



Management and Maintenance

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8.0 Management and Maintenance

8.1 Introduction

Ideally, during (or even before) the construction program, a Trail Management Plan should be prepared, incorporating elements covered in this chapter as well as broader land management policies and trail management issues. Such a document – as with all management plans – should be both flexible and responsive to change, and yet set a firm guiding outline for future directions and priorities. Trails which don't have a Management Plan suffer from decisions taken on the run, out of context or as knee-jerk responses to critical situations.

Such a plan should include the following elements as a minimum:

- philosophical background to trail development
- a statement of guiding principles (class, category, etc.)
- trail construction 'standards'
- target user groups and user experiences
- risk management policy
- hazard inspection timetable
- promotional and interpretation policy
- group usage policy and guidelines
- annual trail maintenance program
- clarification of management roles and responsibilities
- promotional mapping and brochures: guiding principles
- fire management and emergency evacuation procedures.

A timetable and process for reviewing and updating this Plan should be set, with annual reviews and three (or five) year updates recommended.

The Plan must outline a professional program of management and must clearly define who is responsible for what. In many cases trail projects involve a number of land managers and it is therefore crucial that all organisations know and agree what their role and responsibility is.

8.2 Memorandum of understanding and partnership agreements

Trail projects inevitably involve a range of partners. These could include:

- Local Government (if not already the primary land manager)
- State or Federal Government Departments
- conservation and environmental groups: both state and local
- other user groups or potential user groups, including 'peak bodies'
- education institutions, including local schools or universities
- training agencies (Work for the Dole, etc.)
- volunteer groups (Service clubs, Green Corps, Conservation Volunteers Australia, Seniors groups, 'Friends of Trails' groups etc.)
- health agencies, including the Heart Foundation.

With so many potential partners it is crucial to establish clearly the different roles and responsibilities involved in the trail. An agreement should be drafted which:

- identifies the tasks likely to be involved in the future management of the trail
- identifies the capabilities and capacities of each group (specific skills, construction assistance, administration time, fund management, etc.)
- identifies constraints and limitations involved (lack of skills, resource shortages, statutory responsibilities, etc.)
- identifies roles (such as tool manager; maintenance coordinator; brochure distributor, etc.)
- identifies how 'gaps' are going to be filled.

8.3 Trail maintenance and risk assessment schedules

Ongoing trail maintenance is a crucial component of an effective management program. Depending on a swathe of conditions such as weather, soil types, construction standards and usage patterns and more, trail maintenance can cost up to \$2,000 per kilometre per year if all work was to be outsourced at full contract rates¹⁸. This can be a daunting prospect, particularly for cash-strapped Government Departments, Local Governments and not-for-profit organisations with competing budgets and restraints.

The opportunity usually exists to minimise future maintenance demands through careful planning and construction. Also, a clear and concise Management Plan with a regular maintenance program written into it will aid significantly in managing ongoing resource demands. *AS 2156.1-2001 Walking Tracks – Classification and Signage* provides guidelines for the maintenance of walking trails by specifying inspection intervals based on each classification.

Maintenance on trails can generally be divided between regular inspections and simple repairs, largely a one (or two) person job, and (say) twice yearly programs undertaking larger jobs such as significant erosion repairs or weed control. The former task is ideally suited to well-trained and regular volunteer programs, while the latter can either be a volunteer under skilled supervision, or a job for the land manager's staff or contractors.

On many, if not most trails, regrowth vegetation, damage to signage and accumulation of leaf litter and debris are likely to be the most common maintenance activities. Providing these issues are attended to early they are largely labour intensive rather than capital expensive.

Resourcing such an ongoing program is crucial, and funds (or volunteers) will be required on an ongoing basis to enable this essential maintenance work to take place. This matter should be addressed in the overall structure of the trail manager's budget and its recurrent funding.

Crucial in the ongoing management program will be the Hazard Inspection process. Not only will this play an obvious part in defining maintenance activities and/or management decisions, it will be vital in dealing with any liability claim which may arise in the future. The identification of hazards, the controls in place and treatments (risk management audit) is an integral process to trail management. Annual reviews are desirable.

Typical items to include on a Hazard/Risk Inspection form could include:

- adequacy of warning (and other) signage, especially at road crossings
- dead trees and/or overhanging limbs
- slippery rock or clay sections

¹⁸ Feasibility Study for the Oakbank to Mt Pleasant Railway Corridor, Maher Brampton, 2003

- exposed tree roots or other significant ‘tripping’ threats
- security of viewing platforms and other structures.

On the other hand a typical maintenance schedule might include:

Task	Frequency
Checking trail head and other facilities for damage or vandalism	Monthly if possible
Checking all signage and trail marking and replacing any missing or damaged signs	Two monthly at a minimum
Clearing and/or repairing erosion control devices and other erosion/water issues	Three monthly (monthly if possible)
Checking and clearing all trail surfaces, especially regrowth vegetation	Annually, in spring (or when dry enough) at least
Pruning trail-side and overhanging vegetation	Annually
Checking major structures, such as bridges, boardwalks and walkways	Annually
Arranging a regular Hazard Inspection Report	Annually
Checking currency and distribution of trail brochure and updating when necessary	Annually

If these actions are adopted, the trail should remain in good functional condition for years to come. Annual maintenance costs can be kept at a minimum by ensuring that inspection and works programs stay on schedule.

Risk management assessment (in accordance with *AS 4360-2004 Risk Management*) should be applied to the wider range of trail risks including asset management, human resources, financial resources, OHS, communication, and contract management.

8.4 Conflict management

Most on-trail conflict develops when information provision and education is inadequate. Sometimes conflict can occur between legitimate users, while on other occasions it may be between the legitimate user group or groups and ‘illegal’ users. In both cases, information and education are the key tools for trail managers. Enforcement should only be necessary as a last resource.

Single-use trails should be clearly signposted as such at all access points. Brochures, maps and media material should also reinforce the message that this is a single-use trail. It is extremely helpful to explain why this is the case. For example, it may be that the trail passes through land that has limitations on access due to its tenure, or the nature of the environment or the trail design itself may preclude some users.

The design of the trail can also assist in managing unwanted user groups. Bear in mind that conflict may occur with users from beyond the common trail user groups such as trail bikes or four-wheel drives. Seek support from trail partners in managing these issues, and use the media to publicise the impacts such usage is having.

Shared-use trails should have built-in the provision of adequate information during the planning phase. Common guidelines should be developed for ‘who gives way to whom’ on shared use trails. Signage and information reinforcing these rules of trail etiquette should be prominent on the trail and in any public information.

If conflict develops, it is worth getting the different groups together to talk about their issues. It may be that the conflict is identifying some weakness in the trail design. Each group should help find potential solutions.

8.5 Education and interpretation

Trails present outstanding opportunities for education and interpretation. People involved in enjoyable choice-driven activities are open to learning, or at least to being informed.

It is important to review the philosophical underpinnings to the trail: who is it there for and what kind of experience is it seeking to provide? This will help define what level of education and interpretation is appropriate on the trail. For example, a mountain bike trail built primarily as a fun (recreational) experience may not warrant the same level or style of education and interpretation as a more gentle trail (perhaps a walk trail) passing through a stand of high-value native forest. Who is the market and what will they absorb?

To separate education from interpretation it could, perhaps, be said that education is about supplying the information which needs to get across, while interpretation is about providing information which is desirable to share. Educational messages could include:

- user etiquette or shared-use information
- minimal impact messages: both general and trail-specific
- specific local land management issues
- other specific guidelines for trail behaviour.

Education is about the user's interaction with and impact on the trail, its surrounds and the other users. Be clear, be direct, make no assumptions, but do be tactful. Use signage for short sharp clear statements (use symbols where possible) and use brochures or panels for more complex messages that take time to read and absorb. Generally, keep it simple (see Photo 28).

Photo 28:
Education sign



Interpretation, on the other hand, often takes a quite different tack, seeking to engage and entertain in addition to informing. But what is interpretation? The definition provided by Freeman Tilden is useful¹⁹:

Interpretation forges emotional and intellectual connections between the interests of the audience and the inherent meanings in the resource.

¹⁹ Freeman Tilden, Interpreting Our Heritage, 1957

And no longer should interpretation be considered an optional add-on. Interpretation is increasingly seen as an integral part of nature-based experiences:

No longer are visitors content with just 'seeing' the sights. 21st century "tourists" want involvement. They want to experience and know the meanings of what they are seeing²⁰.

Interpretation reveals the meanings and relationships of the cultural and natural heritage to visitors (trail users), through first hand experiences with objects, artefacts, landscapes, and sites. Interpretation tells the tales of the land, past activities and land uses, its people, animals and plants, and in the telling, helps people form connections with both the place itself and its heritage.

Interpretation can take the form of static panels, brochures, guide books, audio stories or guided experiences. Most trail projects focus on the 'classic' forms of delivering stories: panels, brochures and guide books. Delivering successful interpretation is quite an art form and specific skills are required. The siting of interpretive signs and structures is very important also: inappropriate siting can detract from the very thing that is being highlighted.

8.6 Monitoring and evaluation

Trails change with time as do trail users experiences and expectations. Some changes to the physical trail are obvious, and will be noticed either by users or as part of the regular maintenance program. Some are less obvious and may not be noticed until they become an issue. The process of change can be quite subtle and, given that it can occur over extended time periods, can be hard to notice.

Keeping accurate records is an important component of any monitoring program. This will include talking to trail users. They will know what problems are developing and where. Mechanisms to encourage feedback from trail users should be developed. This could include:

- the erection of signs encouraging feedback via telephone numbers and email addresses
- a website where users can log on and report issues
- phone numbers on brochures and maps.

It is also important to evaluate a trail project to determine the impact that the trail is having on the surrounding environment, its neighbours and on the surrounding community. Impacts might be positive (reduction in unmanaged access into fragile areas; heightened awareness of ecological issues, etc.) or they might be negative (increased vandalism; increased numbers of users above the capacity of the original trail design, etc.). The development of simple questionnaires can provide a valuable insight into the impacts that a trail may be having.

Ideally, a program of monitoring and evaluation should be built into the planning phase for the trail. Many grant funding agencies will respond positively to the inclusion of such a program as it gives them reassurance that the future of the trail will be considered and reported on.

²⁰
Innovation in Interpretation,
Tourism Queensland, 2000

8.7 Marketing and promotion

Trail users are likely to come from two key groups: those living locally, who can access the trail directly or almost directly from home, and those living further a-field (usually in the city) who will travel to the area to use the trail (or to use the trail as part of a broader visiting experience).

If the majority of trail users are likely to come from beyond the immediate community, the following steps should be considered to encourage greater visitation:

- Develop a promotional brochure, guide, map for the trail (see Section 8.8).
- Ensure the new promotional material (brochure and/or map) is distributed to all major visitor information centres in the region.
- Deliver brochures to all clubs, groups and other relevant activity associations.
- Develop a list of all outdoor related magazines and newsletters and attempting to have each carry at least one story about the new trail. (Local media outlets should be approached regularly with press releases too).
- Ensure that the trail head(s) is/are clearly signposted and marked on relevant maps, so that users coming in from outlying areas can find it/them easily.
- Organise an event or activity which may attract the attention of the major State daily newspaper, and arrange for a story and photo shoot, ideally aimed at the Saturday magazine.
- Ensure that organised events are publicised in any relevant calendar(s) of outdoor activities.
- Plan an 'opening' event for when significant sections of trail construction are complete; having someone high profile officiate, and ensuring that a good press release goes out.

If, on the other hand, trail users are expected to be mainly local people, the following list of potential actions (in addition to, or instead of those above) should be considered:

- Deliver a copy of a trail brochure to all households within a comfortable distance from any point of the trail.
- Ensure the brochure is widely distributed to local relevant retail outlets.
- Prepare a press release for local papers at least once a year relating to the trail, and encourage local papers to come out and take a photograph. Releases could relate to the construction program, to an annual maintenance weekend or busy bee, to an organised group event on the trails, or to any other activity or event relating to the trails.
- Organise an annual 'event' on the trail – perhaps a complete ride or walk of the route – and publicise it locally through local papers and radio.
- Publicise the scheduled maintenance activities.
- Form a 'Friends of...' group, and undertake maintenance activities and fun walks/rides, especially for young people and new residents.

If tourists are likely to be a key user group, local accommodation outlets and those agencies promoting general visitation to the area should be involved in the promotion of the trail. The trail should be promoted as an integral part of the regional visitor experience, and should be woven into those other products which attract people to the area. Developing this integrated approach to marketing may well return greater benefits than any means of promoting the trail itself.

8.8 Preparing promotional material and maps

Promotional material such as brochures and maps should be professionally prepared and designed, and should be printed in an attractive format, pleasing to the eye yet still simple to read. Generally they should have most, if not all, of the following features:

- maps which are clear and concise with distances, topographical features, scale bar, north point, legend, contours and other annotations
- trail notes, describing key points along the way and relating them to distances and directions
- background information about the trail, and the history of the area
- educational information about trail usage, safety and etiquette
- interpretive information about culture, history, geography and environmental matters
- information about management and maintenance, including phone numbers for reporting any trail related matters
- emergency contact details and directions
- clear indication of routes to and from the trail head and parking areas, and guidance on the use of this area
- trail code of practice.

Written material should be aimed at a 12 year old level of education and only cover one concept per sentence. In addition, spelling, graphics and images should always be double-checked prior to going to print. When preparing promotional material, it is worthwhile reviewing existing brochures and maps from visitor information centres to identify their strengths and weaknesses.

Promotional material and maps should be produced at either A4 or A3, printed both sides, and folded to DL (standard envelope) size. They should be produced in at least two colours and professionally printed. Per item printing costs reduce dramatically as print runs grow larger (printing 2,000 to 5,000 usually ensures a reasonably low unit cost) but trails do change and brochures need to be updated: so it is important not to print too many and having to throw out a substantial number of left-overs. Where available, include an electronic copy which can be downloaded from a home computer.

In summary, promotional material and maps must be professionally prepared (see Appendix F for an example of a promotional brochure prepared for the Riesling Trail). They should be articulate, enjoyable to read, easy to follow, informative, educational and should inspire confidence in being able to follow the trail route. Promotional material is often the primary point of contact with trail users and it should be at least as good as the trail itself. There is no more certain way of condemning a trail to an uncertain future than by producing a sub-standard brochure or map.