

# **A dummy's guide to evaluating management of protected areas**

## **—lessons from the Tasmanian Wilderness World Heritage Area**

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### **Summary**

If the fundamental purpose of management is to achieve objectives, then the primary measure of management performance should be the extent to which the management objectives are achieved. Based on experience in the Tasmanian Wilderness World Heritage Area, this paper provides a simple yet robust system that allows protected area managers to undertake meaningful and credible evaluations of management effectiveness.

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### **1. Introduction**

Evaluation of management effectiveness is an essential component of sound protected area management. As such, protected area managers have an important role to play in establishing systems that allow the effectiveness of management to be determined.

The Parks and Wildlife Service in Tasmania, Australia, has developed a practical system for evaluating and reporting on management effectiveness that is successfully operating in the Tasmanian Wilderness World Heritage Area. The system is simple and flexible and can be scaled up or down to suit a broad range of management scales and contexts.

The system integrates performance monitoring, evaluation and reporting into the overall management cycle for the area through provisions in the management plan. Application of this 'outcomes-based' evaluation system to protected area management provides for informed and transparent management and can be expected to lead to better delivery of desired outcomes.

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## **2. Practical benefits of the evaluative approach**

The application of an evaluative approach to management in the Tasmanian Wilderness World Heritage Area (TWWHA) has proved to be both practical and beneficial to operational management of the area, and has attracted strong support from external stakeholders. The program has already resulted in a number of tangible changes and benefits including the following.

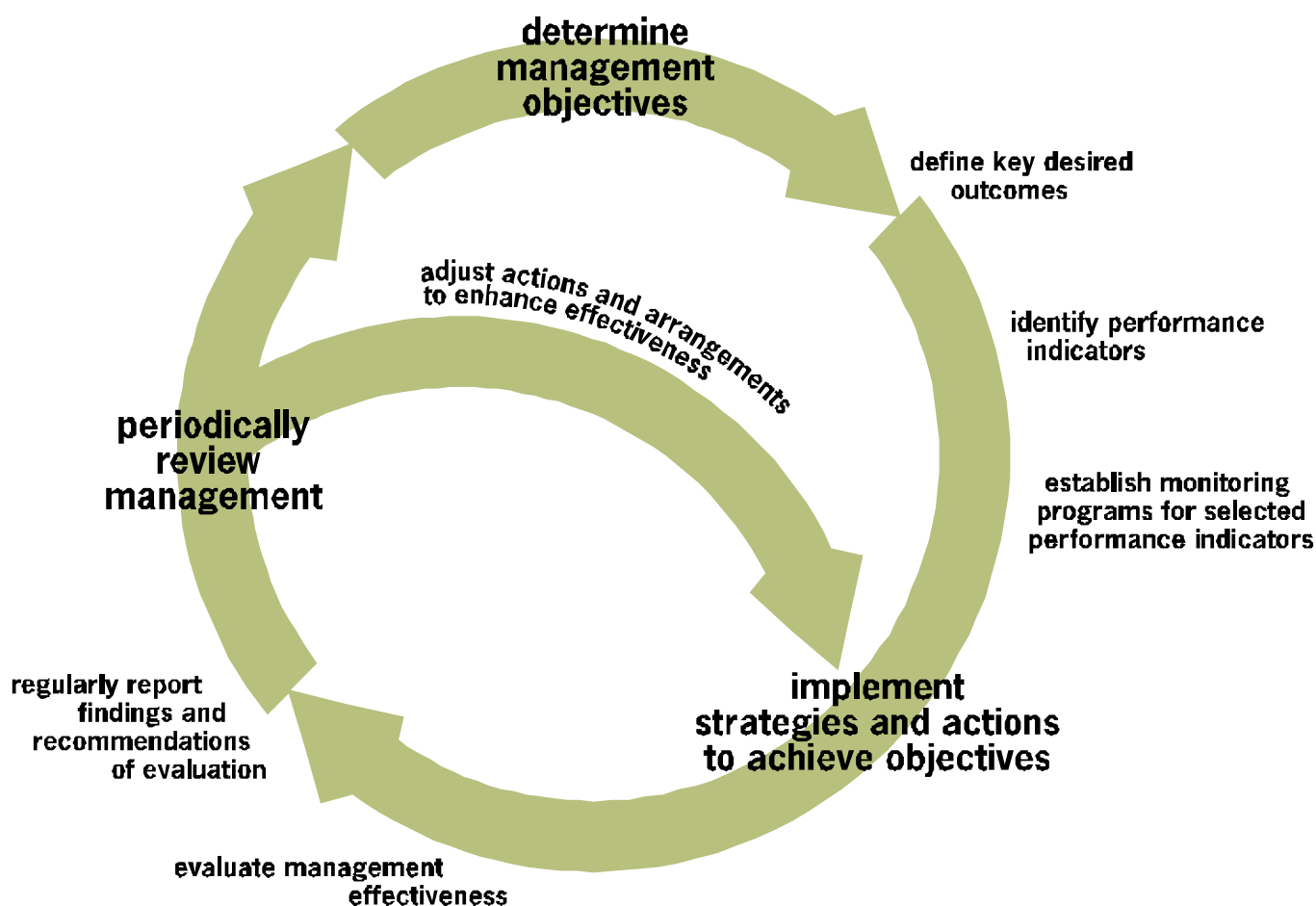
- Application of an evaluative approach to preparation of the 1999 TWWHA management plan resulted in a more systematic and transparent linkage between the management objectives and the actions prescribed in the management plan. In doing so, it revealed a number of gaps that had previously existed between management responsibilities and management actions, which were consequently rectified by prescribed actions in the 1999 management plan.
- The simple knowledge that the implementation and effectiveness of the management plan were being monitored and evaluated has in some cases acted as a prompt to invigorate and maintain staff's focus on implementing the plan's prescriptions.
- Application of an evaluative approach to management is bringing about a change in the way staff are viewing their roles and responsibilities. For example, staff are increasingly taking responsibility for articulating and focusing on the outcomes they are seeking, and assessing the quality of their strategies and actions in the light of these goals. There is a growing focus on being able to document and demonstrate the results of management and declining reliance on the paradigm of 'trust us, we're the experts'.
- The findings of monitoring and evaluation have in some cases strongly influenced management decisions and the allocation of management resources, eg. in the management of serious riverbank erosion on the lower Gordon River.
- The process and findings of monitoring and evaluation have in some cases 'taken the heat out' of management decision-making through the systematic collection and use of information for decision-making, and the transparency of that process. In other cases, while not achieving resolution of controversial issues, the process has served to highlight social and/or political barriers to proposed management actions.
- Requirements for reporting on the performance of management are prompting the more systematic collection, collation and presentation of information. This information, in turn, is being made accessible to a broader audience. This shift in information management and sharing is not only benefiting stakeholders directly but is also proving to be of indirect benefit to researchers and managers who need others to understand the relevance of their work and their findings.
- The process of evaluating management performance is providing a basis for recognising excellence in management programs and strategies, and for recognising the people behind them.
- The development and implementation of a practical system of performance monitoring, evaluating and reporting for the TWWHA is providing a model for the broader application of performance-based management approaches and adaptive management in other protected areas in Tasmania, nationally and internationally.

## **3. The management evaluation system**

The management evaluation system developed and applied in the Tasmanian Wilderness World Heritage Area is illustrated in Figure 1.

**Figure 1. The management evaluation system**

The integration of performance monitoring, evaluation and reporting into the cycle of management for the protected area generates informed feedback that enables managers to learn from and improve on past management approaches and so progressively improve management effectiveness.



#### **4. How the system works**

The starting point in the management cycle is the development of the management objectives. The next step is to articulate these objectives in terms of tangible goals or ‘key desired outcomes’ to clarify what on-ground results would be expected if the objectives were fully realised. The inclusion of statements of key desired outcomes against the management objectives in the management plan ensures that these outcomes are subject to extensive public consultation and are formally endorsed as part of the management plan.

Once the key desired outcomes have been determined, a range of performance indicators is identified that could potentially be measured to reveal whether management is working well (ie. delivering the desired outcomes) or not performing well (ie. not delivering the desired outcomes or delivering undesired outcomes). Management strategies and actions are developed to achieve the objectives and monitoring programs are established for the highest priority performance indicators. The findings of these monitoring programs are collated and published in regular ‘State of the Tasmanian Wilderness World Heritage Area Reports’ as part of an overall evaluation of management effectiveness under the plan. (The first of these reports is

due out soon<sup>2</sup>.) These reports allow managers, funders and other stakeholders to see where management is in relation to its goals, and to guide the appropriate adjustment of management actions and/or arrangements to enhance the achievement of objectives. The management objectives themselves are normally only reviewed as part of the overall process of review of the management plan (which occurs every 5–10 years for the TWWHA).

## **5. Key documents that support the system**

There are two key documents that support the management evaluation system for the Tasmanian Wilderness World Heritage Area:

1. The management plan for the TWWHA; and
2. a linked ‘State of the TWWHA Report’, which evaluates the effectiveness of management under the plan.

The contents of the management plan include:

- management objectives;
- clear statements of key desired outcomes from each objective;
- prescriptions for management strategies and actions to achieve the objectives;
- requirements for performance monitoring, evaluation and reporting;
- requirements for review of the management plan.

The contents of the State of the TWWHA Report include:

- evidence of management effectiveness;
- stakeholders’ assessments of management performance;
- proposed actions for enhancing management performance.

State of the TWWHA Reports provide a tool that supports adaptive management and continuous improvement in management performance.

## **6. Main inputs to the evaluation**

The main inputs to the evaluation of management are:

- scientific data and other measured evidence about performance indicators (especially in relation to the management objectives for protecting, conserving and rehabilitating the natural and cultural heritage);
- information and professional opinions of experts (especially natural and cultural heritage specialists);
- the views of the general public and on-site visitors (especially in relation to the management objectives for presenting the natural and cultural heritage); and
- assessments and critical comment on management performance by internal and external stakeholders closely associated with management of the TWWHA.

Data and other inputs to the evaluation are gathered via targeted questionnaires to those who could provide relevant data and information about the performance indicators and/or who could play a legitimate role in providing informed and credible assessments and critical comment on particular aspects of management performance.

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<sup>2</sup> Parks and Wildlife Service (in prep) ‘State of the Tasmanian Wilderness World Heritage Area Report No 1—an evaluation of management effectiveness’. Hobart.

## **7. Ten useful questions to address in evaluation**

In developing and applying an outcomes-based approach to evaluating management effectiveness for the TWWHA, a number of basic questions proved to be particularly useful. These ten questions are presented below, together with examples of their application in the TWWHA.

### ***When developing statements of Key Desired Outcomes against each objective***

**Q1. What would we expect to see if management was working well (ie. achieving the objective)?**

**Q2. What would we expect to see if management was not working well (ie. not achieving the objective)?**

*Comment:* Question 2 serves to clarify exactly what it is we want to say in our statements of Key Desired Outcomes.

#### **EXAMPLE**

**Objective 6:** To present the natural and cultural heritage in ways that are compatible with the conservation of those values and that enrich visitor experience.

**KDO 6.1** Ecologically sustainable human use of the TWWHA.

**KDO 6.2** High levels of community and visitor satisfaction with visitor facilities, services and quality of experience.

**KDO 6.3** Etc.

### ***When selecting performance indicators***

**Q3. What can we measure to see whether desired outcomes—or undesired outcomes—are being delivered?**

#### **EXAMPLE: Tourist boat operations on the Gordon River**

**Background:** Research demonstrated that the wakes from tourist boats were causing serious ongoing erosion of the riverbanks of the lower Gordon River.

#### **Performance Indicators and Targets**

*Condition indicator:* rate of bank erosion (monitored through regular measurements of 250 erosion pins at some 50 sites along the river bank).

*Target:* No detectable vessel induced erosion.

*Pressure indicator:* wake wave height (determined by measurements of wake wave characteristics).

*Target:* Total wake wave power less than erosion threshold (presently estimated as 15/1000 watts per meter in Zone 1 etc)

**Management actions:** Vessel speed limits were introduced and access restrictions were applied to the most vulnerable stretches of river. Licence conditions were introduced that required new vessels to have low wake hull design.

**Outcomes:** Riverbank erosion either ceased or dramatically decreased.

### ***When selecting performance indicators***

**Q4. What are the highest priorities for monitoring and reporting?**

*Comment:* Remember, you can't monitor everything...

***When selecting assessors of management performance***

**Q5. Who can best provide a legitimate and credible assessment of management performance for each management objective?**

**EXAMPLE**

Objective to be assessed	Assessor/stakeholder
All management objectives	1. World Heritage Area Advisory Committee (an external group of scientific and community representatives for the TWWHA) 2. Staff of the managing agency
Conservation and protection of the natural and cultural heritage	1. Natural heritage experts 2. Cultural heritage experts
Aboriginal heritage management	1. Tasmanian Aboriginal Land Council (representative body of the Tasmanian Aboriginal community) 2. Tasmanian Heritage Office (government agency)
Presentation of the natural and cultural heritage	1. Tasmanian public (through telephone polls of randomly selected residents by market research firm) 2. Visitor surveys
<i>Etcetera</i>	

***Questions to ask assessors of management performance (for each objective)***

**Q6. Is the current state better or worse than it was at the beginning of the management period?**

*Comment:* This question provides an assessment of relative performance.

**Q7. How would you describe the current state?**

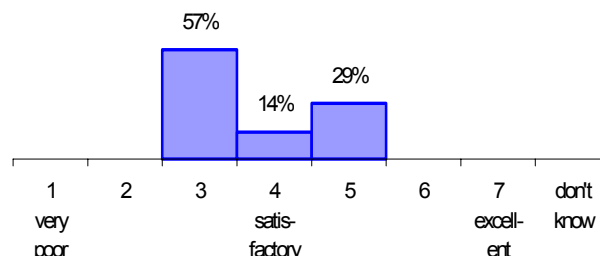
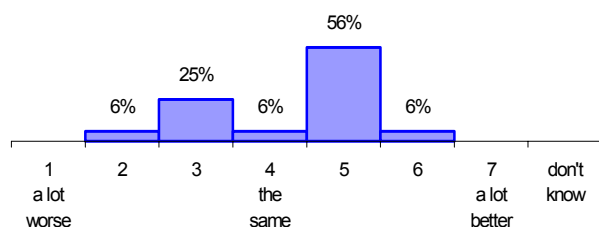
*Comment:* This question provides an assessment of absolute performance.

**EXAMPLE**

**Protection and conservation of values—better or worse?**  
Q: Is the current state of *protection and conservation* of the values of the TWWHA better or worse than it was in 1992?

**Current state of protection and conservation of values**

Q: How would you describe the current state of protection and conservation of the values of the TWWHA?



The above charts show that the majority of the World Heritage Area Consultative Committee considered that the overall state of protection and conservation of values of the TWWHA was better now than at the beginning of the management period. However, the majority of the Committee also considered that the current state of conservation and protection is slightly less than satisfactory.

***Questions to ask assessors of management performance (continued)***

**Q8. What were the key factors that contributed positively to management performance over the management period?**

**Q9. What were the key factors that limited or threatened management performance over the management period?**

*Comment:* These questions (which are asked of all assessors) provide a cost-efficient means of considering the full range of factors that might potentially have affected management effectiveness (eg management arrangements, inputs, processes etc), without incurring the significant costs of formal monitoring. This approach allows limited budgets to be focused on monitoring threats and outcomes.

**EXAMPLE**

The following factors were identified by key stakeholders for the TWWHA as being the main factors that affected management performance for the TWWHA over the 1992–1999 period.

**Key factors identified by stakeholders that contributed positively to management performance for the TWWHA included** (in descending order of frequency of mention by stakeholders):

1. the level of Federal–State funding for management;
2. public support and cooperation in management;
3. good staff;
4. an effective World Heritage Area Consultative Committee;
5. a good management plan and key management strategies;
6. good science; and
7. no major wildfires over the period.

**Key factors identified by stakeholders that limited or threatened management performance for the TWWHA included** (in descending order of frequency of mention by stakeholders):

1. inadequate resources and uncertainty of future funding;
2. inadequate community engagement and support;
3. political decisions were not always consistent with World Heritage management objectives;
4. slow response/low priority to management of impacts and threats to values;
5. inadequacy of fire management; and
6. delays with site plans.

***Questions to ask assessors of management performance (continued)***

**Q10. Are there any other comments or suggestions you would like to make for improving management performance?**

*Comment:* Inclusion of an open question captures any other opportunities for improving management performance.

**8. Delivering a credible evaluation**

For any evaluation, there arises the question of who should conduct the evaluation. There are advantages and disadvantages with using either internal or external sources, and with using those with professional expertise in subject matter versus expertise in evaluation process.

Points in favour of the managing agency taking responsibility for the evaluation relate primarily to practical considerations regarding the ongoing nature and scope of the task. For example, in Tasmania's case, the managing agency could more readily:

- understand the management context, issues and the operational constraints of management and so tailor and integrate a practical program of performance monitoring and evaluation into ongoing management for the area;
- maintain close ongoing liaison with managers, scientists and other specialists within the managing agency who hold most of the measured data and other information relevant to evaluation and who contribute directly to the preparation of the State of the TWWHA Report;
- access the professional and technical support available within the managing agency to collate and present the findings of the evaluation eg. GIS data manipulation and preparation of maps;
- liaise regularly with key external stakeholders closely involved in management of the TWWHA eg. the World Heritage Area Consultative Committee and Department of the Environment and Heritage (the federal agency with responsibilities for World Heritage management);
- ensure long-term continuity and adaptation of the overall program of performance monitoring, evaluation and reporting for the TWWHA;
- develop in-depth detailed knowledge of the management system, issues and arrangements;
- maintain data sets of information over the long-term;
- facilitate uptake of the findings and proposed actions from evaluation into ongoing management of the TWWHA, eg. through revision of successive management plans.

Points in favour of using external sources to conduct the evaluation related primarily to the objectivity and/or credibility of the findings. For example, independent evaluators could more readily:

- be more openly critical of the way an agency has performed.  
Government agencies can find this particularly difficult, especially in the event that the evaluation reveals that performance has been poor across several areas of management responsibility.
- bring new expertise or broader comparative perspectives from their more diverse experience in evaluation, which can be beneficial.
- perform an audit-like function of overall management standards—something that is not possible from within a management agency.

The management evaluation system applied in the TWWHA attempts to optimise the use of both internal and external sources to deliver a rigorous, credible and practical evaluation of management effectiveness. The evaluation is coordinated by the managing agency; however, potential concerns about the objectivity and credibility of the evaluation are addressed in the following ways.

- Extensive use is made of external sources closely involved in management of the TWWHA to provide independent assessments and critical comment on management performance. For example, sources include the World Heritage Area Consultative Committee; Department of the Environment and Heritage; and the Tasmanian Aboriginal Land Council.



- Independent consultants or market research firms are engaged to conduct surveys which directly measure public and/or on-site visitors' views and opinions about management performance (eg. telephone interviews of randomly selected Tasmanian residents were conducted by a market research firm to measure changes in public awareness and support for the TWWHA and their views about the Parks and Wildlife Service's performance; and on-site visitor surveys were undertaken by consultants to measure visitor satisfaction with their experience in the TWWHA).
- The World Heritage Area Consultative Committee is closely involved during the whole process of evaluation and through development of the State of the TWWHA Report, including being provided with successive (confidential) drafts of the report.

In practice, the use of external sources for assessments and critical comment on management performance for the TWWHA has proved to be a valuable and important source of complementary inputs to those provided from within the managing agency. In some cases, the inclusion of external assessors has resulted in the capture of views and insights that might not have been readily sourced from within a managing agency.

#### **9. How can the findings of evaluation feed back into and improve management?**

Evaluation provides those with management responsibilities for protected areas with an informed basis for making decisions. As such it is a tool that supports adaptive management and continuous improvement in management performance consistent with international best practice environmental management systems such as ISO 14004<sup>3</sup>.

The findings and recommendations of evaluation can be used to improve future management of the protected area through:

- active consideration of the findings and recommendations by the managing agency and others with management responsibilities for the area;
- establishment of clear linkages between the findings of evaluation and budget processes and decisions in relation to management direction and priorities, and the allocation of financial and staff resources for management of the protected area;
- provision of ongoing support for management programs that have been demonstrated to be effective in achieving management objectives, and consideration of the relative merits of increasing or redirecting management effort to—or from—areas of weak performance and/or low relevance to management objectives;
- targeting critical gaps in information required for sound management and addressing identified limitations of the evaluation; and

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<sup>3</sup> Standards New Zealand, Standards Association of Australia. Joint Technical Committee QR/11. Environmental Management Australian/New Zealand Standard. 'Environmental management systems: general guidelines on principles, systems and supporting techniques' AS/NZS ISO 14004:1996.

- taking account of the findings and recommendations of evaluation during revision of the management plan for the area and incorporating appropriate prescribed actions into the next management plan.

## **10. Conclusions**

Application of an outcomes-based system of performance evaluation and reporting, such as described in this paper, can be expected to contribute to management excellence for a protected area by:

- guiding ongoing management directions and priorities for the protected area to better achieve objectives and deliver desired outcomes;
- providing managers and other decision-makers with a sound information base to support adaptive management;
- providing transparency in management and providing stakeholders with ready access to detailed information about management matters;
- contributing to informed public debate and involvement in management of the protected area.

Performance evaluation and reporting provides stakeholders with detailed information about management of protected areas. This in turn contributes to broader community understanding and involvement in management, and paves the way for more effective, community-supported management of protected areas.

## **Further Information**

The following references are available on the Parks and Wildlife Service web site at <[www.parks.tas.gov.au](http://www.parks.tas.gov.au)>. Follow the links to Services and Management/Technical, scientific and managerial publications.

1. **Jones, Glenys and Dunn (Hocking), Helen, 2000**, Experience in outcomes-based evaluation of management for the Tasmanian Wilderness World Heritage Area, Australia. Case study 1 in 'Evaluating Effectiveness: A Framework for Assessing the Management of Protected Areas'. Hocking, M, Stolton, S and Dudley, N. IUCN, Gland, Switzerland and Cambridge, UK.
2. **Jones, Glenys, 2000**, Outcomes-based evaluation of management for protected areas—a methodology for incorporating evaluation into management plans in 'The Design and Management of Forest Protected Areas'. Papers presented at the Beyond the Trees Conference 8–11 May 2000, Bangkok, Thailand.
3. **Parks and Wildlife Service, 1999**, Tasmanian Wilderness World Heritage Area Management Plan 1999<sup>4</sup>. Hobart, Tasmania.
4. **Parks and Wildlife Service (in prep)** State of the Tasmanian Wilderness World Heritage Area—an evaluation of management effectiveness. Report No. 1. Hobart, Tasmania.

**Acknowledgement:** This paper was prepared during the IUCN V<sup>th</sup> World Parks Congress, Durban, South Africa, 8–17 September 2003 as a direct response to comments from the floor of the Evaluating Management Effectiveness workshop about the need for a simple user's guide that would allow park managers to apply evaluation in their park. What was really needed, according to Bruce Jefferies (New Zealand), was a 'Dummy's Guide' to evaluation.

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<sup>4</sup> Available for purchase from the Parks and Wildlife Service, GPO Box 1751 Hobart Tasmania 7001 Australia.