



**TOWNSVILLE
ROCKWHEELERS
MOUNTAIN BIKE CLUB**

Risk Management Report

Douglas Mountain Bike Reserve Management Plan

Updated November 2018

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Douglas MTB Reserve - Management Plan

The Risk Analysis Matrix is available on page 7.

Hazard Identified	Causes/ Consequences	Risk Rating	Control Measures
<p>1. Cyclist falling whilst using trail.</p> <ul style="list-style-type: none"> Single accident 	<ul style="list-style-type: none"> User colliding with and/or falling onto natural feature(s) such as sharp or hard rocks, low hanging branches, tree trunks, etc. User colliding with / falling onto remnant infrastructure (e.g. an old fence) <p>Any of which could result in:</p> <ul style="list-style-type: none"> user sustaining an injury that could be minor (e.g. minor cuts, abrasions, bruising) or need immediate medical attention. damage to property, bike or infrastructure. <p>Likelihood of occurrence is influenced by:</p> <ul style="list-style-type: none"> Technical skill level of cyclist. Weather conditions (eg track surface loose / slippery due to rain) Mechanical condition & intended capability of bike. <p>Potential extent of injury is influenced by:</p> <ul style="list-style-type: none"> Presence of safety wear / equipment on rider 	<p>Minor fall, requires first aid B..1..M M – Moderate ACCEPTABLE</p> <p>Mod fall, sprains, strains, concussion C..2..M M – Moderate ACCEPTABLE</p> <p>Major fall, neck injury, death E..4..M M – Moderate ACCEPTABLE</p>	<p>Install signage at the Reserve access points that:</p> <ul style="list-style-type: none"> Advises users of the level of skill required to negotiate the trails. Advises users of Trail Forks application and emergency location feature Advises users of their responsibility to be aware of the possible risks Advises users to wear adequate protective equipment (e.g. helmet, shoes, gloves, pads etc) Provides emergency contact details (ambulance fire police) Advises users of the presence of other users on the trails. Advises users of management contact details. Install appropriate warning signage where require for technical trail features <p>Track design and construction:</p> <ul style="list-style-type: none"> Track to be designed and constructed to IMBA principles. Risk of collision with natural obstacles and remnant infrastructure reduced by track route selection. Loose /slippery surfaces to be avoided or improved as part of track construction. Fall zones to be cleared of hazards/debris.

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<p>2. Cyclist falling whilst using the trails.</p> <ul style="list-style-type: none"> Collision between 2 cyclists Collision between pedestrian and cyclist Collision between motorbike and cyclist 	<ul style="list-style-type: none"> User colliding with another user and/or falling onto natural feature(s) User colliding with a pedestrian <p>Any of which could result in:</p> <ul style="list-style-type: none"> user sustaining an injury that could be minor (e.g. minor cuts, abrasions, bruising) or need immediate medical attention. damage to property, bike or infrastructure. <p>Likelihood of occurrence is influenced by:</p> <ul style="list-style-type: none"> Technical skill level of cyclist. Weather conditions (e.g. track surface slippery due to rain) Mechanical condition & intended capability of bike. Potential for bush walkers to use the track, Potential for motor cycles/4WD to use the track. <p>Potential extent of injury is influenced by:</p> <ul style="list-style-type: none"> Presence of safety wear / equipment on rider 	<p>Minor fall, requires first aid D..1..L L – Low ACCEPTABLE</p> <p>Mod fall, sprains, strains, concussion D..2..L L – Low ACCEPTABLE</p> <p>Major fall, neck injury, death E..4..M M – Moderate ACCEPTABLE</p>	<p>Install signage at the track access points that:</p> <ul style="list-style-type: none"> Advises users that the trails are for single file only Advises other possible users (pedestrians/motorbike/4WD) that the trails are for non-motorised use only (mountain bike use only). Advises users of Trail Forks app and emergency location feature <p>Track design and construction:</p> <ul style="list-style-type: none"> Trails to be designed and constructed to IMBA principles Risk of collision (passing) reduced by track being constructed for single file only. Trail entries to be narrow to prevent motorbike and 4WD access and include trail filter Trail features to deter motorbike access (such as tight corner radii).

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<p>3. Risk of object(s) falling on park user</p> <p>Primarily related to natural occurrences:</p>	<ul style="list-style-type: none"> • Falling tree-limbs / rocks / debris • User being hit / crushed by falling tree limbs / rocks / debris <p>Any of which could result in:</p> <ul style="list-style-type: none"> • user sustaining an injury that could be minor (e.g. minor cuts, abrasions, bruising) or need immediate medical attention. • damage to property, bike or infrastructure 	<p>Rare event E..4..M M – Moderate ACCEPTABLE</p>	<ul style="list-style-type: none"> • Very unlikely that the track would be used on days of extreme weather (such as during a cyclone) that would cause such an occurrence. • Inspect track after severe weather for damage to infrastructure and rectify as necessary. • Track inspected as part of regular maintenance. • Track inspected pre-events.
<p>4. Risk of blocking track access</p> <p>Primarily related to conditions after a natural occurrence</p>	<ul style="list-style-type: none"> • Tree limb(s) falling on trail(s), rocks or debris spread over track after natural event such as cyclone or fire that could cause user(s) to crash / fall (see risk 2) 	<p>Possible event C..3..M M– Moderate ACCEPTABLE</p>	<ul style="list-style-type: none"> • Inspect track after severe weather for dead or damaged overhanging limbs, loose or weakened upper slopes and the like and rectify as necessary. • Clear track of loose debris and the like as necessary. • Provide signage that encourages users to monitor the track for fallen branches (and other impassable obstacles) and remove if possible to do so safely or otherwise contact management (provide management contact details).

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<p>5. User (s) engaging in any activity that causes damage to the natural values of the immediate area around the track.</p>	<ul style="list-style-type: none"> • User(s) building / creating additional tracks and/or changing the track route, • User(s) walking / riding off the track, • User(s) introducing weeds into the area or spreading weeds in the area, • User(s) deliberately harming natural assets in any way, • User (s) causing fire • Illegal trail construction can jeopardise legitimate access to land for mountain biking 	<p>Possible event C..2..M M – Moderate ACCEPTABLE</p>	<ul style="list-style-type: none"> • Track route to be selected such that it is the best option and follows natural desire lines so as to minimise the desire of users to ride or walk off-trail & / or create unauthorized tracks. Possible alternatives to be identified and “blocked off” as part of construction. • Introduction of weeds is unlikely as access to the track is via sealed roads. Spread of weeds along the track is unlikely as the area is reasonably weed free. • Implement weed removal as part of construction activities. • By means of signage educate users about the following issues: <ul style="list-style-type: none"> ○ The environmental problems associated with unauthorised trail building, ○ Principles of sustainable trail development and the IMBA trail building principles ○ Biodiversity and why it is important ○ Environmental weeds and their management ○ Invite and encourage users to become involved in trail maintenance and management

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<p>6. Risk of a fire</p>	<ul style="list-style-type: none"> • Fire by natural causes, • User(s) accidentally starting fires, • User (s) deliberately starting fires, <p>Any of which could result in:</p> <ul style="list-style-type: none"> • Damage to natural assets (e.g. vegetation, soil, fauna etc.) • Damage to infrastructure 	<p>Possible event C..2..M M – Moderate ACCEPTABLE</p>	<ul style="list-style-type: none"> • Fire occurs in the Mt Stuart area annually at the end of the dry season (September/October), either from natural causes, accidentally lit or being deliberately lit by adjoining land owners. • Additional use in the area will increase the likelihood of fire. • The sealed road and the regularly maintained fire break on the adjacent defence land contains any fire from spreading. The track will also provide an additional fire break to reduce the spread of fires.
<p>9. Injury from Fire</p>	<ul style="list-style-type: none"> • User(s) sustains injury from being caught in a fire event 	<p>Rare event E..3..M M – Moderate ACCEPTABLE</p>	<ul style="list-style-type: none"> • Fire Response units (Emergency Services, Rural Fire Brigade, Defence) informed that the track is in regular use. • Checking for users on the track to be part of fire response plan. • No club activities to be held if fire (threat) is occurring or high risk
<p>10. Trail user gets lost</p>	<ul style="list-style-type: none"> • Unfamiliar with trail network <p>Could result in:</p> <ul style="list-style-type: none"> • Dehydration and heat stress 	<p>Possible event C..2..M M – Moderate ACCEPTABLE</p>	<ul style="list-style-type: none"> • Encourage use of Trail Forks application • Install trail head and trail signage • Encourage self-sufficiency on signage.

RISK ANALYSIS MATRIX					
LIKELIHOOD	CONSEQUENCE				
	1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
A. Almost certain	HIGH	HIGH	EXTREME	EXTREME	EXTREME
B. Likely	MODERATE	HIGH	HIGH	EXTREME	EXTREME
C. Possible	LOW	MODERATE	MODERATE	EXTREME	EXTREME
D. Unlikely	LOW	LOW	MODERATE	HIGH	EXTREME
E. Rare	LOW	LOW	MODERATE	MODERATE	HIGH

Legend – Level of Risk

A - Almost Certain Is expected to occur in most circumstances

B - Likely Will probably occur in most circumstances

C - Possible Might occur at some time

D - Unlikely Could occur at some time

E - Rare May occur only in exceptional circumstances