

**Senate Environment, Communications, Information Technology and the  
Arts Committee**

**Inquiry into Australia's national parks, conservation reserves  
and marine protected areas**

A submission by Mr Brian V. Martin, M.Env.Sc., Dip.Mech.Eng. with particular reference to part (d) of the Terms of Reference (appendix 3).

**Abstract**

This submission argues that the establishment of protected areas is one of the most important instruments in achieving nature conservation in Australia. It follows that these protected areas must be managed well, and that effective management requires effective planning. It is not generally recognised that substantial resources must be allocated to prepare a plan of management for a major park. Even a moderate size park will require thousands of hours of staff time.

Good planning interacts with many aspects of park management and covers a large number of activities ranging from interpreting and incorporating the results of scientific research, consulting widely with the public and involving indigenous communities, to reviewing and monitoring the outcomes of the planning process. Park planning cannot focus exclusively on the area within its boundaries but must also consider the interface with the surrounding private and public land.

Good management of our national parks and other protected areas demands a commitment to effective planning and this requires a major allocation of resources. If field staff are involved in the planning (and they should be) then resources must be provided so that their normal duties continue. If consultants are used then funds must be found. Funding for specialist planners will be required. Expertise in planning must be developed. Planning must be an on-going commitment, not just a once-in-ten-years exercise.

## **PREAMBLE**

This submission is intended to draw to the attention of the Senate Committee to the importance of good planning for protected areas and the resources required to achieve this aim. It gives some examples of the resources required to produce management plans and lists some key documents that may assist the Inquiry. Appendix 1 comments on some of the major issues associated with planning for protected areas.

The figures quoted are not conclusive but are intended to give an indication of the costs of providing good planning for our protected areas.

Also attached for your information, at appendix 2, is a summary of the financial and staff resources allocated to parks listed under the Victorian National Parks Act over the last ten years.

## **BRIAN MARTIN            M.Env.Sc, Dip.Mech.Eng, PhD candidate**

Brian Martin is a Director of Shearwater Associates Pty Ltd. A consulting practice specialising in environmental management, planning and heritage conservation.

Since founding Shearwater, Brian has prepared management plans for some of Victoria's major national parks and coastal parks, including Wilsons Promontory and Dandenong Ranges National Parks, Cape Conran and Cape Liptrap Coastal Parks, as well as contributing to management plans for many other Victorian parks. In earlier years, he worked on plans for Kakadu, Norfolk Island, Christmas Island and Coorong National Parks.

Other significant projects with *Shearwater* include a foreshore management plan and a coastal erosion management strategy for Loch Sport, a Coastal Action Plan for boating in Gippsland and a study of shoreline erosion and revegetation for the Gippsland Lakes.

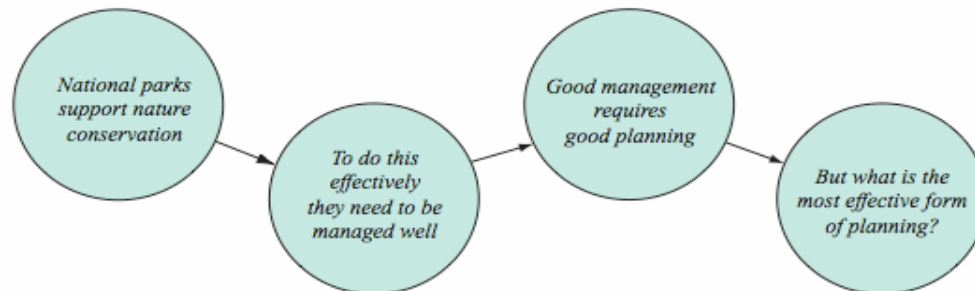
Brian's interest in heritage has focused particularly on maritime heritage assets. He has prepared conservation management plans for three historic vessels, including the paddle-steamer 'Gem' at Swan Hill. Recently, he undertook condition assessments of State-registered heritage places in East Gippsland Shire.

In addition, Brian has over 20 years senior management experience in both Commonwealth and State Governments including national and international negotiations on environmental policy, natural area planning and natural resource program management. He also prepared and presented courses in natural area management for Monash University.

Brian is currently a PhD candidate at RMIT University conducting research into the most effective ways to plan protected areas.

## PROTECTED AREA PLANNING

Protected areas are one of the cornerstones of nature conservation and have been adopted in most countries of the world. Declaration of these areas is seen not only to protect biological diversity but also to provide opportunities for people to enjoy a natural environment in an increasingly urbanised world. It follows that if protected areas are to perform this function well they must be well managed and to be well managed they must be well planned.



One of the principal planning instruments is the *management plan* or *plan of management* and production of these documents has become an accepted part of planning protected areas. Lee and Middleton (2003, p. 9) note that the preparation of management plans 'is supported by most conservation agencies and IUCN wishes to see plans in place for all protected areas'. The function of a management plan is normally taken to be the provision of strategic directions for management, often accompanied by prescriptions for detailed actions and sometimes supported by resource information and visitor use statistics.

Planning for protected areas combines general land use and regional planning with more specific technical planning relating to nature conservation and visitor use, so the production of management plans is guided by the literature from three areas, namely:

- Ecologically sustainable development (ESD) including the Convention on Biological Diversity, and Victorian government policy on sustainable development
- Land use planning
- Best practice guidelines for management planning developed by the Australian and New Zealand Environment and Conservation Council (ANZECC) and for management planning and management effectiveness by the World Conservation Union (IUCN).

I make the fundamental point that without good planning it is impossible to know where the priorities lie for current management issues, where resources should be allocated and what should be done to head-off emerging threats. Bad planning generally results in wasted resources and bad management outcomes.

See appendix 1 for some comments on some major issues associated with planning for protected areas.

## SOME RESOURCE ISSUES

### What resources are devoted to managing protected areas?

See appendix 2 for a short summary of the situation in Victoria.

### What resources are required to prepare a management plan?

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. The total elapsed time, fees for planning consultants and scientific surveys and information on, for example, the public consultation program are normally 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.

The ANZECC guidelines for management plans suggest (ANZECC 2000, p. 11) 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.

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

Adapted from: ANZECC 2000

My experience suggests that some of these figures are gross underestimates of the time required, except for very small reserves. Let me give you two random examples.

At the higher levels of complexity lies the Great Barrier Reef Marine Park. In the late 1990s it was 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 (see below), detailed scientific research and much detailed planning work (GBRMPA 2004). This planning work has 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 GBRMPA.

On a less complex level, in recent years I was engaged as a consultant to help plan a park on the outskirts of the Melbourne metropolitan area. This park has an area of approximately 3,200 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.

In practice, I believe that thousands of hours have been expended on the project, both by park staff and the consultant, and final approval of the plan has not been achieved after four years. Accurate figures are not available but this is my best estimate. The reasons for this overrun are too complex to go into in this submission but the general trend has been repeated many times in my personal experience.

These comments are not made to criticise the individuals or organisations involved. If the work has been done efficiently then the money is well spent. The principal 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 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.

### **Scientific research and resource information gathering**

An adequate knowledge base is essential for good planning and, in an ideal situation, there will be a comprehensive database of environmental, social and cultural information in place before planning commences. Unfortunately, this is rarely so and planning is often done using inadequate information.

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 their 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.

They indicate that they have committed over \$1 million to the program over the last three years (Parks Victoria 2005).

### **Use of consultants**

Management planning can be undertaken completely by 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 more expensive than using staff time over a much greater period.

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

- 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

Disadvantages are that:

- staff may not have the required experience and/or expertise
- 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
- get the job done within time and budget
- perhaps provide a broader perspective on some issues
- act as an intermediary between the management agency and members of the public who have difficulty in dealing with government agencies.

In practice, if consultants are engaged, there will still be a major commitment of staff time to the project. In Victoria, contracts for planning consultants appear to have been in the range \$20,000 to \$50,000, depending on the size of the park and the complexity of the project.

## **Public consultation**

Public consultation is a very important component of all management planning and all Australian park management agencies incorporate it in their planning processes. But 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 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). The author has not seen an overall estimate of the total resources required but this information may be available from GBRMPA 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 more.

## KEY REFERENCES

I draw your attention to the following key references.

### **The standard Australian textbook on protected area management.**

Worboys, G, Lockwood, M & De Lacy, T 2005, *Protected area management: principles and practice*, 2nd edn, Oxford University Press, Melbourne.

### **Management planning guidelines from the Australian and New Zealand Environment and Conservation Council (ANZECC).**

Australian and New Zealand Environment and Conservation Council (ANZECC) 2000, *Best practice in protected area management planning*, available as a pdf download from <<http://www.deh.gov.au/parks/best-practice/reports/management-planning/index.html>>.

### **The World Conservation Union (IUCN) management planning and management efficiency guidelines.**

Thomas, L & Middleton, J eds. 2003, *Guidelines for management planning of protected areas*, World Commission on Protected Areas, Best practice protected area guidelines series no. 10, IUCN, Gland, Switzerland and Cambridge, UK.

Davey, A 1998, *National system planning for protected areas*, World Commission on Protected Areas, Best practice protected area guidelines series no. 1, IUCN, Gland, Switzerland and Cambridge, UK.

Hamilton, L & McMillan, L 2004, *Guidelines for planning and managing mountain protected areas*, IUCN, Gland, Switzerland and Cambridge, UK.

Hockings, M, Stolton, S & Dudley N 2000, *Evaluating effectiveness: a framework for assessing the management of protected areas*, World Commission on Protected Areas, Best practice protected area guidelines series no. 6, IUCN, Gland, Switzerland and Cambridge, UK.

### **Management planning guidelines (generally unpublished) from the various State and Commonwealth park management agencies.**

For example:

Parks Victoria 1995, *Park management planning*, CNR No.05-20-0002-3, NPS guidelines and procedures manual, Parks Victoria, Melbourne.



## **APPENDIX 1**

### **SOME PLANNING ISSUES**

#### **Priorities and resource allocation**

Many management plans do not include priorities for action or requirements for staffing and funding. However, this is a vital component of planning and decisions on resourcing are critical to good management. It is argued that agencies receive budget allocations on an annual basis and that priorities are likely to vary from year to year so that it is impractical to include such information in a document that has a life of ten years or more. If this approach is taken, decisions on management priorities, staff and funding are made in the annual Corporate Plan or as a result of other statewide plans. This is a defensible position but the problem is that these secondary planning processes are far from transparent and generally do not include any public participation at all. It also tends to make the management plan rather irrelevant.

I suggest that this is a fundamental problem with management plans as currently written and that they not only need to be dynamic in their nature (see below) but that decisions on resource allocation need to be brought more into the public domain.

#### **Adequate legislation**

Good planning is assisted by adequate legislation. Some modern legislation is quite prescriptive with respect to what the content of a management plan should contain, the process to prepare the plan, what public consultation must be undertaken, what parliamentary (or other) approvals are required, the lifespan of the plan and the process for review. Older legislation is often not nearly so prescriptive and the process is governed by (often unpublished) administrative rules.

While both approaches can, and do, work I am of the view that it is better to enshrine the processes in legislation. This makes the process more transparent and makes clear both to the parliament and the public what should be expected of a management plan and how it should be formulated.

#### **A clear idea of the audience**

When preparing a management plan it is most important to determine what audience it is directed to – is it the general public including key stakeholders, or park management staff, or a combination of the two? It is also possible that the plan is merely the result of a legislative requirement, with no particular audience, and that major management decisions are made by different processes. The answer will determine the content of the plan and the process.

In Australia, management plans are normally used to inform the public and to direct management action. For example, Parks Victoria (1995, p. 1) says that their management plans serve as 'both a public document and a working document for Departmental staff' and

further that a management plan is 'a strategic guide to the future management of a park' and that 'it is not an end in itself, rather it is a framework within which subsequent management, detailed planning and implementation will take place'.

The latter sentiment reflects the views of many planners, including the author, who believe that planning is an ongoing process and that the management plan is but one component of that process.

### **The interface with surrounding areas**

In most cases protected areas cannot be planned in isolation and account must be taken of the surrounding public and private land. In Victoria, as well as other parts of Australia, land surrounding parks can impact on the park through the introduction of feral animals, weeds, fire, rubbish dumping and waste water. In the opposite direction, parks can impact on surrounding areas through fire, feral animals, and native animals. This means that park planning should be integrated with local government and regional planning. While this issue is generally recognised, it is equally clear that it has been difficult to achieve in practice (Gurran 2005).

### **Dynamic planning**

Management plans have a life of approximately ten years in Victoria and longer in some jurisdictions. This makes it almost impossible for these documents to take into account environmental and social change over that period. These plans need to be accompanied by a more dynamic planning process but it is important that these subsidiary planning processes have the same transparency and public involvement as the production of the major management plan.

In practice, production of management plans can take several years from inception to approval and can easily be overtaken by events. This raises the question of whether a more streamlined process is desirable.

### **Consultation with and involvement of the public**

The range of methods for public engagement are well known, however problems lie in three areas. There is sometimes a public perception that government agencies are just 'going through the motions' and that public consultation makes no difference to the outcome. Some issues associated with parks, such as the declaration of marine parks, are highly contentious and it could be argued that better conflict resolution techniques should be employed.

Production of management plans normally includes a public consultation process but most of the subsequent detailed planning is not transparent.

### **Incorporating resource and research information**

Some management plans such as those produced in previous years for Kosciuszko National Park and Kakadu National Park incorporate extensive resource and visitor use information as part of the documentation. Victoria does not adopt 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.

### **Decision support systems**

Various systems have been devised over the years to assist planning and management of parks. They include tools to assess visitor impact, plan for wildfire, assess the need for infrastructure and assess the need for protection of natural values. See, for example, the use of the computer planning system MARXAN in helping to formulate the 2003 Zoning Plan for the Great Barrier Reef Marine Park (Ball & Possingham 2005).

Some of these systems have been adopted but planning for recreation and some aspects of nature conservation is often still done on the basis of the professional experience of individuals without the process being codified.

### **Review and monitoring**

One of the fundamental requirements for effective planning and management is to have a process for review and monitoring management plans and their outcomes. In Victoria, this issue is addressed by the administrative requirement to review management plans after 10 years or so and by the production of the annual corporate plan and other state-wide programs. While the first process has public involvement, the second is less transparent. The legislation also appears to be silent on the process for reviewing management plans.

## APPENDIX 2

### Expenditure in Victoria on Parks listed in the Schedules to the National Parks Act 1975

| Annual Report Year | Parks Victoria Expenditure <sup>1</sup> (\$) | National Parks Act Expenditure (\$) | Total park area (ha) | Number of parks | Staff   |
|--------------------|--|-------------------------------------|----------------------|-----------------|---|
| 1996               | ?  | 32,143,928                          | 3,047,351            | 114             | NPS <sup>2</sup><br>214 rangers   |
| 1997               | ?  | 39,309,886                          | 3,073,287            | 103             | 501 seconded to PV <sup>3</sup> from NPS including 228 rangers <sup>4</sup> |
| 1998               | ?  | 41,211,112                          | 3,076,429            | 110             | 501 including 237 rangers   |
| 1999               | 114,817,000                                  | 56,833,834                          | 3,078,102            | 109             | 804 including 237 rangers   |
| 2000               | 117,441,000                                  | 69,253,000                          | 3,079,902            | 109             | 947 including 259 rangers   |
| 2001               | 126,612,000                                  | 70,694,000                          | 3,093,157            | 108             | 984 including 262 rangers   |
| 2002               | 126,196,000                                  | 65,396,000                          | 3,093,157            | 108             | 1040 including 262 rangers & 95 field service officers                      |
| 2003               | 128,521,000                                  | 69,687,000                          | 3,217,145            | 134             | 997 including 250 rangers & 90 field service officers                       |
| 2004               | 129,076,000                                  | 69,037,000                          | 3,217,145            | 134             | 1,041 including 280 rangers & 93 field service officers                     |
| 2005               | 153,840,000                                  | 76,321,000                          | 3,235,249            | 134             | 1,021 including 289 rangers & 107 field service officers                    |

**Sources:** Parks Victoria Annual Reports and National Parks Act Annual Reports

**Notes:**

- 1 Parks Victoria has management responsibilities other than the National Parks Act.
- 2 National Parks Service (Victoria)
- 3 Parks Victoria
- 4 Parks Victoria was created in December 1996. At this time there were 228 Rangers in 113 parks.

## REFERENCES

- Australian and New Zealand Environment and Conservation Council (ANZECC) 2000, *Best practice in protected area management planning*, available as a pdf download from <<http://www.deh.gov.au/parks/best-practice/reports/management-planning/index.html>>.
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## **APPENDIX 3**

### **Terms of reference of the Inquiry**

The funding and resources available to meet the objectives of Australia's national parks, other conservation reserves and marine protected areas, with particular reference to:

- (a) the values and objectives of Australia's national parks, other conservation reserves and marine protected areas;
- (b) whether governments are providing sufficient resources to meet those objectives and their management requirements;
- (c) any threats to the objectives and management of our national parks, other conservation reserves and marine protected areas;
- (d) the responsibilities of governments with regard to the creation and management of national parks, other conservation reserves and marine protected areas, with particular reference to long-term plans; and
- (e) the record of governments with regard to the creation and management of national parks, other conservation reserves and marine protected areas.