementation was the critical issue. They also made the point that assessment of planning effectiveness was difficult because many plans do not have measurable objectives. I have commented on this matter in Section 5.3.4.

Assessment of plans produced under the New Zealand Resource Management Act by Eriksen et al. (2003) took a similar approach to evaluating plan quality (Section 3.3 and Appendix 8). The criteria used are a little more relevant to protected area planning than those quoted above (Table 6.8).

### Table 6.8 Criteria used by Eriksen et al. (2003) and their applicability to protected area planning

<table>
<thead>
<tr>
<th>Criteria used by Eriksen et al. (2003)</th>
<th>Applicability to protected area planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpretation of the mandate</td>
<td>Management plans should reflect the Objects and other provisions of the National Parks Act.</td>
</tr>
<tr>
<td>Clarity of purpose</td>
<td>Management plans should put the plan in context and provide strategic objectives.</td>
</tr>
<tr>
<td>Identification of issues</td>
<td>Management plans should identify issues clearly.</td>
</tr>
<tr>
<td>The quality of the facts base</td>
<td>Management plans should be based on good quality data and the connection with management strategies should be made explicit.</td>
</tr>
</tbody>
</table>
Internal consistency

Management objectives, aims and strategies should be consistent and closely linked. Indicators of the success of outcomes should be provided.

<table>
<thead>
<tr>
<th>Criteria used by Eriksen et al. (2003)</th>
<th>Applicability to protected area planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration with other plans and policy instruments</td>
<td>Management plans should be consistent with other policy instruments.</td>
</tr>
<tr>
<td>Monitoring</td>
<td>Management plans should include provisions for monitoring and should include indicators for measuring performance.</td>
</tr>
<tr>
<td>Organisation and presentation</td>
<td>Management plans should be ‘readable, comprehensible and easy to use for both lay and professional people’.</td>
</tr>
</tbody>
</table>

Source: adapted from Eriksen et al. 2003.

Assessment of planning outcomes requires a different approach; it is concerned with the analysis of implementation mechanisms and the measurement of the achievement of goals and objectives. I have already touched on this issue in Section 5.5. Talen (1996a) notes that the evaluation of implementation plans can be either quantitative or non-quantitative but that non-quantitative methods are highly subjective and that a quantitative approach is preferred. She raised several critical issues affecting the evaluation of plans (Talen 1996a, pp. 254-256):

*The ability of planning to effectuate change.* This is based on the proposition that it is possible for planners and plans to cause change. The alternative view is that many external factors have more of an influence on outcomes. In the context of protected area planning, the issue is whether the management plan directs actions and outcomes or whether other management systems have the most influence.

*The meaning of success.* This raises the question of ‘what is a successful outcome?’ If some progress is made towards a general goal can this be regarded as a success? What timescale has been adopted to measure success? It presupposes that aims and objectives are sufficiently precise to allow an assessment of their success and that the subject matter of the aim/objective is amenable to quantitative
the issue of multicausality. When dealing with complex systems—as is the case with protected area planning—it is difficult, and sometimes impossible, to establish direct causal links between plans and outcomes. Very many factors affect outcomes, the management plan being just one of them. To give a simple example, a management plan may be well written and contain good strategies but if adequate resources are not provided then implementation will not occur. Talen (1996a, p. 255) recommended that, to avoid this dilemma, evaluation should focus on ‘whether or not associations can be made between plans and outcomes or between intended goals and goal achievement’. This would not eliminate the influence of other factors but would simplify the analysis.

The problem of quantitative evaluation in planning. Talen (1996a, p. 255) argued that ‘the planning community needs to develop empirical, quantitative evaluation techniques for assessing the implementation success of plans’. She indicated that some of the major reasons why this has not been achieved were the difficulty of obtaining relevant data, methodological problems and resistance of the planning community to quantitative evaluation. The problem is compounded with protected area planning because the plans deal with such a wide range of subject matter, for example; nature conservation, fire management, soil conservation, cultural values conservation, recreation and visitor management, and public awareness and involvement. All of these issues will probably need their own method of evaluation, criteria and indicators but these matters go beyond the scope of this thesis.

So what methods are available to assess planning effectiveness? Alexander and Faludi (1989, p. 135) proposed five criteria for evaluation in the policy-plan/programme-implementation process (PPIP) model—see Table 6.9 and the discussion in Section 3.4.

For protected area planning, assessment of conformity should be possible although there are still methodological problems in making the assessment. Obtaining data is also likely to be a problem. Assessment of rational process should also be
possible, with the same qualifications. Assessment of optimality *ex ante* would be more difficult. If I am understanding the argument properly, this means fitting the plan to available resources which, perhaps, goes without saying. Assessment of optimality *ex post* is very difficult, there appears to be no readily available methodology to deal with this issue. Assessment of utilisation should be possible but, as noted above, failure to conform with the plan may be a failure of the way the plan is written—that it doesn’t provide for unforseen circumstances—and that action needs to be taken outside the management prescriptions of the plan from time to time, for example, with extreme events such as major bushfires where management needs to focus on fire control and post-fire rehabilitation at the expense of planned management activities.

Table 6.9  
**PPIP criteria for evaluation of planning effectiveness and their applicability to protected area planning**

<table>
<thead>
<tr>
<th>PPIP criteria for evaluation</th>
<th>Applicability to protected area planning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conformity</strong> — to what degree do operational decisions, implementation decisions, and actual outputs, outcomes, and impacts conform to the goals, objectives, intentions, and instructions expressed in the policy, plan, or programme being evaluated?</td>
<td>This is, perhaps, the most straightforward test and has much in common with the evaluation approaches discussed above. It asks two questions: Was the plan followed, or is it being implemented? Are its effects as desired? Answering these questions would require an implementation audit and suitable evaluation techniques.</td>
</tr>
<tr>
<td><strong>Additional criteria</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Rational Process</strong> — conforming to certain normative requirements in process and method, that is: reasonable acquisition and use of available knowledge and information; logical consistency in the data, analysis and synthesis; and involvement of affected parties in plan preparation.</td>
<td>This refers to what I have described as <em>inputs</em> and <em>process</em>, which were discussed in Chapter 5. This would be a checklist but would also require suitable evaluation techniques. For example, how would you determine what is ‘reasonable acquisition’ or how effective was the public consultation?</td>
</tr>
<tr>
<td><strong>Optimality ex ante</strong> — could the courses of action prescribed in the plan be considered optimal?</td>
<td>This refers to an assessment of the relationship between aims and means while the plan is being prepared. The exact meaning of the term ‘optimal’ is not clear. I think it probably means that plans should be able to be implemented within normal budget allocations.</td>
</tr>
</tbody>
</table>
**Optimality ex post** – were the courses of action prescribed in the plan considered optimal?

This goes beyond an assessment of whether a plan was implemented. It examines whether, with the benefit of hindsight, the outcomes of the plan could have been better. Such an assessment would have to be based on strategic goals and objectives.

<table>
<thead>
<tr>
<th>PPIP criteria for evaluation</th>
<th>Applicability to protected area planning</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Utilisation</em> – was the plan used as a frame of reference for operational decisions?</td>
<td>Establishing a connection between a management plan and operational decisions should be relatively straightforward. However, if the plan does not allow for changing circumstances there will be examples of operations differing from the prescriptions in the plan.</td>
</tr>
</tbody>
</table>

Source: adapted from Alexander and Faludi 1989.

Carmona and Sieh (2005) noted the concept of performance measures as ‘dials’, ‘tin openers’ and ‘alarm bells’. This simple approach has some attraction and has been adopted, to some extent, by the Tasmanian Parks and Wildlife Service (Section 2.11, Appendix 4). The later model for measuring performance in planning proposed by Carmona & Sieh (2008) offers a more holistic approach to the measurement of planning effectiveness (Section 3.4, Appendix 9). The criteria for planning service quality—efficiency, effectiveness, economy and equity—and the criteria for key results from planning—added value, stakeholder satisfaction, policy success and sustainable development—could be adapted to protected area planning. Unfortunately, the methodology is still too much in the realms of academic theory and lacking detailed criteria and indicators to make it a usable assessment tool, but it would provide a good basis for further academic investigation.

Mastop and Faludi (1997)—discussed in Section 3.5—distinguished between *project plans* which are a blueprint for future action and *strategic plans* which are non-prescriptive but provide general goals and objectives. They argued that project plans can be evaluated by measuring conformance between the plan and outcomes but, with strategic plans, non-conformance does not necessarily indicate ineffectiveness. This seems to reflect the view, noted elsewhere, that for some forms of planning the process is just as important as the outcome. In general
terms, management plans for protected areas are project plans, designed with particular outcomes in mind. This work suggests that a conformance-based approach to evaluation of planning effectiveness is appropriate.

The methodology developed by Oliveira and Pinho (2009) for assessing the production and outcomes of a plan—the Plan-Process-Results (PPR) model (Section 3.7, Appendix 10) evaluates rationality, performance and conformance and has many elements in common with the models discussed above. The principles proposed to guide planning evaluation—reproduced in Section 3.7—also apply to protected area planning. It is, perhaps, the most comprehensive of the evaluation systems reviewed. Ten criteria for effectiveness were proposed (Table 6.10).

What stood out with this methodology is that it identified in a systematic way criteria for planning effectiveness, indicated what needed to be evaluated for each criterion, listed sub-criteria and suggested evaluation techniques and data sources. In other words, it could be adapted to include all the factors involving inputs, process, outputs and outcomes. Although somewhat subjective, it was tempting to adopt a similar simple scoring system to give an indication of the value of the various elements of planning effectiveness.

Table 6.10  PPR criteria for planning effectiveness and their applicability to protected area planning

<table>
<thead>
<tr>
<th>PPR criteria</th>
<th>Applicability to protected area planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal coherence</td>
<td>This refers to the linkages between background information, the plan objectives and implementation mechanisms. The links should be clear and explicit.</td>
</tr>
<tr>
<td>Interpretation of planning system</td>
<td>This refers to a checklist of all of the elements that should be included in a management plan. A plan should include a certain minimum number of topics.</td>
</tr>
<tr>
<td>PPR criteria</td>
<td>Applicability to protected area planning</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Relevance</td>
<td>This seems less relevant and refers to whether the objectives of the plan are directed to the real needs of the land being planned.</td>
</tr>
<tr>
<td>External coherence</td>
<td>This sets the plan in the context of the planning system to which it belongs. For protected areas, it means that the plan is compatible with Commonwealth and State strategic plans.</td>
</tr>
<tr>
<td>Participation in plan making</td>
<td>This refers to public participation in quantitative terms and qualitative terms, and the role of the planning agency in this process.</td>
</tr>
<tr>
<td>Plan utilisation</td>
<td>This criterion is intended to integrate a decision-centred view of planning with a performance-based approach to evaluation. It is meant to describe what political influence is incorporated in the plan, and how the plan influences political processes. For protected area planning it happens, on occasion, that the Minister or other agent of the government directs that something should be included in a plan. In our current public service system I don’t believe that management plans influence political processes.</td>
</tr>
<tr>
<td>Commitment of resources</td>
<td>This refers to the availability of resources (to prepare and implement the plan), the type of resources available and the relationship between planning performance and resources. The third point would be very difficult to measure for protected area planning.</td>
</tr>
<tr>
<td>Participation during plan implementation</td>
<td>This is very similar to the fifth criterion but involves plan implementation not plan making.</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>This could be interpreted for protected area planning as the effectiveness of plan implementation both through subsidiary plans and individual projects.</td>
</tr>
<tr>
<td>Direction</td>
<td>This means the overall impact of the plan on the major issues examined by the plan.</td>
</tr>
</tbody>
</table>

Source: adapted from Oliveira and Pinho 2009.
Chapter 6

6.4 Proposed methodology

6.4.1 General issues

In Section 3.1 I posed some questions that I will answer here. They concern the relationship of protected area planning to urban and regional planning, and the relevance of evaluation techniques between the one and the other. In other words, do these different types of planning have sufficient issues in common that evaluation techniques from urban planning can be translated to protected area planning? This is a critical issue as the academic work on urban plan evaluation is, potentially, one of the most significant contributions to my proposed methodology for evaluating planning effectiveness and is more advanced than work specifically on protected areas.

On the face of it there are substantial differences. Urban planning deals with economic and social development and the fabric of cities—settlement patterns, provision of services and development approvals. Protected area planning deals with areas of land that are in substantially natural condition and where only minimal development is contemplated. It is unusual for social and economic issues to be considered in protected area plans and the focus is normally on relatively technical issues such as ecological management and recreational management. This implies that the evaluation of planning effectiveness for protected area plans will deal with different subject matter than urban plans, but do the same principles apply?

Urban planning is also complicated by the fact that a plan is just one of many factors which affect outcomes in real life—political interference, the overall economic situation, the ability to get legislation through parliament and the willingness of the private sector to take up opportunities may negate an otherwise good plan. Urban planning has a commitment, at least in theory, to ecologically sustainable development. Protected area plans exist in a simpler environment. While they may have to deal with contentious issues, protected area plans, unlike urban plans, do not normally affect major economic interests or the day-to-day matters which affect people’s lives. Nevertheless, there are examples of political
interference in protected area management plans, and the effective planning and management of the protected area estate has positive effects on people’s health and well-being.

On the other hand, while there are differences in the issues to be evaluated the planning processes have many elements in common and I believe that the same principles for planning effectiveness apply. This suggests that it is legitimate to adapt urban planning evaluation methodology but with a different set of criteria and indicators.

Plans can be regarded either as a set of prescriptions which are intended to produce specific outcomes or as a process of interaction with key stakeholders and the general public with no predetermined outcomes. Management plans for protected areas contain elements of both but are predominantly prescriptive in nature and this suggests that a conformance approach to planning effectiveness is feasible.

6.4.2 The evaluation matrix

The evaluation matrix that I have developed synthesises the issues discussed in the literature review (Chapters 2 and 3) and the principles for planning effectiveness (Chapters 5 and 6). The evaluation of inputs, process and outputs uses a conformance-based approach. The assessment of outcomes uses a performance-based approach.

Based on existing examples of planning effectiveness evaluation, a complete evaluation methodology should include:

- **Issues**: identification of critical matters that should be evaluated. For the assessment of inputs, process and outputs, the issues for planning effectiveness and criteria are taken from Chapter 5. For the assessment of outcomes, they are derived from the *State of the Parks Report* (Parks Victoria 2007a).
Chapter 6

• **Criteria**: ‘A principle, standard or test by which a thing is judged, assessed or identified’ (SOED 2007). In this case, criteria are the principles for good planning by which planning and planning outcomes should be measured. For the assessment of inputs, process and outputs they are taken from Chapter 5. For the assessment of outcomes they are derived from the *State of the Parks Report* (Parks Victoria 2007a).

• **Secondary criteria**: more detailed criteria, where they are necessary. I have used them in the assessment of outcomes where the principal criteria are too general to allow an accurate assessment. They are derived from the *State of the Parks Report* (Parks Victoria 2007a) and from personal experience.

• **Methods of measurement**: this is self explanatory; you need some method of assessment, whether it be qualitative or quantitative. The proposed methods of measurement for inputs, process and outputs are based on my judgement and the assessment of methodology reviewed in Chapters 3 and 5. In most cases it involves examination of documentation. I have not identified methods of measurement for outcomes as they involve complex methodology in specialist fields which is beyond the scope of this thesis.

• **Indicators**: these are the parameters that should be measured and evaluated to show how well criteria have been met and, hence, the effectiveness of planning. For inputs, process and outputs they may be simply a recording of whether or not the criteria have been met. For outcomes, the indicators are likely to be more complex. I have not identified all indicators at this stage but some examples of indicators are shown below in Section 6.4.3.

• **Data sources**: again, self explanatory; if you are going to measure planning effectiveness then you need objective data to analyse. It indicates whether relevant information is available and where it can be found. I have not included this information in the tables below in the interest of simplifying the presentation.

• **Rating**: this would be a simple assessment of the degree of success of each criterion and indicator. As I have indicated elsewhere, I do not favour a quantitative or semi-quantitative approach to evaluating protected area
management plans as it is, in my view, too subjective and likely to give misleading results. Instead, I have used, where applicable, a simple rating system similar to that used by Oliveira and Pinho (2009). This will use an A, B or C rating rather than using numbers which might suggest some underlying numerical basis. Application of this method in the case studies (Chapter 9) showed that this approach was practical.

A summary of the issues for planning effectiveness, criteria for assessment and the proposed methods of measurement is given at Tables 6.11, 6.12, 6.13 and 6.14.

Table 6.11 Assessing the inputs to the planning process

<table>
<thead>
<tr>
<th>Issues for planning effectiveness</th>
<th>Criteria for assessment</th>
<th>Proposed method of measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate legislation</td>
<td>Specification of a requirement to prepare a management plan.</td>
<td>Examination of the legislation.</td>
</tr>
<tr>
<td></td>
<td>Specification of the principles to be used in planning.</td>
<td>Examination of the legislation.</td>
</tr>
<tr>
<td></td>
<td>Specification of the planning and approvals processes.</td>
<td>Examination of the legislation.</td>
</tr>
<tr>
<td></td>
<td>Specification of the life of the plan.</td>
<td>Examination of the legislation.</td>
</tr>
<tr>
<td></td>
<td>Specification of clear objectives for management.</td>
<td>Examination of the legislation.</td>
</tr>
<tr>
<td></td>
<td>Specification of priorities for the management objectives in case there are conflicts between them.</td>
<td>Examination of the legislation.</td>
</tr>
<tr>
<td></td>
<td>The legislation is based on modern concepts of sustainability, transparency and social justice.</td>
<td>Examination of the legislation.</td>
</tr>
</tbody>
</table>
## Chapter 6

<table>
<thead>
<tr>
<th>Issues for planning effectiveness</th>
<th>Criteria for assessment</th>
<th>Proposed method of measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate guidelines for preparing the plan</td>
<td>Use of published guidelines for the planning process and the content and layout of the plan.</td>
<td>Examination of agency documentation, if available.</td>
</tr>
<tr>
<td>Adequate information on natural and cultural values, and recreational activity</td>
<td>Availability of adequate physical, biological and social information to allow planning to proceed.</td>
<td>Examination of the plan. Examination of supporting documentation, if available. Interviews with agency staff.</td>
</tr>
<tr>
<td>Identification of critical gaps in information and scheduling of the required short-term and long-term surveys and research.</td>
<td></td>
<td>Examination of the plan. Examination of supporting documentation, if available. Interviews with agency staff.</td>
</tr>
<tr>
<td>Availability of scientific information which could be properly analysed and put in a form accessible to planners.</td>
<td></td>
<td>Examination of supporting documentation, if available. Interviews with agency staff.</td>
</tr>
<tr>
<td>Existence of a park database that is well organised, accessible and kept up-to-date.</td>
<td></td>
<td>Examination of supporting documentation, if available. Interviews with agency staff.</td>
</tr>
<tr>
<td>Adequate resources to prepare the plan</td>
<td>Involvement of qualified planners.</td>
<td>Examination of agency documentation, if available. Interviews with agency staff.</td>
</tr>
<tr>
<td>Involvement of field management staff.</td>
<td></td>
<td>Examination of agency documentation, if available. Interviews with agency staff.</td>
</tr>
<tr>
<td>Availability of adequate resources to prepare the plan.</td>
<td></td>
<td>Examination of agency documentation, if available. Interviews with agency staff.</td>
</tr>
</tbody>
</table>
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Table 6.12 Assessing the planning process

<table>
<thead>
<tr>
<th>Issues for planning effectiveness</th>
<th>Criteria for assessment</th>
<th>Proposed method of measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A commitment by senior management to the planning process</td>
<td>Establishment of a clear link between the management plan and other corporate plans.</td>
<td>Examination of the plan and agency documentation, if available.</td>
</tr>
<tr>
<td></td>
<td>Use of the management plan to formulate annual works programs.</td>
<td>Examination of agency documentation, if available. Interviews with agency staff.</td>
</tr>
<tr>
<td></td>
<td>Demonstrated commitment to implement the plan.</td>
<td>Examination of annual reports. Examination of the implementation audit, if available.</td>
</tr>
<tr>
<td>Intended audience and function</td>
<td>The usefulness of the plan to the public.</td>
<td>Examination of the plan. Interviews with key stakeholders.</td>
</tr>
<tr>
<td></td>
<td>The usefulness of the plan to park managers.</td>
<td>Examination of the plan. Interviews with agency staff.</td>
</tr>
<tr>
<td>Relationship to local government and other planning</td>
<td>The integration of the plan with local government planning.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td>Integration of the plan with other public land planning.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td>The plan addresses a suitable area.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td>Issues for planning effectiveness</td>
<td>Criteria for assessment</td>
<td>Proposed method of measurement</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Static versus dynamic planning</td>
<td>Provision of long-term guidance for management of the park.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td>Provision of detailed directions for management in the shorter term.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td>Ability of the planning process respond to changing circumstances.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td>Format, content and presentation of the plan</td>
<td>Text written in plain English and using technical terms only where necessary.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td>A clear linkage between the Vision, Management Directions, Aims and Management Strategies.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td>Use of SMART objectives for Management Strategies.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td>Allocation of priorities to the Management Strategies.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td>Estimation of costs for the Management Strategies.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td>Definition of objectives for nature conservation.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td>Incorporation of an implementation plan.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td>Issues for planning effectiveness</td>
<td>Criteria for assessment</td>
<td>Proposed method of measurement</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Evidence-based planning</td>
<td>Incorporation of scientific research as well as empirical knowledge.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Examination of agency records.</td>
</tr>
<tr>
<td></td>
<td>Collection of evidence of the effectiveness of management actions.</td>
<td>Examination of the implementation audit, if available</td>
</tr>
<tr>
<td></td>
<td>Use of decision support systems.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Examination of agency records.</td>
</tr>
<tr>
<td></td>
<td>Use of web-based databases.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Examination of agency records.</td>
</tr>
<tr>
<td></td>
<td>Collation and review of evidence as a fundamental component of the plan.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Examination of agency records.</td>
</tr>
<tr>
<td></td>
<td>Use of the ‘three lenses of knowledge and evidence’.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Examination of agency records.</td>
</tr>
<tr>
<td>Public consultation and involvement</td>
<td>Consultation with the general public and key interest groups during the planning process.</td>
<td>Public notices of meetings.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agency records of proceedings.</td>
</tr>
<tr>
<td></td>
<td>Public consultation demonstrated to have been done in a meaningful way.</td>
<td>Difficult to assess. Perhaps interviews with key stakeholders.</td>
</tr>
<tr>
<td></td>
<td>Identification of options for management clearly identified as part of the public consultation.</td>
<td>Examination of the issues papers, if available.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interviews with agency staff and key interest groups.</td>
</tr>
<tr>
<td></td>
<td>Evidence of public comments having been taken into account when formulating the draft and final plans.</td>
<td>Examination of the summary of public submissions, if available, and the draft and final plans</td>
</tr>
<tr>
<td></td>
<td>Production of a formal response to public submissions.</td>
<td>Examination of documentation.</td>
</tr>
</tbody>
</table>
### Issues for planning effectiveness

<table>
<thead>
<tr>
<th>Criteria for assessment</th>
<th>Proposed method of measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment of monitoring of environmental condition and social issues.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td>Regular audit of implementation of the Management Strategies.</td>
<td>Examination of the plan.</td>
</tr>
<tr>
<td>A statement of when and how the plan will be amended and/or reviewed.</td>
<td>Examination of the plan.</td>
</tr>
</tbody>
</table>

### Table 6.13 Assessing the outputs from the planning process

<table>
<thead>
<tr>
<th>Issues for planning effectiveness</th>
<th>Criteria for assessment</th>
<th>Proposed method of measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draft management plan</td>
<td>Preparation and release of issues papers for public comment.</td>
<td>Availability of issues papers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Examination of the quality and scope of the papers.</td>
</tr>
<tr>
<td></td>
<td>Options for management contained in the issues papers.</td>
<td>Examination of issues papers</td>
</tr>
<tr>
<td></td>
<td>Preparation and release of a draft management plan for public comment.</td>
<td>Availability of draft plan.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Examination of the contents of the plan.</td>
</tr>
<tr>
<td></td>
<td>Options for management contained in the draft plan.</td>
<td>Examination of draft plan</td>
</tr>
<tr>
<td>Final management plan</td>
<td>Approval and release of a final management plan.</td>
<td>Availability of final plan.</td>
</tr>
<tr>
<td>Further planning studies</td>
<td>Identification of further planning studies which will be subject to public review.</td>
<td>Examination of the plan. Public statements from the planning agency.</td>
</tr>
</tbody>
</table>
## Issues for planning effectiveness

<table>
<thead>
<tr>
<th>Issues for planning effectiveness</th>
<th>Criteria for assessment</th>
<th>Proposed method of measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation</td>
<td>Inclusion of an implementation plan.</td>
<td>Examination of the plan. Public access to an implementation plan.</td>
</tr>
<tr>
<td></td>
<td>The feasibility to implement in a technical sense.</td>
<td>Examination of the plan. Examination of the implementation plan and implementation audit, if available.</td>
</tr>
<tr>
<td></td>
<td>Implementation of the plan in the required time and within budget.</td>
<td>Examination of the implementation audit, if available. Examination of internal agency documentation. Examination of annual reports.</td>
</tr>
<tr>
<td></td>
<td>Provision of adequate resources to implement the plan.</td>
<td>Examination of annual reports. Examination of internal agency documentation.</td>
</tr>
</tbody>
</table>
## Table 6.14 Assessing the outcomes of the planning process

<table>
<thead>
<tr>
<th>Issues for planning effectiveness</th>
<th>Principal criteria for assessment</th>
<th>Secondary criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural values management</td>
<td>The conservation status of flora communities.</td>
<td>Adequacy of natural values information and knowledge.</td>
</tr>
<tr>
<td></td>
<td>The condition of native flora species.</td>
<td>Demonstrated effective on-ground management.</td>
</tr>
<tr>
<td></td>
<td>The condition of native fauna species.</td>
<td>Establishment of effective monitoring programs.</td>
</tr>
<tr>
<td></td>
<td>The conservation status of marine species (where applicable).</td>
<td>Implementation of action plans for threatened species and communities.</td>
</tr>
<tr>
<td></td>
<td>Water quality and delivery, soil health and prevention of soil erosion.</td>
<td>Adoption of ecological fire regimes.</td>
</tr>
<tr>
<td></td>
<td>Containment, and eradication where feasible, of introduced plant and animal species, and pathogens.</td>
<td>Adoption of programs to respond to climate change.</td>
</tr>
<tr>
<td></td>
<td>Reduction of habitat fragmentation by roads and tracks.</td>
<td>Effective control measures for introduced plants and animals, and pathogens.</td>
</tr>
<tr>
<td></td>
<td>Control of overabundant native animal populations.</td>
<td></td>
</tr>
<tr>
<td>Issues for planning effectiveness</td>
<td>Principal criteria for assessment</td>
<td>Secondary criteria</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>----------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Cultural heritage management</td>
<td>Conservation and protection of indigenous values and places.</td>
<td>Improved public awareness and understanding of cultural heritage matters.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Improved knowledge of physical indigenous cultural heritage.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Effective conservation programs for places.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Involvement of indigenous people in park management.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Building partnerships with indigenous communities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Support for cultural activities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cultural awareness training.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indigenous employment.</td>
</tr>
<tr>
<td></td>
<td>Conservation and protection of historic themes, landscapes, places and objects.</td>
<td>Improved knowledge and assessment of condition of historic cultural heritage.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Effective conservation of historic places.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Facilitation of appropriate use of historic places.</td>
</tr>
<tr>
<td>Issues for planning effectiveness</td>
<td>Principal criteria for assessment</td>
<td>Secondary criteria</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Recreation, tourism and visitor management (depending on the category of protected area)</td>
<td>A good standard of access for recreation and appreciation.</td>
<td>Provision of roads, car parking areas and walking tracks. Provision of access for people with a disability.</td>
</tr>
<tr>
<td>Good quality facilities and services.</td>
<td>Provision of facilities such as toilets, picnic places, drinking water and camping places where appropriate. Good maintenance of facilities. Establishment of risk assessment and management programs.</td>
<td></td>
</tr>
<tr>
<td>Provision of a range of recreation opportunities.</td>
<td>Monitoring and assessment of recreational impacts.</td>
<td></td>
</tr>
<tr>
<td>Support for appropriate tourism.</td>
<td>Support and training for licensed tour operators.</td>
<td></td>
</tr>
<tr>
<td>A high standard of information, interpretation and education services.</td>
<td>Provision of high quality information. Provision of high quality interpretation services. Provision of educational programs.</td>
<td></td>
</tr>
<tr>
<td>Community involvement</td>
<td>Community participation and partnerships.</td>
<td>Effective volunteer programs. Effective community consultation. Partnerships with interested groups.</td>
</tr>
</tbody>
</table>
6.4.3 Conclusion

From the proposed evaluation matrix, given above, a number of issues stand out. Examples of input, process, output and outcome evaluation are given at Tables 6.15, 6.16, 6.17 and 6.18.

Size and complexity

Despite having the intention to develop a relatively simple method of assessment there are 20 issues and 74 principal criteria listed above. Many more could have been added. What started as a simple method is now rather lengthy and complex. A full evaluation would also include indicators, data sources and a rating system. In large part, I suggest, that this reflects the complexity of the task. It involves the analysis of large amounts of documentation, some of it not readily available to external reviewers, and, with the evaluation of outcomes, the involvement of a number of disciplines in the technical assessments.

Availability and accessibility of information

The information source and the method of measurement fall into several categories. Examination of the legislation, the plan and annual reports is relatively straightforward; these are public documents and only an appropriate method of analysis is required. Examination of agency documentation and supporting documentation is likely to be difficult or impossible for an external reviewer. In practice, it is very difficult to obtain this information. Interviews with agency staff are possible but will have variable usefulness. In the case of this thesis, it took a long time for me to gain permission to interview Parks Victoria staff and some were guarded in their responses. Implementation plans and implementation audits may, or may not exist, and the same difficulties exist in gaining access to them. Interviews with key stakeholders are likely to be more productive but are time consuming and require interpretation.

For outcomes, the evaluation process is more complex and may require both qualitative and quantitative assessment methods. A rating system might also be applied. While the latest State of the Parks report provides a useful basis on which
to develop evaluation criteria, these documents generally do not provide the original data by which an evaluation can be made. They are designed as a system-wide reports rather than as a source of data for individual parks.

**Complexity of analysing outcomes**

Many of the criteria listed under outcomes require specialist evaluation techniques. Evaluation of issues such as the provision of high quality visitor facilities should be relatively easy to do as the required data should be available but, as it will rely on internal agency documentation, the evaluation may be feasible for agency staff but might be difficult or impossible to achieve by an outside reviewer. In contrast, evaluation of the conservation status of flora communities requires detailed monitoring data, which may or may not be available, knowledge of the ecology of the plant communities, which also may or may not be available, and a proven evaluation methodology. About half of the criteria listed for outcomes require specialist techniques for evaluation. It is beyond the scope of this thesis to delve into all of these evaluation methodologies.

**Development of indicators**

Indicators are the matters that need to be measured in order to assess planning effectiveness. As with the criteria, it is not my intention to develop indicators for all of the issues listed in the tables above. Instead, I have looked at what indicators might be used for selected issues in the case studies. This should give a good indication of how easy or difficult it would be to develop a full set of indicators.

Indicators for inputs, process and outputs should be relatively easy to develop. Indicators for outcomes are likely to be more difficult. Here are some examples of a full evaluation methodology indicating where the methodology is feasible and where problems are likely to exist.
Table 6.15  Examples of input evaluation

<table>
<thead>
<tr>
<th>Issues for planning effectiveness</th>
<th>Criteria for assessment</th>
<th>Proposed method of measurement</th>
<th>Indicators</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate legislation</td>
<td>Specification of a requirement to prepare a management plan.</td>
<td>Examination of the legislation.</td>
<td>Specific reference to this issue in the legislation.</td>
<td>A, B or C depending on how specific the reference is.</td>
</tr>
<tr>
<td>A commitment by senior management to the planning process</td>
<td>Establishment of a clear link between the management plan and other corporate plans.</td>
<td>Examination of the plan and agency documentation, if available.</td>
<td>Reference to the management plan in works and strategic plans.</td>
<td>A, B or C depending on whether there is a link, a quasi-link or no link.</td>
</tr>
</tbody>
</table>

The first issue is a straightforward evaluation; either there is, or is not, a reference in the legislation to this matter and it only remains to make a judgement on how specific the reference is. The second issue is more difficult. Annual works programs and business plans are not normally available to the public so, for an external reviewer, establishing a link with management plans may not be possible.

Table 6.16  Examples of process evaluation

<table>
<thead>
<tr>
<th>Issues for planning effectiveness</th>
<th>Criteria for assessment</th>
<th>Proposed method of measurement</th>
<th>Indicators</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship to local government and other planning.</td>
<td>The integration of the plan with local government planning.</td>
<td>Examination of the plan.</td>
<td>Management strategies which relate directly to the interrelationship with local government planning.</td>
<td>A, B or C depending on the degree of specificity.</td>
</tr>
</tbody>
</table>
The first evaluation should be feasible as it is based on examination of the text of the plan. The second should also be feasible but the assessment of interviews with stakeholders will be subjective. Interviews regarding contemporary plans should be possible—albeit time consuming—but interviews regarding plans from earlier years are not likely to be productive as they would rely on fallible human memory.
Table 6.17  Examples of output evaluation

<table>
<thead>
<tr>
<th>Issues for planning effectiveness</th>
<th>Criteria for assessment</th>
<th>Proposed method of measurement</th>
<th>Indicators</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draft management plan</td>
<td>Preparation and release of issues papers for public comment.</td>
<td>Availability of issues papers.</td>
<td>Availability.</td>
<td>A, B or C depending on how well the papers were distributed.</td>
</tr>
</tbody>
</table>
|                                   |                         | Examination of the quality and scope of the papers. | Written in plain English.  
|                                   |                         |                                 | Examines key management issues.  
|                                   |                         |                                 | Reviews options for management. | A, B or C depending on the quality and scope. |
| Implementation                    | Provision of adequate resources to implement the plan. | Examination of annual reports.  
|                                   |                         | Examination of internal agency documentation. | Costed management strategies.  
|                                   |                         |                                 | Comparison with annual budgets.  
|                                   |                         |                                 | Comparison with implementation reviews. | A, B or C depending on whether the plan is being implemented on schedule and that there are adequate funds. |

The first evaluation should be feasible as it involves examination of documentation. The second is likely to be difficult or impossible for an external reviewer for the reasons discussed elsewhere; non-costed management strategies, documentation not available, non-existent implementation reviews and tenuous links between the plan and day-to-day management.
### Table 6.18  Examples of outcome evaluation

<table>
<thead>
<tr>
<th>Issues for planning effectiveness</th>
<th>Criteria for assessment</th>
<th>Proposed method of measurement</th>
<th>Indicators</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreation, tourism and visitor appreciation</td>
<td>A good standard of access for recreation and appreciation. <strong>Sub-criteria</strong> Provision of roads, car parking areas and walking tracks. Provision of access for people with a disability.</td>
<td>Record the type and quality of facilities and access provided in the park.</td>
<td>Number and quality of facilities. Type and quality of access.</td>
<td>A, B or C.</td>
</tr>
<tr>
<td>Natural values management</td>
<td>The conservation status of flora communities.</td>
<td>Field surveys of common species. Field surveys of rare and threatened species. Comparison with State and national conservation status.</td>
<td>Not known at this time.</td>
<td>Not known at this time.</td>
</tr>
</tbody>
</table>

The first issue should be able to be evaluated with the information available to agency staff. This information is unlikely to be available to external reviewers. The second issue requires specialist evaluation techniques and is beyond the scope of this thesis.

**Will the evaluation matrix work?**

It is clear from the above examples that, at least in theory, the evaluation methodology could be fully developed for use by a management agency but it is
unlikely that an external reviewer would be able to access all of the relevant information. There also appear to be methodological problems in judging outcomes.

The best way to establish whether the evaluation matrix is a viable approach is to apply it to a plan or plans. This will conform its strengths and weaknesses of the methodology and suggest modifications that may be required. The following chapters contain case studies examining three management plans that were prepared for Wilsons Promontory National Park. As well as examining in detail the planning process and plan content, the evaluation matrix was applied to make an assessment of planning effectiveness and to see how plans and planning changed over the 20 year period 1987 to 2007.
7

CASE STUDIES: Part 1

7.1 Introduction

This Chapter, and the following two Chapters, contain case studies which examine examples of protected area management plans. The case studies addressed the second and fourth research questions of this thesis:

- *How were protected area management plans prepared in Victoria in the period 1987 to 2007?*
- *How effective were management plans prepared in Victoria in the period 1987 to 2007?*

The purpose of the case studies was fourfold: to establish a factual basis for the content and style of management plans produced in Victoria in the period 1987 to 2007; to examine whether the content and style changed over this period of twenty years; to analyse the plans’ content in terms of the criteria for planning effectiveness developed in Chapters 5 and 6; and to determine whether the criteria are a practical method of assessment of planning effectiveness.

The case studies focussed on one park—Wilsons Promontory National Park. The reasons for choosing this park are given in Chapter 4. It is a major national park, had received comprehensive planning and was the only national park in the State to have three approved management plans in the period in question. It is also of relevance that I was the principal consultant for the preparation of the revised management plan for the park in 1996-97 (NRE 1996a, Parks Victoria 1997a). This, and subsequent work, gave me a good insight into Parks Victoria’s management planning practices.
Chapter 7

7.2 The park

Since 1975 Wilsons Promontory National Park has been listed in Schedule 2 of the National Parks Act. It is located in South Gippsland, about 200 km by road from Melbourne, and is almost entirely surrounded by Marine and Coastal Parks (Figure 7.1). It is unique in Victoria in that it occupies the whole of a peninsula surrounded by the waters of Bass Strait. It is connected to the mainland by the Yanakie Isthmus and there is only a single approach road along the isthmus. The park was temporarily reserved in 1898 and permanently reserved in 1905 (Parks Victoria 1997a, p. 1).

Figure 7.1 Location

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The park is characterised by rugged granite mountain ranges, diverse vegetation communities, beautiful beaches, spectacular land and seascapes and abundant wildlife. It contains many rare, threatened or endangered plants and animals. It also offers a wide range of opportunities for sightseeing, viewing wildlife,
camping, bushwalking and other outdoor recreation. It contains the largest coastal wilderness in Victoria (Parks Victoria 1997a, p. 2; Wescott 1995b).

The park is one of Victoria’s most important tourist destinations and in 1996 received about 370 000 visit-days, which is equivalent to about 200 000 visitors every year. Many visitors to the park stay at Tidal River, the only place with roofed accommodation and car-based camping in the park, but there are also significant numbers of day-visitors and people who undertake overnight walks in other parts of the park. Tidal River has a range of accommodation including group accommodation, cabins, motor huts and units, and a camping ground. It also has a park office and works depot, education, information and interpretation services, and emergency, medical and police services at peak periods. In 1996, the total accommodation capacity at Tidal River was a little over 4000 people at any one time (Parks Victoria 1997a, pp. 21-39).

The park, access and facilities are shown at Figure 7.2 (Parks Victoria 2002a).

7.3 Case study methodology

As I have indicated above, the methodology used in the case studies is described in Chapter 4. The case studies had four main purposes:

• to establish a factual basis for the content and style of management plans produced in Victoria in the period 1987 to 2007
• to examine whether the content and style changed over this period of twenty years
• to analyse the plans’ content in terms of the criteria for planning effectiveness developed in Chapter 6
• to determine whether the criteria are a practical method of assessment of planning effectiveness.
Figure 7.2  Wilsons Promontory National Park

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To accomplish these objectives I examined each of the management plans in detail noting the format and content and the proposed management objectives and strategies. I then analysed the plans using the issues for planning effectiveness and criteria developed in Chapter 6. An assessment of planning effectiveness is made at the end of each case study.

As we will see, the draft 1996 and final 1997 plans were split into two, with the Master Plan addressing Tidal River and the management plan addressing the remainder of the park with the exception of the Lighthouse Reserve. It is likely that there will have been other primary documentation produced as part of the planning process, such as issues papers and a draft of the 1987 plan, but most of these documents were difficult or impossible to access. However I do not think that their absence detracts from the overall assessment of these examples of park planning, as examination of the plans themselves provides most of the information needed.

7.4 The 1987 management plan

7.4.1 Background

This case study examined the 1987 management plan for Wilsons Promontory National Park (CFL 1987).

It is not clear from the management plan whether this was the first formal management plan for the park. If that was the case, there would certainly have been annual works plans and other documents to guide management in earlier years. A draft plan had been released for public comment in January 1986 and 134 submissions were received (CFL 1987, p. iii). This indicates a high degree of interest from the public.

When the plan was written, the park comprised 49 000 ha (CFL 1987, p. 1) and received a little over 400 000 visitor-days in 1985-86 (CFL 1987, p. 23). In the Forward [sic], the Minister for Conservation, Forests and Lands, Joan Kirner, noted the iconic nature of the park and indicated that recreation and grazing had
(CFL 1987, p. iv) ‘… led to increasing pressure on its natural resources’ and as a result ‘There should be no overall growth in visitor use …’

7.4.2 Format and content

The plan is a document of 108 pages. It comprises:

- Part A—a summary of park resources and uses
- Part B—strategies, management objectives and zoning
- Part C—management issues, strategies and actions
- eight Tables
- five Figures
- References.

Part A (CFL 1987, pp. 1-29) does not have a direct equivalent in current day Parks Victoria management plans. It provided a separate, succinct description of natural and cultural resources (climate, geology, geomorphology and soils, vegetation and flora, fauna, the Islands, landscape, fire history, Aboriginal history, European history); and recreational use (introduction, changes in use, recreation opportunities). The descriptive material included implications for management but was not directly linked to the management actions given later and was presumably intended to provide context for the later sections of the plan.

Part B (CFL 1987, pp. 31-44) is the strategic part of the plan and contained future strategic directions which were, in practice, a short discussion of future threats and their potential impacts and a statement of principles for management; management objectives, a list of 11 general management objectives; and a zoning plan which provided a rather complex system of management through four zones, special purpose control areas, scientific protection areas, reference areas and special use zones. This was the core of the plan which was intended to provide the philosophical and policy guidance for management for a period of ten years or more.
Chapter 7

Part C (CFL 1987, pp.45-106) ‘… sets out in detail the issues involved in managing the Park, and specifies management strategies and actions necessary to achieve those management objectives.’ (CFL 1987, p. 47). It had chapters on park management, visitor facilities and services at Tidal River and other areas, management resource requirements and recommendations for further studies.

Each section contained more descriptive material, general management strategies for that issue and a set of management actions which were more specific but not directly translatable into annual works programs. It is of interest that the management actions were given priorities, something not done in later plans, and that there was a chapter on staff levels and management infrastructure, again, matters not included in later plans.

7.4.3 Proposed management

The plan stated that (CFL 1987, p. 2) ‘A major strategic issue facing the future management of Wilsons Promontory is the increasing demand for recreation use and the capability of the Park to cater for it.’ To address this issue Chapter 4 of the plan, Future Strategic Directions, set down (CFL 1987, pp. 34-35) ten ‘conclusions’ which are more statements of principle rather than actions. They included useful, but fairly general, recommendations about:

- restriction of public access to sites of conservation or scientific significance
- not permitting intensive forms of development such as hotels and conference centres
- limiting development of facilities for walkers and day visitors
- not developing more camp sites at Tidal River but allowing limited construction of additional lodges.

The Zoning Plan (CFL 1987, pp. 39-44) also allowed only certain uses and activities within each zone but did not go into a great deal of detail on this matter.
### Table 7.1 A summary of management actions in the 1987 management plan

<table>
<thead>
<tr>
<th>Section of plan</th>
<th>Significant actions/comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>7</strong> Park Management</td>
<td></td>
</tr>
<tr>
<td>7.1 Native plants and animals</td>
<td>Focuses heavily on research, investigation and monitoring.</td>
</tr>
<tr>
<td>7.2 Intertidal resources</td>
<td>Integration with adjoining Marine and Coastal Parks.</td>
</tr>
<tr>
<td>7.3 Islands</td>
<td>Restriction of public access.</td>
</tr>
<tr>
<td>7.4 Cultural resources</td>
<td>Site protection and monitoring.</td>
</tr>
<tr>
<td>7.5 Fire protection and fire management</td>
<td>Other plans govern this issue.</td>
</tr>
<tr>
<td>7.6 Weeds, exotic plants and diseases</td>
<td>Prepare a weed control plan, training and procedures.</td>
</tr>
<tr>
<td>7.7 Vermin and introduced animals</td>
<td>Prepare vermin control plan and procedures.</td>
</tr>
<tr>
<td>7.8 Erosion control</td>
<td>Mostly ongoing work.</td>
</tr>
<tr>
<td>7.10 External factors</td>
<td>Mostly ongoing work.</td>
</tr>
<tr>
<td>7.11 Voluntary assistance</td>
<td>Mostly ongoing work.</td>
</tr>
<tr>
<td><strong>8</strong> Visitor facilities and services: Tidal River</td>
<td></td>
</tr>
<tr>
<td>8.1 Camping at Tidal River</td>
<td>Retain 500 unpowered sites, restrict school group numbers.</td>
</tr>
<tr>
<td>8.2 Lodges, flats and motor huts</td>
<td>Conduct economic study, upgrade lodges, construct new huts.</td>
</tr>
<tr>
<td>8.3 Visitor facilities—Tidal River</td>
<td>Construct shelters, BBQs and disabled facilities.</td>
</tr>
<tr>
<td>8.4 Interpretation and education services</td>
<td>General development of education and interpretation services.</td>
</tr>
<tr>
<td>8.5 Commercial services</td>
<td>Mostly ongoing work.</td>
</tr>
<tr>
<td>Section of plan</td>
<td>Significant actions/comment</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>8.6  Domestic infrastructure and services</td>
<td>Assess the need for an upgrade in services.</td>
</tr>
<tr>
<td>9    Visitor use and services: other areas</td>
<td></td>
</tr>
<tr>
<td>9.1  Vehicular access and roadside facilities</td>
<td>Recommends a number of investigations regarding capital works and limiting day visitors.</td>
</tr>
<tr>
<td>9.2  Walking</td>
<td>Ongoing work and investigations.</td>
</tr>
<tr>
<td>9.3  Bicycle riding</td>
<td>Ongoing work.</td>
</tr>
<tr>
<td>9.4  Camping away from Tidal River</td>
<td>Investigations and new facilities.</td>
</tr>
<tr>
<td>9.5  Boating</td>
<td>Regulation and investigation.</td>
</tr>
<tr>
<td>9.6  Rock climbing</td>
<td>Ongoing work and investigations.</td>
</tr>
<tr>
<td>9.7  Diving, fishing, canoeing, swimming and surfing</td>
<td>Prohibition of freshwater fishing, otherwise ongoing work.</td>
</tr>
<tr>
<td>9.8  Miscellaneous recreation uses</td>
<td>Ongoing restrictions.</td>
</tr>
<tr>
<td>9.9  Search and rescue, patrol, first aid and other visitor services</td>
<td>Ongoing work.</td>
</tr>
</tbody>
</table>

### 7.4.4 Analysis of planning effectiveness

The following analysis is based on the draft criteria for effectiveness in management planning developed in Chapters 5 and 6.

**Assessing the inputs to the planning process**

**Adequate legislation**

The plan did not indicate the legislation under which the plan was prepared or the approvals process. It did state (CFL 1987, p. 47) that the plan would be implemented in conjunction with the National Parks Act and a list of departmental policies and plans. This makes it difficult to deduce whether the guiding legislation was adequate. One must assume that the plan was prepared under the National Parks Act.
If this was the case then the legislation:

- did have a requirement to prepare a management plan

but

- did not specify principles for planning
- did not specify the planning and approvals process
- did not specify the extent of public participation
- did not specify the life of the plan
- provided objectives for management only in the Objects of the Act
- did not provide priorities for management actions
- may not have been based on modern concepts of sustainability, transparency and social justice

**Adequate guidelines for preparing the plan**

I have no information on this matter.

**Adequate information on natural and cultural values, and recreational activity**

The plan stated that (CFL 1987, p. 2) ‘This plan is essentially a guide for park managers, and only a brief summary of the Park’s natural resources is provided’. Nevertheless, the plan referred to more detailed information elsewhere and had a reasonably comprehensive bibliography. This indicates that, at least in part, the plan was based on scientific research and monitoring.

The plan stated that (CFL 1987, p. 7) ‘A large but unconsolidated body of research literature and resource surveys exists for the Park …’ The volume of information available probably resulted from the fact that it is a long-established park and something of a favourite place to do research. The unconsolidated nature of the information is typical of information archives
of the time when computer facilities were not well developed and many documents were not available in electronic form.

Unfortunately there appeared to be little connection between the research and survey information that was available and the management strategies and actions in the plan. This problem was exacerbated by the summary of the resource information being in a separate section of the plan. This is a major difficulty for management plans as it leaves the origins of many of the management strategies unclear. It also points out the need for a properly organised and accessible park data base.

**Adequate resources to prepare the plan**

I have no information on this matter.

**A commitment by senior management to the planning process**

The only evidence that I have is that the Minister for Conservation, Forests and Lands, Joan Kirner, endorsed the plan in the Foreword. She indicated that (CFL 1987, p. iv) ‘… the plan will ensure that Wilsons Promontory National Park continues to provide a wide range of recreation opportunities without degradation of its unique features’. This implies that there was a commitment at a high level to implementation of the plan.

**Assessing the planning process**

**Intended audience and function**

The plan stated that it is (CFL 1987, p. 2) ‘… essentially a guide for park managers …’ This is in contrast to later plans produced by Parks Victoria which serve as (CNR 1995, p. 1) ‘… both a public document and a working document for Departmental staff’. This is curious as there is evidence that efforts were made to engage the public and that there was strong public interest in the draft plan. The content of the plan also indicates that it was intended to inform the public as much as anyone else.
If the plan was directed mainly at the park managers it raises questions about its content and format. One would think that a plan for managers would not need a resource description – this information should be available to them anyway—and that the management actions would be more precise and able to be included in works programs. This was not the case. Management actions were generally pitched at the level of (CFL 1987, p. 62) ‘Control erosion along walking tracks.’ and (CFL 1987, p. 69) ‘Upgrade or replace existing lodges and flats as appropriate.’ These are really broad management directions rather than specific management actions.

Relationship to local government and other planning

The plan cited numerous State government policies and plans (CFL 1987, p. 47) but, to my reading, did not mention local government. It is my understanding that planning schemes in Victoria did not apply to Crown land until 1989, hence this plan did not have to refer to planning matters. The plan, nevertheless, conceded that it should (CFL 1987, p. 64) ‘Maintain and improve a close relationship with land holders abutting the Park’.

The plan addressed the area of the park, as it existed at the time, however it commented (CFL 1987, p. 33) that visitor pressures on the park and pressures for development might be eased if sensitive tourist development was encouraged outside the park. It then noted that (CFL 1987, p. 33) ‘A regional recreation and tourism analysis is beyond the scope of this Plan, but will be addressed in the Regional Statement for DCFL’s [Department of Conservation, Forests and Lands] Yarram Region.’ That is, the detailed planning for the park preceded regional planning.

This highlights the issue of management plans for parks at that time—and later—being prepared only for the park and apparently not in the context of a regional land use and/or tourism plan, and also apparently in isolation from local government planning of adjacent private land. This approach has a number of drawbacks which were discussed in Section 5.3.2. The major problem here appears to be that the park was already suffering at that time from visitor impact and threatened by development proposals but the plan
did little to turn around this situation. Indeed, some of the development proposals mentioned in the plan (p. 34) nearly came to pass in later years despite the plan recommending against them. This will be discussed when considering later plans for the park.

Interaction with local government is probably less of an issue here than with some other parks due to the short common boundary with freehold land on the Yanakie Isthmus, but the omission of any strategies on the subject is still a deficiency in the plan.

Static versus dynamic planning

The plan provides both strategic directions (ch. 4) and management objectives (CFL 1987, p. 37) which would be valid for the life of the plan but are extremely general and whose outcomes are not measurable. It also provides management strategies which should be valid for the life of the plan but, again, are very general. This means that, technically, the plan meets the criteria for planning effectiveness but the objectives and strategies are so general that they are not particularly useful and are more an expression of general principles. The management objectives and management strategies are included in the plan to indicate the underlying philosophy and broad directions for management and to provide guidance for management when circumstances change or when unforeseeable events occur. In the case of this plan they might or might not be helpful in guiding management in these circumstances.

The plan also does not address the major strategic issues of visitor numbers versus environmental impact but instead focuses on detailed environmental management, that is, a band-aid approach.

The plan sets down management actions which are derived from the management strategies. These are the things that need to be done to implement the broad strategies set down in the plan and should be able to be included in annual works programs. The actions vary considerably in their nature—many of them start with ‘investigate methods’, ‘evaluate the potential’, ‘investigate alternatives’, ‘prepare a … plan’—which means that
much of the detailed planning has not been done and is not included in the plan of management.

Here are some other examples of management actions, taken more or less at random:

(CFL 1987, p. 51) ‘Encourage research into other plant and animal species whose status and ecology in the Park are not well understood.’—a worthy objective but not a specific action with a measurable outcome.

(CFL 1987, p. 54) ‘Protect the environs of the whaling station at Refuge Cove.’—again, a worthy sentiment but it doesn’t say exactly what has to be done.

(CFL 1987, p. 58) ‘Follow established guidelines developed to prevent the spread of Phytophthera cinnamomi …’—the reader of the management plan doesn’t have a copy of the guidelines but at least this gave a positive direction, albeit without a measurable outcome.

(CFL 1987, p. 69) ‘Construct six motor huts, two of 4 beds and four of 6 beds.’—this is an action that could easily be included in an annual works program.

It is of note that, while the management actions are assigned a priority, they are not costed. All of which means that much additional work would be required before the actions could be included in a works program.

**Format, content and presentation of the plan**

The plan was written in reasonably plain English although some technical terms were used in the description of natural and cultural resources (ch. 2). There was not a strong link between the future strategic directions and the management objectives but there was a good linkage between the management issues, strategies and actions. The management actions could be considered as SMART as they were mostly specific and measurable. Priorities were also given to the management actions. Management actions were not costed. There was no coordinated strategy for nature conservation.
Chapter 7

An implementation strategy was not included in the plan although it could be argued that the management actions with priorities constitute such a plan, and an implementation plan may have been produced later.

Evidence-based planning

It is unclear whether issues papers with options for management were produced.

Public consultation and involvement

The plan stated (CFL 1987, p. 2) that a draft plan was released in January 1986 and that 134 written submissions were received. It also indicated that (CFL 1987, p. 2) ‘Discussions were also held in the Park and with interested groups in the local community.’ As park management plans go, this indicates a very high level of interest from the public. There was no mention of, for example, issues papers or public meetings but the level of public consultation could be considered normal for that time.

An interesting aspect is that the plan acknowledged that a number of submissions (CFL 1987, p. 2) ‘… contained valuable information and ideas that have been incorporated into this Plan.’ This indicated that public comments had been taken seriously and that the final plan had taken them into account.

Audit and monitoring

The plan provides for further research, survey, monitoring and other studies (CFL 1987, pp. 103-106), however it remains silent on the process to review the plan and on how long the plan will be valid. By implication, it would be valid until a new plan is produced. There is no mention of an adaptive management approach whereby the results of monitoring are fed back into the on-going planning and management processes.
Assessing the outputs from the planning process

Issues papers for public comment

It is unclear whether issues papers with options for management were produced.

Draft management plan

A draft management plan was prepared and released for public comment. It is not known whether it contained options for management.

Final management plan

A final management plan was prepared and released.

Further planning studies

There was a comprehensive chapter on further studies (ch. 11). It was not clear whether these studies would be publicly available or subject to public comment.

Implementation

The plan did not contain an implementation plan but did allocate priorities to the management actions and there is a comprehensive chapter (ch. 11) on further studies.

As indicated above, many of the management actions are written in such a way that they could not be implemented immediately. It is also clear that, despite the statement that a lot of research and survey information was available (CFL 1987, p. 7), there was a perception that good planning and management required more studies. Further research and survey work was recommended in 58 management actions and the requirements for further studies were summarised in chapter 11 (CFL 1987, pp. 103-106).

On this basis one can conclude that much of the plan would be difficult to implement without considerable further work.
Because many of the management actions are vague and are not costed it is almost impossible to estimate what resources would be needed to implement the plan and how long it would take. The plan includes a chapter (ch. 10, pp. 97-101) on *management resource requirements*—this is not done in later management plans. This chapter lists existing staff, buildings and vehicles and plant, and makes recommendations for additional personnel, a new staff structure and additions and replacements for buildings.

Again, these proposals are not costed and their connection with the management actions is not entirely clear. The conclusion must be that the nexus is not strong between what is said in the plan and its development as an operational program and that much additional work would be required to bring the plan to fruition.

**Assessing the outcomes of the planning process**

At this distance in time—23 years at the time of writing—assessing the outcomes of the 1987 plan is very difficult. It is also unclear whether the survey, monitoring and research needed to establish outcomes was completed, and the reports of work that was done are difficult to access. As a result, the comments below are somewhat conjectural and not as precise as I would have wished.

**Natural values management**

It is clear from the plan that a formal vegetation condition assessment had not been undertaken at the time the plan was produced but there was a species list, and rare and unusual species were also listed. It noted that there had been impacts on the vegetation through various activities but did not quantify the impacts. Similarly, there was a fauna species list including rare and uncommon species but no indication of abundance.

There was little information on water and soils and no information on habitat fragmentation, introduced plant and animal species, and pathogens. Thus, there was no firm baseline for measurement of change.

Ten years later, the 1997 management plan (Parks Victoria 1997a) did not include any discussion of changes to flora, fauna and other natural values since the 1987
plan. What had been done, however, was the production of a conservation strategy for the northern section of the park which addressed changes in the ecology of this section of the park (Chesterfield & Whelan 1995a, 1995b). It could be argued that this was an outcome of the 1987 plan although there is no firm evidence to support this conclusion.

Cultural heritage management

The plan indicates that the archaeology of the park had been examined in detail and that a detailed survey of Aboriginal, historical and maritime archaeological sites was being undertaken (CFL 1987, p. 18). These studies were expected to yield significant new information about the cultural resources of the park (CFL 1987, p. 54). A list of historic sites was given (CFL 1987, p. 19).

The 1997 management plan stated that (Parks Victoria 1997a, p. 14):

Local Aboriginal communities are active in establishing cultural and spiritual links with the Park and in undertaking Park management activities under contract.

This is definitely a positive outcome, but unfortunately it is not an outcome of the 1987 plan, as indigenous involvement in the park was not mentioned in that document. Involvement of the indigenous community will have been the result of other government policies and programs. Other than this, the 1997 plan does not mention improvement or deterioration in the condition of cultural heritage sites.

Recreation, tourism and visitor management

As one would expect, recreation, tourism and visitor management feature largely in the plan. The plan sets down future strategic directions in its Chapter 4 and management strategies and actions in its Chapter 8. The thrust of the management directions was to maintain the park’s high attraction for recreation and tourism without comprising its high conservation significance.

Measuring the outcomes for recreation, tourism and visitor management should, at least in theory, be relatively easy as it involves infrastructure and programs. Unfortunately, although some of the management prescriptions are specific and measurable (CFL 1987, p. 69) ‘Construct six motor huts …’, others are somewhat
vague (CFL 1987, p. 71) ‘Investigate speed limits for Tidal River …’ This makes the assessment of outcomes more difficult.

There is no evidence in the 1997 management plan (Parks Victoria 1997a) or the 1997 master plan for Tidal River (Parks Victoria 1997b) that a systematic review of the implementation of the 1987 plan was undertaken, indeed the 1987 plan was not mentioned in either of these documents.

An example of plan implementation that can be measured was camping capacity. In 1987 there were approximately 500 unpowered camping sites at Tidal River (CFL 1987, p. 67); the plan indicated that this number would be retained (CFL 1987, p. 68). In 1997 there were 480 campsites and a small increase in lodge accommodation (Parks Victoria 1997b). This indicates that the 1987 policy was adhered to.

For most of the issues listed in the 1987 plan one would have had to conduct detailed interviews with staff and gain access to Parks Victoria files to make an assessment of outcomes.

Community involvement

Again, it is a difficult to measure outcomes for this issue. There is some evidence regarding volunteer programs. The 1987 management plan notes that (CFL 1987, p.66) ‘… volunteers make valuable contributions in finances and labour towards the maintenance, protection and development of parks’ and had as a management strategy ‘Encourage participation of volunteers …’ The 1997 plan noted the involvement of a wide range of community groups in management of the park (Parks Victoria 1997a, p. 40).

7.4.5 Conclusions

As I indicated above, this plan is likely to be a good example of the planning process used at the time. The park was one of the most heavily used in the State and there was a great deal of public interest in its management, therefore it is probable that the plan of management would have been given some priority and that the Minister would have taken an interest in the process and outcomes.
The summary of proposed management actions given above indicates that many of these actions document ongoing work and that there are few initiatives proposed. The plan is also heavily loaded with recommendations for further research and investigations, that is, much of the detailed planning had not yet been done. It is legitimate for a management plan to set in train investigations where there has been insufficient time to complete them during the preparation of the plan, but it is a concern if the plan contains a large proportion of recommendations for further work and few concrete proposals. This indicates inadequate planning at the time and that later work would have to be done without public involvement and scrutiny.

The principal issue facing the park appeared to be the increasing demand for recreation use and the capability of the Park to cater for it, but the plan did not really come to grips with this issue. It retained the same number of camping sites at Tidal River and added no significant controls on day visitors. It made only minor changes to management of bushwalking and boating.

The strengths of the plan and the process were:

- public consultation was reasonably comprehensive
- it included long-term objectives and strategies
- it included shorter-term management actions
- there was a comprehensive program of follow-up research, survey and monitoring.

The weaknesses of the plan were:

- the plan did come to grips with the big strategic issues such as the level of visitor use and its environmental impact
- although the plan stated that it was prepared for park managers, the management actions were often vague and were not costed, and considerable additional work would have been required to bring the plan to the point where it could be implemented
• solutions to many management issues were not given in the plan and were, instead, referred to further studies
• it was prepared in isolation from regional and local government planning
• there was no provision for review or adaptive management.

The assessment of the inputs to the planning process, the planning process itself and the outputs from the planning process was reasonably successful but was incomplete as no information was available for many issues. Assessment of the outcomes of the planning process was inconclusive as there was little information available on which to base the assessment. A meaningful assessment of outcomes would have required a great deal of additional work and access to departmental records, and even then may have proved to be difficult due to the apparent absence of an implementation review.
8

CASE STUDIES: Part 2

8.1 Introduction

This case study examines the 1997 Management Plan for Wilsons Promontory National Park (Parks Victoria 1997a) and the 1997 Master Plan for Tidal River (Parks Victoria 1997b). The respective draft plans (NRE 1996a, NRE 1996b) are not examined in detail, instead, the changes between the draft plans and the final plans are discussed as an example of how protected area planning was done in practice.

By 1995 the political situation had changed significantly, the coalition Kennett Government had come to power in October 1992 and had different views from the previous government on how national parks should be managed and developed. This government believed in commercial development in parks and this set the scene for a major confrontation with sections of the public focussed on the draft and final management plans for Wilsons Promontory. The Kennett Government was re-elected in March 1996 and the Victorian National Parks Association reported in May 1996 (VNPA 1996a) that the government had moved quickly to establish the Department of Natural Resources and Environment to incorporate the former Department of Conservation and Natural Resources and other departments. The National Parks Service was abolished in December 1996 and was incorporated in the new organisation Parks Victoria (VNPA 1997a).

The Victorian National Parks Association and other conservation organisations mounted a ‘Hands off the Prom!’ campaign in December 1996 (VNPA 1996b)—immediately after the release of the draft Management Plan for the park and draft Master Plan for Tidal River —protesting about the proposed commercial developments in the park. In December 1996, nearly 2000 people gathered at Tidal River to protest against commercial developments (VNPA 1997b). Figure 8.1 shows the campaign slogan formed by lines of protesters on the beach at Tidal River. In May 1997 it was reported that a petition with 45 368 signatures was

These matters cast a cloud over the planning process.

Figure 8.1   Protesters at Tidal River – December 1996

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Source: VNPA 1997b.

According to the plan, visitor pressure and day-to-day management seemed not to have changed greatly since 1987—there were about 400 000 visitor-days per year (Parks Victoria 1997a, p. 1) and Tidal River still absorbed the majority of these visitors. This represented about 200 000 visitors every year.

A major difference from the 1987 management plan was that a Master Plan for Tidal River (Parks Victoria 1996b, 1997b) was developed in parallel with the
management plan for the park and was undertaken by a separate planning team. The Wilsons Promontory Lighthouse Reserve, on the South-east corner of the peninsula, at that time was not part of the park and was also not included in the management plan for the park. There was a good reason for this, there were plans afoot for a major resort at Tidal River and for commercial development at the Lighthouse Reserve. It would appear that the government had adopted a strategy where, by having separate plans for these areas, development could be undertaken at the two sites but it could be argued that the park remained undeveloped. Discussion of these issues falls outside the scope of this thesis but the planning implications are discussed below.

It is of interest that the Foreword to the management plan by Minister Tehan emphasised the importance of this park in the system of protected areas in Victoria but did not refer to the environmental impact of visitor use or to threats from development as the earlier plan had done (Parks Victoria 1997a, p. iii).

It should be noted that I was the principal consultant for preparation of the management plan for the national park. While this constitutes an ‘interest’ I do not believe that my commentary is prejudiced. I will leave it to the reader to judge.

8.2 Format and content of the 1997 management plan

The plan (Parks Victoria 1997a) was a document of 48 pages. It comprised:

- Introduction
- Strategic Directions
- Resource Conservation
- Park Protection
- The Park Visit
- Community Awareness and Involvement
- Other Issues
- Implementation
- five Tables
two appendices (lists of rare and threatened flora and fauna)

• six Figures

• References.

This plan had a significantly different format from the 1987 plan, it was less than half the length, omitted much of the resource information but incorporated new material. It should be noted that the draft and final management plans were written in accordance with the 1995 Parks Victoria guidelines (CNR 1995) as discussed in Section 2.4.3. This meant that the plans had to conform to a well-defined structure and contained much standard text.

The *Introduction* (Parks Victoria 1997a, pp. 1-4) gave the location and other details, a regional context, a statement of significance, details of its declaration, the legislative background and the management aims which were derived from the National Parks Act. This section put the park in a geographical and legislative context and was more comprehensive than the earlier plan.

The *Strategic Directions* (Parks Victoria 1997a, pp. 5-7) were again more comprehensive than the earlier plan with a *park vision*, more detailed management directions and a zoning plan. The park vision was a short statement on the style of management and the condition of the park, in say, 20 years in the future. It was intended to be a word picture of the outcomes of the management directions and strategies given in the plan.

The zoning plan (Parks Victoria 1997a, pp. 6-7) (Figure 8.2) was a much simpler arrangement than the 1987 plan. The names of the zones had changed but the intent was broadly similar. The 1997 plan designated 43% of the north-east of the park as *wilderness zone* with most of the remainder of the park being designated *conservation zone*. Intensive recreational development was still concentrated at Tidal River, there were still *reference areas* and an *education zone* was added. The simplicity of this zoning plan may have aided management and would certainly be more intelligible to the public than the earlier version.

*Resource Conservation* (Parks Victoria 1997a, pp. 8-16) was the chapter which describes proposed management for research and monitoring, geological and
Figure 8.2 Management zones in the 2002 management plan

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landform features, rivers and catchments, vegetation, fauna, landscape, and cultural heritage. Each section had a set of short statements to introduce issues followed by a set of Aims and Management strategies. The introductory statements were the only place in the plan where background information is given and this was one of the major differences from the 1987 plan.

Park Protection (Parks Victoria 1997a, pp. 17-20) described proposed management for fire management, pest plants and animals, and diseases, and soil conservation. It had a similar layout to that used in the Resource Conservation section.

The Park Visit (Parks Victoria 1997a, pp. 21-39) described proposed management for the park visitor, visitor recreation activities and facilities, visitor information and interpretation, privately operated tourism services and public safety. It had the same layout as earlier sections.

Community awareness and involvement (Parks Victoria 1997a, pp. 40-41) dealt with Friends and volunteers, community awareness and park neighbours and schools education with the same format.

Other issues (Parks Victoria 1997a, pp. 42-43) dealt with authorised uses and boundaries and adjacent uses with the same format.

Implementation (Parks Victoria 1997a, p. 44) indicated that a three-year implementation plan would be prepared for the park but gave no further details. It included a table Priorities for Management which did not, in fact, assign priorities but only references the major management directions.

8.3 Proposed management of the park

It is immediately apparent that this plan contained many initiatives and changes in management compared to the 1987 plan. The plan appeared to be a genuine attempt to come to grips with the major management issues for the park, i.e. engagement with the Aboriginal community, ecological management, better recreational opportunities, improved wilderness management, better facilities at Tidal River and putting a cap on visitor numbers and their impact. Unfortunately,
these initiatives were overshadowed in the eyes of many in the community by the
government proposals for commercial development. A summary of management
strategies is given at Appendix 11.

The key strategies contained in the management plan were stated in a fact sheet
from Parks Victoria (Parks Victoria 1997c, pp. 1-2):

- More systematic and active ecological management by extending the existing
  Conservation Strategy for the northern sector to the rest of the park, in
  consultation with the scientific community.

- Establishment of a Centre of Excellence in Park Management linked to research
  institutions, with any required buildings located at the Yanakie gateway.

- An ongoing program of burning to promote the growth and diversity of
  vegetation and fauna, and to reduce invasion of the park’s important heathland by
  fire-sensitive plant species.

- Restoration of grassland/woodland and forest in the vicinity of the airstrip by
  reducing the impact of grazing species such as kangaroos.

- Stronger environmental management programs at Tidal River to re-establish
  native vegetation throughout the campground, improve waste handling and
  control weeds and pests in co-ordination with pest control in the rest of the park.

- The establishment of the Yanakie gateway to the park as the prime location for
  visitor orientation and information, a “first night” camp for overnight walkers,
  staff housing, management support facilities, and for any future visitor
  accommodation additional to the capacity limits set for Tidal River.

- Development of a spectacular Great Prom Walk for both independent and guided
  walkers. The walk will extend from the Yanakie gateway to the lighthouse, and
  will take in the existing Sealers Cove/Refuge Cove/Waterloo Bay circuit as well
  as a new section of track from Waterloo Bay to the lighthouse. Comprehensive
  restoration of existing walking tracks will also be carried out.

- Establishment of a guided walking operation between Tidal River and the
  lighthouse with an overnight hut in the vicinity of the existing Halfway Hut and
  walker accommodation at the lighthouse.

- Conversion of the lighthouse vehicle track, south of Halfway Hut, to a walking
  track capable of providing for periodic re-supply of the lighthouse by motor bike.
Disused vehicle tracks in the Wilderness Zone in the north of the park will be revegetated completely or reduced to walking routes.

- Construction of new short walking tracks linking Lilly Pilly Gully and Mt Oberon to Tidal River.

- A major upgrade of the visitor facilities at Tidal River with a cap on the overnight capacity at 4,000 people. Additional roofed accommodation in the current style will be developed and be off-set by a 10% reduction in campsites. Communal facilities such as the visitor centre, the café food service, and arrival and picnic areas for day visitors will be improved.

- An increased program of identification, protection and interpretation for Aboriginal sites of importance.

- The Five Mile Road will eventually be closed and rehabilitated, retaining access for walkers only.

- All other vehicle tracks in the Wilderness Zone will be closed and rehabilitated.

Almost all of these initiatives can be seen as progressive in terms of ecological management and visitor amenity. The exception was the proposal for guided walking and associated commercial accommodation.

### 8.4 Changes to the draft management plan

Examination of the changes made to a draft plan—following public comments—to produce the final plan can be instructive. It demonstrates how planning is undertaken in practice, as distinct from theory, and also indicates how park management agencies, and governments, respond to vigorous public comment. That is, whether they respond to public comment or ignore it.

Preparation of the 1997 plan of management followed a process adopted by many agencies; a draft plan was prepared, public comment sought on that document and then a final plan released. Work on the draft management plan commenced in 1995 and the draft plan was released in October 1996. Following a two-month public comment period the plan was revised and the final, approved, plan was released in July 1997. As noted earlier, there was intense public interest in the draft plan and 3256 submissions were received. There is no publicly available
summary of those submissions or records of the decision-making process so one must look for other evidence to determine what happened in the planning process.

The draft and final plans were produced in the same format so a comparison has been made of any major differences between the plans and tabulated below (Table 8.1).

Table 8.1 Major changes between the 1996 draft management plan and the 1997 final management plan

<table>
<thead>
<tr>
<th>Section of the 1997 plan</th>
<th>Changes to the draft plan</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Location and planning area</td>
<td>Addition—notes that the plan does not cover the Lighthouse Reserve</td>
<td>This was probably just an omission from the draft.</td>
</tr>
<tr>
<td>1.5 Legislation, LCC recommendations and guidelines</td>
<td>Addition—LCC special investigation of marine and coastal areas</td>
<td>This brought the plan up to date.</td>
</tr>
<tr>
<td>2.2 Management directions</td>
<td>Deletion—additional walking tracks in the southern section of the park.</td>
<td>See 5.2.7 in this table.</td>
</tr>
<tr>
<td>2.3 Zoning</td>
<td>Amendment—the Tidal River road changed from Conservation &amp; Recreation Zone to Conservation Zone.</td>
<td>This resulted from a general misunderstanding of the original zoning in submissions from the public. See note 1.</td>
</tr>
<tr>
<td>3.1 Research and monitoring</td>
<td>Deletion—details of the development of the Centre of Excellence have been made more general.</td>
<td>The words on timetable, location and resourcing were deleted. See note 2.</td>
</tr>
<tr>
<td>3.3 Rivers and catchments</td>
<td>Addition—water supply at Tidal River and water quality monitoring are given more emphasis.</td>
<td>This corrected a deficiency in the draft plan.</td>
</tr>
<tr>
<td>3.5 Fauna</td>
<td>Addition—management of the Hog Deer, and the introduction of speed limits to reduce road kill.</td>
<td>This corrected omissions in the draft plan.</td>
</tr>
<tr>
<td>Section of the 1997 plan</td>
<td>Changes to the draft plan</td>
<td>Comments</td>
</tr>
<tr>
<td>--------------------------</td>
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</tr>
<tr>
<td>3.7 Cultural heritage</td>
<td>Addition—referred to the Native Title claim.</td>
<td>This brought the plan up to date.</td>
</tr>
<tr>
<td></td>
<td>Addition—new material regarding European heritage.</td>
<td>Fine tuning of text. See note 3.</td>
</tr>
<tr>
<td>4.2 Pest plants and animals, and diseases</td>
<td>Addition—mention of Rabbit Calicivirus.</td>
<td>This brought the plan up to date.</td>
</tr>
<tr>
<td></td>
<td>Addition—environmental weeds at Tidal River and feral cat program</td>
<td>This corrected omissions in the draft plan.</td>
</tr>
<tr>
<td>5.1 The Park visitor</td>
<td>Addition—development of serviced and guided walking operations listed as a major initiative.</td>
<td>This management strategy was included in the draft plan but was now given more emphasis.</td>
</tr>
<tr>
<td></td>
<td>Deletion—‘Ensure that management of the park and provision of visitor services is consistent with best practice.’</td>
<td>This strategy was relatively meaningless.</td>
</tr>
<tr>
<td></td>
<td>Deletion—‘Establish a program to determine appropriate levels of recreational activity consistent with protecting visitor experiences and park values.’</td>
<td>This strategy was vague and could not be measured.</td>
</tr>
<tr>
<td></td>
<td>Deletion—‘Monitor visitor numbers and use to ensure adequate provision of facilities consistent with appropriate types and levels of use.’</td>
<td>Visitor numbers should not be the sole determinant of facilities.</td>
</tr>
<tr>
<td>5.2.1 Vehicle access</td>
<td>Addition—more detail on management of the Lighthouse Track.</td>
<td>The draft plan left this issue open.</td>
</tr>
<tr>
<td>5.2.2 Tidal River</td>
<td>Amendment—descriptive material and management strategies amended significantly.</td>
<td>This section is a summary of the Tidal River Master Plan. See note 4.</td>
</tr>
<tr>
<td>Section of the 1997 plan</td>
<td>Changes to the draft plan</td>
<td>Comments</td>
</tr>
<tr>
<td>--------------------------</td>
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</tr>
<tr>
<td>5.2.3 Yanakie Gateway</td>
<td>Addition—this is a completely new section proposing re-design of facilities at the entrance to the park and transfer of staff, accommodation and works functions to that location.</td>
<td>This is a major change to the draft plan and is not a normal process. Major changes to management should normally be proposed in the draft plan and be subject to public review. See note 5.</td>
</tr>
<tr>
<td>5.2.4 Day visits</td>
<td>Amendment—the number of vehicles and visitor-days changed.</td>
<td>Presumably a factual correction—no change to strategies.</td>
</tr>
<tr>
<td>5.2.5 Outstation camping</td>
<td>Amendment—minor changes to description and strategies.</td>
<td>Fine tuning of proposals.</td>
</tr>
<tr>
<td>5.2.6 Bushwalking</td>
<td>Amendment—text and strategies regarding the Great Prom Walk transferred to new section 5.2.7.</td>
<td>No significant change otherwise.</td>
</tr>
<tr>
<td>5.2.7 The Great Prom Walk</td>
<td>Deletion—a new track between Oberon Bay and the Lighthouse.</td>
<td>Detailed investigations found that this route was not feasible due to steep terrain.</td>
</tr>
<tr>
<td></td>
<td>Deletion—hut/tent camp at Oberon Bay for commercial walking tours.</td>
<td>No explanation is given for this change. See note 6.</td>
</tr>
<tr>
<td>5.2.10 Other uses</td>
<td>Deletion—trial of hang gliding.</td>
<td>It is not clear whether this change is the result of public submissions or a review of departmental policy.</td>
</tr>
<tr>
<td>5.4 Privately operated tourism services</td>
<td>Amendment—distinguishes between a Tidal River-Lightstation operation and additional commercial operations with tent camps.</td>
<td>See note 6.</td>
</tr>
<tr>
<td>7.2 Boundaries and adjacent uses</td>
<td>Amendment—more precise strategies regarding management of the Lightstation.</td>
<td>Some useful minor additions.</td>
</tr>
</tbody>
</table>
Notes

1  My recollection is that, in the widespread public concern at the time about commercial development in the park, many members of the public took the original Conservation & Recreation zoning to mean that development might occur along the road and consequently opposed it strongly. In fact, no such development was proposed and the original zoning was meant to recognise that the road and any minor visitor facilities on its margins were not strictly compatible with a Conservation Zone. The easiest way to resolve the problem was to delete the offending Conservation & Recreation Zone and make the area on either side of the road Conservation Zone. The road itself and car parking areas remained Conservation & Recreation.

2  My recollection is that the basic concept of a Centre of Excellence was thought to be a good idea by Parks Victoria management but not enough work had been done to identify detailed management objectives and the level of resources and infrastructure needed to achieve those objectives, so the words in the final plan were softened a little.

3  This seems to indicate that the heritage experts in Parks Victoria and the Department of Natural Resources and Environment may not have looked at this section of the plan carefully when the draft plan was being prepared and were taking the opportunity to re-write this section before the document was finalised.

4  My recollection is that the planning team for the park did not have a major role in developing this proposal. The text was, in fact, developed by the planning team writing the master plan for Tidal River. The changes will be discussed in the section below dealing with the Master Plan.

5  My recollection is that this change to the draft plan was the result of a direction from Parks Victoria and was not a proposal from the park planning team.

6  The provision of huts or tent camps was a particularly contentious aspect of the commercial walking tours proposal. Why the Oberon Bay site was deleted from the final plan is not clear, nevertheless the plan still held open the possibility of commercially operated removable tent camps in the southern part of the park (Parks Victoria 1997a, p. 38). Leaving such an important issue unresolved in a final plan can only be regarded as bad planning.
It is also not clear why the guided walk to the lighthouse and guided walks using tent camps were separated. This was a direction from Parks Victoria head office. None of the proposals for commercial operations in the draft plan were put forward by the planning team, they were inserted by Parks Victoria.

An examination of Table 8.1 reveals two important issues—that there were very few major changes to the plan considering the level of public interest in the draft plan and strong criticism of some aspects of it, and that completely new material was included in the final plan.

Almost all of the changes to the draft plan were refinements and bringing the text up to date. The only place where the final plan appeared to acknowledge public comment was in the amendment of the zoning plan and this was largely a misunderstanding of the intent of the draft plan. It is unclear whether the deletion of the hang gliding trial, deletion of a hut/tent camp at Oberon Bay and deletion of the Oberon Bay-Lightstation track was the result of public submissions or simply a change of policy by Parks Victoria. My recollection is that the Oberon Bay-Lightstation route decision was almost certainly the result of more detailed survey work which indicated that the proposed walking track was not feasible due to the terrain.

Introduction of new material in the final plan—the Yanakie Gateway and relocation of staff and infrastructure, and amendment of management strategies for Tidal River—is an unusual practice. There appear to be two normal approaches to this issue, either:

(a) extensive public consultation is done before and during preparation of the draft plan so that most or all of the contentious issues are sorted out before the draft plan is released and only fine tuning is required for the final plan and, consequently, no major initiatives are introduced in the final plan; or

(b) some consultation is undertaken during preparation of the draft plan but the main input from the public is in the form of written submissions on the draft plan and opinions voiced at any public meetings or other consultation. This could result in major changes to the draft plan but those changes should be able to be related to the public comment received.
The planning process for this plan doesn’t appear to have followed either procedure. While there was public consultation during preparation of the draft plan a number of the strategies in the final plan were not stated or discussed, so the process doesn’t fall within category A. There were a large number of submissions on the draft plan—many of them critical—but it would appear that no major changes were made as a result of these submissions, so it doesn’t fall within category B either. However, new material was introduced in the final plan, notably the Yanakie Gateway, and it would appear that senior management in Parks Victoria decided not to abide by normal planning procedures and changed its policy at this late stage. This, of course, had the disadvantage of exempting the proposal from public scrutiny and comment.

The changes to the draft plan regarding management of Tidal River flowed from the Tidal River Master Plan which is discussed below.

### 8.5 Analysis of planning effectiveness

The following analysis of the 1997 management plan is based on the draft criteria for effectiveness in management planning developed in Chapters 5 and 6.

#### 8.5.1 Assessing the inputs to the planning process

**Adequate legislation**

This plan was a considerable improvement on the 1987 plan and had a new section titled *Legislation, LCC recommendations and guidelines* which detailed additional statutory requirements and the recommendations made by the Land Conservation Council.

The plan provided a summary of the relevant legislation, LCC recommendations and other plans and guidelines which applied to the park—these matters were not included in the 1987 plan. The primary legislation, the National Parks Act, still gave little or no guidance on the content, form or process for preparing the management plan. It had a requirement to prepare a management plan but:

- did not specify principles for planning
• did not specify the planning and approvals process
• did not specify the extent of public participation
• did not specify the life of the plan
• provided objectives for management only in the Objects of the Act
• did not provide priorities for management actions
• may not have been based on modern concepts of sustainability, transparency and social justice

Adequate guidelines for preparing the plan

This plan was based on quite detailed guidelines (CNR 1995). As discussed in Section 2.4.3, the guidelines had detailed prescriptions for plan content and the planning process and large amounts of standard text were required to be included in the plan. nevertheless, the guidelines had significant deficiencies as discussed earlier.

Adequate information on natural and cultural values, and recreational activity

The plan said very little about the adequacy or otherwise of the information from which the plan was prepared other than that (Parks Victoria 1997a, p. 8) ‘There is a substantial body of research work on the Park …’ The Research and monitoring section noted the need for a systematic monitoring system to enable improvement of management techniques and proposed as a high priority (Parks Victoria 1997a, p. 9) ‘… a GIS based quality baseline data collection and environmental monitoring program.’ This implied that the existing information base and methods of data collection were in need of improvement but did not say if this caused problems in the planning process. The plan also made passing reference in other sections of the plan to monitoring and collection of information but they did not appear to have a very high priority. From this, one can conclude that either the available information was adequate for writing this style of plan—that is, one with fairly general management strategies—or that the planning was based on experience rather than science—that is, experience-based rather than evidence-based decision making (see Section 2.13). From the available documentation it is difficult to say which one applies.
My view, as a participant in the planning process, is that the information base was adequate but that it could have been used more effectively in the preparation of the plan.

This plan introduced decision support systems for the first time in these case studies. There is a brief discussion on decision support systems in Section 2.13. These systems provide input to management in addition to the strategies found in the management plan.

Table 8.2   Decision support systems recommended in the 1997 management plan

<table>
<thead>
<tr>
<th>Environmental Management Plan</th>
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<tbody>
<tr>
<td>This was intended as a vehicle (p. 8) ‘… for the introduction of ecological principles for the management of fire and … prescriptions for the conservation of native flora and fauna and the management of pest plants and animals.’ It was to be based on an earlier draft Conservation Strategy (Chesterfield &amp; Whelan 1995a, 1995b) but unfortunately few details are given on the nature of this work other than that fire history and land systems were included. The problem is compounded by the draft Conservation Strategy being unpublished at the time. It is unclear what the outputs of the proposed Environmental Management Plan would be and how they would be applied to management practices.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Geographical Information System (GIS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>As noted above, the plan stated that (p. 9) ‘Monitoring is an important tool in determining whether changes which occur are the result of natural processes or are human-induced.’ and proposed the introduction of a GIS based data collection and monitoring program. The use of GIS is now commonplace in environmental management but apparently wasn’t at that time, at least within Parks Victoria. This was an important development and marks a shift towards computer-based data storage and management systems.</td>
</tr>
</tbody>
</table>

Adequate resources to prepare the plan

There is no information available to the public on this matter however, because of my involvement in the planning, I can make some comment. The planning consultant team comprised two people with extensive experience in park planning and management. They were supported by two academic specialists. There was extensive interaction with the park staff and technical specialists from the Parks Victoria head office. The Ranger-in-charge and the Chief Ranger devoted a considerable amount of their time to the project. I believe that this indicates that there were adequate resources available to prepare the plan.

A commitment by senior management to the planning process

It is difficult to make a judgement on this matter because of the peculiar circumstances surrounding the plan. On the positive side, planning for the national park was strongly supported at Chief Ranger and Ranger-in-charge level. On the negative side, planning for Tidal River and the Lighthouse Reserve was divorced from planning of the remainder of the park from the beginning, proposed commercial development proposals were imposed from above and significant changes were made to the plan by Parks Victoria head office before the final plan was published. I must emphasise that none of the ‘negative’ actions were illegal or improper, it is the prerogative of the management agency to amend a plan as it sees fit before it presents it for approval by government. Nevertheless, my judgement is that it was a poor planning process and that the process was manipulated for political purposes.

There is no documentation available to show whether there was a clear link between the management plan and implementation and annual works plans.

8.5.2 Assessing the planning process

Intended audience and function

As noted elsewhere, the 1995 Parks Victoria guidelines for producing management plans stated that the plan was (CNR 1995, p. 1) ‘… both a public document and a working document for Departmental staff’. This was reflected in
the text of the plan which was written in plain English with a minimum of technical terms. The management strategies—equivalent to the management actions in the earlier plan—were often fairly general but were obviously intended for park management as well as informing the public.

**Relationship to local government and other planning**

The plan addressed the same geographical area as the 1987 plan, other than a minor recalculation of area. A significant exception was that the 1997 plan did not cover Tidal River—this was dealt with in the concurrently produced Tidal River Master Plan (Parks Victoria 1997b) —or the Wilsons Promontory Lighthouse Reserve.

Not including the Lighthouse Reserve in the management plan seems odd, to say the least. At the time of the 1987 plan the Lighthouse Reserve was Commonwealth land and not part of the park so it could not, legally, be included in a Victorian plan of management. By the end of 1995, however, when preparation of a revised plan had commenced, the land had passed from the Commonwealth to the State government (Parks Victoria 1997a, p. 42). It was not part of the park but reserved under the *Crown Land (Reserves) Act 1978* and managed by Parks Victoria. Unlike the National Parks Act, the Crown Land (Reserves) Act does not have a requirement for management plans.

The lighthouse had always been a favoured destination for walkers and, with the reserve passing to Parks Victoria for management, one might have expected that the land would be incorporated in the park. Functionally the land was part of the park, management was the responsibility of the same agency so there was no technical reason why it should not be included in the 1997 plan.

All that the management plan indicated (Parks Victoria 1997a, p. 42) was that management of the Lighthouse Reserve would be guided by the conservation plan prepared by the Commonwealth Government (Australia Construction Services 1993), that it would be managed (Parks Victoria 1997a, p. 43) ‘… in harmony with the adjoining park’, and that management and development ‘… is consistent with the Conservation Plan and does not impact on park values.’ This did not say a great deal.
The only other clue to future management of the Lighthouse Reserve was a short section in the management plan which stated (Parks Victoria 1997a, pp. 42-43):

The use of the Light station and Reserve as part of the guided walk will foster public access and appreciation, and with any revenue generated contributing to the long-term conservation of the site.

This venture will provide the necessary walker accommodation to support the proposed guided walk …

Servicing of the Lightstation will be by air or sea wherever practicable, although visitor access will be on foot through the Park.

Segregating the planning of Tidal River from planning for the national park was even more strange. Tidal River is part of the park and is the focus of most visitor activity but a separate planning team produced the Tidal River Master Plan (Parks Victoria 1997b) and only a summary of its proposals were included in the park management plan. There is no justification given in either plan for this course of action. The content of the Master Plan is discussed below.

In my view the omission of Tidal River and the Lighthouse Reserve from the management plan for the park represents poor planning practice as it fragmented the public consultation process as well as the planning process itself.

Unlike the 1987 plan, the 1995-97 plans addressed regional issues and local government planning; this was a considerable improvement on the earlier plan. There was a new section Regional context (Parks Victoria 1997a, p. 1) which placed the park in a regional tourism and employment context. The management strategies for visitors included (Parks Victoria 1997a, p. 22) an input to a regional tourism strategy, co-operation with the tourist industry in the region, a study of the social and economic benefits of the park to the State and Region and (Parks Victoria 1997a, p. 29) liaison with the local tourism industry in the development of a ‘park full’ strategy. It also included a new section on Community awareness and Park neighbours (Parks Victoria 1997a, p. 40-41) which included strategies on liaison with local community groups and landowners, applying the ‘Good Neighbour Policy’ to management issues on the park boundaries and liaison with
the Gippsland Aboriginal community. The plan also recognised local government where it proposed involvement in local government planning with a view to (Parks Victoria 1997a, p. 43) ‘… minimising adverse effects of private land developments on Park values.’

**Static versus dynamic planning**

The strategic section of the plan (Parks Victoria 1997a, pp. 5-7) began with a Park Vision which, as noted elsewhere, was a view of park management at some time, say 20 to 30 years, in the future. This particular park vision painted an encouraging picture of a well managed park but was couched in very general terms. This section may have held some meaning to members of the public but it is hard to see how it would have helped to guide park managers when dealing with major issues. The management directions (Parks Victoria 1997a, pp. 5-6) gave a summary of the major initiatives in the plan but did not add new material to that given in the body of the plan. The zoning plan was—at least potentially—a powerful tool for guiding long-term management.

The following five chapters of the plan contained aims and management strategies, many of which were directed at the long-term. Here are examples of some of the long-term management strategies:

(p. 9) ‘Establish formal links with other Biosphere Reserves, both in Australia and overseas, and develop co-operative programs with other agencies.’—this does not have a time frame but is a major management direction with a measurable outcome.

(p. 12) ‘Protect and preserve vegetation communities and species in accordance with the Environmental Management Plan … and implement the results of relevant research.’—this takes a long-term view but does not have measurable outcomes, especially as the details of the Environmental Management Plan are not clear.

(p. 14) ‘Minimise the visual intrusion of infrastructure at Tidal River.’—this is a long-term action but is so vague as to have little meaning.
(p. 15) ‘Formalise a consultative process with the Aboriginal community, and support Aboriginal cultural activities in the Park.’—this doesn’t have a time frame either but it is a good, strong management direction.

(p. 22) ‘Provide and maintain facilities and services which highlight, but are in keeping with, the area’s distinctive character…’—this is so vague that it is hard to know what it means.

(p. 25) ‘Prepare a traffic management strategy for the Park, with particular attention to Tidal River.’—this is a strategic proposal whose outcome is measurable but it raises the question of why this strategy was not prepared as part of the management plan.

It is clear that the long-term management strategies were a mixture of those that are clear and measurable, and those that were well-meaning, vague and not very useful in guiding management. The latter represented a major deficiency in the plan.

None of the more detailed management strategies were assigned a priority, given a timetable or costed. This means that much additional work would have been required before any of the strategies could have been included in an annual work program. There was also no indication in the management plan of how this additional planning would be done. Some examples follow of the type of short-term strategies included in the plan.

(p. 9) ‘Establish a Centre of Excellence for Park Management with links to major research institutions and with facilities for training park managers from Victoria, interstate and other countries.’—this was a major initiative and its origins and intentions were explained, albeit briefly, in the text. It was a measurable action, that is, the Centre would either be established or not established, but no timetable was given. This is excusable as the text indicates that further work was required to establish management objectives and resources required. The proposal could, however, be incorporated in a work program. It is unfortunate that more of the planning on this issue could not have been done at the time of the
In general terms, the management strategies in this plan were reasonably precise and could be incorporated into annual works plans. The main deficiency was the lack of priorities, timetables and cost estimates. There must have been some organised system at the time to develop the strategies into works programs but the plan was silent on the matter.

Like all other management plans from Parks Victoria at the time, this plan did not allow for changing environmental conditions or unforeseen events.

**Format, content and presentation of the plan**

The plan has both good and bad aspects. It was written in plain English and the layout was logical with a brief description of issues to provide context followed by aims and management strategies. There was a reasonably clear linkage between the descriptions, aims and management strategies. The link between the Park vision and the aims and management strategies was less clear.

The management strategies are variable in their degree of precision, see the examples given above under *Static versus dynamic planning*. Generally, many...
were specific and measurable. Unfortunately, the plan did not cost the strategies or give them priorities and the section on implementation only said (Parks Victoria 1997a, p. 44) ‘A three-year rolling implementation program will be prepared for the Park to ensure efficient implementation of this Plan.’ but gave no further details.

A major omission of management plans of this era was the lack of a coherent strategy for nature conservation which is odd considering that this is one of the core purposes of protected areas. Instead, the management strategies for nature conservation were fragmented under themes such as vegetation, rivers and catchments and fauna.

**Evidence-based planning**

The management plans did not describe the process by which they were prepared other than indicating that a draft plan had been released for public comment (Parks Victoria 1997a, p. iv). All of which makes it difficult to assess how the planning was done and whether the process was adequate.

The draft management plan (Parks Victoria 1996a) did not present options for management but did leave the outcome of some issues subject to further technical investigation, for example (Parks Victoria 1996a, p. 29):

Subject to investigation of the feasibility of new tracks and campsites and assessment of environmental impact, develop a world-class long-distance ‘Great Prom Walk’.

My personal archives show that comprehensive issues papers containing options for management were prepared but were used only in internal discussions and were not released to the public.

**Public consultation and involvement**

The statutory statement at the beginning of the 1997 plan states (Parks Victoria 1997a, p. iv) that a draft plan was released in October 1996 for a two-month public comment period and that 3 256 submissions were received. Other than that there is no further comment on the public consultation process. One would have thought
that with such a high profile park there might have been press releases and issues papers released, discussions with key interest groups and public meetings but there is no mention of such consultation in the management plan.

My recollection, supported by notes taken at the time, is that additional consultation did, in fact, occur with interest groups and other agencies. The notes indicate that letters were sent to approximately 68 organisations and individuals in late 1995—as the draft plan was being prepared—seeking input to the planning process. Consultation included:

• organisations providing services in the park
• university researchers
• apiarists
• tourist associations and operators
• local government
• non-government conservation organisations
• regional recreation and interest groups
• State government authorities
• the Aboriginal community

This resulted in written submissions, telephone conversations and meetings with some of the interested parties. This provided a useful input to the preparation of the draft plan.

My notes, taken at the time, also indicate that discussion papers were prepared giving a comprehensive review of issues and options for management. However, these discussion papers were not released to the public but were used in discussions between the planning team and park managers. One of the Parks Victoria officers interviewed for the thesis (Chapter 10) indicated that issues papers for public comment were prepared very early in the planning process and that there were focus groups in Melbourne but I have not been able to obtain documentation.
The number of submissions received on the draft plan indicates an extraordinary level of public interest and there was a good reason for this. As noted earlier, there were plans for a major change in management with commercial development at Tidal River and other parts of the park. It is unfortunate that a summary and analysis of the public submissions is not available so one can only speculate on their content. As discussed above, it would appear that the final plan contained few changes that were a result of public comment.

All of this suggests that public consultation as the draft plan was being prepared was adequate but that public consultation following release of the draft plan was minimal despite the level of public interest.

**Audit and monitoring**

The plan (Parks Victoria 1997a) provided for 17 strategies regarding monitoring:

- creation of a Geographic Information System (p. 9)
- sites of geological and landform significance (p. 10)
- Mount Vereker Natural Catchment Area (p. 11)
- sewerage pond bores and groundwater (p. 11)
- drinking water at campsites (p. 11)
- common grazing species (p. 13)
- impact of Hog Deer (p. 14)
- pest plant and animal species and pathogens (p. 19)
- rabbit and fox control plans (p. 19)
- Banksia dieback (p. 19)
- soil degradation and rehabilitation works (p. 20)
- vehicle congestion (p. 25)
- condition of outstation campsites (p. 32)
- Wilderness Zone campsites (p. 33)
- condition of five major campsites (p. 33)
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- interpretive facilities (p. 37)
- involvement of students and volunteers (p. 40)

This appears to be quite comprehensive and would provide a good input to adaptive management. The major exceptions appear to be lack of monitoring of the environmental and social impact of 400,000 visitor-days per year, and no assessment of the condition of vegetation throughout the park.

8.5.3 Assessing the outputs from the planning process

Issues papers for public comment

As noted elsewhere, discussion papers were prepared giving a comprehensive review of issues and options for management. The discussion papers were used in discussions between the planning team and park managers but were not released to the public.

Draft management plan

A draft management plan was prepared and released for public comment in October 1996. It did not contain options for management.

Final management plan

A final management plan was prepared and released to the public in July 1997.

Further planning studies

The final plan referred to further planning in several places but no indication was given on whether they would involve public consultation and when they would be undertaken.

Implementation

As indicated above, many of the strategies were precise enough to be implemented and most strategies were specific to the park rather than being generic policies. The main problem with the plan was that the process of developing the strategies
for implementation was not described in the plan and was not open for public review.

The plan made no mention of the resources—staff, infrastructure and operational funding—required to implement the plan. This was a major change from the 1987 plan and it implies that the management plan was no longer the vehicle for determining priorities and allocating resources. While it is tempting to suggest that this change was the result of Parks Victoria assuming responsibility for the management of parks and other areas managed by the former National Parks Service and Melbourne Parks and Waterways—this occurred in December 1996—in fact the draft plan was structured in this way and published in October 1996, before Parks Victoria assumed control.

Without a knowledge of the park budget, combined with project cost estimates, it is impossible to determine if the plan could have been implemented within a reasonable timeframe.

8.5.4 Assessing the outcomes of the planning process

Natural values management

The plan did not include any discussion of changes to natural values since the 1987 plan was published so it is not possible, on the basis of published information, to make an objective assessment of the outcomes of the 1987 plan. Although the 1997 plan stated that (Parks Victoria 1997a, p. 8) ‘There is a substantial body of research work on the Park …’ it is not clear whether there was an adequate baseline to measure future changes in:

- the conservation status of flora communities
- the condition of native flora
- the condition of native fauna
- water quality and soil health
- the status of introduced plant and animal species, and pathogens
- habitat fragmentation
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- overabundant native animals.

The Research and monitoring section noted the need for systematic monitoring to enable improvement of management techniques and proposed as a high priority the establishment of a geographic information system and environmental management plan (Parks Victoria 1997a, p. 9). A considerable number of monitoring programs were also recommended. The proposed monitoring program should have provided a good basis for judging the outcomes of the plan and would have been an important input to adaptive management but, unfortunately, documentation is not readily available to show whether these management strategies were implemented.

The draft conservation strategy (Chesterfield & Whelan 1995a, 1995b) took a holistic approach to ecological management and might have become a significant instrument in assessing changes to natural values but, to the best of my knowledge, it was never finalised.

Cultural heritage management

The 1987 management plan stated that a detailed survey of Aboriginal, historical and maritime archaeological sites was being undertaken (DCE 1987, p. 18). The 1997 management plan indicated that this study had showed significant evidence of Aboriginal occupation of parts of the park. Although this might be seen as an outcome of the 1987 management plan it is unlikely to have been so and was probably the product of another government program, as surveys such as this are normally undertaken by a different government department. It also does not indicate whether there was evidence of improved conservation of these places in the period 1987 to 1997.

This section of the plan is very difficult to assess in terms of the outcomes defined in Table 6.14 as many of the management strategies were very general and there does not appear to be any baseline from which to measure change. The only exception is the management strategy (Parks Victoria 1997a, p. 15) ‘Formalise a consultative process with the Aboriginal community, and support Aboriginal cultural activities in the Park.’ If documentation could be found to indicate that this had occurred then this could be regarded as a favourable outcome.
**Recreation, tourism and visitor management**

The plan has a large number of management strategies on this issue—see the major initiatives listed in Section 8.3. Many of them are specific and measurable. The main difficulty in assessing the outcomes defined in Table 6.14 is that there is no single, comprehensive, publicly available document which records implementation of the plan. This information should be available within the management agency but it is not clear whether this information would be in the form of a single report or whether it would be fragmented and difficult of access.

**Community involvement**

Assessing the outcomes of this issue faces similar problems to recreation, tourism and visitor management discussed above, except that the criteria are a little more difficult to measure. Again, there is no publicly available document which records implementation of this issue.

**8.6 Conclusions regarding the 1997 management plan**

I have shown that the content and format of management plans had changed significantly since the 1987 plan. The later plan was shorter and contained less resource information and the format was strictly regulated by guidelines. Whether one regards this as progress is, to some extent, a matter of opinion. Plans of this vintage achieved a consistency of approach across the State which is a positive thing but their reduced content and large amounts of standard text, often combined with generic and non-measurable management prescriptions, made these documents less useful both to managers and the public. My view, supported by commentators such as Hodges (2006), is that from this time management plans were no longer seen as critical documents by Parks Victoria and that other management systems were assuming their function. I also observed at this time that Parks Victoria had begun to regard preparation of management plans as an unnecessary burden on resources and were moving towards smaller, more generic plans. That process continues to this day.
The most significant departure from normal planning practice was the preparation of a separate Master Plan for Tidal River—part of the park—at the same time as the management plan for the remainder of the park was being prepared. Normally, a management plan containing policy directions, objectives and management strategies would be produced first and then more detailed site plans or Master Plans would be prepared giving precise details of how the management strategies would be implemented. The available evidence indicates that a different procedure was followed to assist the government-inspired proposals for commercial accommodation at Tidal River and associated commercial operations in the park.

This was unfortunate as the management plan contained many good proposals to improve management and made a genuine effort to come to grips with issues such as ecological management, wilderness management, additional walking tracks and more effective visitor management.

This plan met some of the criteria for planning effectiveness but not others. The legislation at the time was still somewhat inadequate regarding its requirements for management plans. There were guidelines which detailed process, content and format but there was no guidance on how complex issues should be resolved (see Sections 2.4.3 and 2.13).

Although it was said that the plan was supported by a substantial body of research the linkages between available information and the management strategies was weak. The plan did, however, recommend that introduction of decision support systems which should have helped future planning. It would appear that there were adequate resources to prepare the plan.

The area addressed by the management plan omitted the Lighthouse Reserve and, effectively, omitted Tidal River, by far the most heavily used part of the park. This was a major deficiency and fragmented the public consultation process as well as the planning process itself.

Another deficiency was the lack of priorities, a timetable for implementation and cost estimates for the management strategies. This reduced the usefulness of the management plan. The plan was also static in nature and did not provide for changing circumstances and unforseen events.
Public consultation was comprehensive but the evidence suggests that not much notice was taken on the thousands of written submissions received on the draft plan. This indicates either a gross disregard for public opinion or a strong belief in the policies contained in the plan, or both. I have found no documentation to resolve this matter.

Assessment of the outcomes of this plan would be possible if agency documentation was available but difficult or impossible for an external reviewer.

8.7 The 1997 Tidal River Master Plan

As indicated above, planning for Tidal River was undertaken concurrently with planning for the remainder of the park by a separate planning team and resulted in a separate planning document, the Tidal River Master Plan (Parks Victoria 1997b), the key recommendations of which were incorporated in the park management plan. Why this approach to planning was adopted is not clear and there appears to be no publicly available documentation to enlighten us. One can only speculate that because the government had plans for commercial development at Tidal River and for a greater involvement of the private sector in park operations then it was thought too sensitive a matter to be dealt with in the normal park planning process.

A master plan is not the same as a management plan. A master plan is not supported by legislation and is not mentioned in the National Parks Act. This means that there are no mandatory requirements for its content and presentation, no standards for management and no requirements for public consultation. In planning terminology, a master plan is generally regarded as a detailed site plan which sits under the more general requirements of an approved management plan.

In this case, Parks Victoria followed the procedures developed for preparing management plans by releasing a draft Master Plan for public comment and then releasing a final plan. This process was done in parallel with the preparation of the management plan. To my knowledge, unlike the management plan, there was no consultation with key interest groups when the draft plan was being prepared.
8.8 Format and content of the Master Plan

The Master Plan (Parks Victoria 1997b) was a document of 19 pages. It comprised:

- Introduction
- Assessment of existing conditions
- The Master Plan
- Action summary
- References
- three Tables
- two Figures.

The format was not the same as the one adopted for management plans by Parks Victoria at that time, but there is no reason why it should have been as the scope of the plans was somewhat different.

The Introduction (Parks Victoria 1997b, pp. 1-2) gave background information to put the Master Plan in context and also gave some details of the planning process.

The Assessment of Existing Conditions (Parks Victoria 1997b, pp. 3-8) provided a short description of the features of the natural environment and their significance, a description of visitor activities and services, an assessment of the adequacy of infrastructure, an analysis of visitor use patterns, an assessment of visitor capacity and a ‘strengths and weaknesses’ summary of Tidal River.

The Master Plan (Parks Victoria 1997b, pp. 9-16) was the core of the document. It made a statement on the role of Tidal River and set down management objectives for the locality, similar to the Park Vision and Management Directions in management plans. It then listed planned actions under the headings of zoning; facility capacity; camping; roofed accommodation; natural and built environments; water, sewage and energy; visitor services and education; traffic and circulation; operational facilities; and integrated management with the park.
Chapter 8

The *Action Summary* (Parks Victoria 1997b, pp. 17-18), as the title implies, was a summary of proposed management actions.

### 8.9 Proposed management of Tidal River

It is clear that the Master Plan was intended to result in a major revamp of the layout, facilities and visitor services at Tidal River. It would appear that much of the infrastructure was aging or inadequate and that substantial upgrades were required to the water supply, sewerage and energy systems.

The *Assessment of Existing Conditions* (Parks Victoria 1997b, pp. 3-8) indicated that Tidal River had been developed incrementally over many years and that this had resulted in an inefficient layout. Many of the existing buildings were also old and in need of replacement and had a range of architectural and landscape designs.

The water supply was said to be too small and the weir in need of repair, and the reticulation system in need of replacement and enlargement. Septic tanks needed replacement and enlargement, and the sewage ponds were inadequate. Changes to the electricity generation system were also needed and extensive opportunities for energy conservation were identified (Parks Victoria 1997b, p. 5).

The style of visitor services and accommodation was also, apparently, thought to be out of date although there is little detail given in the section of the plan dealing with the assessment of existing conditions. However, it becomes apparent from the actions given later in the plan that an increase in the number of cabins and a reduction in the number of camping sites was thought to provide better for the tastes of the current generation of park visitors and help to spread occupancy throughout the year.

The most controversial proposal in the plan was to establish a separate privately-operated accommodation and guided walking operation in the area to the east of the existing developed area.
A summary of proposed future management of Tidal River is given in Appendix 12. The major proposals were (Parks Victoria 1997d):

- limit the capacity of the overnight facilities to 4 000 people per night
- develop up to 20 new cabins, 12 motor huts, one new group lodge and cabin accommodation for commercial guided walking services
- reduce the number of campsites by 50 and provide additional shelters/camper kitchens to improve amenity
- prepare a layout plan for the visitor services zone and consolidate the location of day visitor facilities
- replace the footbridge over Tidal River
- develop a detailed site design for the relocated works depot and overflow parking
- develop low-key cabin accommodation for clients of the guided walker service
- apply the principle of ‘net environmental gain’, develop strategies for vegetation regeneration and pest plant control, and improved environmental management
- monitor the impact of visitor numbers and movements.

Most of these initiatives can be regarded as progressive in that they addressed aging or inadequate infrastructure and the inefficient layout of the site. The plan also came to terms with the maximum visitor capacity of the site and restructured the balance between camping and roofed accommodation according to the perceived needs of the public. The ‘elephant in the room’ was the provision of private sector 'up-market' commercial accommodation at Tidal River. This type of use was new to the park and the notion was rejected by many members of the public.
8.10 Changes to the draft Master Plan

The draft Master Plan (NRE 1996b) was released for public comment in October 1996 for a two month period at the same time as the draft management plan for the park (NRE 1996a). As noted above, 3256 submissions were received from the public. The Master Plan was approved and published in final form in 1997, again in parallel with the park management plan.

Major differences between the draft and final plans are shown in Table 8.3 together with my comments. Where a section is not listed, no significant changes were made to the draft plan.

Table 8.3 Major changes between the 1996 draft Master Plan and the 1997 final Master Plan

<table>
<thead>
<tr>
<th>Section of the 1997 Master Plan</th>
<th>Changes from the draft plan</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 The Master Plan</td>
<td>Addition—notes that a number of detailed plans will be required and that they will be linked by a Design and Landscaping Plan.</td>
<td>This means that much of the detailed planning had not been done—subsequent detailed plans would be unlikely to have public input.</td>
</tr>
<tr>
<td>1.2 Location and planning area</td>
<td>Visitor numbers revised downwards. Parks Victoria was now named as the management agency.</td>
<td>Revision of factual matters.</td>
</tr>
<tr>
<td>1.3 Planning process</td>
<td>Addition—notes that the National Parks Act gives direction to the plan.</td>
<td>Avoids the issue that the Master Plan has no force in law.</td>
</tr>
<tr>
<td>2.1 Natural environment</td>
<td>Addition—landscape given more emphasis.</td>
<td>No changes in substance.</td>
</tr>
<tr>
<td>Section of the 1997 Master Plan</td>
<td>Changes from the draft plan</td>
<td>Comments</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>----------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>2.2 and Visitor activities facilities</td>
<td>Addition—more details of visitor services and a statement of key improvements needed.</td>
<td>The key improvements include the controversial commercially operated guided walks and accommodation. The draft plan indicated (p. 8) that expressions of interest in providing facilities and services at the Lightstation were sought in early 1996, thus pre-empting the Master Plan and park management plan.</td>
</tr>
<tr>
<td>2.4 Visitor analysis</td>
<td>Addition—more information on planned additions to accommodation.</td>
<td>No changes of substance.</td>
</tr>
<tr>
<td>2.6 Summary of existing conditions</td>
<td>Deletion—the lack of serviced accommodation reduces accessibility for interstate and international visitors.</td>
<td>Probably deleted because there was no evidence for this assertion.</td>
</tr>
<tr>
<td>3 The Master Plan</td>
<td>This part has been rewritten and reformatted.</td>
<td>The section on core strategies has been deleted and the rationale for each section also deleted. This may have been to ‘tighten up’ the document—the draft could have been thought to be too detailed or too repetitive. In any event, a lot of the detailed background and rationalisation has been removed. Section 4 Impact Assessment has also been omitted. This was largely repetition of other parts of the draft plan.</td>
</tr>
<tr>
<td>3.1 Role of Tidal River</td>
<td>Addition—new section</td>
<td>This section is similar to the ‘Vision’ included in Parks Victoria management plans. It provides an overview of the proposed outcomes of the plan.</td>
</tr>
<tr>
<td>Section of the 1997 Master Plan</td>
<td>Changes from the draft plan</td>
<td>Comments</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>3.2 Objectives for Tidal River</td>
<td>Addition—operational support facilities to be kept to a minimum.</td>
<td>This reflects the change of approach in transferring operational facilities to Yanakie.</td>
</tr>
<tr>
<td>3.3.1 Zoning of functions</td>
<td>Deletion—the detailed rationale.</td>
<td>See note against section 3 above.</td>
</tr>
<tr>
<td></td>
<td>Addition—a table (Table 3) with detailed descriptions of permitted uses in each zone.</td>
<td>This is an important addition which includes details and actions not included in the main text.</td>
</tr>
<tr>
<td>3.3.2 Facility capacity</td>
<td>Deletion—the detailed rationale.</td>
<td>See note against section 3 above.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The actions in the final plan are more specific than the draft.</td>
</tr>
<tr>
<td>3.3.3 Camping</td>
<td>Deletion—the detailed rationale.</td>
<td>See note against section 3 above.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The actions in the final plan are more specific than the draft.</td>
</tr>
<tr>
<td>3.3.4 Roofed accommodation</td>
<td>Deletion—the detailed rationale.</td>
<td>See note against section 3 above.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The proposal for a fully serviced lodge appears to have been dropped.</td>
</tr>
<tr>
<td>3.3.5 Day visitors</td>
<td>Deletion—the ‘park full’ strategy has been removed.</td>
<td>Presumably this strategy was thought to duplicate the strategies in the park management plan.</td>
</tr>
<tr>
<td>3.3.6 Natural and built environments</td>
<td>Addition—introduces a Design and Landscaping Plan.</td>
<td>This would develop consistent design and construction standards.</td>
</tr>
<tr>
<td>3.3.7 Water, sewage and energy</td>
<td>Additions—enhanced demand management, sewerage and water supply systems</td>
<td>This looks like a thorough re-think of the draft.</td>
</tr>
<tr>
<td>3.3.8 Visitor services and education</td>
<td>Addition—this is a new section of the plan.</td>
<td>An expansion of the treatment in the draft plan.</td>
</tr>
</tbody>
</table>
Chapter 8

<table>
<thead>
<tr>
<th>Section of the 1997 Master Plan</th>
<th>Changes from the draft plan</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3.9 Traffic and circulation</td>
<td>Addition—this is a new section of the plan.</td>
<td>An expansion of the treatment in the draft plan.</td>
</tr>
<tr>
<td>3.3.10 Operational facilities</td>
<td>Addition—this is a new section of the plan.</td>
<td>An expansion of the treatment in the draft plan.</td>
</tr>
<tr>
<td>3.3.11 Integrated management of Tidal River and the overall Park</td>
<td>Addition—this is a new section of the plan.</td>
<td>An expansion of the treatment in the draft plan.</td>
</tr>
<tr>
<td>4 Action Summary</td>
<td>Replaces Implementation in the draft plan.</td>
<td>Summarises the major initiatives in the plan.</td>
</tr>
</tbody>
</table>

The draft Master Plan received significant editing to produce the final Master Plan. It is unclear whether these changes were the result of a political response to public submissions or a reassessment of issues by park management. In my view, it is likely that it was latter as many of the issues were technical in nature.

The major contentious issue in the Master Plan, the provision of fully serviced commercial accommodation, was treated differently in the draft and final plans. The draft plan proposed (NRE 1996b, p. 13):

Investigate the feasibility of developing a fully serviced lodge of three- to four- [star] standard on the site shown on figure 3 and based on the principles outlined in … appendix 1.

The facility was to have had a capacity of 150 visitors per night plus accommodation for staff, and have a restaurant and souvenir shop. The rationale for this proposal was (NRE 1996b, p. 7):

Research by Roy Morgan and Associates (TV 1993) identified serviced accommodation in natural settings as the type of product sought by Victoria’s target market segments but a product which is currently in short supply.

and (NRE 1996b, p. 9):

The lack of serviced accommodation, particularly catered meals, reduces the accessibility of Tidal River for touring visitors, and this is demonstrated by low interstate and international visitor levels.
The final Master Plan gave no rationale for the commercial accommodation. It provided for (Parks Victoria 1997b, p 11) ‘Carefully designed and located guided walker accommodation will be established in this location … accommodation will be single storey catering for 45 walkers and will not be visible from Norman Bay Beach.’

It would appear that the scope and style of the proposed commercial operation had been reduced in response to a hostile public reaction. The overnight visitor capacity was reduced from 150 to 45 and the location changed from a (NRE 1996b, p. 22) ‘Strong setting preferably with extensive views of the park’ to a location (Parks Victoria 1997b, p. 11) ‘ … not visible from Norman Bay Beach.’ Note, however, that the proposal for commercial guided walks with associated infrastructure remained, albeit reduced in size.

This is not surprising as it would appear that Parks Victoria and its predecessor, the National Parks Service— and very likely the Minister—had already decided that commercial services and associated infrastructure would be introduced to the park. The National Parks Service had (NRE 1996b, p. 8):

… sought expressions of interest to provide visitor facilities and services at the Wilsons Promontory Lightstation early in 1996. A preferred proposal has recently been identified which includes use of the Lightstation as an accommodation base for guided walks in the park. This proposal will require overnight staging accommodation within Tidal River.

This action preceded the preparation of draft plans for the park and Tidal River and pre-empted the planning process.

**8.11 Analysis of planning effectiveness**

The layout and purpose of the Master Plan is a little different to that of the park management plan, master plans tend to be more detailed and focus on design and layout. However, the same criteria used in the study for management plans will be used here to analyse the effectiveness of the Master Plan, but will be modified where appropriate to fit this particular plan. This is intended to give consistency of approach when comparing the Master Plan to management plans.
8.11.1 Assessing the inputs to the planning process

Adequate legislation

There are no procedures set down in the National Parks Act for preparation of a Master Plan—Master Plans are not even mentioned—so the Master Plan has no legislative backing. The plan did, however, note that direction was provided by the National Parks Act and (Parks Victoria 1997b, p.2) ‘Other significant legislation … detailed in the Park Management Plan.’ and ‘… Victorian Government policies for the environment, tourism and business reform.’ Although not required by legislation, the final plan was approved by the Director of National Parks and the Chief Executive of Parks Victoria and endorsed by Marie Tehan, the Minister for Conservation and Land Management.

It must be concluded that the legislative basis for the Master Plan was inadequate.

Adequate guidelines for preparing the plan

There are no known guidelines for preparation of a Master Plan. This is undesirable in a planning process.

Adequate information on natural and cultural values, and recreational activity

The Master Plan indicated that a number of studies had been undertaken either before or during preparation of the draft plan, these related to flora (Biosis 1996), condition of existing buildings (BSA 1996), condition and adequacy of water and sewerage infrastructure (Geo-Eng 1996a, 1996b, 1996c), energy infrastructure and energy audit (Ecopower 1996a, 1996b, 1996c), tourism (Tourism Victoria 1996), and visitor surveys (NPS 1993b). I have not scrutinised these reports in detail but, as they cover all of the crucial issues, it would be reasonable to assume they provided a factual basis for preparation of the draft plan.

The presence of these reports suggests that an investigation of environmental management was undertaken and that evidence-based decision making was used, at least to some extent.
Adequate resources to prepare the plan

I have no information on this matter other than that a separate planning team was employed on this task. The number of consultant’s reports indicates that substantial research and investigation underpinned the Master Plan.

A commitment by senior management to the planning process

While there is no documentary evidence on this matter, the indications are that there was a commitment to implementation of the Master Plan. The retention of the commercial accommodation proposals, albeit on a reduced scale, in the face of substantial public opposition is one example of commitment from senior management and the Minister.

8.11.2 Assessing the planning process

Intended audience and function

The plan appears to have been written mainly for the general public as it gave a clear, plain-English summary of proposed management. It would also, however, have provided guidance for management, albeit in general terms, but much additional work would have been required before the actions could be included in an annual works program.

Relationship to local government and other planning

As discussed above, although the Master Plan was prepared concurrently with the management plan for the remainder of the park it could not be considered an integrated planning process.

The plan stated that it addressed the Tidal River locality which comprised the campground, cabins, lodges and other visitor facilities (Parks Victoria 1997b, p. 1). The text and figures also indicated that it included the existing works depot, staff accommodation area and an area to the east of the village. As indicated above, it is unusual for a Master Plan to be prepared at the same time as a management plan—this is the only time to my knowledge that this procedure was followed in Victorian parks. The normal process would have been to prepare a
management plan to set the overall management policy for the park and then prepare sub-plans, such as a master plan, for specific locations or issues. Notwithstanding this criticism, the already developed and disturbed areas in the Tidal River locality are a logical area to address in the Master Plan.

**Static versus dynamic planning**

The plan provided for management in the short to medium term with comprehensive proposals for a major overhaul of water, sewerage and energy infrastructure, and investment in new visitor services and accommodation. Proposals of this magnitude would be likely to take ten years to complete.

The Master Plan proposed further major studies or sub-plans in seven of the actions. This is unfortunate as the Master Plan should be a subsidiary of the management plan for the park and one would have expected a second-order plan to have addressed the detail rather than recommending third-order studies. This probably resulted from the limited time available to prepare the Master Plan and the need to synchronise with preparation of the management plan for the park. It supports the proposal that second-order plans such as Master Plans should be undertaken after the management plan is completed and approved.

**Format, content and presentation of the plan**

The plan was clearly written and there were reasonably good links between the role, objectives and planned actions. The major weakness was the lack of justification for the commercial accommodation in the final Master Plan. Many of the actions were specific such as (parks Victoria 1997b, p.10) ‘Limit the capacity of the overnight facilities to 4 000 visitors per night.’ Others are less so (Parks Victoria 1997b, p.12) ‘Improve the amenity of the Norman Bay car park …’ Actions were not given priorities, there were no cost estimates and no implementation plan.
**Evidence-based planning**

The Master Plan gave some details of the planning process but many details were unclear such as how decisions were made, whether they were the result of experience or evidence, and what principles supported those decisions.

The plan indicated that its preparation involved three major steps (Parks Victoria 1997b, p. 2):

- consideration of the visitor experience, the current developed area and its facilities, including the scale, layout and style of buildings and assessments of previous planning and site conditions;
- investigation of the condition of the existing services infrastructure, covering energy, water supply, sewage and wastewater;
- review of available data on visitor demand and levels of satisfaction, including several surveys commissioned during the review period.

A draft set of strategies were then prepared and studies undertaken to assess the impact of the proposed strategies on flora and fauna and on the capacity of the infrastructure to support the proposed level of development.

**Public consultation and involvement**

There is no indication of what, if any, consultation outside the agency was undertaken during preparation of the draft Master Plan. The draft Master Plan (NRE 1996b) was released for public comment at the same time as the management plan for the park and 3 256 submissions were received on both plans. Changes made to the draft plan are discussed in Section 8.10. The relatively few changes made indicate that either, the government was firm in its resolve, or that the submissions from the public were not seen to require change.

**Audit and monitoring**

The actions provided for (Parks Victoria 1997b):

> (p. 10) Monitor impact of greater year round use of the Park.
Monitor and protect rare or threatened flora identified during the assessment by Biosis (1996).

Review the need for construction of a fourth sewage pond …

Continue regular monitoring of sewage pond bores …

Record and monitor maintenance on all infrastructure …

Monitor the impact of visitor numbers …

This would appear to give a good feedback to assist adaptive management processes but there was no provision for a regular audit of implementation of the plan.

8.11.3 Assessing the outputs from the planning process

Issues papers for public comment

Issues papers were not released for public comment.

Draft management plan

A draft Master Plan was released for public comment.

Final management plan

A final Master Plan was released.

Further planning studies

The Master Plan (Parks Victoria 1997b) provided for further planning studies to (p. 10) ‘Prepare a strategy for the regeneration of the campground areas …’, (p. 12) ‘Prepare and implement a detailed redevelopment and landscaping plan for the Visitor services zone …’, (p. 13) ‘Develop a unified Design and Landscaping Plan for Tidal River …’, (p. 14) ‘Prepare a layout plan for the Visitor services zone …’ and (p. 16) ‘Prepare and implement a solid waste management and recycling strategy.’
This indicates that there was considerable detailed planning still to be done. It is unlikely that this planning would be subject to public review.

**Implementation**

As with the management plan for the park, the Master Plan made no mention of the resources required to implement the plan and did not supply cost estimates for the individual actions. Most of the actions, in fact, would need substantial additional planning work before a cost could be estimated. The draft Master Plan (NRE 1996b, p.2), but not the final, stated that ‘Preliminary costing of the directions proposed has been carried out but is not presented here; full financial feasibility assessment requires further detailing of specific works.’

The budget for the park is also an unknown factor, all of which makes it impossible to judge whether the plan is too modest or overly ambitious. This surprising deficiency in planning may be explained by the fact that the Master Plan is only one component of management documentation and that the detailed implementation planning was done using other management processes. This is discussed in elsewhere in the thesis.

**8.11.4 Assessing the outcomes of the planning process**

**Natural values management**

Although the Master Plan was largely concerned with visitor services and infrastructure it did deal, to some extent, with the natural environment. The objectives included (Parks Victoria 1997b, p. 9):

- Protect and maintain the natural setting, which is the basis of both the visitor appeal of Tidal River and its status as part of a National Park.

The actions (pp. 12-13) were directed towards pest plant control and monitoring and protection of rare or threatened flora. Although ‘net environmental gain’ for vegetation and degradation of vegetation in the campground were mentioned (p. 13) there were no management prescriptions for these issues.
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This appears to be an inadequate treatment of the subject and it is not possible to measure outcomes.

**Cultural heritage management**

Cultural heritage conservation was not addressed in the Master Plan. The only exception was an action to (Parks Victoria 1997b, p. 13) ‘Ensure that known Aboriginal midden sites are protected from development and visitor impact’. This was an unfortunate omission.

**Recreation, tourism and visitor management**

The Master Plan focused on this issue with management prescriptions on (Parks Victoria 1997b, pp. 10-15): facility capacity; camping, roofed accommodation; day visitors; water, sewage and energy; visitor services and education; and traffic and circulation. Most of these matters can be measured to determine the outcomes of the plan.

**Community involvement**

Community involvement was not mentioned in the plan—another unfortunate omission. This makes it impossible to determine whether the plan had positive outcomes for this issue.

**8.12 Conclusions regarding the Master Plan**

Most of the conclusions regarding the management plan also apply to the Master Plan.

The Master Plan was disappointing as, by its very nature, it should have contained management prescriptions that were specific, measurable, achievable, relevant and time-based. Instead, it was written more like a management plan and much further work would have been required to transform the recommendations into works programs.
9.1 Introduction

This case study examines the 2002 management plan for Wilsons Promontory National Park (Parks Victoria 2002a). As with the other case studies, the draft management plan (Parks Victoria 2000b) is not examined in detail but the changes between the draft and final plans are discussed.

The draft management plan was prepared only three years after the last management plan had been approved but the political situation had changed significantly—the Bracks Labor government had come to power in October 1999 and had very different views on development in national parks. Remembering the public outcry over the commercial development aspects of the 1997 plan the responsible Minister, Sherryl Garbut, asked Parks Victoria to review the management plan. This came immediately after the government came to power and was an unusually short time for review of a management plan. In the Foreword to the plan the Minister said (Parks Victoria 2000b, p. iii):

Publication of the plan honours the Bracks Government’s election commitment to develop a new integrated management plan for Wilsons Promontory National Park. The plan implements the Government’s commitments to prevent further commercial development in the park and ensure that the focus of management is on nature conservation.

The planning area includes Wilsons Promontory Lightstation Reserve area …’

thus addressing two of the main concerns expressed by the public in 1996.

In the park little had changed, visitor levels were about the same as in 1997 and there had been little time to implement the 1997 plan. The planning area now included the Wilsons Promontory Lightstation Reserve and the Citadel Island Lightstation Reserve so the plan needed to be amended to provide for these areas.
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The most significant differences between this plan and the 1997 plan were that planning for Tidal River and the Lightstation was integrated in the management plan—there was no longer a Master Plan—and that proposals for commercial accommodation were abandoned. Only 41 public submissions were received on the draft management plan (Parks Victoria 2002a, p. 1) compared with more than 3000 on the draft 1996 plan. This seemed to indicate that the public was satisfied with the policy directions in the plan.

9.2 Format and content of the 2002 management plan

The plan was a document of 58 pages but had a slightly different format. The plan comprised:

- Introduction
- Basis
- Strategic directions
- Strategies for conservation
- Strategies for visitors
- Community awareness and involvement
- Other issues
- Implementation
- References
- two Appendices (threatened flora and fauna)
- six Tables
- eight Figures

In this plan the Introduction from the 1997 plan was split into an Introduction (Parks Victoria 2002a, p. 1) and Basis (Parks Victoria 2002a, pp. 2-6). The Introduction described the location and planning area, gave a short history of the creation of the park and included a paragraph on the development of the management plan. The Basis gave the regional context, a statement of the values
and significance of the park, a short history of land use in the park, a short description of visitor use, the legislative and policy background included a set of aims for management.

The *Strategic Directions* (Parks Victoria 2002a, pp. 7-13) chapter used the same section headings and had similar content to the 1997 plan, this is, *Park Vision, Zoning* and *Management Directions*. A summary table of permitted recreational activities and a table of Tidal River Precincts was added to this chapter.

*Strategies for Conservation* (Parks Victoria 2002a, pp. 14-26) dealt with the same issues as those in the chapters *Resource Conservation* and *Park Protection* in the 1997 plan, that is, geological and landform features, rivers and catchments, vegetation, fauna, landscape, fire management, pest plants and animals, and diseases, soil conservation, Aboriginal cultural heritage and post settlement cultural heritage. As with the 1997 plan, each section had introductory text followed by Aims and Management strategies.

*Strategies for Visitors* (Parks Victoria 2002a, pp. 27-48) had a similar content to that of *The Park Visit* in the 1997 plan—information, interpretation and education, access, amenity, day visitor activities, overnight accommodation, bushwalking, camping outside the recreation zone, boating, fishing, rock climbing and abseiling, commercial services and public safety. It also included some parts of the former *Community awareness and involvement*.

*Community Awareness and Involvement* (Parks Victoria 2002a, p. 49) now covered only volunteers, research partners and the Wilsons Promontory Advisory Group.

*Other Issues* (Parks Victoria 2002a, pp. 50-54) reviewed a range of issues that didn’t fit easily into the other chapters of the plan, the Centre of Excellence for Park Management program, management and support services infrastructure, management access, authorised uses and boundaries and adjacent uses.

*Implementation* (Parks Victoria 2002a, p. 55), instead of being a list of priority actions as in the 1997 plan, now became a very short statement saying, amongst other things, that (Parks Victoria 2002a, p. 55):
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The management program for the park and reserves is prepared annually, in accordance with Parks Victoria’s Corporate Plan and as a part of statewide prioritised programs.

This introduced the corporate planning systems that have a significant influence on park management.

9.3 Proposed management of the park

It seems clear that the principal reason for preparing a revised management plan at this time was to honour the Labour government’s election commitment to prevent further commercial development in the park—see the words from the Foreword quoted above. Because of these circumstances and the fact that there were few major changes from the 1997 plan it is more instructive to compare the major management strategies of the 2002 management plan with the 1997 management plan rather than considering the 2002 plan in isolation (Table 9.1).

Table 9.1 A comparison of management strategies in the 1997 and 2002 management plans.

<table>
<thead>
<tr>
<th>Section of the 2002 management plan</th>
<th>Changes from the 1997 management plan and master plan</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Park Vision</td>
<td><strong>Additions:</strong> Protection of Aboriginal and post-settlement cultural values. Comments on Tidal River.</td>
<td>The text had been edited but the meaning was very much the same.</td>
</tr>
<tr>
<td>Section of the 2002 management plan</td>
<td>Changes from the 1997 management plan and master plan</td>
<td>Comments</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>----------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>3.2 Zoning</td>
<td><strong>Additions:</strong></td>
<td>This had been proposed by the LCC but not incorporated in legislation when the 1997 plan was prepared.</td>
</tr>
<tr>
<td></td>
<td>Southern Remote and Natural area overlay.</td>
<td>The areas of the various management zones remained substantially the same—they appear to have been re-calculated when they were re-mapped.</td>
</tr>
<tr>
<td></td>
<td><strong>Deletions:</strong></td>
<td>Removal of the commercial accommodation was the most significant change.</td>
</tr>
<tr>
<td></td>
<td>Guided walker accommodation at Tidal River deleted.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Motor huts re-located.</td>
<td></td>
</tr>
<tr>
<td>3.3 Management Directions</td>
<td><strong>Additions:</strong></td>
<td>This section highlighted the major management directions detailed in the following chapters.</td>
</tr>
<tr>
<td></td>
<td>Investigation of World Heritage listing.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phase out of apiculture.</td>
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<td>Minimum impact visitor behaviour.</td>
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<td>Tidal River and the Lightstation.</td>
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<td></td>
<td>Licensed tour operators to continue.</td>
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<td>Support services and infrastructure to be concentrated at Tidal River.</td>
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<td>A study of social and economic benefits of the park.</td>
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<td><strong>Deletions:</strong></td>
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<td></td>
<td>Mention of the ‘Great Prom Walk’.</td>
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### Section of the 2002 management plan

<table>
<thead>
<tr>
<th>Section</th>
<th>Changes from the 1997 management plan and master plan</th>
<th>Comments</th>
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<tr>
<td>4</td>
<td><strong>Additions:</strong> Many of the management strategies in this chapter have been refined.</td>
<td>The management strategies in this chapter had been refined but the underlying directions for management had not been changed.</td>
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<td></td>
<td>Active involvement of Aboriginal people in education and interpretation programs.</td>
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<td>5</td>
<td><strong>Additions:</strong> Many of the management strategies in this chapter had been refined.</td>
<td>The existing motor huts were found to be on or near Aboriginal midden sites.</td>
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<td>Re-location of the motor huts.</td>
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<td></td>
<td><strong>Deletions:</strong> The former proposals for a reduction in camping sites and an increase in roofed accommodation.</td>
<td>This was the crux of the 2002 plan and addressed public concerns about over-development of national parks.</td>
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<tr>
<td>6</td>
<td><strong>Deletions:</strong> The section on schools education.</td>
<td>This was moved to Section 5 – Strategies for visitors.</td>
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<tr>
<td>7</td>
<td><strong>Additions:</strong> Centre of Excellence. Management and support services infrastructure. Management access.</td>
<td>Moved from other sections of the 1997 plan or from the Master Plan</td>
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<tr>
<td>8</td>
<td><strong>Additions:</strong> A general statement on implementation.</td>
<td>Monitoring and implementation audit are mentioned as performance measures.</td>
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<td><strong>Deletions:</strong> Priorities for management.</td>
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In effect, the 2002 management plan maintained the policies in the 1997 plan—with the exception of the commercial development proposals—but refined a number of them with the benefit of hindsight. This resulted in a better, more comprehensive management plan.
9.4 Changes to the draft management plan

As with the 1987 and 1997 management plans, a draft plan (Parks Victoria 2000b) was prepared and released for public comment. Only 41 submissions were received. There are no details on public consultation undertaken to prepare the draft plan other than (Parks Victoria 2000b, p. iii):

During the Plan’s preparation there was consultation with key groups and individuals to seek input into resolving management issues.

Various matters of detail in the draft plan were changed and some details updated in the final plan but there were very few major changes. The most prominent change was the section on bushwalking (Section 5.6). The draft plan proposed a long-distance walking track which would enable walkers to hike from the park entrance to a circuit in the south of the park, including South Point and the Lightstation (Figure 9.1). This reflected the proposals in the 1997 management plan but it was no longer called ‘The Great Prom Walk’. In the final plan the long-distance walk was abandoned, as was the walking track from the park entrance to Darby River. The new walking track from Waterloo Bay to the lighthouse, proposed in the 1997 plan, had already been constructed. One can surmise that these changes were made in response to submissions from the public on the draft plan and consultation with interest groups. A Parks Victoria ranger-guided walk between Tidal River and the lighthouse was also deleted.
Figure 9.1  Proposed walking tracks in the draft plan

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Source: Parks Victoria 2000b.
9.5 Analysis of planning effectiveness

The 2002 management plan (Parks Victoria 2002a) is so similar in content to the 1997 management plan (Parks Victoria 1997a) that many of the remarks made in Section 7.5.2 also apply to the 2002 plan. Consequently, I do not intend to review each of the issues for planning effectiveness as it would, to a large extent, duplicate the discussion in the previous chapter. The major changes were:

- the later plan included Tidal River and the Lighthouse Reserve which was a great improvement
- the Foreword to the plan, quoted above, indicates that there was a strong commitment from the government and the Minister to revise the plan to remove commercial development proposals

With this plan I will apply the more detailed criteria and indicators described in Section 6.4.3 to a number of selected issues to assess the practicality of this form of assessment.

9.5.1 Example of input evaluation - Adequate legislation

The legislation was examined against each of the criteria for planning effectiveness. The indicator used was whether there was reference to the issue in the legislation and how comprehensively it was treated. The rating system used was: A—a specific, comprehensive reference, B—an indirect or general reference, and C—no reference. The assessments are reasonably objective as they are based on published documentation. The issue is discussed in Chapter 2 and Section 6.4.2.

Specification of a requirement to prepare a management plan.

There is a requirement to prepare a management plan for national parks. Rating—A.
Specification of the principles to be used in planning.

Principles for planning are not stated explicitly but the Objects of the Act and other sections of the Act give objectives for management (Appendixes 2 and 3). Rating—B.

Specification of the planning and approvals processes.

The planning and approvals process is not specified except, in part, for the Alpine National Park and Box-Ironbark parks. Planning and approvals were specified in Departmental guidelines. Rating—C.


Public consultation on management plans is not specified in the Act but was required by Departmental guidelines. Rating—C.

Specification of the life of the plan.

The life of the plan is not specified in the Act but there are loose requirements in Departmental guidelines. Rating—C.

Specification of clear objectives for management.

Objectives for management are specified in the Objects of the Act and other sections of the Act. Rating—A.

Specification of priorities for the management objectives in case there are conflicts between them.

Priorities for management objectives are not listed although it could be argued that the first item on a list of priorities is the most important. Rating—C.

The legislation is based on modern concepts of sustainability, transparency and social justice.

This is more a matter of opinion but, in my opinion, while the plan contains long-term objectives it is static in nature, the decision-making process and basis for
policies are not clear and social justice principles are not discussed. Perhaps this is too difficult a test. Rating—C.

**9.5.2 Example of process evaluation – Relationship to local government and other planning**

The plan was examined against each of the criteria for planning effectiveness. The indicator used was whether there was reference to the issue in the plan and how comprehensively it was treated. The rating system used was: A—a specific, comprehensive reference, B—an indirect or general reference, and C—no reference. The assessments are reasonably objective as they are based on published documentation.

It should be noted that Wilsons Promontory National Park is in a unique situation in Victoria in that it is located on a peninsula and has only a narrow interface with adjoining private land. This means that many of the management problems faced by other parks along their boundaries, such as the spread of weeds and feral animals, are absent or not as severe.

*The integration of the plan with local government planning.*

There is only a single, rather general, management strategy regarding liaison with local government. Rating—B.

*Integration of the plan with other public land planning.*

The plan is set in the context of the Regional Tourism Development Plan but does not refer to other regional planning, except for fire protection, or provide specific management strategies. Like many management plans of this era, the park seems to have been planned in isolation. Rating—C.

*The plan addresses a suitable area.*

The planning area was logical, Tidal River and the Lighthouse Reserve were included. It would have been preferable if planning for the park was a component of regional planning. Rating—A.
9.5.3 Example of output evaluation – Draft management plan

The documentation on issues papers and the draft plan were examined. The indicators used were (a) the availability of issues papers and a draft plan and (b) an examination of their scope and quality. The rating system used for (a) was: A—readily available, B—not readily available and C—not available. This is objective. The rating system used for (b) was A—good quality and contains options, B—fair quality and C—poor quality and/or no options. This is partly objective and partly subjective. The term ‘quality’ is used here to mean well written in plain English and that the contents of the documents are comprehensive.

Preparation and release of issues papers for public comment

I have not been able to find documentation to indicate that this was done. Rating—C.

Options for management contained in the issues papers

As above. Rating—C.

Preparation and release of a draft management plan for public comment

This is a straightforward matter, a draft plan was prepared and released for public comment. Rating—A.

Options for management contained in the draft plan

The draft plan did not contain options for management. Had options papers containing options been released for public comment it could be argued that it was not necessary to include options in the draft plan. Rating—C.

9.5.4 Example of outcome evaluation - Recreation, tourism and visitor appreciation

As predicted in Chapter 6, we are faced with a number of problems in the evaluation of outcomes. The issue is also discussed in Chapter 3. The proposed principal criteria for effectiveness are relatively straightforward:
• a good standard of access for recreation and appreciation
• good quality facilities and services
• provision of a range of recreation opportunities
• support for appropriate tourism
• a high standard of information, interpretation and education services

The method of measurement proposed was an audit of the type and quality of facilities and access provided in the park. The indicators were the number and quality of facilities and the type and quality of access.

The problem of availability and accessibility of information was discussed in Section 6.4.3. One must assume that that the management agency, Parks Victoria, would know what facilities and programs are in place in the park and whether they are good or bad. This is the basis of their Levels of Service framework which rates each park according to four levels and then manages them accordingly (Parks Victoria 2007a, p. 216). The Parks Victoria State of the Parks Report (Parks Victoria 2007a) gives some information on this issue but it is not disaggregated to the level of individual parks. Unfortunately, detailed information on facilities and services is not available to the general public in terms of access to Levels of Service data or an implementation report.

There is also the problem of when one should measure outcomes. If the management plan is intended to have a life of five to ten years then that would seem to be the logical time to do a major review. It is not clear whether this is done in practice.

9.6 Conclusions regarding the 2002 management plan

This plan was very similar to the 1997 management plan in process, presentation and content. The major difference was the removal of proposals for commercial operations and infrastructure, otherwise it was fine tuning of management strategies. It demonstrated that management plans of this era did not change greatly between the draft and final plans and that it is difficult to assess whether the changes that were made were the result of public submissions.
The assessment of planning effectiveness showed that it was possible to make judgments, either objective or subjective, on many issues included in inputs, process and outputs but that measurement of outcomes could probably only be done within the management agency. The examples of evaluation of planning effectiveness came out as this:

- **inputs**—adequate legislation—A, B, C, C, A, C, C
- **process**—relationship to local government and other planning—B, C, A
- **outputs**—draft management plan—C, C, A, C

While these are only examples, it seems to indicate nevertheless that the whole of the planning process was in need of improvement.
10

THE INTERVIEWS

10.1 Introduction

Interviews were conducted with selected individuals who had extensive professional experience of protected area planning and/or management, and who had a range of backgrounds so that different perspectives could be obtained of the key planning issues identified in Chapters 5 and 6. The interviews directly addressed research question 2: How were protected area management plans prepared in Victoria in the period 1987 to 2007? The results of the interviews were intended to supplement the conclusions in the literature review and the case studies. The interviews were designed to explore, in more depth, how protected area planning was actually done in Victoria in the nominated period and to help make an assessment of the effectiveness of the planning (Figure 1.2).

10.2 Methodology

The methodology adopted is described in Chapter 4. Approval was obtained from Parks Victoria to interview selected employees and approval to interview was also obtained from the RMIT Design and Social Context Human Research Ethics Sub-Committee.

10.3 A profile of the interviewees

The first round of interviews was conducted between October and December 2006. Interviews were deferred during January 2007 as many of the people scheduled for interview were on emergency bushfire duty and not available for interview. The second round of interviews was conducted between February and June 2007. In total, 15 people were interviewed.
The interviewees were selected on the basis of conformance with the criteria listed in Chapter 4, willingness to be interviewed and availability. Their background details are given below.

**Current protected area planners from Parks Victoria—**

**The planning manager and park planners A, B & C**

These people work in the Parks Victoria head office in Melbourne and are responsible for coordinating protected area planning for Parks Victoria, undertaking final editing of the plans, ensuring compliance with government policy, developing guidelines and procedures and taking the plans through the approval process.

The Planning Manager, Parks Victoria, agreed to be identified and said that he would speak on behalf of the organisation but that his personal views corresponded closely with that position. He was responsible for all protected area planning in Parks Victoria. He had tertiary qualifications in town planning and had extensive experience in protected area planning and management.

The Park planners all had tertiary qualifications (Human Science/Forestry, Science, Social Science), two having post-graduate degrees, and they each had between 10 and 30 years experience in protected area planning and related issues.

**Current or past senior protected area managers from Parks Victoria—**

**Managers D, E, F & G**

These people were, at the time, at Ranger-in-Charge or Chief Ranger level or had recently relinquished such positions. The former title applies to someone who has management responsibility for operations, budget and planning for a major protected area or for a number of smaller parks. The latter had management responsibility for all of the protected areas within a Region. Both would have had close involvement in supervising the production of plans of management. The Ranger-in-Charge would normally report to a Chief Ranger, and the Chief Ranger would report to a General Manager in head office.
Three of the senior field managers were, perhaps, typical of the type of people who occupied senior field management positions at this time in Parks Victoria and its predecessors. They were middle-aged men of considerable knowledge and experience who had often come to protected area management from a background in forestry or other land management. All of the three had more than thirty years experience and had qualifications at Diploma level (Applied Science, Resource Development, Conservation and Resource Management) which were acquired by studying part time as they progressed in the profession. They had also improved their practical skills by completing many training courses. All had been involved on numerous occasions in supervising preparation and implementation of management plans.

The fourth field manager could also be seen as typical of the younger, middle level managers who enter organisations such as Parks Victoria with tertiary qualifications at Degree level or higher. People with this background often work in head office but it was becoming more common for them to be assuming senior field management positions. It was also becoming more common for women to be appointed to these positions. This person had an Honours Degree in Applied Science as well as extensive experience in regional planning and marine park planning, and management experience at Ranger-in-Charge level.

Senior consultant planners with experience of protected area planning—

Consultants H, I & J

Planning consultants are sometimes employed by Parks Victoria to prepare plans of management or to do other planning work. Consultants prepared the 1997 management plan for Wilsons Promontory National Park (Chapter 7) but not the 1987 or 2002 management plans (Chapters 6 and 8). Consultant planners bring a useful perspective to the examination of Parks Victoria’s management planning practices. They are generally considerably more experienced in planning theory and practice than Parks Victoria employees and they can express an independent view on the merits or otherwise of Parks Victoria’s planning.

All three consultants had tertiary qualifications (Science or Agricultural Science), one with a PhD, and all have 20 years or more professional experience in
environmental planning. All have prepared management plans for Parks Victoria and for other public land.

**Senior managers/planners with experience of protected area planning**—

**Senior manager K, Senior planner L, and (Senior manager M plus Senior planner N)**

These people were also interviewed to provide an independent perspective on protected area planning and to give examples of related forms of environmental planning. They came from another State government department, local government and academia and all had extensive practical experience.

**Senior manager K** worked for a Regional Coastal Board. He had an Honours Degree in geography and was pursuing post-graduate qualifications in business administration. He had wide experience in land use management and regularly interacted with Parks Victoria on park planning matters. The comments reported were his personal views.

**Senior manager L** worked for a major local government authority. He had postgraduate qualifications and extensive experience in land management and nature conservation. He was very familiar with Parks Victoria planning practices.

**Senior planner N** worked for the same organisation and had tertiary qualifications as a planner and had been responsible for major planning studies. This was a joint interview and the views expressed were those of the individuals rather than their organisation. They had recently completed a complex Master Plan dealing with heritage assets and natural values which required close consultation at State and Commonwealth level.

**Senior planner M** had a first degree in town and regional planning and a post graduate degree in environmental law combined with 25 years planning experience at all levels of government and in private practice. She had extensive relevant experience in land use planning and, while not having prepared park management plans, had been involved with this work in New South Wales.
10.4 Outcomes of the interviews

The commentary included at the beginning of each topic is intended to provide background and put the questions in context. To some extent, this duplicates the discussion in Chapters 2, 3, 5 and 6 but it was thought useful to include it here to avoid the reader having to continually refer to earlier chapters. The conclusions from the case studies in Chapters 7, 8 and 9 also contribute to the commentary.

10.4.1 What formal guidelines and procedures were used for planning and were they effective?

This provided factual information and opinions on what methods were used to plan protected areas in Victoria. The interview material supplemented documents obtained from Parks Victoria. It also looked at the theory and values that supported the planning process. The issue was discussed in Section 2.4.

The principal issues for investigation were:

- confirm what planning methods were used
- determine if there were any drawbacks in using guidelines and standard text
- establish what values and policies underpinned the planning.

Some positive comments

As might be expected, most of the factual information came from the Parks Victoria planners. It was apparent that the formal guidelines for the preparation of management plans used by Parks Victoria were very comprehensive and covered all aspects of the process and had been developed over many years. Park planner A said:

'The plan kit has evolved a lot over time' and that Parks Victoria developed the guidelines 'so people weren’t re-inventing the process every time there was a plan to be done.'
It was developed initially because a lot of the planning was being contracted out and we needed to write down what was required … and after that it was useful.

There is a fair bit of flexibility … it makes sure that there aren’t any gaps.

Park planner B said:

We have put a lot of time and effort into trying to explain and give background information to the planners … to explain where we are coming from and the thinking behind different sections of the plan.

It does go into detail but a lot of it is suggested text … it’s to give them pointers and guidance.

Most of those interviewed agreed that the guidelines for the production of management plans that were used by Parks Victoria were useful. Park planner B said:

I think that they are very helpful … they help ensure that the plans are consistent and I think that is very important.

Consultant I said:

Exceedingly useful in ensuring that all of their work has a look and a feel that is consistent.

It also provides very useful guidance to the layout of the document and to the sorts of issues that should be flagged.

_Potential problems_

However a number of those interviewed perceived problems with their use. The main issues were that plans for many parks ended up looking very similar and that the guidelines were overly rigid which restricted the usefulness of the plan.

Manager F said:

Guidelines gave you a very defined process … it was a little restrictive because we could see that there were corners that could be cut to achieve the same outcome.
Park planner C said:

Where there is not a lot of information about the park the scope and contents documents tend to dominate the plan and [the plans] look very much like each other.

Consultant I said:

Where it comes unstuck … when there is a specific issue that needs to be resolved … Parks Victoria was very reluctant to deviate from the [standard] format.

There are benefits to [having a consistent format]. People can pick up a plan and they are familiar with the layout and concepts … but it has been done at the expense of dealing with the nuts-and-bolts issues.

It compromises the ability of the plans to be a working, guiding tool for the on-ground managers.

Values, philosophy and planning theory

Regarding the values, philosophy and planning theory that underpins this work, the interviews uncovered little or nothing. Clearly, there was a requirement in the National Parks Act to prepare management plans for the protected areas listed in the Schedules to the Act and the Parks Victoria position, as expressed in the interviews, was to do this work as quickly and efficiently as possible. The Planning Manager said:

My job is to ensure that we spend the [limited] resources in the best possible way … our planning needs to be the best we can do with given resources and given period of time.

Efficiency is extremely important … have plans in place that don’t get absolutely ancient … the plans address the crucial issues.

We don’t have the resources to write [very large documents] for all of our parks, we need to keep the planning effort as compact as possible, it still needs to be effective and it should be directed to make sure that our resources are predominantly spent on the ground not on the planning process.
I want the planning effort to be as tight as possible and the process has to be focussed on results...that's where you are going to judge success not by how perfect the plan or the planning process may be.

It seemed to be a reasonable position to be looking for a quick and efficient process but it is curious that Parks Victoria staff were largely silent on the values and philosophies which are the origins of the establishment of protected areas and which you might assume would be the starting point for good park planning. The only link that I could find between management plans and broader philosophical issues was the references in the management plans to government policy documents and guidelines.

As regards planning theory, most of those interviewed did not have formal qualifications in planning and had a variety of professional qualifications. I have no evidence from the interviews or from elsewhere that this had a negative effect on their ability to perform this type of environmental planning, indeed having qualifications in one of the various branches of science or social science would appear to be a significant benefit. Nevertheless, it still raised the issue of whether a broader knowledge of planning techniques would have benefited park planners.

**Conclusions**

Parks Victoria had a very comprehensive set of guidelines and procedures for the production of management plans. This had benefits in terms of consistency of approach and presentation but also had drawbacks in some situations where plans for different parks end up looking very much like each other. The guidelines had changed over the years and continued to evolve. The interviews indicated that most people thought that guidelines were useful but some thought that they should be more flexible.

The interviews gave little indication of what philosophies and theory underpin park management planning. There are many government policies and guidelines that help to guide the content of management plans but the approach to planning method appears to have been pragmatic and driven by a lack of resources and the need to improve efficiency.
10.4.2 Was there adequate information to prepare management plans?

Ideally, planning should be based on comprehensive information but if suitable information is lacking then at least the ‘precautionary principle’ should be built in. That is, no major actions should be taken which might pre-empt future options or cause irreversible effects. In practice, protected area planning is never likely to have complete information for decision making and often the available information is very meagre, particularly with newly proclaimed parks.

The principle issues for investigation are:

- In the park planning that interviewees had done was there adequate information to prepare the plan?
- If information was inadequate how was this taken into account in the planning process?

**Was the information adequate?**

In general, the responses indicated that the information available for long-established parks, particularly major parks, was adequate to prepare management plans but that information for newly proclaimed parks was often lacking in both depth and coverage and that this effectively inhibited detailed planning.

These conclusions were confirmed by many of the interviewees. Park planner C observed:

> The information can vary enormously … if it’s a new park (e.g. the marine parks) virtually nothing … if it’s an old park like the Grampians … you’re likely to have a lot more.

and by Senior manager K who said:

> We don’t have a lot of information on our marine environment.

and Consultant I who said:

> It usually is adequate but it is a function of who you know.
There are always gaps in information.

Consultant J added:

There is a lot more information available now on natural values e.g. EVC [ecological vegetation class] work.

Referring to planning for the newly proclaimed marine parks in eastern Victoria, Manager F said:

There is limited scope for survey work … it’s really a compilation or review of existing information and literature so it’s basing your decisions on the information that is available.

Some areas had really good survey work … there were other areas where we knew nothing.

Park planner A described the way that Parks Victoria gathers information for planning:

When a plan starts there is natural values information that we get from state-wide data bases … [there is] a broad assessment process now.

There is no longer an inventory of threatened species at the back of the plan … we do a spatial analysis … we quantify the species that are important for the park and the vegetation and then do a risk assessment.

There is a lot of assessment behind the information on natural values.

There are useful systems that have been developed e.g. Levels of Service … this feeds into the planning process.

[Levels of Protection] is the next stage of the natural values assessment.

The work that we do with the risk assessment and trying to describe conservation objectives fits under Levels of Protection very well.

This indicated a commitment to systematic collection of data and transfer to the planning process however Consultant I pointed out that:
The way park plans are written you just about don’t need [detailed ecological] information because they are written in such general terms.

A different perspective was provided by Manager G. Referring to the 2002 management plan for Wilsons Promontory National Park—reviewed in Chapter 9—he said that the plan:

…was totally driven by politics to get a result out of it. You need to know the purpose of a management plan before you know whether you have the [adequate] information or not.

Conclusions

From these comments it is reasonable to conclude that complete information for planning will never be available but that the quality of information, particularly on natural values, was improving in many areas and provided a reasonable basis for sound planning. Information on some areas, particularly newly proclaimed parks, appeared to be barely adequate for planning. It was also apparent that Parks Victoria had organised systems for handling data on natural values.

The interviews did not give much useful information on how planning was conducted when there was inadequate information except that these plans were written in a very general way and without detailed actions.

It also became clear that if a plan was prepared for a particular political purpose then the quality of the information base was a secondary issue.

10.4.3 What resources and time were required for planning?

It is axiomatic that good management requires good planning, but the resources required for good planning are often overlooked. It is common to underestimate the time required to prepare a plan of management to the extent that sometimes plans take so long to prepare that they are overtaken by events and have to be re-written several times before they can be approved. The resources required comprise staff time from all sections of the management organisation, payments for research and surveys, the cost of public consultation and publication, and
possibly the cost of employing planning consultants. It is rare for the total cost of the project to be documented. This issue was discussed in Section 5.2.3.

The principal issue for investigation were:

- What resources were required for the preparation of a management plan?

**The time and resources required**

It was apparent that Parks Victoria planners were under pressure to produce plans and had trouble keeping to schedules. As noted above, the Planning Manager said:

> My job is to ensure that we spend the [limited] resources in the best possible way … our planning needs to be the best we can do with given resources and given period of time.

> Efficiency is extremely important … [we must] have plans in place that don’t get absolutely ancient … the plans [must] address the crucial issues.

Park planner A said:

> We are always under pressure to produce [plans] in less time, but then you need more resources.

This was supported by Park planner B who said:

> We’ve got problems with time lines, it’s already quite difficult to get plans out within a certain period of time.

Park planner C argued that resources vary depending on the political profile of the park:

> Resources are allocated when it is a major government agenda but they quickly go away.

Manager F pointed out that in some circumstances time frames were determined by government commitments but that the resources needed for planning were lacking:
There was a government commitment to produce management plans for all 24 marine parks within three years and with an increased emphasis on community engagement including the establishment of community-based advisory groups.

The challenge [for me] was to do seven [plans] concurrently within three years.

Manager D supported this view:

[The marine parks] had clear deadlines … the timeframe was locked into … political promises.

With the marine parks I felt nervous that we could achieve what was required with the resources available … it was the community consultation that worried me.

Looking from outside the system, some consultants were critical of the time taken to finalise plans. Consultant H said;

[There are] excessive delays in finalising plans.

Consultant J said:

A review of a plan for [a State Park] took about four years to complete.

Senior manager L and Senior planner N said that a Master Plan that they had prepared recently required about half a person for two years, that is about $80 000, but that figure does not include consultancy and other costs.

**Conclusions**

It is clear from the interviews that, at least in the past, Parks Victoria planners have had trouble producing plans in a timely manner and that some plans have been subjected to excessive delays. Why this was so is not entirely clear. It could have been due to some fault in the process, a lack of commitment by senior management or that the planning area was starved of resources. The experience of planning the marine parks suggested that plans could be completed in a reasonable time if there was strong government commitment and, hence, agency commitment to the process. The implication was that Parks Victoria did not, except in special circumstances, give a high priority to park planning when resources were being allocated.
The figures quoted for the resources required to produce a Master Plan seem to be modest and only represent the planner’s time. The overall cost for the project is likely to have been considerably more. The interviews did not provide any additional information on the total cost of producing a management plan and there is a strong implication that this activity has never been fully costed. This confirmed the conclusions in the Auditor-General’s report (Auditor-General 1995) (Section 2.5).

10.4.4 Did planners, field staff and consultants all have a role in planning?

Management plans can be prepared by specialist planners either in head office or in the regions, by field staff with no specific training in planning, by consultant planners or a by a combination of all of these methods. All of these approaches have been used in Victoria at various times and all have their benefits and drawbacks. It raises the question of whether there is an optimum approach or should planning be adapted to the circumstances and the staff available.

The principal issues for investigation were:

- How has Parks Victoria approached this issue?
- What were the perceived pros and cons of each method?

*The Parks Victoria position*

Park planner B saw planners doing the planning but with field staff also involved:

They [the field staff] should definitely be involved.

Rangers shouldn’t be involved in writing sections of the plan, that’s [a job for] the planners.

It’s actually crucial that we have field staff involvement from early on so that they have some sense of ownership … recognising that it is not their primary role to be writing the plan or to edit it.

The key question that the planner has to ask is that the [field staff’s] time is not wasted.
In Gippsland some of the field staff were given the role of running the community engagement … it worked well.

Park planner C pointed out the role of head office planners:

There are important inputs from head office on legislative and policy requirements.

and also some practical problems when using field staff as planners:

The level of expertise [of field staff] varies from place to place and time to time.

Many plans have taken time while the people involved learnt the job.

The Parks Victoria managers generally took a pragmatic view of the issue.

Manager D said:

There are a lot of ways to produce good plans, it can be internal or external. I’m not precious about which way we do it providing the resources are there to do it … do it inside but only if the officers have the time without being substantially distracted.

Planning processes need to have a continuity and a sequential process that is not broken by things that distract it [e.g. fires, other duties, promotions, lengthy leave, restructures].

Consultants can give you a more compacted time frame, more predictable.

Manager E supported this view:

[Planning requires] either a consultancy or staff with a real allocation of time.

The plans struggle along if you rely on a ‘part-time’ effort.

Manager F referred to planning for the marine parks:

The person leading community consultation was normally the local ranger…this made sense because they would normally be responsible for implementing the plan. A district planner would prepare issues papers and write the plan. There was also part-time administrative support.

and also saw a role for consultants:
Consultants can play a key role in some aspects of the process … however we need to do a lot of things ourselves.

Manager G agreed that local knowledge is critical but that you need a combination of expertise. He added that:

Young field staff don’t have this detailed knowledge [and that] they don’t consult.

**Other comments**

Senior Planner M took a different view and supported use of in-house resources:

I’ve been very critical of outsourcing the core work of [local government] planning to consultants … they have no ownership and there is no long-term perspective.

You need good staff over a long period of time.

Consultant H was more in agreement with Parks Victoria:

All of those groups have a role to play, planners should plan.

Using consultants gets the job done.

Senior manager L and Senior planner N agreed:

Our experience is that it has to be driven by a professional planner on staff. To get community ownership staff have to be involved. Field staff [also] have to be involved. Consultants can do a really good job as long as they are managed well by the organisation.

**Conclusions**

There appeared to be a general consensus that park planning should be done by professional planners with field staff being involved in the process, particularly in public consultation. This would bring planning expertise to the process immediately, draw on the field staff’s knowledge of the area, give the field staff ownership of the process and make them part of the on-going process of consultation with the public. In practice, however, Parks Victoria often did not have a dedicated planner for each plan and this resulted in a long learning curve and a protracted process. The managers were also conscious that planning should
not be attempted as a part time operation and that adequate resources need to be allocated to allow the planning to be done in a reasonable time frame and normal management activities to continue unhindered.

The use of consultants was a little more contentious. Most of those interviewed recognised that consultants get the job done and that using in-house resources, often on a part-time basis results in a lengthy process. However it was pointed out that consultants go away at the end of the process and that planning expertise was not built up and maintained in the organisation.

10.4.5 Can a single document successfully include long-term goals and short-term actions and were the plans capable of responding to changing circumstances?

Management plans are intended to give long-term strategic directions for management and, as a result, have a life of ten years or more. The plans also normally contain more detailed actions which one would expect to be incorporated in annual works programs. Long term directions were expressed in Parks Victoria management plans as ‘strategic directions’, ‘management directions’ and the ‘park vision’. Shorter term objectives were called ‘aims’ and ‘management strategies’.

There are major difficulties in trying to incorporate both functions in the one document. By their very nature, long-term strategic directions should not change over the life of the plan, except perhaps if some catastrophe occurs. This means that they tended to be written in general terms and express hopes and good intentions rather than setting down measurable objectives. This is not to say that they were not valuable, indeed this is one of the few publicly accessible documents with a statement of long-term management objectives for a park, and a long-term view is critical when dealing with land management and nature conservation.

Implementation of programs, however, is done on an annual basis, or sometimes as a three-year rolling program, because it is linked with and dependant upon the government budget cycle. If there are funds available then work can proceed, otherwise it doesn’t. Funding for an agency depends on the priorities of the State government. Priorities for a particular park can, and do, change because of
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changes in agency priorities or because of unforseen, emerging issues. For example, if the park agency is responsible for some aspects of a major event such as the Commonwealth Games then this may make demands on the agency’s budget to the detriment of funding for general park management. A major wildfire will not only draw on all the resources of the agency while the fire is active but may also require several years of work on rehabilitation. Events such as these are mostly not foreseen in the management plan.

All of this means that the shorter term aims and management strategies must be able to respond to varying levels of resources and sometimes dramatic changes in circumstances. Setting down a static set of actions in a document that will last for ten years is often unrealistic. This raises the question of whether a more dynamic way of determining management strategies would be more appropriate.

Some management plans rank the prescriptions for management in terms of priority and others deliberately omit this. The first approach recognises that priorities need to be set on an annual basis for works programs and that it is desirable for the management plan to give guidance on the matter. The second approach reflects that priorities are likely to change over the life of the plan and that other management systems have a major role in determining priorities. This is typical of the dilemmas faced by a plan with a ten year lifespan that cannot be amended during that time.

The major issues for investigation are:

- How did Parks Victoria incorporate long and short-term objectives in their management plans?
- Can Parks Victoria plans respond to changing circumstances?
- Is it possible and/or desirable to set priorities in plans?

**The Parks Victoria position**

Park planner B took the view that the main value of the plan lies in its strategic approach:

It’s very important to keep it strategic.
What we are trying to do is to make sure that the management plan is the area where everything is integrated.

but pointed out that some detail is necessary:

It does need some detail in it … to support [Park] Regulations and to make it up-front to the community on what our intentions are.

It doesn’t need to go into operational day-to-day issues.

and that it is possible to amend the plan if circumstances change sufficiently:

The plan can be amended if circumstances change significantly, this has happened once only.

Park planner C saw their plans as being inflexible and generally unable to respond to change which, by implication, limits their usefulness:

The environment changes, government changes, the circumstances in the field change but the plans are static.

As a plan gets older it’s status in their [the park staff] eyes declines … people try to work within them but when contingencies arise [they discard the management plan].

Changes of government bring about major changes in policy, this may require a review of the plan … there is a theoretical mechanism for amending plans but it has virtually never been used.

All of the managers recognised the limitations of current management plans.
Manager E said:

We are in a quickly changing world … things pop onto the scene … the management plan may say nothing about it.

Manager D spoke about the need for a review mechanism:

Yes, have generic plans with a long-term view, that is important but there needs to be a review process maybe every two years.
Manager F said:

Priorities are set annually, or more frequently, by government directions … corporate priorities shift and change because of particular initiatives that come along.

It’s difficult for a document at a local level to commit Parks Victoria or government … they want to retain flexibility.

Manager G said:

I don’t think [changing circumstances] should matter as long as the plan has its strategic directions … with changes in staff and governments and ideas you need something constant to grab on to … there should be enough in there to maintain direction … if it is going to be changed it should be done with public consultation.

Other comments

Consultant H also saw the need to update the plan during its life and for there to be a link with the annual works program:

It can be done in the one document but the strategic part stays current for a lot longer than the specific parts … my preference is for a yearly update which may only be a page or two.

There needs to be a direct linkage between the plan and the annual works program.

Consultant I said:

It’s an issue that can’t be resolved … they are competing demands … both are required. The planning process should enable the [detailed] component to be more formalised, either as appendices or as work documents or as action plans.

Consultant J said:

You have to have strategies that make sense in ten years time, the more specific stuff may have to be dealt with in a more general way, the annual plan then picks them up in a more specific way.
Senior manager L and Senior planner N saw the need for two separate documents. In their planning system the public is involved in setting the budget through Council deliberations but is not involved in developing the implementation plan as that document flows from the Master Plan. The Master Plan contains clauses to cover emerging issues.

**Conclusions**

There seemed to be general agreement that there were two distinct requirements for area based management plans - a long-term strategic statement that normally remains the same for the life of the plan and shorter-term management strategies that are reviewed regularly and are able to respond to changing circumstances. It is clear that Parks Victoria included both short-term strategies and long-term directions in their management plans but gave most emphasis to the strategic statement.

Parks Victoria had a mechanism for reviewing plans during their lifespan but it was rarely used. This implied that the management strategies set down in their current management plans were likely to be overtaken by events and become irrelevant. In practice, their annual works programs appeared to be mainly determined by other management processes rather than the management plan.

Opinions differed on whether the two components of the plan could be combined in one volume. Some saw value in having the management strategies in a ‘loose leaf’ volume which is revised regularly and is directly linked to annual works programs.

**10.4.6 Should management plans include motherhood/generic actions or should they be specific and measurable?**

Two schools of thought appear to have existed regarding the degree of detail that should be included in a management plan. One view was that the plan should be very general in the aims, objectives and management prescriptions as the issues facing the park can change substantially over the life of the plan and that budgets were impossible to predict more than a year or two ahead. This would have resulted in a plan that gave very broad directions for management but very little
detail on specific actions. The contrary view was that a management plan could only be useful if it contained detailed actions, that the outcomes were measurable and that the proposed actions were fed directly into the budget process. This style of plan would have been very much a working document and was fully integrated into the organisation’s management systems.

This fundamental difference in approaches determined the planning process, the form of the plan, the form of public consultation and how the plan was used.

The principal issues for investigation were:

- What approach did Parks Victoria take?
- What were the pros and cons of the two approaches?

**The Parks Victoria position**

Parks Victoria included both strategic directions and management actions in their plans of management. Both were written in fairly general terms and neither had measurable objectives or were particularly amenable to being included in the budget process.

The managers and consultants interviewed confirmed this situation.

Manager F said:

A lot of what goes in the management plans is generic.

Consultant I said:

Historically, the management strategies are very general, bordering on motherhood.

Attempts to be specific are edited out – they don’t want specifics in the management plan.

Consultant J said:

[Parks Victoria] don’t put [hard edged objectives] in plans because they know that they can’t meet their own targets.
Motherhood statements

Park planner B argued that general statements should be retained:

If we don’t put in policies people may ask what we are doing about them.

and that management plans are an important synthesising document:

The management plan is the only document … that Parks Victoria produces that is publicly available where it brings all of that information [outputs of management systems] together.

However, Park planner A appeared to disagree with this:

If you have general policies documented then you don’t have to re-write them in the plan.

Consultant J was not in favour of generalities:

It’s good to have a fair bit of detail, there is no point in having generic strategies.

Manager G was more blunt:

If a management plan is full of motherhood statements it’s not worth two bob … the management plan is a framework, sub-plans and strategies hang off it, but they need to be clearly targeted as to what they will achieve.

Measurable objectives

Consultant I argued in favour of adopting measurable objectives but pointed out some of the problems in doing so:

You set an action, write it as a measurable action, you set targets to measure against and then you review when you have done it.

If you put in hard, measurable objectives you need to have the tools and resources to deliver them.

It’s no good [having hard edged objectives] if you don’t have the political will and the financial and human resources to deliver it.
Disciplines other than natural resource management require a resources statement in plans.

There is a greater degree of accountability required in other disciplines ... there is no penalty for non-compliance in natural resource management.

Conclusions

It is clear that the Parks Victoria practice included generic strategies and management actions that did not have measurable outcomes. What is not so clear is whether this was a good practice or not. There were divided opinions amongst those interviewed. It was pointed out that management plans are an important synthesis of government and agency policies and they are the only such documents to be available to the public, so it was argued that it is appropriate to put general strategies and policies in these documents so that the public is aware of them.

On the other hand, there was some enthusiasm for including measurable actions. They allow you to gauge progress and assess management effectiveness and fit comfortably into modern management systems. The problem with this approach is that you need the resources to deliver the results and this is not always the case. For this reason a number of those interviewed were cautious about including measurable actions, particularly as the management actions were not reviewed during the life of the plan.

It was also pointed out that natural resource management seems to handle this issue differently to other disciplines. Other disciplines would have actions that are costed, given a priority and made part of an implementation program whereas this is not often the case with protected area management plans.

10.4.7 Is it possible and/or desirable to set priorities in plans?

This overlaps with Section 10.4.5 above. Some management plans rank the prescriptions for management in terms of priority and others deliberately omit this. The first approach recognises that priorities need to be set on an annual basis for works programs and that the management plan should give guidance on the matter. The second approach reflects that priorities are likely to change over the
life of the plan and that other management systems have a major role in determining priorities. This is typical of the dilemmas faced by a plan with a ten year lifespan that cannot be amended during that time.

The principal issues for investigation were:

- What approach did Parks Victoria take?
- What were the pros and cons of the two approaches?

**The Parks Victoria position**

The Planning Manager said:

LOS [Levels of Service] and LOP [Levels of Protection] and other programs feeding into an annual program guided by a three-year corporate plan is a better way to determine priorities … The management plan should give you some guidance as to what the priorities are.

As noted above, Park planner C commented:

The environment changes, the circumstances in the field change [but the] plans are static.

Changes of government bring about major changes in policy, this may require a review of the plan … there is a theoretical mechanism for amending plans but it has virtually never been used.

Manager D saw priorities being determined by factors other than the management plan:

The political whims, the size of the budget, the local issues that might be happening [e.g. natural disasters] tends to drive the way we manage.

We can’t do everything in [the management plan] … what we do is react to opportunities as they come along or be influenced by the government whim of the day or react to some natural disaster or do routine matters.

As noted above, Manager E emphasised the static nature of management plans:
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We are in a quickly changing world … things pop onto the scene … the management plan may say nothing about it.

Also, as noted above, Manager F replied on similar lines:

Priorities are set annually, or more frequently, by government directions … corporate priorities shift and change because of particular initiatives that come along.

It’s difficult for a document at a local level to commit [Parks Victoria] or government … they want to retain flexibility.

Manager G said:

I think you do need priorities to give a bit of focus … you need to review the priorities in a management plan every couple of years.

Other comments

Consultant H said:

You can write priorities into a plan, your plan has to recognise that the world will change, the plan should provide for contingencies and political priorities … even if there is a bushfire the plan should still say there are other things that still should be done.

Consultant I said:

I am in favour of more detailed, site-specific actions … more hard-edged … and with a ranking of priority.

It’s woeful … you pick up a document … you wouldn’t know where to start because it’s not prioritised.

Annual work plans are where the real prioritising occurs … the management planning process could provide a list of works and actions that could be used to build up an annual works program – which doesn’t happen at the moment.

Consultant J said:

There is no sense of priorities … that is a big deficiency in the plans.
Senior manager L and Senior planner N pointed out that, in their form of planning, the Master Plan and the implementation plan are separate documents and involve separate processes. The Master Plan includes broad priorities but cost estimates are not included. The public are involved in this process. The ten-year implementation plan contains cost estimates and is reviewed annually. The community is not involved in the preparation of the implementation plan but can be involved in setting priorities through the annual budget process, which is subject to public comment.

**Conclusion**

The views on this issue were mixed. The Parks Victoria position was that priorities should be set by corporate planning systems such as Levels of Service (LOS) and Levels of Protection (LOP), the management plan having only a limited role. It was generally agreed that circumstances can, and do, change dramatically during the life of a management plan, for example due to a change in political priorities or to natural disasters, thus altering priorities for management but that the plans produced by Parks Victoria were static in nature and not able to respond to these changes. There seemed to be general agreement that the current form of management plan was inadequate for setting priorities and that a more dynamic process was required, either using other planning systems or by substantially revising the management plan process.

It was significant that all three consultant planners believed that it is feasible to include priorities in management plans.

**10.4.8 Was decision making based on experience or evidence?**

In this context, decision making can be characterised as experience-based, that is, using the professional experience of park managers and planners to determine a wise course of action, or evidence-based, which uses the outcomes of research and surveys to aid decision making. The first is based on the accumulated wisdom of staff but can be subject to error due to personal prejudice or ignorance. The second is said to be more impartial and to better draw on the results of research and survey but tends to downplay the value of experience gained over many years. Should one method be used or should it be a combination of the two?
The principal issues for investigation are:

- What decision making process was used for planning parks in Victoria?
- Could this decision making process have been improved?

**The Parks Victoria position**

On this question there was a consensus amongst Parks Victoria staff that most decision making for planning is based on experience but that some evidence based decision making is entering the process through management systems such as Levels of Service and Levels of Protection.

Park planner A said that:

> It’s a mixture … at least in theory.

Park planner B confirmed that decisions on planning in Parks Victoria are:

> More experience based.

but added that:

> Parks Victoria uses a values assessment and risk assessment … we have a risk assessment for all the plans … it’s linked with the international standards for risk assessment. This involves staff and stakeholders and its findings are written up and incorporated in the plan. The assessment is then mapped.

Manager F said that they use:

> A combination of both.

and that:

> Levels of Service and Levels of Protection are all about where a park sits in a State-wide context.

Manager E agreed that Levels of Service and Levels of Protection provide a very important (scientific) information input into management.
Manager G said:

> My perspective is clearly on experience, there is information around but not being made use of.

Park planner C made the interesting observation that often there is a two (or more) level process of decision making outside the management planning process. That is, senior management sometimes intervenes directly in park planning issues where there are sufficiently important issues and this is done in parallel with the formal planning process.

**Other views**

The limitations of the ‘evidence based’ approach were pointed out by Senior Planner M:

> Planners have no time to read.

> Senior planners draw enormously on their own experience.

> [Planning] can be done better – you’re drawing on past practice not the future.

Senior manager K saw benefits in both approaches:

> Experience is used to guide good decision making

> Provide evidence and then debate the issue.

The consultants varied in their approaches. Consultants I and J said that the decisions that they had made in planning were:

> Largely experienced based.

but Consultant H put the view strongly that:

> Evidence based planning is essentially what consultants do.

> Experience based decision making can have drawbacks, a change of personnel can make major changes in approach.

and, as an example, that:
Evidence based decision making should be used for fire [management].

**Conclusions**

From the interviews it was clear that there are still mixed feelings about the merits of evidence-based versus experienced-based planning. Most of those interviewed recognised the value of long professional experience and many indicated that this was their primary method of decision making. However, most also recognised that science, research and surveys had an important role in informing the planner. More than one interviewee pointed out that planning professionals are generally too busy with their day-to-day work to read academic journals and lengthy scientific reports and that some mechanism is needed to make this information more accessible to planners. Parks Victoria staff pointed out some of their management systems which feed information into the park planning system.

It should be noted that one of the consultants, a senior person in the field and with a science background, argued strongly for evidence-based planning and pointed out some of the difficulties in relying solely on personal experience.

The conclusion from the interviews was that experience is currently the primary tool for planning but that evidence in terms of research and survey information was coming to be used more widely.

### 10.4.9 Was scientific information incorporated effectively?

This is closely related to the previous question. It would seem to be a reasonable proposition that planning for protected areas in the 21st century should be based on the best available thinking and survey data from the physical, biological and social sciences. As has been shown above, it is unlikely that you will ever know everything and will always wish for more detailed information, nevertheless one would hope that the information that is available is readily accessible to planners and in a form that they can use.

The principle issues for investigation are:

- Was research and survey information readily available to park planners?
• Were the results of scientific research in a form that was useful to park planners?

The Parks Victoria position

It would appear that in the 1990s Parks Victoria and DSE had separate databases for natural values. The Planning Manager said:

Information is held by DSE and PV and only now is it being merged for longer term planning such as State of the Parks. This will show whether management actions have made a difference.

The impression gained from some planners in the Parks Victoria head office was that access to information for park planners was good. As quoted above, Park planner A indicated that park planners have access to State-wide data bases:

When a plan starts there is natural values information that we get from state-wide data bases … [there is] a broad assessment process now.

Park planner B added that:

Field planners have ParkView [a Parks Victoria computerised information system], it is linked to the Environmental Information System which has species data.

Potential problems

On the other hand Park planner C argued:

There is a big gap between the results of specialised research work and the real world of management planning.

Manager G agreed:

[Scientific information] doesn’t flow through properly … there are heaps of scientific reports but if a new manager comes in it means nothing to them … they won’t sit down and read it all and make all those connections.

The views of non Parks Victoria people were not so optimistic. Senior manager K, speaking more generally about planning, said:
We have all these data sets but they are not made available in the format [that is useful]. It makes it difficult to realise the potential of GIS.

Consultant H was more forthright. He said:

It is done pretty poorly, the new systems approach has created a lot of linkages but they are very narrow [in terms of who they talk to].

It is consultants [who] pick up scientific information and bring it into practice.

As quoted above, Consultant I doubted the need for very detailed information as the plans are written in such general terms. He was equally blunt about the relationship between researchers and practitioners:

Most practitioners don't have the time to read scientific papers.

There is a glass wall between academics and practitioners.

There is a challenge to ensure that the practitioners are informed by the research so that we can move from experience based decision making to an evidence based process.

[Calling on research to better inform the planning process] only happens when [critical situations] occur such as wildfire.

Manager F said:

You can never be on top of everything … and not always is there a lot of research into the things you want to know about at the time.

**Conclusions**

From these comments it would appear that there is more scientific information available to planners now than in earlier years but there are still perceived problems in translating academic and scientific research into a form that is useful to planning practitioners.

**10.4.10 Were decision support systems used and were they effective?**

In this context, a decision support system may be defined as any methodology or method of displaying information that aids sound decision making. These systems
vary from simple mapped information to very sophisticated geographic information systems that can analyse socio-economic information as well as physical and biological data. Decision support systems help in the analysis of large quantities of complex information and can be used to optimise zoning plans. Of course the more sophisticated systems rely on high quality information and this is not available in many situations and it becomes necessary to adopt a simpler approach.

The principal issues for investigation are:

- Did Parks Victoria use decision support systems for planning and were they effective?
- Would the introduction of decision support systems have been of benefit to park planners?

**The Parks Victoria situation**

The Planning Manager indicated that they did not use decision support systems very much and that decisions were made ‘in the mind’. This seemed to imply that Parks Victoria did not see them as a high priority or, perhaps, as particularly useful.

As indicated in 10.4.5, several Parks Victoria staff noted that some planning decisions are driven by management systems such as Levels of Service. Park planner A said that:

> The management plan will increasingly become the tool to integrate the outcomes of the systems.

Park planner B also pointed out the use of risk assessment.

**Other views**

Consultant H had mixed feelings about decision support systems. he said:

> Geographic Information Systems and modelling systems to generate scenarios can be useful.
but:

You want to be careful about decision support systems, they work well in a situation like the Great Barrier Reef Marine Park [for zoning] but GIS doesn’t work so well in smaller areas, for example, for route selection [of, say, pipelines].

He added that:

Parks Victoria now has resource information and boundaries on their GIS, what is lacking is analytical capability.

Manager G added the caution:

These systems need to deliver the information when you need it and in the form you need it and at the moment it doesn’t do either.

**Conclusions**

This is another area where there are mixed feelings about the utility of additional systems to aid planning and, in truth, there was not much interest shown in the subject. Parks Victoria staff pointed out the use of various management systems such as Levels of Service which feed into the park planning process and appeared to regard them as useful. Parks Victoria did have a geographic information system but its utility was apparently limited by its lack of analytical ability. More sophisticated zoning tools such as MARXAN, as used for zoning the Great Barrier Reef Marine Park, do not seem to have been contemplated for use.

The question then remained as to whether the introduction of more sophisticated decision support systems, such as GIS with analytical capabilities, would be of benefit to planners. The interviews did not offer any clear conclusions.

**10.4.11 Were current methods of public participation successful?**

In environmental planning, as with other forms of planning, participation by the public in some form or other is regarded as an essential component of the planning process. There are a large number of well-known techniques to involve members of the public ranging through the spectrum of informing, consulting, involving, collaborating and empowering. Parks Victoria involved the public in a number of
ways including advertising the preparation of a management plan, releasing the draft plan for public comment and sometimes through focus groups of key stakeholders, public meetings, advisory committees and issuing issues papers for public comment.

The principle issues for investigation are:

- Were the procedures used by Parks Victoria adequate to inform and involve the public?

- How did Parks Victoria report back to the public on management actions that it had taken?

**The Parks Victoria position**

It was apparent that Parks Victoria placed considerable emphasis on public consultation. Regarding marine park planning in East Gippsland, Manager D said:

> Clearly this government and our organisation pushed very strongly … community consultation. This time it was more refined, we had advisory groups.

> We found the advisory groups useful. Not all of them are easy to work with, some work much better than others. One committee has been continued in an informal way.

Manager E said:

> Public participation is well and truly up at the top of our agenda.

Manager F said:

> We did everything we possibly could … I came up with a communications strategy … I think it was worthwhile, people couldn’t come back to us and say … you didn’t give us the opportunity to be involved.

Park planner A commented:

> Parks Victoria has recognised that we can’t manage the parks by ourselves, we need the community involved … we were using management planning as a key, the only almost, mechanism for engaging the community … [but we] have shifted the
policy … community engagement is not just about management planning, its the key role of all the rangers and its to be ongoing … that’s a relief for us [the planners] because we were getting really great engagement with communities and advisory groups and they were asking at the end of the plan when are we meeting next and what are we doing now? … [consultation needs to] be ongoing.

Park planner C referred to recent developments:

One [new] thing emerging in plans is for rangers to hold annual public meetings. Recently there has been concern about the resources consumed by public consultation and the plan itself gets pushed aside.

There has been a recent directive from [the Parks Victoria Chief Executive Officer] ‘Public consultation is an everyday function of all the Rangers-In-Charge’.

He also pointed out that the emphasis given to public consultation was a function of the current government and that:

A change of government could reverse the current policy of public engagement and partnerships.

Manager G, referring to the 1997 management plan for Wilsons Promontory National Park—reviewed in Chapter 8—pointed out some of the deficiencies of public consultation programs:

There were something like 2 500 submissions [on the draft plan] plus newspaper articles … when you analysed the submissions about three percent had something to do with the ecology of the place and the other 97% to do with Tidal River … so the campaign wasn’t about the park but about Tidal River.

The Planning Manager appeared to agree:

Responses can be very polarised.

He also said:

Sometimes there are only a few submissions which can’t represent the views of [all of] the public.
Other views

Those outside Parks Victoria were not so impressed. Consultant H commented:

The Parks Victoria approach is 20 years out of date … it’s based around talking in a focussed manner to selected people and then putting out a draft plan.

There are more informative methods … information, knowledge and support from the community.

Active dialogue and participation by key groups is more likely to lead to understanding and consensus.

It was pointed out that no matter how much you try to involve the public there are still difficulties. Senior manager K said:

You only engage with a very limited section of the public and when the final plan comes out there will be comments ‘we haven’t been consulted’.

In a similar vein Consultant I commented:

You will always receive criticism from some members of the public.

There will always be certain issues that are pre-determined before the process begins – driven either by political imperatives or financial constraints.

The dilemma is that the public is involved in the management planning process which is a strategic one and they often feel frustrated that it doesn’t get down to the nuts-and-bolts level and doesn’t appear in the plan.

Consultant J added:

Public meetings and questionnaires are not representative of the whole community … you have to search out key groups to talk to.

Senior manager L and Senior planner N observed that the key to getting the plan finished is to work through the issues before you get to the draft plan. They said that they floated ideas in the issues papers, not in the draft plan. Most of the feedback to the public is at the time of preparing the draft plan. They indicated
that if you got to the draft plan stage and started to re-negotiate issues for the final plan you would end up doing two plans.

**Advisory committees**

The use of advisory committees was seen to be useful. Consultant H said:

> Parks Victoria is trying harder in the last couple of years, they had community based committees which had positive outcomes.

However there were also seen to be problems. As noted above, Manager D said:

> Found the advisory groups useful. Not all of them are easy to work with, some work much better than others. One committee has been continued in an informal way.

Park planner B echoed this view:

> We had some real difficulties with the Box-Ironbark [advisory committee].

Apparently this was because the individuals on that particular committee could not reach any consensus. Senior manager K said:

> With community reference groups they are at a particular level, sometimes they struggle to take a strategic view e.g. threats to marine national parks risk ranking process, people hadn’t made the connection between was happening in the catchment and its effect on the marine environment. They can see the effect on the estuaries but not on the marine environment.

Park planner A said:

> There are positives and negatives with different advisory groups.

There was also discussion on whether advisory committees should continue after a management plan has been prepared and how they might be structured. Manager F, speaking of the marine parks in East Gippsland, saw an on-going role:

> I was keen to see a continued elevated level of participation in the ongoing management of these areas … this could be linked to the works program. Senior
management doesn’t necessarily support this type of continuing public involvement.

It might make more sense to have an area based advisory group … it would value local knowledge and community development.

Park planner A indicated that advisory committees would only be used in some circumstances in the future:

The advisory groups were saying at one stage that every plan should have one … there were a lot of resources required … some future plans will have one and some won’t.

**Conclusions**

From the interviews it was apparent that Parks Victoria was now putting a lot of emphasis on public consultation, including consultation to do with management plans. There seems little doubt that Parks Victoria put a lot of resources into informing and consulting with the public. What is not so clear is the effectiveness of the consultation. It is understandable that the Parks Victoria staff who have tried very hard to make public consultation work were more optimistic about the outcomes, whereas people from outside the organisation were less complimentary. The principal criticisms were that the results of public meetings and questionnaires do not necessarily represent the views of the general public and that more targeted discussion with key groups and individuals is more productive.

The interviews did not give a lot of information on how Parks Victoria reports back to the public or the effectiveness of this process. The evidence suggested that this aspect of consultation was not well developed and that good will developed during consultation for a management plan can be lost because there was not an on-going program of public involvement.

The comments from Senior manager L and Senior planner N were instructive and noted the role of issues papers and raised the question of at what stage in the planning process should issues be debated and resolved.
10.4.12 Were the plans capable of being implemented and will they be?

No matter how good a park management plan may be it will be useless if it is not capable of being implemented or if it is not implemented for some other reason. In this case ‘implementation’ means that the prescriptions for management listed in the plan have been completed within the life of the plan and that the aims and objectives given in the plan have been met.

The likelihood of a plan being implemented depends on a range of issues including: the availability of personnel and funds, how realistic are the aims, objectives and management prescriptions, the question of whether annual works programs are developed from the management plan or from other management systems, the occurrence of unforeseen events such as wildfires which require sustained action over several years for rehabilitation and the attitude of senior management which determines how seriously management plans are regarded.

The principal issues for investigation were:

- Are management plans produced by Parks Victoria implemented and, if not, why not?
- If management plans are not fully implemented, what can be done to make them more relevant?

**The Parks Victoria position**

Park planner B described the process:

When a management plan is approved we put together all of the strategies in a spreadsheet and send them to the region.

We are hoping that checking [for implementation] will not be left to the end of the ten year period.

What has needed to be improved is the link between the management plan actions (strategies) and the annual work program … each region and each district are responsible for preparing action plans for each year.

It’s up to them [the field staff] to pick up the management plan [and use it].
What happens then is more problematic. Manager D was doubtful about how effectively management plans are implemented:

In the last twenty years I haven’t seen a templated, consistent, across-the-state process for reviewing where you are at with your plans and how you have implemented [them].

Manager E was more positive but noted the difficulties in sticking to the plan:

I see them as the government’s directive to me … I use them … but other directives come through.

I use them as an important document but sometimes struggle with [the available resources] and how they lie with other PV documents like Levels of Service and State of the Parks, Levels of Protection … how do we push [the latter] into planning? … I think they need to be married together.

The Planning Manager also said that implementation depends on the resources available:

Resources are not allocated that way. If you added up all the actions in all the management plans. If you did that you would end up in a disastrous situation.

The plan needs to give expression to the policy and legislation as it affects that location. It needs to give broad directions not specific actions. We don’t know what resources we will have over a period of time.

Consultant J noted the revised implementation section in more recent plans.

**Other views**

Consultant H was critical of Parks Victoria performance:

The management plans in Victoria seem to be largely done to stick on a shelf.

If you read management plans they say essentially nothing … they are almost a description of the park and not much else but there is no reason that that has to be.
Senior manager K said:

There is a high number of wish-list items [but] there are other things that will be implemented and there are others that are outside Parks Victoria’s control and up to others to implement.

There is no stick to make them do it [implement the plan].

**Conclusions**

The strong impression gained from these interviews was that while management plans usually contained specific management actions (strategies) there was no compulsion to implement these strategies and that what implementation occurred was the result of the enthusiasm of individual field managers. It was also clear that the management strategies were not costed and that implementation depended on the resources available. There also appeared to be little connection between the actions in the management plan and work undertaken on the ground as part of the annual work program. This reflected the influence of other corporate planning systems in determining priorities for management.

**10.4.13 What was the relationship between management plans and other corporate planning systems?**

See the comments immediately above. Management plans have been accepted nationally and internationally as an essential document to guide management of the park. Victorian legislation has recognised this by requiring that a management plan be prepared for all protected areas listed in the Schedules to the National Parks Act. However, modern park agencies also use a variety of management systems to identify issues and problems, to allocate resources and to manage efficiently. Most of these management systems are organisation-wide or State-wide in their focus and are not area-based as is a management plan.

Examples of management systems used by Parks Victoria include the State of the Parks Report, Levels of Service for visitor assets, Levels of Protection for natural values, the Environmental Management System, the three year Corporate program and the annual Business Plan. All of these systems are used to determine priorities and to allocate resources.
This raises the question of the relationship between management plans and these other corporate systems. Are annual works programs derived purely from the management plan or are they the outcome of other management systems? Is the management plan gradually being supplanted by these systems and becoming irrelevant?

The principal issues for investigation are:

- How does Parks Victoria determine priorities for management?
- Are management plans becoming irrelevant?

**The Parks Victoria position**

Park planner C clarified this issue:

> The management plan is only one part of the corporate decision making process. I am an advocate for a lot more consideration being given to the linkages between [the management plan and other corporate planning processes] and some rationalisation of them … there is a lot of scope for this.

and pointed out how it has developed in Parks Victoria:

> With many of the senior staff coming from MMBW with very corporate management practices, they thought that management plans were a requirement of DSE so had to be done but were unnecessary.

> There is a need to have another look at the purpose … of the management plan in relation to the other systems.

Consultant H said:

> I think the management plan is very diminished in importance and it is the systems that dominate.

> The management plan could be adapted to better fit in with a systems approach but there needs to be something which is area specific … in the end you are managing a piece of land.
Environmental planning is about getting the big picture right but you also have to get the details right on the ground ... that is a huge gap with their systems approach so you also need an area based plan with measurable outcomes.

Manager G agreed:

There doesn’t appear to be any connection between the corporate planning process and what we do here on the ground … management plans are done because they are required to be done [by the Act].

The annual plan is derived from the corporate plan, most funds are attached to that.

Conclusions

This was not considered a major issue when the interviews commenced but one interview in particular identified its importance. As a result, only the latter interviews had much discussion on the subject. As it turns out, it appears to be a very significant issue and one that requires more investigation.

The general conclusion from the interviews was that, in Parks Victoria at least, area-based management plans continued to be written because the legislation required it but that the role of management plans was being subsumed by other management systems. While management plans set long-term directions they tended to be written in a very general way and this made it difficult to translate them into day-to-day actions. Annual works programs and resource allocation, with their implicit setting of priorities, appear to have been derived more from other management systems. This issue appeared to be recognised by Parks Victoria staff but was not resolved.

10.5 Summary of interview outcomes

The interviews provided a valuable input to the research not only in providing additional factual information on how park planning was undertaken but also on attitudes and approaches to planning. A summary of the main points follows.
• Parks Victoria had a very comprehensive set of guidelines and procedures for the production of management plans. This had benefits in terms of consistency of approach and presentation but also had drawbacks.

• The interviews gave little indication of what philosophies and theory underpin park management planning.

• Complete information for planning will never be available but the quality of information, particularly on natural values, was improving in many areas and provided a reasonable basis for sound planning.

• Parks Victoria had organised systems for handling data on natural values.

• If a plan is prepared for a particular political purpose then the quality of the information base is a secondary issue.

• Parks Victoria planners have had trouble in the past producing plans in a timely manner and some plans were subjected to excessive delays.

• There appeared to be a consensus that park planning should be done by professional planners with field staff being involved in the process, particularly in public consultation.

• Consultants get the job done on time whereas use of in-house resources, often on a part-time basis results in a lengthy process. However consultants go away at the end of the process so that planning expertise is not built up and maintained in the organisation.

• There are two distinct requirements for area based management plans - a long-term strategic statement that normally remains the same for the life of the plan and shorter-term management strategies that are reviewed regularly and are able to respond to changing circumstances.

• Parks Victoria had a mechanism for reviewing plans during their lifespan but it was rarely used. In practice, their annual works programs appeared to be mainly determined by other management processes rather than the management plan.

• Parks Victoria plans included generic strategies and management actions that did not have measurable outcomes. What is not so clear is whether this was a good practice or not.
• Other disciplines have actions that are costed, given a priority and made part of an implementation program whereas this is not often the case with protected area management plans.

• Parks Victoria set priorities by corporate planning systems such as Levels of Service (LOS) and Levels of Protection (LOP), the management plan having only a limited role.

• There seemed to be general agreement that the current form of management plan was inadequate for setting priorities and that a more dynamic process was required, either using other planning systems or by substantially revising the management plan process.

• Experience is currently the primary tool for planning but evidence in terms of research and survey information was coming to be used more widely.

• There are still perceived problems in translating academic and scientific research into a form that is useful to planning practitioners.

• There were mixed feelings about the utility of decision support systems to aid planning.

• Parks Victoria was putting a lot of resources into informing and consulting with the public. What is not so clear is the effectiveness of the consultation.

• Management plans set long-term directions tend to be written in a very general way and this makes it difficult to translate them into day-to-day actions. Annual works programs and resource allocation, with their implicit setting of priorities, appear to have been derived more from other management systems.
CONCLUSIONS

11.1 Introduction

In this thesis I set out to (a) examine how protected area planning was undertaken in Victoria in the period 1987 to 2007 and (b) to make an assessment of the effectiveness of that planning. This was intended to lead to the broader objective of investigating how planning effectiveness can be assessed. The motivation for doing this research was not only personal—a desire to reflect on many years of professional work in this area—but also in the belief that good management of our protected area system demands good planning. It was also based on the conviction that our system of national parks and other protected areas are not only key factors in nature conservation but also make a major contribution to human health and welfare—all the more reason that they are planned and managed well. I hoped that the content of the thesis would provide a firmer theoretical basis for protected area planning, be relevant to practitioners in this field of planning and that the findings would influence the procedures used in day-to-day protected area planning.

It is reasonable to ask why the focus was specifically on management plans. There were two reasons. The first was that it had become accepted wisdom amongst protected area managers that a management plan was an essential document and that every protected area should have one. Management plans were seen to provide direction and coherence to management and to contribute to adaptive management techniques. Unfortunately, not enough emphasis was given to the effectiveness of those plans. The second reason was that management plans are often the only publicly available document that explains how a protected area will be managed and the only opportunity for the public to comment on proposed management. This emphasised the importance of management plans. Both issues suggested that a detailed examination of process and effectiveness was justified.
Chapter 11

The research questions (Chapter 1) were deceptively simple but, in practice, often proved difficult to answer. This was due to a variety of reasons. Documentary evidence was difficult to obtain on management planning processes and decision making. While, no doubt, documentation existed only a little of it was in the public domain and the remainder was in departmental archives which proved impractical to access. Even if access to the files could have been obtained I think that much time might have been spent for little gain as I suspect that some of the issues examined in the thesis are not well documented. Notwithstanding the above, sufficient documents were obtained to allow a reasonable analysis of process and content of management plans.

Another source of difficulty was the lack of academic discussion on this form of planning. In many other subject areas you would expect there to be a rich discourse supported by a range of theories. This was not the case with protected area planning. While there were textbooks and professional guidelines they did not deal in depth with the theory underpinning this form of planning and touched lightly on the issue of planning effectiveness. For this reason it became necessary to examine and analyse the literature in related fields of planning and adapt it to protected area planning (Chapters 2, 3, 5 & 6). The related disciplines included systematic conservation planning, evidence-based conservation planning, and town and regional planning. This process unearthed useful concepts that were relevant to protected area planning.

Yet another difficulty was the assessment of plan quality and planning effectiveness. The professional guidelines on protected area planning and management did not deal with this issue in depth and it also quickly became obvious that there was no consensus in the town and regional planning fraternity on the best way to assess plan quality and planning effectiveness—or even if it is possible. This required an extensive search of the planning literature which revealed approaches which varied from ‘verging on the simplistic’ to the extremely complex (Chapter 3). The latter category applied particularly to recent work in Europe. The challenge then was to adapt this thinking to protected area planning (Chapter 6).
In parallel with the development of the assessment methodology it was necessary to define key issues on which to judge the planning (Chapter 5). These were derived principally from the literature on protected area planning and management but also from my own experience.

In practice, I demonstrated that it was possible to assess protected area plan quality and planning effectiveness but that the assessment process was still beset with methodological problems, particularly in the development of indicators, and the lack of relevant data.

There were two other major inputs to the research—case studies (Chapters 7, 8 and 9) and interviews (Chapter 10). The case studies examined examples of management plans to (a) confirm their content and style, (b) identify changes in planning practice over a twenty year period, (c) analyse the plan's content in terms of the criteria for planning effectiveness developed in Chapter 6 and (d) to determine whether the criteria are a practical form of assessment. The outcomes from the interviews with park planners and managers supplemented the conclusions in the literature review and the case studies.

The case studies not only confirmed details of the style and content of plans and the planning processes of the era but also demonstrated the practical difficulties in measuring protected area planning effectiveness. The latter was due principally to the need to develop suitable indicators and the inaccessibility of relevant data to external reviewers. The interviews also contributed to the development of the list of key planning issues and criteria for their assessment, and confirmed many factual matters.

The findings of the research are considered in more detail below.

### 11.2 Research question 1

What are management plans for protected areas? What are they meant to do and how do they do it?

- What should management plans contain and how should they be prepared?
Chapter 11

• Are they meant to give detailed prescriptions for management or just give broad strategic guidance?

• Are management plans the principal guiding document for management of particular parks or are they just one component of a complex management system?

The primary questions were relatively easy to answer. The ANZECC guidelines for protected area planning described the purpose of management plans to be (ANZECC 2000, pp. 2-3):

… the interpretation and integration of a range of policies, treaties, strategies, business plans and legislative requirements … into a geographical overlay that provides an essential framework to guide management of a particular reserve and assure the public that the area is being responsibly managed.

They noted that management plans lie within a planning hierarchy. The IUCN guidelines included a number of definitions from various authors but defined a management plan as (Thomas & Middleton 2003, p. 1):

… a document which sets out the management approach and goals, together with a framework for decision making, to apply in the protected area over a given period of time. Plans may be more or less prescriptive, depending upon the purpose for which they are to be used and the legal requirements to be met.

Other authors describe the functions of a management plan (Alexander 2008) or say that management plans are about how a protected area will be managed (Worboys, Lockwood, & De Lacy 2005, p. 199).

There appears to be a consensus that management plans and their preparation:

• are one component in a planning hierarchy
• should address a particular protected area
• are a core component of adaptive management and provide an opportunity to review management practices
• form a ‘compact’ between the government and the public on how a protected area will be managed for a given period of time
• should include consideration of a core list of issues including nature conservation and visitor management
• should allow the public to express a view on future management.

Most authors recognise that there are problems associated with management plans, a number of which are discussed below, but continue to assert their importance to good management in helping to answer the following critical questions (Hockings et al. 2006):

• Where are we now?
• Where do we want to be and how will we get there?
• What do we need?
• How do we go about management?
• What did we do and what products and services were produced?
• What did we achieve?

What should management plans contain and how should they be prepared?

The subsidiary questions of what management plans should contain and the process for their production is not quite so clear. The published guidelines and textbooks (Alexander 2008, ANZECC 2000, CFL 1988, CNR 1995, DCE 1992, Thomas and Middleton 2003, Worboys, Lockwood & De Lacy 2005) are in reasonable agreement on the core content of management plans and the process for their production. There are two basic approaches to the layout and content of a management plan: a process based approach or an approach based on the purpose of the park and its values; or a hybrid of the two. The former has headings such as ‘purpose, scope and legislation’, ‘statement of significance’, and ‘analysis of issues’. The latter has headings such as ‘management to conserve biodiversity’, 'visitor facilities’ and 'research and information’. Parks Victoria adopted a hybrid approach in the period in question (Chapters 6, 7 and 8).

Whatever layout is adopted, the literature suggests that a management plan should contain as a minimum: the legislative and policy background; a description of the values of the park; a vision, objectives and management strategies and a zoning
plan. The vision, objectives and management strategies should focus on nature conservation, protection from threats, visitor services and facilities, education and community involvement.

There is significant disagreement on the inclusion of: comprehensive resource information in the plan, discussion of alternative approaches, detailed action plans, performance measures, priorities for implementation, cost estimates, staff required and measurable objectives. This was confirmed in the interviews (Chapter 9). Resolution of these issues is important in determining good planning practice.

There is more agreement on the process for the production of management plans. Most texts agree on the following steps:

- consultation with the public and key interest groups is essential, preferably as an ongoing program, but that there should at least be an opportunity for public comment at the draft plan stage
- the data on natural values and processes, threats to natural values, visitor use and tourism and cultural values needs to be assembled and analysed
- the contentious management issues need to be identified and resolved
- a draft management plan should be released for public comment
- a final management should be formally approved following consideration of public comments
- the plan should be implemented
- monitoring and review programs should feed back into an adaptive management process.

There is no consensus on the style and extent of public consultation, how monitoring and research data is incorporated in planning, at what stage management issues are resolved, the value of publicly available issues papers, the method of implementation and how monitoring and review programs provide input to adaptive management.
Are management plans meant to give detailed prescriptions for management or just give broad strategic guidance?

This is a contentious issue and is not completely resolved. Opinions seem to fall into two camps; those who see management plans as giving broad, strategic guidance to the management of a protected area over ten or fifteen years but not containing specific management strategies, priorities and cost estimates—presumably these functions are supplied by other management systems; and those who see the management plan as giving a direct mandate to the management agency for a particular management program, that is, that all of the management strategies will be implemented and funds will be provided to allow them to be included in annual works programs. Both of these scenarios assume that the plan is sufficiently flexible to cope with changing circumstances and unpredictable events. The former view appears to be driven, at least in some cases, by a perceived lack of resources for planning but may also be a philosophical position. The second view is, perhaps, simplistic and assumes that the management plan is the principal planning instrument and that it demands to be implemented. This viewpoint ignores the existence of other corporate planning systems which may have more influence on the allocation of priorities and resources.

Parks Victoria management plans in the research period included elements of both approaches by including both strategic objectives and management strategies, however many strategies were not specific and measurable and there was only a loose connection between the management plan and annual works programs.

Are management plans the principal guiding document for management of particular parks or are they just one component of a complex management system?

This is a difficult question. The professional literature (Alexander 2008, ANZECC 2000, CFL 1988, CNR 1995, DCE 1992, Thomas and Middleton 2003, Worboys, Lockwood, & De Lacy 2005) seemed to assume that a management plan would be the principal guiding document for management for a particular park. That this might not be the case is hinted at in ANZECC (2000) where the management plan
is labelled as only one of a hierarchy of plans, but the guidelines did not mention other corporate planning systems. Perhaps they had not yet developed at that time. Worboys, Lockwood and De Lacy (2005, p. 217) also touched on the subject in saying that ‘Strategic planning occurs at the organisational and regional levels …’ implying that there are other planning processes which may affect management of a particular park.

It was only in the interviews (Chapter 10) that the true position in Victoria was revealed. It became clear very quickly that the situation, at least in Parks Victoria, was very different to that described in the textbooks. Most people interviewed agreed that there was little connection between the contents of Parks Victoria management plans and the management programs that were actually implemented. The management plan set ‘strategic directions’ but on-ground programs were largely determined by other management systems. A number of those interviewed agreed that the nexus between management plan prescriptions and annual works programs should be improved.

One must conclude that, in the period in question, Parks Victoria had one team of people conscientiously producing management plans and other teams independently determining programs, priorities and resourcing.

11.3 Research question 2

How were protected area management plans prepared in Victoria in the period 1987 to 2007?

- What was their process and content?
- Are the outcomes of the planning process known?

These questions were discussed at length in Chapters 7 to 9. The planning process followed and the content of the plans was described in detail in those chapters. The process for preparation of management plans was similar to that recommended in the guidelines reviewed in Chapter 2 (e.g. ANZECC 2000, Thomas and Middleton 2003) and included the key features given in Section 10.2 above, except perhaps for monitoring and review programs that feed back into an
adaptive management process. As discussed in Section 2.4, by 1995 the content of Parks Victoria management plans was highly codified by the use of detailed guidelines and templates.

The case studies (Chapters 7 to 9) show that the content and format of management plans changed significantly between 1987 and 1997. The later plans were shorter and contained less resource information and plans for different parks had similar contents due to the guidelines that had been introduced. If we adopt the key planning criteria developed in Chapter 6, the case studies and interviews indicate that the major deficiencies in the later plans were:

- their static nature which did not allow for unforeseen events and changing circumstances
- no priorities for action were set
- although there was extensive public consultation it appeared to have little influence on policy formulation
- management plans were being made less relevant by the introduction of other management systems.

The issue of the outcomes of the planning process is less clear. This will be dealt with in more detail in the discussion on planning effectiveness below (Sections 11.4 and 11.5). Outcomes of the planning process would normally be identified by a formal review of monitoring and implementation programs. As I have indicated elsewhere, this information is not available to the external reviewer and it is a matter of speculation as to what detailed information exists. A surrogate measure could be the information presented in the Parks Victoria State of the Parks Reports (Parks Victoria 2000, Parks Victoria 2007a) but these reports contain aggregated data which does not allow a connection to be made between planning and the condition of an individual park. In short, it was not possible to determine most outcomes of the management plans reviewed.
11.4 Research question 3

How do you measure effectiveness in protected area management plans?

This was a key question and one of the most difficult to answer. The literature review revealed that not only was there no accepted methodology for assessing the effectiveness of management plans for protected areas but also that there had been very little consideration of this issue. The work that had been done on management effectiveness in protected areas, for example the IUCN guidelines (Hockings et al. 2006), focused on the complete management cycle. Although this cycle included planning as an element, the guidelines did not identify criteria for good planning or indicators to allow measurement of effectiveness.

In the related field of town and regional planning there had been quite a lot of work done on assessing plan quality—the inputs, process and outputs—but little recent consideration of the outcomes of planning. The work on plan quality generally used a conformance-based approach using checklists of elements that were considered necessary for that type of planning. This approach had the merits of being relatively objective—it is easy to record whether an element is present or absent—and practical to implement, if the appropriate data are available. In consequence, I adapted this approach to protected area planning using the criteria for planning effectiveness developed in Chapter 6. Some of the assessment procedures developed for town planning used statistical analysis to develop an overall score for plan quality but I rejected this approach as misleading and inaccurate.

Assessing the outcomes of protected area planning was much more complex and required a performance-based approach. The literature from town and regional planning showed that, first, critical issues for planning had to be identified; then criteria—and possibly secondary criteria—by which success or failure might be judged had to be developed; methods of measurement and indicators had to be developed; and data sources identified. Finally, a rating system had to be devised to summarise the findings of the assessment process.
It became clear immediately that what had started as simple methodology had become lengthy and complex. It also became obvious that the assessment method might be limited by the availability and accessibility of information, and that many of the criteria for assessing outcomes would require specialist evaluation techniques.

The case studies (Chapters 7, 8 and 9) confirmed these conclusions. The methodology proposed in Chapter 6 worked reasonably well in assessing inputs, process and outputs—see for example Sections 8.5.1 to 8.5.3. The main problems arose from lack of adequate documentation on some of the issues. Assessing outcomes was another matter; the main issues being inadequate monitoring systems, the absence of baseline data, lack of specific and measurable management strategies and lack of published information. The case study in Chapter 8 also illustrated the point that specialist evaluation techniques are required, particularly for assessing natural values management.

Notwithstanding the above comments, I believe that the case studies demonstrated that the evaluation matrix developed in Chapter 6 is a viable method providing that suitable monitoring and audit programs are in place and that management plans are written with specific and measurable objectives. Also, until monitoring and audit information is made available to the public only the management agency is likely to be able to conduct a full assessment.

### 11.5 Research question 4

*How effective were management plans prepared in Victoria in the period 1987 to 2007?*

As noted elsewhere, I did not attempt to make a complete assessment of all aspects of the management plans considered in the case studies. This would not have been feasible due to the lack of published information and, in some cases, the lack of specialist methodology. Instead, I applied the evaluation matrix to the plans not only to determine the viability of the assessment method but also to come to some conclusions on the effectiveness of management plans in the period. The criteria developed in Chapters 5 and 6 were used.
The analysis provided some interesting conclusions. There was little doubt that Parks Victoria devoted considerable resources to the production of management plans and that the planning was conducted conscientiously, but the case studies show that the planning process was inadequate in many respects and that the resulting plans were not particularly effective in terms of the criteria that I have used. The interviews, in particular, showed that, during this period the management plan gradually lost relevance and changed from an essential management tool to a more general and less useful document.

Looking in more detail, the case studies showed the following strengths and weaknesses in protected area planning of the period (Table 11.1).

**Table 11.1  Case studies: summary of planning effectiveness**

<table>
<thead>
<tr>
<th>Issues for planning effectiveness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inputs</strong></td>
<td></td>
</tr>
<tr>
<td>Adequate legislation</td>
<td>The legislation was inadequate in some respects.</td>
</tr>
<tr>
<td>Adequate guidelines for preparing the plan</td>
<td>The later plans were based on detailed guidelines for plan content and planning process but the guidelines did not address planning theory or the decision-making process.</td>
</tr>
<tr>
<td>Adequate information on natural and cultural values, and recreational activity</td>
<td>In general terms, there appeared to be adequate information to prepare the plans. However, the connection between the information base and the management objectives and strategies was not always clear.</td>
</tr>
<tr>
<td>Adequate resources to prepare the plan</td>
<td>There appeared to be adequate resources applied to preparing the plan.</td>
</tr>
<tr>
<td>A commitment by senior management to the planning process</td>
<td>I could not come to a firm conclusion on this matter. There was no documentation available to show whether there is a clear link between the management plan and implementation and annual works plans.</td>
</tr>
<tr>
<td><strong>Issues for planning effectiveness</strong></td>
<td><strong>Comments</strong></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>The planning process</strong></td>
<td></td>
</tr>
<tr>
<td>Intended audience and function</td>
<td>The approach changed over the period examined from a document intended principally for managers to a document both for managers and the public.</td>
</tr>
<tr>
<td>Relationship to local government and other planning</td>
<td>The plans acknowledged State and regional policies but were, essentially, just a plan for the park. There was little integration with Local government and other public land planning.</td>
</tr>
<tr>
<td>Static versus dynamic planning</td>
<td>The plans did not allow for unforeseen events or changing conditions.</td>
</tr>
<tr>
<td>Format, content and presentation of the plan</td>
<td>The plans were written in plain English and had a coherent structure. Later plans suffered from a rigid format and imposition of standard text.</td>
</tr>
<tr>
<td>Evidence-based planning</td>
<td>There was little information on the public record to show how planning decisions were made. The interviews indicated that experience-based planning was the main method used.</td>
</tr>
<tr>
<td>Public consultation and involvement</td>
<td>There was evidence that public consultation was comprehensive.</td>
</tr>
<tr>
<td>Audit and monitoring</td>
<td>All of the case studies acknowledged the importance of audit and monitoring. The later plans had comprehensive recommendations for such programs. It is not clear whether these recommendations were implemented.</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td></td>
</tr>
<tr>
<td>Draft management plan</td>
<td>A draft management plan for comment by the public was released for each of the case studies.</td>
</tr>
<tr>
<td>Final management plan</td>
<td>A final management plan was released for each of the case studies.</td>
</tr>
<tr>
<td>Further planning studies</td>
<td>All of the plans proposed further planning studies.</td>
</tr>
</tbody>
</table>
Issues for planning effectiveness

<table>
<thead>
<tr>
<th>Issues for planning effectiveness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation</td>
<td>While, in some of the case studies, the management strategies were precise enough to be implemented, there was no mention of the resources needed to implement the plan. There was also no publicly available implementation strategy.</td>
</tr>
</tbody>
</table>

Outcomes

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural values management</td>
<td>The early plans had no baseline from which to measure change. The nexus between management plans and nature conservation was also not clear, and specialist evaluation techniques were required.</td>
</tr>
<tr>
<td>Cultural heritage management</td>
<td>This was not a major issue in the plans considered and there was little indication whether cultural heritage outcomes were the result of management plans or other government programmes.</td>
</tr>
<tr>
<td>Recreation, tourism and visitor management</td>
<td>Measuring the outcomes for recreation, tourism and visitor management should, at least in theory, be relatively easy as it involves infrastructure and programs but there was no single, comprehensive, publicly available document which recorded implementation of the plan.</td>
</tr>
<tr>
<td>Community involvement</td>
<td>Community involvement is accepted as being beneficial to management but there appeared to be no assessment made of its effectiveness.</td>
</tr>
</tbody>
</table>

11.6 Research question 5

Can protected area management planning be made more effective?

The research for this thesis indicated that planning for protected areas in Victoria in the period 1987 to 2007 was conducted conscientiously and produced management plans that had some value. However, it became apparent that there were many aspects of the planning process that could be improved and that the plans produced did not, for example, provide for unforeseen events or changing circumstances, often did not contain specific and measurable objectives and were increasingly becomingly divorced from the determination of priorities and
resources. In other words, management plans were gradually drifting from a plan and process essential for management into a bland document produced because legislation required it.

Chapter 6 identified 20 key issues for planning effectiveness and 74 principal criteria by which they might be judged. Of these issues, the research indicated that the effectiveness of protected area planning in Victoria could be improved in the following areas: legislation; relationship to local government and other planning; static versus dynamic planning; use of SMART objectives and allocation of priorities; providing cost estimates; evidence-based planning; audit and monitoring systems; and the connection between management plans, other management systems and implementation. The situation in other jurisdictions may vary from these conclusions.

**Legislation**

The National Parks Act has performed reasonably well in giving direction to the preparation of management plans, however the research shows that the Act provides little guidance with respect to the form, content, process and desired outcomes for management plans. On the basis of this research (Section 5.2.1), I recommend that future legislation should address:

- The requirement to prepare a management plan—I propose that this should be within two years of proclamation to allow timely and effective management intervention.
- Timely amendment, revocation or replacement of a management plan—legislation should provide for this as it is virtually impossible for ten-year, or longer, plans to cater for changing circumstances and unforeseen events.
- The principles and objectives for planning—this is a difficult issue but I propose that future legislation should provide much more detailed objectives for planning and give their order of importance. It should also specify what issues the plan should address such as how the natural features are to be protected and conserved, indicate activities that are
prohibited or regulated and link management proposals to the IUCN reserve management principles.

- The planning and approvals process—I propose that a minimum level of steps in the planning process should be specified, that is: that preparation of a plan should be announced by public advertisement; that a draft plan should be prepared involving public consultation; that the draft plan is exhibited and formal submissions from the public sought; that public submissions must be considered and a formal response to these submissions published (‘giving reasons’). I further propose that the approvals process should provide for the final plan for major parks to be presented to the Minister and then exhibited in both Houses of Parliament with provision for disallowance.

- The requirement for public consultation—I propose that legislation should specify a minimum level of public consultation for the preparation of management plans involving informing and consulting. More direct involvement of the public should be employed in certain circumstances but probably should not be specified in legislation. Issues papers for public comment canvassing management options should be used for major parks.

- The life of the plan—I propose that the lifespan should be a maximum of 10 years—anything longer than this would result in a very generic, non-specific document with little or no direction on operational matters. I further propose that legislation requires a three-year rolling program to determine priorities and a five year minor review with simplified planning process, but still with public involvement. These reviews would be supplemented by annual works/business plans.

It should be noted that attempts to amend legislation can have unforeseen outcomes, particularly if there is not bipartisan support in parliament, so that amendments should not be rushed into without serious consideration of their need and broad consultation.
**Relationship to local government and other planning**

Victoria's protected areas are ‘islands’ in a sea of private and other public land (Figure 1.1 and Section 5.3.2). It follows that that integrated planning would be highly desirable as most land management problems do not stop at arbitrary borders. The case studies show that this has not been the case and that protected areas were largely planned with little consideration of adjoining areas. I propose that future protected area planning is undertaken in the context of integrated regional planning but that the principles for management for protected areas are not diluted in favour of a 'lowest common denominator' planning regime.

**Static and dynamic planning**

The management plans considered in the case studies are what I term static plans, that is, they set down a set of objectives and management strategies that were meant to stay in place for ten years or more but did not take into consideration changing circumstances or unforeseen events. Management plans need to set long-term objectives and identify shorter-term actions, and also provide for 'unknowns'. This is a difficult task, but not an impossible one. What is needed is a dynamic planning process whereby adaptive management principles are used to continually review environmental, social and economic circumstances and adjust management accordingly.

The research indicates that a dynamic process should contain the following elements:

- the initial management plan should be prepared quickly and efficiently—within 12 to 18 months—to avoid the plan being overtaken by events
- the plan should set 10 year objectives which are as specific as possible
- the plan should identify a suite of management actions that will be required to achieve the management objectives
- the management actions should be assigned priorities and cost estimates
• the plan should indicate how management priorities will be affected by unforeseen events such as major wildfires

• an effective audit and monitoring program must be an integral part of the planning and management cycle

• there should be a continuous process to review priorities in the light of changing circumstances with a three-year rolling program to determine priorities, a minor review every five years, and a major review every ten years.

**SMART objectives and priorities**

The management plans considered in the case studies contained many management objectives that were well-meaning but vague, and were not SMART—specific, measurable, achievable, relevant and time-based (Section 5.3.4). This meant that an adaptive management cycle could not be used as there was no way to accurately assess what the plans were meant to achieve, how you would measure success or failure, how the plans contributed to State-wide policy and in what timescale the objectives were intended to be met.

A related issue was the lack of priorities for management strategies in the later plans. This meant that the management strategies were something of a 'wish list' and were not conducive to adaptive management.

To be able to assess the outcomes of a management plan it is necessary to adopt SMART objectives and to assign priorities, even though priorities may change significantly over a ten year period. I acknowledge that the assessment of outcomes can be complex and that appropriate methodology is sometimes lacking.

**Cost estimates**

The management plans considered in the case studies did not provide cost estimates for the proposed management actions. This seems to be typical of natural resource management plans produced in Victoria but it should be noted that it would be totally unacceptable in other disciplines such as engineering or architecture. The research indicated that there might have been two reasons for
this approach: it is normally not possible to accurately predict what the budget of an agency will be in future years so works programs needed to be determined on an annual basis; or other management systems were used to determine priorities and allocate resources. The latter reason seems to be the most likely.

I consider that a management plan without cost estimates is not an effective document as there is no obvious connection between the proposed actions and the likely budget for implementation.

**Evidence-based planning**

An evidence-based approach aims to incorporate scientific research as well as empirical knowledge in conservation planning. It requires an integrated audit and monitoring program and encourages the use of decision support systems and web-based databases (Sections 2.13 and 6.3.6). The case studies and interviews indicated that this is an area where protected area planning could be improved but they also emphasised that scientific information is only one, albeit important, input to the planning process and that political acumen and practical experience are essential additional components.

**Audit and monitoring**

Audit and monitoring programs make essential contributions to adaptive management and must be tightly integrated with the planning and review processes (Chapter 2). The case studies showed that, in the era examined, monitoring systems were not well developed but the later plans made recommendations to redress the situation. There was no evidence in the plans that monitoring and review of the outcomes of earlier plans had played a major role in the preparation of new management plans.

**Management plans, other management systems and implementation.**

The relationship between management plans and other management systems was discussed in Section 10.2 above. The interviews, in particular, showed that management plans were becoming more general and less relevant to management
and were being replaced by other management systems. I suspect that Parks Victoria would probably reject this conclusion but it is what the research showed.

There are a number of drawbacks to this situation:

- producing management plans solely because they are required by legislation is a waste of valuable resources
- management plans are the only publicly available document that describes how a particular protected area will be managed, so a reduction of their status is undesirable
- the preparation of a management plan is one of the few opportunities for the public to express a view on future management—other management processes are not normally released to the public.

I propose that management plans should be restored to their original function as the principal integrating document for individual protected areas and that these plans should identify priorities and resource allocation.

11.7 Further research

There are several ways in which this research might be extended. All would contribute to a more complete understanding of the role of management plans and the assessment of their effectiveness.

The research indicated that there has been little substantive theorising about protected area planning. As a result it was necessary to review material from related disciplines and adapt it to protected area planning. Further research to develop a sound theoretical basis for protected area planning would be desirable.

Another line of enquiry would be to develop further the criteria for planning effectiveness and their associated indicators. The current research has shown that, while there are measurable criteria and indicators for some planning issues, they are lacking for many others. This is particularly the case with the assessment of the outcomes of the planning process where the assessment techniques, if available, are generally not related to the planning process. It would also be useful
to examine whether the evaluation matrix could be simplified to reduce the time and resources needed to assess planning effectiveness.

Further case studies could also provide comparative studies of other jurisdictions including, for example, the other Australian States, New Zealand, Canada and the United States. This would introduce complexities as there would be different social, political and legislative backgrounds to take into account, but might clarify issues such as the role of management plans compared with other corporate management systems and the effectiveness of management plans to deal with changing circumstances.

Another possibility for further research would be to investigate the implementation of a management plan over, say, a ten year period. This would require access to agency records for that period and would require careful analysis to determine what outcomes were the result of the management plan rather than the result of other management programs.

In the period examined by this thesis cultural and economic issues were not well developed in protected area planning and deserve further attention. In particular, in the last few years, engagement with the Indigenous community and the development of joint management and co-management arrangements has become a major initiative in protected area governance and will inevitably influence planning. Further research on this issue would be desirable.

11.8 Postscript

Subsequent to the period under investigation the management planning system used by Parks Victoria continued to evolve. All of the major protected areas in Victoria had approved management plans but many of them were approaching ten years old and were due for major revision. A review of management planning practice was undertaken c. 2008-09 but details are not publicly available. I understand that the review concluded that preparing new management plans for all of these parks would require too many resources and that the life of management plans henceforward would be 15 years. There would be five-yearly minor reviews
and an annual works plan, but I do not have documentation on these issues. The presentation and content of management plans may also change.

It remains to be seen whether a 15 year plan will be a useful and effective document or whether it will only be a slim volume containing very general and unmeasurable objectives. It is also not clear whether there will be public involvement in the five-yearly reviews.

Also at this time co-management and joint management of protected areas with indigenous communities was being introduced. This may require a different approach to planning to meet the requirements of the indigenous communities.

Another change was the introduction of a 'wiki', an interactive web-based program which provides for information about the planning process and allows comments to be received from the public. An interesting aspect is that apparently the 'wiki' will be used to write the plan, that is, members of the public can contribute to the text. It is not clear how this process will interact with the work of professional planners.

At the same time, the Department of Sustainability and Environment was developing a State-wide monitoring program in forested areas. It will be a flora-based system, based mainly on floristic and structural data, but will also include bird counts. It will provide an input to the evaluation of changes in biodiversity.

The department was also working towards integrating planning for parks and State forest areas.

All of these developments will affect future protected area planning.
REFERENCES

AHC—see Australian Heritage Commission.


Alexander, ER 2009, ‘Dilemmas in evaluating planning, or back to basics: what is planning for?’, Planning Theory & Practice, vol. 10, no. 2, pp. 233-244.


ANCA—see Australian Nature Conservation Agency.


ANZECC—see Australian and New Zealand Environment and Conservation Council.


References


Biggs, H, Ferreira, S, Freitag-Ronaldson, S & Grant-Biggs, R 2011, 'Taking stock after a decade: does the "thresholds of potential concern" concept need a socio-ecological revamp?', *Koedoe*, vol. 53, no. 2, pp. 1-5, AOSIS OpenJournals, RSA.


BSA—see Building Services Agency.
References


CFL—see Department of Conservation, Forests and Lands.
CNR—see Department of Conservation and Natural Resources.

DCE—see Department of Conservation and Environment.


Department of Natural Resources and Environment 1996a, *Wilson's Promontory National Park: draft management plan*, National Parks Service, Department of Natural Resources and Environment, East Melbourne.


References


DEWHA—see Department of the Environment, Water, Heritage and the Arts.

DSE—see Department of Sustainability and Environment.


Foxcroft, LC & McGeoch, M 2011, 'Implementing invasive species management in an adaptive management framework', *Koedoe*, vol. 53, no. 2, pp. 1-5, AOSIS OpenJournals, RSA.

Gaylard, A & Ferreira, S 2011, 'Advances and challenges in the implementation of strategic adaptive management beyond the Kruger National Park - making linkages between science and biodiversity management', *Koedoe*, vol. 53, no. 2, pp. 1-5, AOSIS OpenJournals, RSA.


GBRMPA—see Great Barrier Reef Marine Park Authority.


References


IUCN—see International Union for Conservation of Nature.


References


Martin, BV 2006, Submission to the Senate Inquiry into Australia’s National Parks, conservation reserves and marine protected areas, The Senate Standing Committee on Environment, Communications, Information Technology and the Arts, Canberra.


McLoughlin, CA, Deacon, A, Sithole, H & Gyedu-Ababio, T 2011, 'History, rationale, and lessons learned: thresholds of potential concern in Kruger
References

National Park river adaptive management', *Koedoe*, vol. 53, no. 2, pp. 1-27, AOSIS OpenJournals, RSA.


NPAC—see National Parks Advisory Council.

NPS—see National Parks Service.

NPWD—see National Parks and Wildlife Division.

NRE—see Department of Natural Resources and Environment.

References


References


SA/SNZ—see Standards Australia & Standards New Zealand.


SOED—see Shorter Oxford English Dictionary.


References


VCC—see Victorian Coastal Council.

VEAC—see Victorian Environmental Assessment Council.


VNPA—see Victorian National Parks Association.


**Principal Legislation and Statutory Rules**


References


## Appendix 1

### Schedules to the National Parks Act 1975 (Vic)

The *National Parks Act 1975* (No. 8702 of 1975) has a number of Schedules to the Act listing protected areas in various categories. This summary is derived from Version No. 123 of 2 July 2009.

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule 1</td>
<td>Lists earlier Acts which have been repealed.</td>
</tr>
<tr>
<td>Schedule 1A</td>
<td>Native Title Not affected</td>
</tr>
<tr>
<td>Schedule 2</td>
<td>National Parks</td>
</tr>
<tr>
<td>Schedule 2A</td>
<td>Wilderness Parks</td>
</tr>
<tr>
<td>Schedule 2B</td>
<td>State Parks</td>
</tr>
<tr>
<td>Schedule 3</td>
<td>Other Parks including Coastal, Historic and other park categories, and a Flora and Fauna Reserve</td>
</tr>
<tr>
<td>Schedule 4</td>
<td><em>Crown Land</em> managed as parks under S.19B.</td>
</tr>
<tr>
<td></td>
<td>Marine Parks, Marine Reserves, Marine and Coastal Parks, a Nature Conservation Reserve and a National Heritage Park</td>
</tr>
<tr>
<td>Schedule 5</td>
<td>Wilderness Zones</td>
</tr>
<tr>
<td>Schedule 6</td>
<td>Remote and Natural Areas</td>
</tr>
<tr>
<td>Schedule 7</td>
<td>Marine National Parks</td>
</tr>
<tr>
<td>Schedule 8</td>
<td>Marine Sanctuaries</td>
</tr>
</tbody>
</table>
Objects of the Act

Source: the National Parks Act 1975 (Vic), version No. 123 of 2 July 2009. The Objects of the Act are set down in Section 4.

(a) to make provision, in respect of national parks, State parks, marine national parks and marine sanctuaries—

(i) for the preservation and protection of the natural environment including wilderness areas and remote and natural areas in those parks;

(ii) for the protection and preservation of indigenous flora and fauna and of features of scenic or archaeological, ecological, geological, historic or other scientific interest in those parks; and

(iii) for the study of ecology, geology, botany, zoology and other sciences relating to the conservation of the natural environment in those parks; and

(iv) for the responsible management of the land in those parks;

(aa) to make further provision in respect of designated water supply catchment areas in national parks—

(i) for the protection of those areas; and

(ii) for the maintenance of the water quality and otherwise for the protection of the water resources in those areas; and

(iii) for the restriction of human activity in those areas for the purposes of sub-paragraphs (i) and (ii);

(ab) to make provision in respect of wilderness parks—

(i) for the protection, enhancement and management of those parks as wilderness so as to maximise the extent to which those parks are undisturbed
by the influences of the European settlement of Australia; and

(ii) for the protection, preservation and evolution of the natural environment including indigenous flora and fauna and of features of ecological, geological, scenic, archaeological and other scientific significance; and

(iii) for the use and enjoyment of those parks by the public for inspiration, solitude and appropriate self-reliant recreation; and

(iv) for the study of ecology, geology, botany, zoology archaeology and other sciences relating to the environment in those parks;

(b) in respect of parks described in Schedule Three—

(i) to make provision, insofar as is appropriate to each such park, for the protection and preservation of indigenous flora and fauna and of features of scenic or archaeological, ecological, historic or other scientific interest; and

(ii) subject to such provision as is made under sub-paragraph (i), to make provision for the public to observe, experience or otherwise become acquainted in those parks with the countryside and rural skills activities and pursuits and for carrying on, in those parks and for those purposes, agricultural, horticultural, or other agrarian projects and botanical, biological, ecological, geological, zoological, or other scientific studies or projects; and

(c) to make provision in accordance with the foregoing for the use of parks by the public for the purposes of enjoyment, recreation or education and for the encouragement and control of that use.
Management objectives for various parks


While national parks, state parks, wilderness parks, marine national parks and marine sanctuaries and other parks have generally similar management objectives there are some important differences.

Only national parks and State parks have the requirement that the Secretary shall (s. 17 (2)(ba)):

- ensure that appropriate and sufficient measures are taken (including seeking the making of an appropriate agreement under section 32 1(1))—
  - to protect designated water supply catchment areas; and
  - to maintain the water quality of and otherwise protect the water resources in those areas; and
  - to restrict human activity in those areas for the purposes of sub-paragraphs (i) and (ii);

That is, only national parks and State parks have specific requirements regarding water catchment values.

Only wilderness parks have the requirement for the Secretary to take measures:

- s. 17A(2)(c) for the control of indigenous fauna to the extent necessary for the preservation and protection of any species;

- s. 17A(3) Subject to sub-section (2), the Secretary—
  - must ensure that opportunities are provided for solitude and appropriate self-reliant recreation in a wilderness park; and
  - must promote the understanding and appreciation of the purpose and significance of wilderness and the proper use of wilderness by the public.
but they do not have the requirement, as with other categories of park, to:

   ensure that appropriate and sufficient measures are taken to protect each … park
   from injury by fire;
These Figures are derived from Jones (2009) and illustrate a *performance snapshot*—a ‘traffic light’ pictorial system for summarising the monitoring program and a framework for performance measurement.

**A performance snapshot**

Source: Jones 2009.
Appendix 5

General criteria for plan assessment

These criteria were developed by Baer (1997) and are intended to evaluate a plan while the plan is being formulated. He called this process *plan assessment* to distinguish it from testing and evaluating plan alternatives and from *post hoc* plan evaluation.

Source: Baer (1997)

*Adequacy of Context*

(Explain the context and setting: the *what* and the *why* of the document. They are not self-evident to the public.)

1. Is the political/legal context of the plan explained (e.g. meeting state mandates, public discussion and consideration, top priority issues)?

2. Is the administrative authority for preparation indicated (Council or Planning Commission resolution, state law, federal requirement, etc.)?

3. Is the role of the preparing agency or firm adequately explained (e.g. a letter of transmittal)?

4. Is background information presented (e.g. reasons for plan’s presentation)?

5. Is it clear who the plan is for (e.g. citizens, agency head, city council, board)?

6. Is the purpose of the plan explained (e.g. study, information, decision, action, conveyance of advice)?

7. Is the type of plan and its scope reported early on, to alert the reader about what to expect? (e.g. the reader is alerted that this plan is highly quantitative and analytic; far ranging or narrow; specific, and technical.)

8. Is an overview/summary provided (e.g. an “Executive Summary”)?

9. Is the source of funding for the plan shown (e.g. federal, state, local, private donor, agency)?

10. Is the amount of time in preparation shown (total person/hrs, weeks, etc.)?
‘Rational Model” Considerations

(Show basic planning considerations based on underlying theory and its criteria. Even beyond the list here, there are many theories and types of plans. The plan authors must be clear themselves about what they are doing, to transmit clarity to the reader).

1. Given the type of plan to be prepared, are the plan formulators clear about the criteria they will use to assess its progress while being formulated?

2. Have these criteria been made explicit in the plan?

3. Are problems specifically identified (or only implied)?

4. Are goals and objectives explicitly identified?

5. Is the tone of the plan commensurate with the planning approach recommended (e.g., comprehensive, incremental, advocacy, etc.)?
   a) If the plan is intended to be comprehensive, does it relate substantively to a larger whole (e.g., horizontal relation to other agencies and adjacent governing bodies)?
   b) Does the plan consider the regional or next higher level of government or context (e.g. vertical relation)?
   c) Is there planning for procedural coordination with other plans and agencies?

6. Is the capacity or adequacy of existing infrastructure and organizational systems described?

7. Are alternatives listed, or at least considered?

8. Are the alternatives identified as “variations on a theme,” or as radically different?

9. Are tradeoffs permitted?

Procedural Validity

(Explain the who and the how of the plan-making inform the reader about what went on in making the plan and what is going on by publishing it.)

1. Who was involved in the plan formulation (e.g. staff from different agencies or departments, citizen groups, politicians)?

2. How were they chosen (e.g. on the basis of expertise, interest, volunteering, or other self-selection)?

3. How were they involved (e.g. discussion groups, internal staff memos or
Appendix 5

papers, public meetings)?

4 How were data, models, goals, and other pertinent information used in recommending policy or action?

5 How were technical matters transformed into recommended policy (e.g. through “ordinary knowledge,” experience, “scientific” training, design training)?

6 Was an advisory group used?

7 Were preliminary drafts circulated for public comment?

Adequacy of Scope

(Show how the plan is connected to the larger world.)

1 Have all possible or pertinent issues been considered (e.g., physical, social, economic, political, psychological, cultural, or design)?

2 Have issues of efficiency and equity and predictability been considered?

3 Has the distribution of costs and benefits among different groups and interests been considered?

4 Have relocation/displacement implications been considered?

5 Have financial/fiscal implications been considered?

6 Have the legal implications been considered?

7 Has feasibility in the larger political context been considered?

Guidance for Implementation

(Most plans are intended to do something. Consider the instruments (ordinances, regulations, budgets, schedules, etc.) and the agencies and persons responsible for making the plan work. Should they be included? A vision plan would not have an implementation aspect; rather, it would have a section dealing with “the next steps”)

1 Are implementation provisions appropriate in the plan?

2 Are there priorities for implementation?

3 Is cost of implementation vs. non-implementation considered?

4 Is there a time span for plan implementation?
Appendix 5

Is there provision for scheduling and coordinating of implementation proposals?

Can proposals accomplish their intended purpose if implemented?

Is there a program or proposal for an impact analysis?

Is the agency or person responsible for implementation identified?

Can the responsible agency realistically be expected to implement the plan?

**Approach, Data, and Methodology**

(Make clear the technical bases, if any, of the plan; where the data come from and how they are used, so that others may check the plan’s thinking by use of the same sources.)

Is the plan based on a wide spectrum of data where feasible?

Is the plan sufficiently flexible to permit new data and findings to be fed in?

Are the data sources cited?

Are the methodology sources cited?

Are the levels of data aggregation relevant or meaningful to the study?

**Quality of Communication**

(Clear communication above all else is necessary for a fair hearing from others.)

Is the client or reading public identified (e.g., public at large, other professionals)?

Are the ideas convincingly presented, given the nature of the audience?

Are the rationales behind the decisions effectively presented?

Are the proposals/recommendations/conclusions consistent with objectives?

Is the tone of the document consistent with the message conveyed (e.g., not presented in the past tense as an accomplished fact when the plan is for study and review)?

Are the criteria indicated by which the plan is intended to be judged?
Appendix 5

Plan Format

(Other forms of communication are found in the plan format itself, as well as evidence on who takes professional responsibility for the plan’s formulation, when it was adopted, and other seemingly incidental concerns that nevertheless communicate professional competence.)

1 Are the size and format conducive to the use intended? (For example, an oversize plan is hard to file and copy, hence does not lend itself to constant reference and day-to-day use.)

2 Is the date of publication shown?

3 Are the authors shown, to indicate professional responsibility (names of personnel who worked on the plan, as well as agency or firm names)?

4 Is there a table of contents?

5 Are pages numbered?

6 Are graphics used to best advantage?

7 Is the plan attractively laid out?
Appendix 6

Assessing plan quality: plan components

This plan-coding protocol was developed by Brody (2003) as the basis for assessment of the quality of local plans addressing natural hazard threats. It is based on the methodology of Berke et al. (1996 & 1998). It is a list of the components of a plan and their indicators to which a scoring system may be attached.


Plan-coding protocol

Factual base

Type of data

1.1 Delineation of location of hazard
1.2 Delineation of magnitude of hazard
1.3 Number of current population exposed
1.4 Number and total value of different types of public infrastructure (water, sewer, roads, storm water drainage) exposed
1.5 Number and total value of private structures exposed
1.6 Number of different types of critical facilities (hospitals, utilities, police, fire) exposed
1.7 Loss estimations (number and total value) to public structures
1.8 Loss estimations (number and total value) private structures
1.9 Emergency shelter demand and capacity data
1.10 Evacuation clearance time data
Appendix 6

Goals

Economic impacts

2.1 Any goal to reduce property loss
2.2 Any goal to minimize fiscal impacts of natural disasters
2.3 Any goal to distribute hazards management cost equitably

Physical impacts

2.4 Any goal to reduce damage to public property
2.5 Any goal to reduce hazard impacts that also achieves preservation of natural areas
2.6 Any goal to reduce hazard impacts that also achieves preservation of open space and recreation areas
2.7 Any goal to reduce hazard impacts that also achieves maintenance of good water quality

Public interest

2.8 Any goal to protect safety of population
2.9 Any goal that promotes a hazards awareness program
2.10 Other (specify)

Actions

General policy

3.1 Discourage development in hazardous areas

Awareness

3.2 Educational awareness
3.3 Real estate hazard disclosure
3.4 Disaster warning and response program
3.5 Posting of signs indicating hazardous areas
3.6 Participation in flood insurance programs
3.7 Technical assistance to developers or property owners for
mitigation

3.8 Other (specify)

Regulatory

3.9 Permitted land use
3.10 Transfer of development rights
3.11 Cluster development
3.12 Setbacks
3.13 Site plan review
3.14 Special study/impact assessment for development in hazard areas
3.15 Building standards
3.16 Land/property acquisition (eminent domain)
3.17 Impact fees
3.18 Retrofitting of private structures
3.19 Other (specify)

Incentives

3.20 Retrofitting of private structures
3.21 Land and property acquisition
3.22 Tax abatement for using mitigation
3.23 Density bonus
3.24 Low-interest loans
3.25 Other (specify)

Control of hazards

3.26 Storm water management/watershed treatment
3.27 Maintenance of structures
3.28 Other (specify)
Appendix 6

Public facilities and infrastructure

3.29 Capital improvements
3.30 Retrofitting public structure
3.31 Critical facilities
3.32 Other (specify)

Recovery

3.33 Land use change
3.34 Building design change
3.35 Moratorium
3.36 Recovery organization
3.37 Private acquisition
3.38 Financing recovery
3.39 Other

Emergency preparedness

3.40 Evacuation
3.41 Sheltering
3.42 Require emergency plans
3.43 Other (specify)
Appendix 7

Plan evaluation criteria

These criteria were developed by Steelman and Hess (2009) in a study of open space protection in the USA.

Source: Steelman and Hess (2009).

Plan Evaluation Criteria

1 Overview and Organizing Principles

1.1 Are key issues identified?
- Population growth
- Land use change
- Sprawl
- Water quality
- Air quality
- Quality of life
- Other

1.2 Which aspects of open space are addressed in the plan?
- Water quality
- Riparian corridors / buffers
- Habitat protection
- Greenways
- Parks and recreation
- Viewsheds
- Working lands
- Forest
- Historic / cultural values
- Wildlife connectors / corridors
- Other

1.3 Are key issues identified (ref 1.1.) substantiated by evidence (e.g., citations, tables, charts, and numbers supporting blanket statements)?

1.4 Are sources of information and data referenced?
1.5 Is there a vision statement?
1.6 Is there an explanation of how the plan can affect outcomes?
1.7 Is it clear that the plan was formally adopted?
1.8 Is there evidence of commitment from elected officials?

2 Implementation

2.1 Are there any recommendations to implement the plan?
2.2 Are recommendations mandatory/strongly worded (shall/require) as opposed to suggestive/weakly worded (should/may)?
2.3 Are the actions/recommendations comprehensive enough to accommodate issues raised in the plan?
2.4 Does the plan recommend SPECIFIC actions?
2.5 Are timelines for implementation identified?
2.6 Are organizations with responsibility to implement policies clearly identified?
2.7 Are SPECIFIC sources of funding identified to implement the plan?

3 Monitoring

3.1 Are goals quantified based on measurable objectives?
3.2 Is there a plan for evaluating progress in open space protection?
3.3 Are agencies or departments identified that are responsible for monitoring PROGRESS in open space protection?
3.4 Is a method for updating the plan indicated?
3.5 Is there a timetable for updating the plan?

4 Coordination with other plans

4.1 Are connections with other local (from the same jurisdiction) plans and programs explained?
4.2 Does the plan reference/address the Triangle GreenPrint?
4.3 Does the plan reference/address plans of overlapping or adjacent jurisdictions?

5 Organization and presentation

5.1 Is there a glossary?
5.2 Are key terms defined?
5.3 Is there an executive summary?
5.4 Is the plan in plain English (avoids poor grammar, jargon-free)?
5.5 Are clear illustrations used (e.g., photos, diagrams, graphs)?
5.6 Are there maps of open space?
5.7 Is spatial information clearly illustrated on maps?
5.8 Are supporting documents included with the plan (e.g., appendixes, videos, CD, and websites)?

6 Citizen participation

6.1 Was there stakeholder involvement in the creation of the plan?
6.2 Are organizations and individuals that were involved in plan preparation identified?
   Public officials
   Conservation organizations
   Land owners
   Public health
   Economic development
   Agriculture
   Affordable housing
   Other
6.3 Is there an explanation of why the organizations and individuals identified in the plan were involved?
6.4 Is there an explanation of the participation techniques that were used?
   Charette
   Community meetings (two-way communication)
   Information forums (one-way communication)
   Committee/advisory board of stakeholders
   Survey instrument
   Cannot be determined
   Other
6.5 Does the plan describe the history of stakeholder involvement that occurred PRIOR to the planning process?

7 Identification of priority areas

7.1 Are there priority areas?
7.2 If yes, are the criteria for selecting priority areas clear?
7.3 If included, are habitat areas selected based on conservation science (e.g. endangered species, patch size, and critical habitat)?
7.4 Does the plan recognize stewardship and management as a need?
7.5 Are there specific recommendations for stewardship and management?
7.6 Does the plan call for monitoring the natural resources in question to
determine effects of plan implementation?
Appendix 8

Criteria for evaluating plan quality

These criteria were developed by Eriksen et al. (2003) in an examination of planning effectiveness under the New Zealand Resource Management Act. The criteria are derived from Berke et al. (1999).

Criteria for evaluating plan quality

Source: Eriksen et al. (2003), derived from Berke et al. (1999)

1. Interpretation of the mandate

Articulation of how a legislative enabling provision is interpreted in the context of local (or regional) circumstances.

1.1 Is there a clear explanation of how the plan implements key provisions involving matters of national importance, Treaty of Waitangi, duties to assess costs and benefits, and duties to gather information and monitor?

1.2 Is there a clear explanation of the functions of a district plan, as required by key legislative provisions?

2. Clarity of purpose

Articulation of a comprehensive overview, preferably early on, of the outcomes the plan attempts to achieve.

2.1 Does the overview consist of a coherent explanation of environmental outcomes?

2.2 Does the overview contain a discussion of social, cultural and economic matters affecting those environmental outcomes?

3. Identification of issues

Explanation of issue in terms of the management of effects.

3.1 Are issues clearly identified in terms of an effects-based orientation?

4. Quality of facts-base

Incorporation and explanation of the use of factual data in issue identification and the development of objectives and policies.
4.1 Are maps/diagrams included? Do the maps display information that is relevant and comprehensible?

4.2 Are facts presented in relevant and meaningful formats?

4.3 Are methods used for deriving facts cited?

4.4 Are issues prioritised based on explicit methods?

4.5 Is cost/benefit analysis performed for main alternatives?

4.6 Is background information/data sourced/referenced?

5 Internal consistency (of plans)

Issues, objectives, policies, and so on are consistent and mutually reinforcing.

5.1 Are objectives clearly linked to issues?

5.2 Are policies clearly linked to certain objectives?

5.3 Are methods linked to policies?

5.4 Are anticipated results linked to objectives?

5.5 Are indicators of outcomes linked to anticipated results?

6 Integration with other plans and policy instruments

Plans should integrate key actions of other plans and policy instruments that are produced within the agencies or by other agencies.

6.1 How clear is the explanation of the relationship of each mentioned policy/policy instrument of the plan under study?

6.2 How clearly are cross-boundary issues explained?

7 Monitoring

Plans should include provisions for monitoring and identify organisational responsibility.

7.1 Are provisions for monitoring the performance of objectives and policies included in the plan?

7.2 Are the specific indicators to be monitored identified?

7.3 Are the organisations responsible for monitoring and providing data for indicators identified?
8 Organisation and presentation

Plans should be readable, comprehensible and easy to use for both lay and professional people.

8.1 Is a table of contents included (not just a list of chapters)?
8.2 Is a detailed index included?
8.3 Is there a user’s guide that explains how the plan should be interpreted?
8.4 Is a glossary of terms and definitions included?
8.5 Is there an executive summary?
8.6 Is there cross-referencing of issues, goals, objectives and policies?
8.7 Are clear illustrations used (e.g. diagrams, pictures)?
8.8 Is spatial information clearly illustrated on maps?
8.9 Are individual properties clearly delineated on maps?
A new model for measuring planning performance

This analytical framework was developed by Carmona and Sieh (2008) to address the evaluation of local government planning in the United Kingdom. It suggests a very complex process.

Source: Carmona and Sieh (2008, p. 440)
Appendix 10

The Plan—Process—Results (PPR) methodology

The Plan—Process—Results method of assessing the production and outcomes of a plan was developed by Oliveira and Pinho (2009) in a study of municipal plans for Lisbon and Oporto, Portugal.


Synthesis of the PPR methodology

<table>
<thead>
<tr>
<th>Specific criteria</th>
<th>Evaluation subjects</th>
<th>Sub-criteria</th>
<th>Evaluation techniques /data sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal coherence</td>
<td>Plan</td>
<td>Relationships between the objectives and the land uses of the plan</td>
<td>Reading of the plan and Impact matrices (different plan proposals)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Relationships between the objectives and the urban systems of the plan</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Relationships between the objectives and the plan implementation mechanisms</td>
<td></td>
</tr>
<tr>
<td>Interpretation of</td>
<td>Plan</td>
<td>Interpretation in terms of form (checklist)</td>
<td>Reading of the plan and of the framing law-decrees</td>
</tr>
<tr>
<td>planning system</td>
<td>Planning system</td>
<td>Interpretation in terms of substance</td>
<td></td>
</tr>
<tr>
<td>Relevance</td>
<td>Plan</td>
<td>Relationships between the needs of the city and the objectives of the plan</td>
<td>Reconstruction of the baseline situation and SWOT analysis</td>
</tr>
<tr>
<td></td>
<td>City</td>
<td>Relationships between the needs of the city and the land uses and urban</td>
<td>Impact matrices (plan proposals—city needs)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Relationships between the needs of the city and the plan implementation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>mechanisms</td>
<td></td>
</tr>
</tbody>
</table>

373
<table>
<thead>
<tr>
<th>Specific criteria</th>
<th>Evaluation subjects</th>
<th>Sub-criteria</th>
<th>Evaluation techniques /data sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>External coherence</td>
<td>Plan</td>
<td>Other plans</td>
<td>Relationships in terms of objectives&lt;br&gt;Relationships in terms of territorial model&lt;br&gt;Relationships in terms of implementation</td>
</tr>
<tr>
<td>Participation in plan making</td>
<td>Plan</td>
<td>City users</td>
<td>Quantity of citizens’ written comments&lt;br&gt;Quality of citizens’ written comments&lt;br&gt;Promotion of public participation by the local authority</td>
</tr>
<tr>
<td>Plan utilisation</td>
<td>Plan&lt;br&gt;Planning process</td>
<td>Political power</td>
<td>Influence of the political power in the plan, as well as in other planning products, processes and structures&lt;br&gt;Influence of the plan and of the planning practice in the political power (discourses, programmes)</td>
</tr>
<tr>
<td>Commitment of resources</td>
<td>Planning process</td>
<td>(Human, financial) Resources</td>
<td>Evolution of the availability of resources&lt;br&gt;Type of resources available&lt;br&gt;Relationships between planning performance and utilisation of resources</td>
</tr>
<tr>
<td>Participation during plan</td>
<td>Planning process</td>
<td>City users</td>
<td>Quantity of citizens’ written comments&lt;br&gt;Quality of citizens’ written comments&lt;br&gt;Promotion of public participation by the local authority</td>
</tr>
</tbody>
</table>
The second part of the table, which was on a following page in the original document, is a little confusing as it introduces an additional column without a heading. Nevertheless the meaning is reasonably clear.

<table>
<thead>
<tr>
<th>Effectiveness</th>
<th>City Planning process</th>
<th>Plan</th>
<th>Development of the plan through urban development plans and detailed plans</th>
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</thead>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Development of the plan through urban design projects</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Plan guidance in the process of development control</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>Direction</th>
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<th>Plan</th>
<th>Plan impact on demography</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Plan impact on transports and mobility</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Plan impact on housing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Plan impact on economy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Reading of the plan and of lower level plans</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cartographic analysis</td>
</tr>
<tr>
<td></td>
<td>Field work</td>
</tr>
<tr>
<td></td>
<td>Analysis of planning permits</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Reading of the plan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistical analysis</td>
</tr>
<tr>
<td></td>
<td>Cartographic analysis</td>
</tr>
<tr>
<td></td>
<td>Field work</td>
</tr>
<tr>
<td></td>
<td>Interviews</td>
</tr>
</tbody>
</table>
Appendix 11

Summary of management strategies in the 1997 Wilsons Promontory National Park management plan


<table>
<thead>
<tr>
<th>Section of plan</th>
<th>Major initiatives (note 1)</th>
<th>Author’s comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Strategic Directions</td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>Zoning</td>
<td>The zoning plan was less complex than the one in the 1987 plan. It provided</td>
</tr>
<tr>
<td></td>
<td></td>
<td>for a new education zone.</td>
</tr>
<tr>
<td>3</td>
<td>Resource Conservation</td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Research and monitoring</td>
<td>More systematic and active ecological management by extending the existing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conservation Strategy for the northern sector to the rest of the park, in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>consultation with the scientific community.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Establishment of a Centre of Excellence in Park Management linked to research</td>
</tr>
<tr>
<td></td>
<td></td>
<td>institutions, with any required buildings located at the Yanakie gateway.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Centre of Excellence for Park Management’ and establishment of formal links</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with other Biosphere Reserves.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Environmental Management Plan for the park.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GIS based data collection and monitoring.</td>
</tr>
<tr>
<td>3.2</td>
<td>Geological and landform features</td>
<td>Proclaim two Reference Areas.</td>
</tr>
<tr>
<td>3.3</td>
<td>Rivers and catchments</td>
<td>Management plan for Mount Vereker Creek Natural Catchment Area.</td>
</tr>
<tr>
<td>Section of plan</td>
<td>Major initiatives (note 1)</td>
<td>Author’s comments</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>3.4 Vegetation</td>
<td>Restoration of grassland/woodland and forest in the vicinity of the airstrip by reducing the impact of grazing species such as kangaroos. Stronger environmental management programs at Tidal River to re-establish native vegetation throughout the campground, improve waste handling and control weeds and pests in co-ordination with pest control in the rest of the park.</td>
<td>Ecological burning program.</td>
</tr>
<tr>
<td>3.5 Fauna</td>
<td>Prohibit wildlife feeding, otherwise routine implementation.</td>
<td></td>
</tr>
<tr>
<td>3.6 Landscape</td>
<td>No major initiatives.</td>
<td></td>
</tr>
<tr>
<td>3.7 Cultural heritage</td>
<td>An increased program of identification, protection and interpretation for Aboriginal sites of importance.</td>
<td>Consultative process and support for the Aboriginal community.</td>
</tr>
</tbody>
</table>

4 Park Protection

4.1 Fire management | An ongoing program of burning to promote the growth and diversity of vegetation and fauna, and to reduce invasion of the park’s important heathland by fire-sensitive plant species. | Undertake ecological burning. |

4.2 Pest Plants and animals, and diseases | Integrated monitoring and control program. |                               |

4.3 Soil conservation | No major initiatives. |                               |

5 The Park Visit

5.1 The Park visitor | This summarises the following parts of section 5. |                               |
<table>
<thead>
<tr>
<th>Section of plan</th>
<th>Major initiatives (note 1)</th>
<th>Author’s comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2 Visitor recreation activities and facilities</td>
<td>Development of a spectacular Great Prom Walk for both independent and guided walkers. The walk will extend from the Yanakie gateway to the lighthouse, and will take in the existing Sealers Cove/Refuge Cove/Waterloo Bay circuit as well as a new section of track from Waterloo Bay to the lighthouse. Comprehensive restoration of existing walking tracks will also be carried out. A major upgrade of the visitor facilities at Tidal River with a cap on the overnight capacity at 4000 people. Additional roofed accommodation in the current style will be developed and be off-set by a 10% reduction in campsites. Communal facilities such as the visitor centre, the cafe food service, and arrival and picnic areas for day visitors will be improved. The Five Mile road will eventually be closed and rehabilitated, retaining access for walkers only. Conversion of the lighthouse vehicle track, south of Halfway Hut, to a walking track capable of providing for periodic re-supply of the lighthouse by motor bike. Disused vehicle tracks in the Wilderness Zone in the north of the park will be revegetated completely or reduced to walking routes. Construction of new short walking tracks linking Lilly Pilly Gully and Mt Oberon to Tidal River.</td>
<td>Traffic management strategy for the park. Establish shuttle bus system. Improved management of the Wilderness Zone. Limit overnight facilities at Tidal River to 4000 visitors per night. Increase roofed accommodation within these limits. Create a ‘Yanakie Gateway’ with enhanced entrance facilities. Relocate some staff to Yanakie. Trial a ‘park full’ strategy of 800 day visitor vehicles. Develop a long-distance ‘Great Prom Walk’.</td>
</tr>
</tbody>
</table>
The establishment of the Yanakie gateway to the park as the prime location for visitor orientation and information, a “first night” camp for overnight walkers, staff housing, management support facilities, and for any future visitor accommodation additional to the capacity limits set for Tidal River. (note 2)

<table>
<thead>
<tr>
<th>5.3 Visitor information and interpretation</th>
<th>Implement the Visitor Services, Interpretation and Education Plan. Visitor orientation facilities at the Yanakie Gateway.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment of a guided walking operation between Tidal River and the lighthouse with an overnight hut in the vicinity of the existing Halfway Hut and walker accommodation at the lighthouse.</td>
<td>Privately operated serviced walking operations.</td>
</tr>
</tbody>
</table>

| 5.5 Public safety | Major revision of the Visitor Safety Plan. Develop a Visitor Evacuation Plan for Tidal River. |

### Community Awareness and Involvement

<table>
<thead>
<tr>
<th>6.1 Friends and volunteers</th>
<th>Develop a long-term volunteer strategy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.2 Community awareness and park neighbours</td>
<td>No major initiatives.</td>
</tr>
<tr>
<td>6.3 Schools education</td>
<td>Establish an Education Zone at Tidal River.</td>
</tr>
</tbody>
</table>

### Other issues

<table>
<thead>
<tr>
<th>7.1 Authorised uses</th>
<th>No major initiatives.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.2 Boundaries and adjacent uses</td>
<td>Involvement with local government planning.</td>
</tr>
</tbody>
</table>
Notes

1 These are quotations from a fact sheet from Parks Victoria (Parks Victoria 1997c, p. 1-2) which lists the key strategies.

2 The reader should note that the management plan does not foreshadow ‘… future visitor accommodation additional to the capacity limits set for Tidal River.’ The plan includes in its Aims (p. 28) ‘Consider additional roofed accommodation in this area in the longer term.’ but does not include a strategy on this issue.
Appendix 12

A summary of management actions in the 1997 Tidal River Master Plan

Source: adapted from Parks Victoria 1997b, a fact sheet from Parks Victoria which gave the key strategies.

<table>
<thead>
<tr>
<th>Section of plan</th>
<th>Major initiatives (note 1)</th>
<th>Author’s comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>The Master Plan</td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Role of Tidal River</td>
<td>This section is similar to the ‘Vision’ included in Parks Victoria management plans. It provides an overview of the proposed outcomes of the plan.</td>
</tr>
<tr>
<td>3.2</td>
<td>Objectives for Tidal River</td>
<td>Five fairly general objectives provide a planning framework.</td>
</tr>
<tr>
<td>3.3.1</td>
<td>Zoning of functions</td>
<td>Develop a detailed site design to incorporate the relocated works depot and overflow car parking.</td>
</tr>
<tr>
<td>3.3.2</td>
<td>Facility capacity</td>
<td>Limit the capacity of the overnight facilities at Tidal River to 4 000 people per night.</td>
</tr>
<tr>
<td>3.3.3</td>
<td>Camping</td>
<td>Reduce the number of campsites by approximately 50 to improve amenity and reduce density, and redeploy this capacity to change the mix of year-</td>
</tr>
</tbody>
</table>
### Appendix 12

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3.4 Roofed accommodation</td>
<td>Develop up to 20 new cabins of a similar standard and quality to the existing family cabins, and 12 additional motor huts. Build one new group lodge on the site of the current Blackwood Lodge. Develop low-key cabin accommodation for clients of the guided walker service. This represents a major change in visitor facilities in this park and in Parks Victoria’s assessment of modern trends in tourism, that is, a shift from camping to roofed accommodation. The most significant change is the provision of cabin accommodation for a commercially operated guided walking operation.</td>
</tr>
<tr>
<td>3.3.5 Day visitors</td>
<td>Consolidate the location of day visitor facilities such as tour bus parking, picnic areas, shelters and barbecues, and improve the existing Norman Bay car parking area. Day visitors are an important component of total visitor use i.e. about 35% of total visits throughout the year (Table 1).</td>
</tr>
<tr>
<td>3.3.6 Natural and built environments</td>
<td>Apply the principle of ‘net environmental gain’ to all new developments carried out at Tidal River. Develop a strategy for regeneration of campground vegetation and implement a program of pest plant control. Monitor the impact of visitor numbers and movements to ensure that the recreational and environmental values of the park are not compromised. Includes development of (p. 13) ‘…a unified Design and Landscaping Plan for Tidal River…’</td>
</tr>
<tr>
<td>3.3.7 Water, sewage and energy</td>
<td>Develop and implement strategies to reduce waste and energy use, and improve sewage treatment and water supply. Includes major engineering works, investigations and monitoring.</td>
</tr>
<tr>
<td>3.3.8 Visitor services and education</td>
<td>Prepare a layout plan for the visitor services zone to improve arrival, orientation Includes actions, investigations and monitoring.</td>
</tr>
<tr>
<td>Section</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>3.3.9 Traffic and circulation</td>
<td>Replace the existing concrete footbridge over Tidal River with a new sensitively designed low-level crossing. Also includes changes to car traffic management, new walking tracks, and an increase in car parking capacity.</td>
</tr>
<tr>
<td>3.3.10 Operational facilities</td>
<td>Includes a solid waste and recycling strategy, changes to staff accommodation, investigation of laundry services and investigation of outsourcing of operational functions.</td>
</tr>
<tr>
<td>3.3.11 Integrated management of Tidal River and the overall Park</td>
<td>Includes monitoring of visitor numbers and their impact.</td>
</tr>
</tbody>
</table>