



# Atherton Tablelands Rail Trail Management Plan (Atherton to Walkamin)

May 2015

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## Executive Summary

### 1.0 Background

The *Atherton Tablelands Rail Trails Feasibility Study* (prepared in May 2008 by Mike Halliburton Associates and Transplan Pty Ltd) made a number of recommendations pertaining to the development of rail trails in the Atherton Tablelands. In early 2014, the Tablelands Regional Council commenced developing the first two stages of the Atherton Tablelands Rail Trail (Atherton to Tolga), with Stages three and four (Tolga to Walkamin), to be funded by future budgets and funding.

Further development of the rail trail north of the boundary between the Tablelands Regional Council and Mareeba Council (where several of the fatalities have occurred) will rest in the hands of the Mareeba Council. That extension will have substantial benefits, completing a safe off-road route between the two towns.

### 2.0 Management of the Trail

There are differences in the way rail trails function and operate across Australia, primarily due to differing legislative regimes. As outlined in the Concept Plan there are a number of examples of how the existing rail trails are managed in Queensland and how existing rail trails operate in three states with an established history of rail trails – Victoria, South Australia and Western Australia.

There are three primary ways a rail trail (or indeed any trail) can be managed:

- Local Government as sole manager – e.g. Railway Reserves Heritage Trail, WA, Coast to Vines Trail, SA. A structure such as this does not involve the community in any meaningful way with regards to key decisions.
- Local Government as lead player in partnership with other stakeholders (State Government and community) – e.g. Murray to the Mountains, Victoria
- Local Government as a player in the management structure – e.g. Riesling Trail, SA

Each model has its advantages and disadvantages.

Given the success of the council/community partnership model elsewhere and the expressed willingness of the Tablelands community to be involved, a Council/Community partnership (in a Management Committee) is the preferred model for managing the Atherton Tablelands Rail Trail. In the infancy stages of the management role, Tablelands Regional Council will take the lead role with a view to working with the community for future management and maintenance.

The proposed management model is the most common approach used in Victoria. The Murray to the Mountain Rail Trail provides a good illustrative example of how this model works on the ground. The trail runs for 97 kilometres from Wangaratta to Bright through the Ovens Valley. This trail is managed as a Local Government-led trail.

The three Local Governments through which the trail passes – the Rural City of Wangaratta, Alpine Shire and Indigo Shire - drove the trail development project.

Management of the trail is in accordance with the Victorian Government guidelines. There is a General Committee of Management that has members from:

- Local Government (2 representatives from each of the 3 Councils through which the trail passes);
- The Technical Group (1 representative);
- The Advisory Group (3 representatives).

The Technical Group has members from:

- Local Government (1 from each Local Government);
- Department of Environment and Primary Industries (1 representative)
- Vic Roads (1 representative).

Its roles are trail maintenance, weed and vegetation control, and bridge maintenance. One of its most recent tasks has been to begin to develop some maintenance standards for the entire trail – the trail is now over 15 years old and significant maintenance is needed. The idea of setting maintenance standards is to allow the trail's integrity to be maintained.

The Advisory Group has members from:

- user groups/communities (6 representatives);
- Country Fire Authority (1 representative);
- three local landholders (one from each Local Government area); and
- Victorian Farmers Federation (1 representative).

Its roles are representing community and user group interests to the Committee of Management, and liaison with the Committee of Management on management and maintenance issues.

For the Atherton Tablelands Rail Trail the following model is proposed:

- Tablelands Regional Council (2 Councillors);
- Tablelands Regional Council (Community Services Manager)
- Tablelands Regional Council (Overseer Parks & Gardens)
- User Groups/Community (5 Representatives).

## 2.1 What will Committee of Management do?

In Queensland, the Land Act requires that trustees over State land have a duty of care for the trust land. The trustee must manage the land in accordance with achieving the purpose of the trust, control noxious plants on the trust land, and protect and maintain all improvements on the trust land. The trustee also has a responsibility to keep appropriate records and keep proper books of accounts. This provides limited specific direction for any manager of a rail trail.

The Victorian model (as the most mature and covering the largest number of rail trails) provides better guidance as to what a management body would do on a rail trail. Committees of Management under the Crown Land (Reserves) Act have a number of powers and duties:

### *Powers*

- Managing the reserve;
- Undertaking works and improvements;
- Engaging and utilising workers;
- Deriving income;
- Spending, borrowing and investing;
- Controlling users;
- Entering into legal proceedings; and
- Granting tenancies (licences, leases, permits)

### *Duties*

- Financial records and auditing;
- Reporting – financial, annual, performance;

- Liability insurance – duty of care;
- Duties as an employer;
- Council rates (payable by occupiers under lease, licence and tenancies – commercial and agricultural); and
- Responsibilities under Freedom of Information, Right to Information and Ombudsman requirements.

Importantly and specifically, Committees of Management have traditionally absorbed the responsibility for pursuing the development of a rail trail including the preparation of concept plans, trail development plans and business plans.

The Committee of Management guidelines set out the need to determine recreation, tourism, conservation, economic and social objectives for a rail trail. These objectives translate into a community-driven concept plan, which provides the basis for the Business Plan.

In the case of the Atherton Tablelands Rail Trail it is proposed that the committee focus on the first two stages over the life of the trail. These include:

#### *Tasks for Stage 1 – Planning and Development*

The decision is made to proceed with development of the rail trail. Once this decision is taken, a number of tasks require doing. These include:

- business planning for trail development;
- preparation of a corridor management plan incorporating a Trail Policy (Guiding Principles incorporating a set of decisions made about how the trail will operate), a Trail Management Plan, an Emergency Response Plan (incorporating a Fire Management Plan), and a Trail Maintenance Plan;
- sourcing extra funding;
- dealing with legal matters;
- promoting the business opportunities provided by the trail to local businesses and adjoining landholders;
- promoting the trail's benefits to the Council and the community; and
- detailed discussions and negotiations with adjoining landholders.

#### *Tasks for Stage 2 – Establishment and Operations*

The first section of the trail is now open. Subsequent sections will open over a period of time. The final ribbon will be cut and the entire trail will operate for 5 years. A number of tasks need to be undertaken. Many of these tasks will be ongoing tasks from Stage 1.

- continuing to source funding;
- continued discussions with landholders in sections to be constructed;
- building on and promoting the knowledge from the open sections to deal with the range of issues that come forth in the construction of subsequent sections;
- managing and maintaining the open sections – for users, adjoining landholders and the Council;
- continuing promotion of the trail's benefits to the Council and the community;
- promoting and marketing the trail to users and to groups who have a role to play in the trail's success e.g. tourism promotion bodies, transport providers;
- ensuring ongoing implementation of the Trail Development Plan, the Corridor Management Plan, and the Business Plan; and
- developing good working relationships with the Friends of the Atherton Tablelands Rail Trail (or similar community support groups).

### *Tasks for Stage 3 – Trail Maturity*

The complete trail has been open for 5 years. It is successful but needs to be kept going by committed people; the 'novelty' has worn off. A number of tasks need to be undertaken.

- continuing to source funding – primarily for maintenance but also for embellishments;
- managing and maintaining the trail – for users, adjoining landholders and the Council;
- promoting and marketing the trail to users. In the case of the Murray to the Mountains Rail Trail, this role has now been taken over by a tourism body – Tourism North East which recognises that the trail is now mature but it also sits with a wider range of cycling experiences in the Victorian North East – including two other rail trails. The marketing challenges at this point of a trail's life is very different to that which comes in the two earlier stages. A similar situation may arise on the Tablelands where there are a number of developed and developing cycling opportunities;
- continuing promotion of the trail's benefits to the Council and the community;
- ensuring ongoing implementation of the Corridor Management Plan; and
- maintaining good working relationships with the Friends of the Atherton Tablelands Rail Trail (or similar community support groups).

## **3.0 Corridor Management Plan**

The Corridor Management Plan includes:

- A 'Trail Policy' or a set of Guiding Principles which incorporates a set of decisions made about how the trail will operate;
- A Code of Conduct;
- An Emergency Response Plan (incorporating a Fire Management Plan); and
- A Trail Maintenance Plan.

Bringing all four elements together in one framework (a Corridor Management Plan) makes ongoing trail development and management an efficient process and ensures ongoing seamless transitions as personnel involved with a trail change.

A set of overarching principles have been developed to serve as a guide to the use, upgrading, maintenance, promotion and management of the trail. The following principles include:

- **Accessibility** - the Atherton Tablelands Rail Trail is accessible by public and private transport from the urban centres of Atherton, Tolga and Walkamin;
- **Access for all** – The Atherton Tablelands Rail Trail is for non-motorised equipment, however where practical and appropriate, the Atherton Tablelands Rail Trail will be developed/upgraded so as to enable access by people in wheelchairs, people with disabilities, family groups and the elderly;
- **Providing enhanced outdoor recreational opportunities** - the Atherton Tablelands Rail Trail will be promoted as an additional component to the range of low cost outdoor recreational opportunities across the Atherton Tablelands;
- **Minimal conflict between trail users** – the Atherton Tablelands Rail Trail will cater for non-motorised trail users (walkers, cyclists and horse riders) with minimal conflict. Monitoring of use over time will determine whether there is a need for the progressive development of a separate horse trail off the main trail formation;

- **Providing access to, and an enhanced understanding of, the natural attributes of the Tablelands** - the Tablelands has a diverse and outstanding range of physical attributes, and the Atherton Tablelands Rail Trail will enable greater opportunities to access these natural features;
- **Providing access to and an enhanced understanding of the history of the Tablelands** - the many physical reminders of past land uses and activities can be a major component of interpretive information available on the Atherton Tablelands Rail Trail, and a greater inducement for visitors to use the trail;
- **Quality promotion** - the Council will promote the Atherton Tablelands Rail Trail as part of a broader visitor experience of the Tablelands;
- **Effective and ongoing maintenance** - the Atherton Tablelands Rail Trail will be the subject of a regular maintenance regime, and a detailed audit every 2–3 years, ensuring that all defects along the trail receive quick attention, thereby keeping the trail up to the requisite standard and quality;
- **Quality construction** – the trail will be built to appropriate standards, and to a high quality, thereby minimising the need for maintenance, and giving users a quality experience;
- **Quality information**, including brochures and mapping - the Atherton Tablelands Rail Trail will have quality on-trail information, as well as a professionally produced and widely available trail brochure and map. All means of distribution of these products need to be utilized;
- **Outstanding interpretive material** - the Atherton Tablelands Rail Trail will have on-trail interpretive material, and will be included within other trail and publicity brochures, providing trail users with a greater appreciation of the more interesting features to be found along the trail;
- **Consistency and uniformity of signage** - signage is recognised as an essential element of a quality trail, and all signage erected at trailheads, along nearby and adjoining roads and along the Atherton Tablelands Rail Trail will conform to accepted standards, and will maintain a consistent theme along the entire trail;
- **Adherence to recognised standards** - trail construction, signage and trail markers, and trail classification will comply with recognised Australian Standards, thereby ensuring a high quality and safe experience for all trail users;
- **Community involvement** – the management and maintenance of the Atherton Tablelands Rail Trail will consistently seek to involve the local communities along the corridor on an on-going basis and in the formulation of critical decisions and maintenance. This on-going involvement with adjoining landowners and the community will ensure that the use of the rail trail does not impinge on private operations and that disputes are resolved wherever possible to the satisfaction of both the trail manager and the landowner. The on-going involvement with other sectors of the community will ensure that the trail is meeting their expectations;
- **Trail user survey** – trail users will be surveyed on a bi-annual basis to ensure the trail is meeting their needs and expectations, and a survey of adjoining landowners and businesses will be undertaken to ensure the trail is meeting their expectations;
- **Regularly policed** – the Atherton Tablelands Rail Trail will be regularly policed by Council and an ongoing effort be maintained to deter and police unauthorised motor vehicle use (notably trail bikes).

### 3.1 Trail Policy

A comprehensive trail protection policy provides the Tablelands Regional Council with the authority to do the following:

- Regulate all secondary uses of the trail corridor in a fair and consistent manner;
- Minimise inconvenience to trail patrons, and assure protection of wildlife habitat and natural and historic resources within the trail corridor;
- Minimise damage to the trail corridor at all times;
- Establish uniform standards for construction and restoration of the trail corridor if it is damaged by a secondary use;
- Ensure that the managing agency recovers all its administrative costs and receives appropriate compensation for use of, and damage to, the trail corridor by secondary uses;
- Inform all public and private interests of the expectations and intentions of the trail managing agency with respect to secondary uses;
- Issue permits and licences for secondary uses; and
- Prohibit the transfer of ownership rights through the use of easements or other mechanisms.

The trail policy to be developed will cover the following:

#### *Enforcement procedures*

Tablelands Regional Council will have existing local laws covering a range of matters such as riding motorbikes in parks (a common issue); these local laws should form the basis for enforcement – the enforcement infrastructure, such as appropriate signage, is the key issue. A limitation in enforcement will be the ability to obtain licence or personal details from an alleged offender as Council has no powers to force a person to provide this information. A coordinated approach between Council's Local Law Officers and the Police will be required for enforcement matters.

#### *Dogs on the trail*

Dogs are allowed on the trail however they will be required to be kept on a leash at all times. This will allow people to walk or run their dogs under control without interfering with the rural practices of adjoining landholders or disturbing other trail users. Dog waste is to be collected and disposed of by the dog handlers.

#### *Horses on the trail*

Horses are to be allowed on the trail north of Mazlin Creek. Major road crossings can present difficulties for horse riders. Rider should ensure there is no oncoming traffic from either direction prior to attempting to cross a road. .

No bridges are to be used by horses. It is recommended that riders dismount and walk their horses when crossing roads.

Horses should be restrained from entering creeks where possible, other than to cross via the designated crossing area to the opposite side in order to continue on the trail. When crossing creeks, riders are to use the designated crossing area only so as to prevent erosion and degradation of the creek banks.

When horses are tethered, they are to remain under the supervision of a responsible person. Tethering of horses is only permitted at the tethering points provided. Horses must not be tethered to tree limbs.

Riders are required to provide adequate water for their horse to drink. No drinking water troughs are provided on the trail for horses.

Horses are only to be ridden within the designated horse riding area of the trail. Horses are not to be ridden on the hard path designed for bike riders and pedestrians in order to preserve the integrity of the path.

Horse riders are to adhere to the code of conduct.

### *Camping on the trail*

Camping is not permitted within the rail trail corridor.

### *Weed eradication and control*

It is estimated that the trail be sprayed with use of boom spray equipment on at least three (3) occasions per annum. The spraying routine should also include maintenance around bridge pylons to prevent a build-up of vegetation and reduce any associated fire risk. The herbicide spray treatment be conducted combined with a slashing regime.

The declared pest weed to be on high alert for is Gamba grass (*Andropogon gayanus*). A known infestation of Gamba grass is present adjacent to the trail on the southern side of Rocky Creek (as at June, 2014). Other weeds to be alert for include Japanese sunflower (*Tithonia diversifolia*) which is common throughout the Atherton to Walkamin section and giant rats tail (*Sporobolus pyramidalis*). Ongoing monitoring for declared pest weeds should be conducted by a person knowledgeable in pest weeds, during routine boom spraying treatments. Any new incursions should be treated promptly.

### *Vehicle access to the trail*

Access to the rail trail by motorised vehicles is not permitted.

### *Open fires and barbecues*

Any lighting of open fires or barbecues at any time of the year is not permitted along the rail trail.

### *Strategies for the protection of native vegetation*

Together with road reserves, railway reserves played an important role as wildlife corridors and habitats for native birds and animals. The rail corridor will be managed in a manner that maintains and enhances their nature conservation values.

Revegetation is considered important in some areas for visitor comfort, as some long sections of the rail trail are unpleasant to walk along on hot days due to the complete absence of shade. Any revegetation areas will be fenced off from stock and planted with native trees, shrubs, herbaceous plants and grasses.

### *Complaints/communications – procedures and responsibilities*

A dedicated email address will be created for the trail users, adjoining landholders and the public to have contact with the Tablelands Regional Council and the Committee. This will ensure that the trail is managed properly, that maintenance matters are attended to readily, that any regulations are enforced and that general feedback can be given. Contact details will be placed on all trail literature and maps, on trailhead signage, and on relevant websites.

### *On-trail events and group use policy*

The Council should notify, and seek input from, local police and other emergency service personnel when any sizeable event is planned.

### *Target user groups need to be identified.*

A promotion and marketing plan will need to be included in the set of initial decisions. Tasks will need to be allocated both in the initial stage and in ongoing trail development and operation.

### *On-trail advertising*

On-trail advertising is one avenue of revenue generation. The main impacts of such advertising will be visual impacts and safety impacts. Any permitted advertising signs should not impede trail users nor create a safety hazard (for example, by obscuring an advance warning sign).

### *Commercial usage policy*

The Atherton Tablelands Rail Trail is free to access for all.

### *Use of the trail corridor by utilities*

A linear corridor such as a rail trail does lend itself to a range of potential future uses – many of which are not excluded by the possibility of the corridor being converted into a recreation trail. This former railway corridor, like so many others around the world, is also ideally suited for the placement of utilities, such as wires, cables and pipes. Data, telephony and energy can and are all carried in pipes alongside or underneath rail trails. These uses can be complementary to the corridor's use as a recreation trail. Provided the intended co-use does not disturb the natural, scenic and historical qualities of the trail, it can be permitted.

*Consideration and amelioration of impacts on adjoining landholders.*

This covers issues such as fencing, privacy issues, trespassing, the rights to graze, who will pay for construction works that allow farmers to continue activities etc. The Atherton Tablelands Rail Trail Advisory Committee will ensure that through the management and maintenance of the Trail they will consistently seek to involve the local communities along the corridor on an on-going basis and in the formulation of critical decisions. This on-going involvement with adjoining landowners and the community will ensure that the use of the rail trail does not impinge on private operations and that disputes are resolved wherever possible to the satisfaction of both the trail manager and the landowner. Matters likely to arise include fencing, privacy issues, trespassing, licensing agreements etc.

## 3.2 Code of Conduct

When using the Atherton Tablelands Rail Trail, respect other users, the natural environment and the privacy of adjacent land holders.

### *Sharing*

- Please shut all gates after use;
- Do not obstruct the trail;
- Cyclists must alert other users to their approach and pass at a reduced speed;
- Approach horses with care;
- Do not feed or approach animals in adjacent paddock;
- Park in designated areas;
- Observe local signs and regulation;
- Keep dogs under control and on a lead

### *Environment*

- Keep on the Rail Trail;
- Do not interfere with native plants or animals;
- Take your rubbish home with you;
- Clean up after your dog;
- Do not light fires;
- Clean bikes, walking boots and other equipment after your trip to minimise the spread of plant and animal pests and diseases.

### *For your safety*

- Exercise caution at all road and creek crossings;
- Cyclists and horse riders must dismount at road crossings;
- Cyclists and horse riders must wear an approved helmet and ride in control;
- Do not approach pets or livestock in adjacent paddocks;
- Carry plenty of water and light snacks;

- Wear appropriate clothing for the conditions;
- Maintain your equipment, and carry repair and first aid kits in case of emergencies;
- Where possible, travel in pairs;
- Let someone know before you go

#### *Emergencies*

- Call 000;
- Call 112 on mobile.

### 3.3 An Emergency Response Plan

The key elements of an emergency response plan for a trail such as this are:

- general risk management;
- fire risk and fire management;
- the provision of appropriate signage;
- trail access for emergency service vehicles;
- emergency responses – how and who;
- the provision of adequate information and mapping to the services' communications centres;
- the need for special agreements between emergency service providers and the trail manager; and
- the provision of on-trail communication systems.

#### 3.3.1 General risk management

A risk is the chance of something happening as a result of a hazard or threat that will impact on an activity or planned event. Risk arises out of uncertainty. It is measured in terms of the likelihood of it happening and the consequences if it does happen. Risk therefore, even on trails, needs to be managed. Ignoring the risks that apply to a recreation trail or events planned along a trail could impact on:

- the health and safety of trail users, staff, volunteers and event participants;
- the reputation, credibility and status of the trail and its manager (or trail association);
- public and customer confidence in the trail manager;
- the trail manager's financial position; and
- plant, equipment and the environment.

Risk management is a process consisting of well-defined steps which, when taken in sequence, support better decision making by contributing to a greater insight into risks and their impacts. It is as much about identifying opportunities as it is about avoiding losses. By adopting effective risk management techniques the Council can help to improve the safety of trail users, the quality of experience for trail users and business performance of the trail organisation.

Though the trail would be located on a reasonably flat grade, and is wide enough to accommodate several user groups, there will be risks associated with use of the trail.

Some of the risks involved are:

- encountering motor vehicles at road crossings;
- conflict between user groups;
- encountering illegal trail users such as cars/4WD and trail bikes;
- falling from unprotected bridge crossings (though handrails on all bridges over 1 metre high would be required);
- falling from high embankments (where there are no barriers);
- being caught in a bush fire; and
- being bitten by a snake.

<b>RISK CALCULATOR</b>					
<b>Likelihood</b>	<b>Consequence</b>				
	Insignificant <small>No injury, no-low \$ cost</small>	Minor <small>First aid treatment, low-medium \$ cost</small>	Moderate <small>Medical treatment, medium-high \$ cost</small>	Major <small>Serious injuries, major \$ cost</small>	Catastrophic <small>Death, huge \$ cost</small>
<b>Almost Certain</b> <small>Expected to occur at most times</small>	<b>H</b>	<b>H</b>	<b>E</b>	<b>E</b>	<b>E</b>
<b>Likely</b> <small>Will probably occur at most times</small>	<b>M</b>	<b>H</b>	<b>H</b>	<b>E</b>	<b>E</b>
<b>Possible</b> <small>Might occur at some time</small>	<b>L</b>	<b>M</b>	<b>H</b>	<b>E</b>	<b>E</b>
<b>Unlikely</b> <small>Could occur at some time</small>	<b>L</b>	<b>L</b>	<b>M</b>	<b>H</b>	<b>E</b>
<b>Rare</b> <small>May occur in rare conditions</small>	<b>L</b>	<b>L</b>	<b>M</b>	<b>H</b>	<b>E</b>
	Identify the hazard/risk of the work				
	Assess the likelihood and consequence of the hazard/risk				
	Control the hazards/risks using control measures considering the hierarchy of control				
	Monitor the effectiveness and use of implemented control measures				

Risk Score Legend		Hierarchy of Control	
<b>E</b>	Extreme risk, immediate action required	<b>ELIMINATION</b>	Eliminate the process, material or substance completely
<b>H</b>	High risks, prioritised action required	<b>SUBSTITUTION</b>	Replace the process, material or substance with a safer one
<b>M</b>	Moderate risk, planned action required	<b>ISOLATION</b>	Isolate the person(s) from the process, material or substance
<b>L</b>	Low risk, actioned by routine procedures	<b>ENGINEERING</b>	Design or re-design the process, material or substance
Jardine Lloyd Thompson©		<b>ADMINISTRATION</b>	Limit exposure to the risk by job rotation, work procedure and/or providing adequate training
		<b>PPE</b>	Use of personal protective equipment

Potential Risk	Likelihood	Consequence	Risk Rating	Controls	Resources
Encountering Vehicles at a road crossing/s	Almost Certain	Catastrophic	Extreme	Appropriate Signage and Warning	
Conflict between User Groups	Possible	Minor	Medium	Appropriate Signage and Code of Conduct for use of trail	
Countering illegal trail users such as cars/4WD and trail bikes	Possible	Major	Major	Appropriate Signage, Code of Conduct and barriers to deter motorised users on the trail	
Falling from unprotected Bridge Crossing	Possible	Major	Extreme	Barricades located at bridges, clear signage and regular checking of areas	
Falling from high embankments	Possible	Major	Extreme	Appropriate signage	
Being Caught in a bush fire	Unlikely	Major	High	Appropriate information on works going on around trails	
Being bitten by a snake	Rare	Major	High	Appropriate Signage, Close proximity to	

				local hospital and adequate mobile reception.	
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### 3.3.2 Fire risk and management

The trail manager will be responsible for implementing fire protection and management along the rail trail corridor to protect life, property, public assets and natural and cultural values from fire, reduce the incidence of fire, reduce the severity and restrict the spread of fire. The aim of fire management is to ensure trail users and adjoining landholders are protected from fire commencing on or travelling along the rail trail corridor. To reduce the incidence of fire starting from the rail trail all open or solid fuel fires are prohibited. At visitor facilities, slashing should be used to reduce fuel loads. Where the corridor has tree cover or where revegetation is to occur, there will be a need to provide a buffer zone along the boundary or alternatively seasonal grazing of the vegetated area to reduce fuel loads will be permitted. Relevant signage at trailheads needs to include fire warnings.

Fire management issues include:

- Fire risk factors in the area – risk profile is influenced by a number of factors including slope of the land (hilly terrain and north and west facing slopes increase risk), response time for emergency vehicles (the closer to a town a trail location, the less time for emergency vehicles to get there), proximity of roads and how heavily trafficked they are (highways and major arterials increase risk due to higher numbers of passing motorists), and closeness of refuges including fire-proof buildings and roads.
- Ideally, trail design should allow for fire vehicle passing bays (15 metres long by 6 metres wide) every 2 kilometres. Given the limited number of “isolated sections”, this is not such a major issue for this trail as it is for others.
- Fire management responses for the trail. These included closure on days of total fire ban (and consequent policing). This is now done regularly in NSW in national parks and on recreational trails. Mapping technology may be available that provides good indicators as to fire paths which would allow parts of the trail to be ranked in terms of fire risk (recognising that nothing can be absolutely precise). Possible management responses in zones of highest fire risk may include appropriate warnings, and possible longer closures on these sections (rather than just on days of total fire bans). Sections of trail in zones of lower fire risk could have a lower level of fire management response.
- The possibility of banning smoking on the rail trail under legislation governing smoking in outdoor areas. It is acknowledged that this is difficult to enforce except by having a constant presence; it is however a possible ‘tool in the toolbox’ for managing fire risk.

It is of major importance to develop a Bush Fire Risk Management Plan early in the planning process in consultation with the Queensland Fire and Rescue Service and the Rural Fire Service. This is an issue with many rail trails (and in fact with any activity that takes people out into the bush in significant numbers). It has been successfully tackled elsewhere.

For example, the Lilydale to Warburton Trail has developed a Wildfire Risk Management Plan. The Plan includes a number of objectives and relevant actions. The objectives are:

- Providing a safe recreation trail for walkers, cyclists and horse riding;
- Providing a safe access onto and along the trail for all emergency vehicles;
- Minimising the risks of fires spreading from or onto the rail trail; and

- Developing annual maintenance works and maintenance programs (with an accent on fire hazard reduction). An initial survey of the trail section from Atherton to Rocky Creek identifies a fire risk area between Mapee Road and Rocky Creek, between the trail and the highway, where fuel reduction burns should occur in order to reduce potential fuel loads. It has also been identified that vegetation around bridge pylons should be kept to a minimum in order to protect bridge infrastructure from fire damage.

### 3.3.3 Appropriate Signage

Trailhead signage will specify what to do in an emergency, the numbers to call, the location of public phones, and the capacity for a flip-down sign indicating trail closure (due primarily to fire, flooding or maintenance work).

### 3.3.4 Trail access for Emergency Vehicles

Emergency vehicles will have access to the trail.

### 3.3.5 Emergency responses – who and how

In an emergency situation, the emergency number from a landline is 000, while the emergency number that works best from a mobile phone is 112. Once a call is made by a trail user, the communications centres for the appropriate service will dispatch the required personnel and vehicles. The Council will only be involved after the emergency situation is resolved, to review and record the incident, and to review the response.

If the emergency is a slowly emerging situation, such as a period of total fire ban (or very high fire risk) or the likelihood of flooding, Council will close the trail under such circumstances (under relevant state government legislation). Once the trail manager advises police that the trail (or part of the trail) is closed, police have the powers to ensure that people do not go onto the trail or can be removed from the trail if they are on it (an administrative trespass) though most people accept the advice of police.

### 3.3.6 Provision of adequate information for communications centres

As the trail develops, mapping data will be provided to the communications centres for each of the emergency services. The data that will be entered into their system covers maps with the location of trail distance markers (and their reference points), and road crossings (and their GPS coordinates) marked on the maps. One set of data will be developed and given to all the communications centres.

### 3.3.7 On-trail communications systems

Public phones are often quite accessible from trailheads and their locations should be shown on all trail mapping (brochures, trailheads, Web sites etc.)

## 3.4 A Trail Maintenance Plan

Ongoing trail maintenance is a crucial component of an effective management program –it is therefore essential that funds be set aside in yearly budgets for maintenance of this trail - to ensure user safety and enjoyment, and to minimise liability risks for land managers. A detailed trail maintenance plan is a critical element of a Corridor Management Plan.

Annual costs for government-run trails average just over \$1250/km. This is not much more than the overall average of \$940/km, but it nearly triples the average for volunteer-run trails of just under \$440/km.

Estimating how much time is spent on many of the maintenance tasks (for a trail that is not yet built) is essentially guesswork, although some assumptions can be made. As a general rule, trail maintenance costs (at full commercial rates) are as follows:

- \$5/linear metre/year for sealed path maintenance.

- \$20/metre/year for bridge maintenance.
- \$2/metre/year for non-hardened surface (a decomposed granite or similar) maintenance.
- \$0.60/square metre/year for slashing of the corridor (based on a square metre cost of \$0.06 and an allowance for 10 slashing runs/year)

As noted above, the opportunity exists to minimise future maintenance demands through careful planning and construction.

The goals of a Trail Maintenance Plan are to:

- Ensure that trail users continue to experience safe and enjoyable conditions;
- Guard against the deterioration of trail infrastructure, thereby maintaining the investment made on behalf of the community;
- Minimise the Council's exposure to potential public liability claims arising from incidents which may occur along the trail; and
- Set in place a management process to cover most foreseeable risks.

### 3.4.1 Public Liability and Risk Management

The Tablelands Regional Council has a significant duty of care towards those visitors accessing the trail. The maintenance of a quality trail is therefore critical from this perspective. Liability generally rests with the land managers and hence, every attempt should be made to minimise the risk of accident or injury to trail users (and therefore the risk of legal action).

A formal Hazard Inspection process is crucial in the ongoing maintenance plan.

### 3.4.2 Trail Maintenance Activities

Maintenance on the trail should be divided between regular inspections and simple repairs, a one (or two) person job, and quarterly programs undertaking larger jobs such as significant signage repairs or weed / vegetation control. A range of basic machinery, tools and equipment will be required for this work.

At the core of any trail maintenance program is an inspection program. The relevant Australian Standards sets out the basis for frequency of trail inspections. It only covers walking tracks and provides for inspections every 30 days (or less) for Class 1 trails, every 90 days for Class 2 trails, and annually for Class 3-6 trails. This sets the minimum standard for inspections and is a guide only. What the Australian Standards do not include but should include is an inspection of any trail after significant weather events such as storms, fire, floods, and high winds in addition to the regular inspection program. The trail should have its own maintenance plan that may, for particular reasons, have more frequent inspections. Particular needs should be recognised in an individual trail maintenance plan.

Maintenance Plans are based around regular inspections, at which time simple maintenance activities should take place concurrently. More time-consuming maintenance activities should take place every six months, while detailed Hazard Inspections should occur annually.

Table 6 provides a schedule for general maintenance activities to achieve acceptable maintenance levels whilst Table 7 provides explanatory notes pertaining to each Activity.

**Table 6: General Maintenance Activities**

<i>Activity</i>	<i>Site</i>	<i>Frequency</i>
Undertake full inspection of the trail	Entire trail	Every third month
Check signage and clean, replace or repair as required esp. road crossing	All locations	Every third month - at each trail inspection

signage and directional markers		
Slashing of trail environs	Various locations	Monthly in spring and summer, less frequently in autumn and winter (10 times/year)
Check trail surface and arrange repair as required	Entire trail	Every third month. Check for erosion at each inspection.  Arrange repairs immediately if acute, or schedule maintenance for six monthly work sessions if not
Maintenance of trail surface	Entire trail	Every six months
Sweep or rake debris from trail surfaces, especially at road crossing points	Various locations	Every six months
Maintenance of culverts and other drainage measures	Entire trail	Every six months
Cut back regrowth, intruding and overhanging vegetation	Entire trail	Every six months, unless obviously requiring attention at regular inspections
Check structural stability of interpretive signage, and interpretive shelters	Various locations	Every six months
Undertake Hazard Inspection and prepare Hazard Inspection Report	Entire trail	Annually
Check structural integrity of bridges	Various locations	Every 3 years
Major repairs and replacements	Entire trail	Every 5 years
Major repairs and replacements	Entire trail	Every 10 years

*(It should be noted that this schedule does not allow for repair works above and beyond 'normal' minor activities. For example, if a section is subject to heavy rain, and erosion control fails, additional repair works will need to be undertaken).*

**Table 7: Key elements for a trail maintenance program**

<b>Activity</b>	<b>Notes</b>
Check, repair or replace all trail signage, esp. road-crossings and directional markers	<p>Particular attention needs to be given to signs at road crossings or junctions. Each crossing should be carefully checked to ensure that all signage is present, and that all signs are clearly visible. Particular attention must be given to ensuring that "Trail Crossing Ahead" signs (on roadside at approach to trail crossing) are not obscured by overhanging vegetation.</p> <p>Each trailhead should be carefully checked to ensure that all signage is present, and that all signs are clearly visible and legible. An inventory of locations needs to be prepared to assist in regular maintenance.</p> <p>Interpretive panels should be checked for vandalism and cleaned if necessary. If damage is too great, replacement is essential. An inventory of locations needs to be prepared to</p>

	assist in regular maintenance.
Check and cut-back overhanging or intruding vegetation (not trail surface)	<p>Undergrowth vegetation grows quickly, and over time will continue to intrude into the trail 'corridor'. Such intruding vegetation will be cut back to provide clear and safe passage as per the trail use.</p> <p>Care will be taken to ensure that sharp ends are not left protruding into the trail as these can harm trail users. It should be noted that trailside vegetation hangs lower when wet, and allowances should be made for this when assessing whether or not to prune. "Blow-downs" - trees or limbs that have fallen across the trail - will be cleared as a part of this process. Sight lines must be kept clear either side of road crossings as a part of this process, to ensure that users can clearly see a safe distance either way at road crossings.</p>
Check condition of trail surface for erosion (or other) damage and arrange repairs if necessary; trim off regrowth vegetation	<p>Some of the trail sections will require regular surface maintenance, though this should be minimal as the rail formation was originally constructed with drainage a major consideration. Primary focus will be on erosion damage caused by water flowing down or across the trail and by illegal motor vehicle use. This must be repaired as soon as it is noted, or it will get worse, quickly.</p> <p>Earthen surfaces may need to be topped up after heavy storms (2/year), though good design will minimise such washouts.</p>
Check and clear drains	<p>Drainage maintenance is critical. Drains need to be checked and cleared once or twice/year (absolute minimum) and after heavy rainfall events. Regular maintenance especially after heavy rainfall is essential.</p> <p>Most maintenance will involve clearing of material from silted up or blocked drains.</p> <p>Any scouring out of table drains should be stabilised as soon as possible.</p> <p>Drain blockages should be cleared as urgent priority.</p> <p>Silt traps at culvert discharges or entry points should be cleared regularly.</p>
Check structural stability of built structures such as viewing platforms, boardwalks, interpretive signage, interpretive shelters	<p>Visual inspection is appropriate though detailed inspection should follow storm events.</p>
Maintain all non-slip surfaces	<p>Maintenance on these surfaces is critical to prevent build up of conditions that can lead to deterioration. Leaf blowing, sweeping, gurneying and the application of algaecide are all appropriate techniques. The appropriate technique and efficiency will be subject to site conditions.</p>

Undertake Hazard Inspection and prepare Hazard Inspection Report	This should be done annually
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