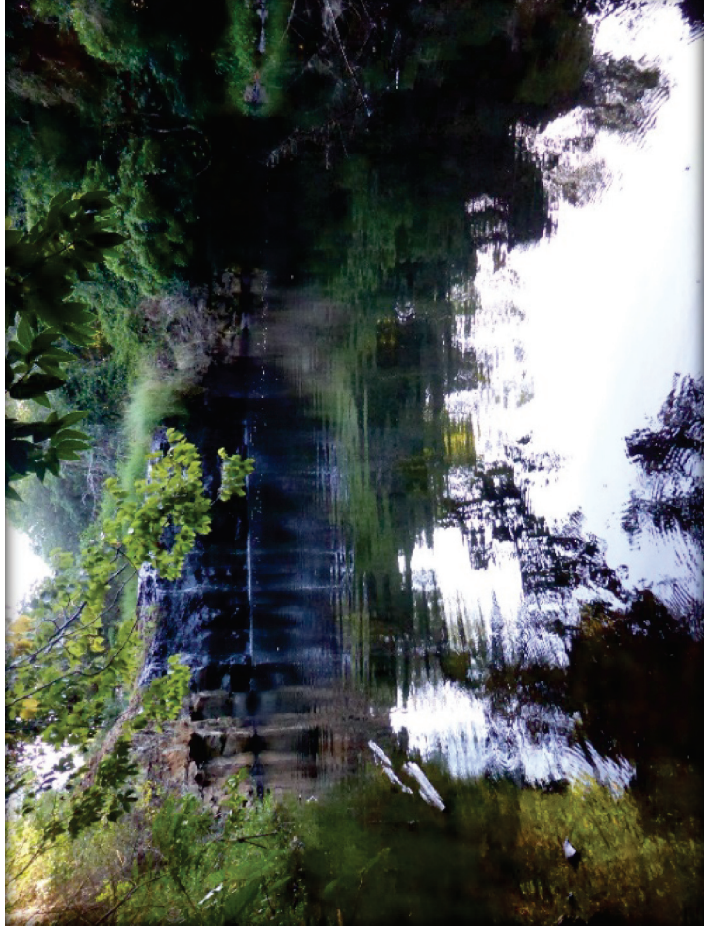

Tosha Falls Management Plan

Part A



Prepared for Ballina Shire Council

by MikeSvikisPlanning

Adopted by Ballina Shire Council on 25 January 2018



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Photograph on front cover: Courtesy of J Gardiner (2017)

CONTENTS

1 Introduction	1
1.1 Objectives.....	1
2 Tosha Falls Management Area	2
2.1 Land to which this Plan Applies.....	2
3 Management Context	5
3.1 Legislative and Policy Framework.....	5
3.2 Visitation Numbers and Characteristics.....	7
4 Values of the Management Area	9
4.1 Landform, Geology and Soils.....	9
4.2 Vegetation and Habitat.....	9
4.3 Heritage.....	11
4.4 Aboriginal Heritage.....	13
4.5 Existing Easements for Pedestrian Access.....	13
5 Issues in the Management Area	14
5.1 Safety and Risk.....	14
5.2 Water Quality and Swimming.....	14
5.3 Site Access.....	16
5.4 Johnstons Road.....	18
5.5 Other Access Options.....	20
5.6 Environmental Restoration.....	23
5.7 Rubbish and Toilets.....	23
5.8 Dogs.....	23

6 Management Strategies and Actions 24

6.1 Summary of Strategies and Actions..... 24

6.2 Monitoring..... 30

References 31

1 Introduction

Tosha Falls has been a popular spot for Alstonville locals and visitors for more than one hundred years. It was completely surrounded by private land until the 1970s when Council acquired land near the falls and 20 metre easements for pedestrian access were imposed on adjacent land along the banks of Maguires Creek. The site is associated with a history of trespass, privacy issues and vandalism arising from attempts to gain access to it via surrounding private property.

In July 2016, Council resolved that a management plan be prepared for Tosha Falls to assist with the long term planning of the site.

This management plan seeks to:

- provide options for management of the site
- identify potential opportunities for future development of facilities, access, and use of the site
- document a risk management strategy for the site.

Further information on a range of issues including the early neighbour and community consultation is included in Part B to this management plan.

The draft management plan was publicly exhibited, submissions received and considered, and then adopted by Ballina Shire Council on 25 January 2018.

1.1 Objectives

The objectives of the management plan are to:

- Manage the land consistent with the provisions of the *Local Government Act 1993*.
- Provide for the safety of visitors to the subject land.
- Provide that any visitor use of the subject land does not unduly impact on the operational use of the balance of the site as an STP.
- Ensure the ecological viability of the land by protecting its biodiversity and promoting rehabilitation of rainforest.
- Protect and respect the aesthetic, heritage, recreation, education and scientific values of the land and Maguires Creek.
- Investigate facilities proportionate to site use that allow public enjoyment of the land.

2 Tosha Falls Management Area

2.1 Land to which this Plan Applies

The land subject to this management plan is part of Lot 1 DP 853747 (the subject land). Part Lot 1 is approximately 0.92 hectares and is primarily a riparian strip located at the western edge of Lot 1 (Figure 1).

The entire area of Lot 1 is approximately 5.2 hectares, and a large part of this is occupied by the Alstonville Sewage Treatment Plant (Figure 2). The lot is located at the termination of Johnstons Road on the southern side. Council also owns land on a separate lot on the northern side of Johnstons Road. Tosha Falls is located on Maguires Creek, which is the boundary between Lot 5 DP 253899 (to the west) and Lot 1 DP 853747 to the east. Approximately 30 metres to the south of Tosha Falls is Lot 2 DP 1182136.

The nature of the property boundaries in this location indicates that the bed of Maguires Creek, including the rocks that form the waterfall and the swimming hole, are not on Council or private land and remain Crown land.

Lot 1 DP 853747 was purchased (in two stages) by Council from an adjacent farm. It was developed as a sewage treatment plant in 1976. The location was chosen because it allows the sewage from Alstonville to be gravity fed to the plant, and treated water not used for irrigation on surrounding farms can be released into Maguires Creek downstream of the plant. The STP was upgraded in 1983, and services the population of Alstonville and Wollongbar.

The primary use of Lot 1 DP 853747 is for a sewage treatment plant, and the management plan for the Tosha Falls locality needs to ensure it does not unduly impact on this primary use.



Figure 1: Part Lot 1 DP 853747, Alstonville (the subject land)



Figure 2: Lot 1 DP 853747, Alstonville (and surrounding land)

3 Management Context

3.1 Legislative and Policy Framework

The subject land is owned by Ballina Shire Council and is classified under the *Local Government Act 1993* as Operational land. It was acquired to construct a sewage treatment plant for Alstonville, which has been operating since 1976.

As Operational land, it is not subject to the *Ballina Shire Plan of Management for Community Land* (2015), and does not have a site-specific plan of management at present. Operational land is usually not intended for use by the general public, but public use is not prohibited and has been permitted on other Operational land sites (eg a water reservoir with a public lookout). If the subject land remains classified as Operational, it can be managed as Council wishes and does not need to be categorised further. It is recommended that it remains Operational land, notwithstanding the community interest in the site.

The subject land is zoned entirely SP2 Sewerage System under Ballina LEP 2012 (Figure 3) and is subject to a minimum lot size of 40 hectares. The objectives of the SP2 zone are:

- To provide for infrastructure and related uses.
- To prevent development that is not compatible with or that may detract from the provision of infrastructure.

Within this zone “Environmental protection works; and Roads” are permitted without Council consent. The development that is permitted with Council consent is the purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose. All other development is prohibited.

environmental protection works means works associated with the rehabilitation of land towards its natural state or any work to protect land from environmental degradation, and includes bush regeneration works, wetland protection works, erosion protection works, dune restoration works and the like, but does not include coastal protection works.

road means a public road or a private road within the meaning of the Roads Act 1993, and includes a classified road.

The actions and strategies arising from this management plan are expected to be development “permitted without Council consent”. If they go beyond this, they will need to be ancillary to a sewerage system. If not, then the land uses permitted at the site under Ballina LEP 2012 may need to be amended.

State Environmental Planning Policy (Infrastructure) 2007 also permits a range of minor development as either exempt or complying development, depending on the scale and circumstances.

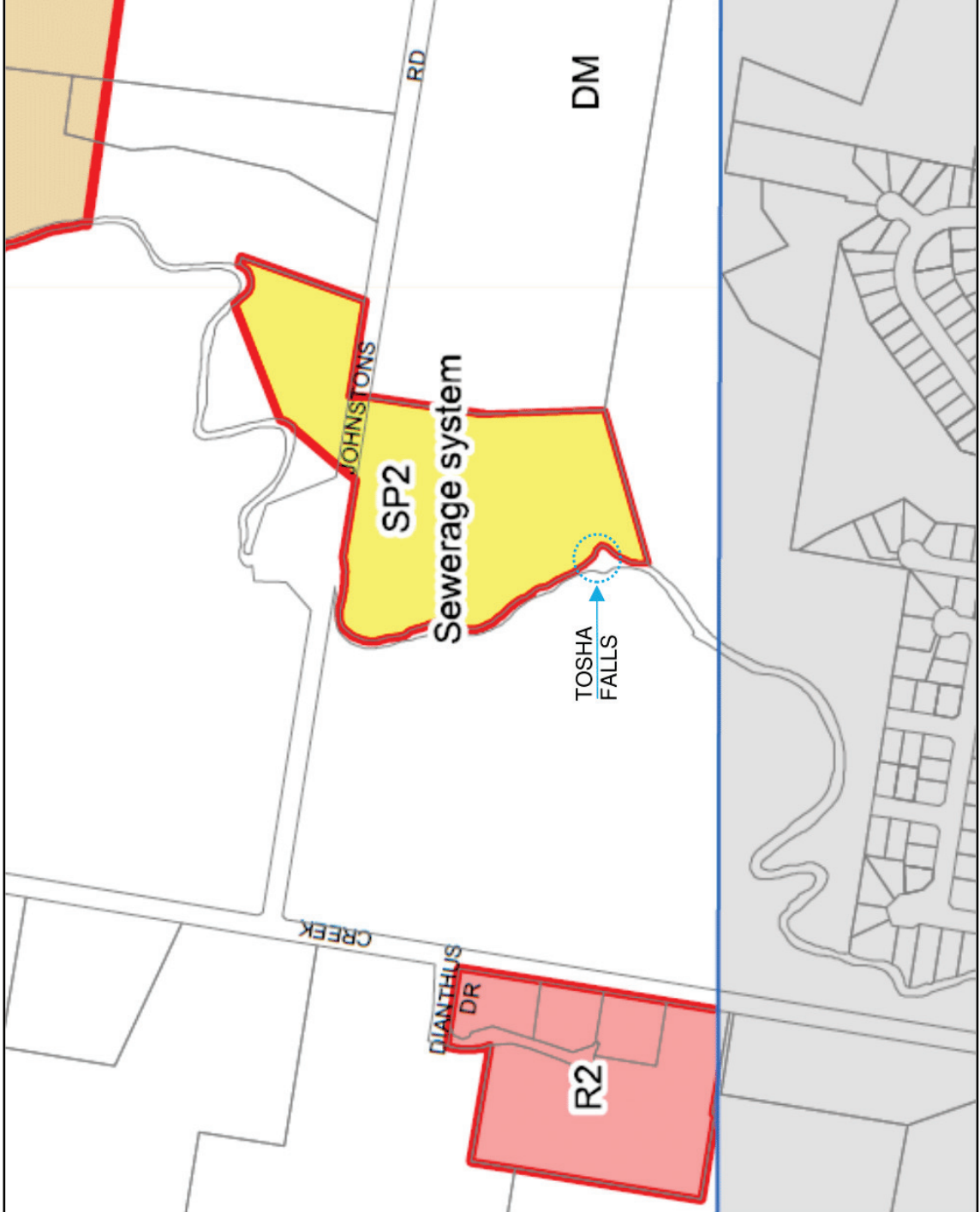


Figure 3: Land use zones under Ballina LEP 2012

3.2 Visitation Numbers and Characteristics

It is difficult to be precise about how many people visit Tosha Falls each day or each week, partly because we know that some people come via Johnstons Road, some come via a neighbour's land with permission (eg friends and family), and some trespass via one of several access points. It is likely that visitation is higher in summer months when swimming is more popular and during school holidays when young people have more time for leisure. It is also likely that weather affects site usage. There are three ways to gauge visitation levels – count the numbers on-site, ask people in a survey, and speak to the neighbours (including STP staff).

A site count was undertaken on Saturday 21 January (school holidays) between 10 am and 2 pm, and seven (7) adults and three (3) teenagers visited in two groups. Ten (10) visitors all up. It was a warm but cloudy day, and it rained lightly at times during the site count period. All visitors came by vehicle and parked at Johnstons Road, and five of the ten visitors swam and jumped off the rocks. One group of five adults was on a private tour and stayed 15 minutes. The other group stayed about 20 minutes.

The online survey undertaken in January/February 2017 indicates that most people visit less than five times per year but about one in four visit more than ten times per year. About 57% of those surveyed listed an Alstonville postcode as their address and 78% listed Alstonville, Ballina, Byron or Lismore postcodes as their address. About 19% of respondents indicated an interstate or overseas address.

The most popular things to do at Tosha Falls are swimming (85% of respondents), jumping off the rocks (60%) and picnics (36%). Most people came with family and friends. About 69% (50 respondents) accessed the falls via Johnstons Road, and about 27% (20 respondents) by neighbouring property either with or without the consent of the owners.

In relation to changes at Tosha Falls, the three most popular answers were – no changes – leave it as it is; toilets; and a better walking track.

Alstonville STP workers observe the vehicles that come and go on week days at Johnstons Road. They indicated that five cars are about the most that park there, generally after school hours on a hot day or on a Wednesday afternoon (sport day). They have seen up to about ten young people swimming on some days at the falls. Generally, people arrive in small groups. They observed a small tour bus (about 15 seats) stopping at the site in January/February 2017. This has never happened before.

One neighbour made a record of all people (trespassers) they observed accessing Tosha Falls via the Prendergast property from 2 April 2011 until 3 November 2012. Over a period of 582 days 1,242 persons were observed. Trespass was recorded on 188 days over that period. Over the whole observation period, that is an average of between two and three persons per day arriving other than through Johnstons Road. Most were children and teenagers. Visitor numbers and frequency of days increased in summer months. The largest group observed trespassing was about 20 persons. The most that trespassed in various groups on one day was 26 persons.

The access ratio taken from the recent online and site survey indicates that access via the Prendergast or Mitchell properties is about one-third of all visitors, and access from Johnstons Road is about two-thirds of all visitor numbers.

The neighbour survey suggests an average of three visitors per day (rounding up). Applying the access ratio from the survey, the Johnstons Road access would average about six visitors per day. With this option, the site receives about nine visitors per day on average over the year, or about 3,285 visitors overall.

If five cars use the Johnstons Road access on an average warm day (STP workers' observations) and each car has three occupants then about 15 visitors per day come via this option. Applying the access ratio from the survey, then the access via the Prendergast or Mitchell properties would average about five visitors per day. With this option, the site receives about 15 visitors per day on average over the year, or about 5,475 visitors overall.

If we apply the site count numbers from 21 January 2017 (2.5 persons per hour) across a longer day – say 9 am to 5 pm, then the visitor numbers for a full day would be 20 per day. Applying the access ratio from the survey, then the access via the Prendergast or Mitchell properties would average about 10 visitors per day. This brings the total visitors per day to thirty. Assuming this average over the year, then there might be about 10,950 visitors overall.

These numbers cannot be regarded as accurate because the limitations and methodology on the neighbour survey are unknown, and the online and site survey undertaken for this management plan are a simple snapshot at one time. It does, however, give a general guide to the level of use of the site, those that use it and how they get there.

On balance, the evidence suggests that Tosha Falls has a fairly low visitation rate, probably between 3,285 and 10,950 visitors per year.

As a comparison, it is worth considering the patronage at Ballina and Alstonville pools, which in one sense are the modern alternative to swimming at a local creek or somewhere like Tosha Falls. In 2015/16 Alstonville pool was open from 1 September to 15 May, and Ballina pool (and slide) from 19 September to 24 April. Alstonville had 70,096 patrons, and Ballina pool had 89,860 patrons. The current year is heading for similar numbers. During the week ending Sunday 22 January 2017, Alstonville pool received 2,078 patrons for an average of 296 per day; and Ballina pool received 3,967 patrons for an average of 566 per day.

Over the 2016/17 swimming season so far (up to 19 February 2017), the Alstonville pool has averaged 1,466 visits per week or 209 per day. Ballina pool has averaged 2,234 visits per week or 319 per day.

If the average daily visitation to Tosha Falls is between nine (9) and 30 visitors per day, then Tosha Falls generates between 4% and 14% of the daily visitation at Alstonville pool, and between 3% and 9% of the daily visitation at Ballina pool.

4 Values of the Management Area

4.1 Landform, Geology and Soils

Maguires Creek commences in farm land on the Alstonville Plateau south-west of the Bruxner Highway. It skirts the western edge of Alstonville before heading north through Lumley Park, travelling past the Alstonville STP (and Tosha Falls), through Alstonvale before swinging east and then south to eventually connect to Emigrant Creek along the Teven Road, and then the Richmond River at West Ballina.

The banks of Maguires Creek vary from steep sided to low, rocky and undulating. Most of the subject land is flood affected to some extent, and land near to the creek bed will at times be affected by high velocity flows and potentially flash flooding. Debris loads in high flows could be significant, particularly after long periods of dry weather or storm conditions that knock trees and limbs into the waterway.

Morand describes the red soils of the subject land as originating from the Mount Warning volcano. They are a deep, well structured red clay loam (Krasnozom of Feresol). It is deep and free draining, and subject to basalt floaters and rock layers.

4.2 Vegetation and Habitat

A vegetation management plan was prepared for Tosha Falls in 2007 (Envite, 2007) and it documented the vegetation of the subject land at that time. It was described as a previously cleared area that contains secondary regrowth forest of mainly rainforest pioneer species such as Red kamala, Sally Wattle and Guioa together with exotics such as Camphor laurel, large leaved privet and an understorey of exotic shrubs and weeds. The description remains accurate as only minimal vegetation rehabilitation has been undertaken on the subject land since that time.

The subject land would have been part of the Big Scrub rainforest prior to white settlement. The Big Scrub was approximately 75,000 hectares of subtropical rainforest associated with the Mount Warning Volcanics, located approximately between east Lismore, Alstonville, St Helena and Dunoon. By the turn of the 1900s, much of the Big Scrub had been reduced to a series of isolated remnants that comprise less than 1% (or 300 hectares) of the original vegetation. The private land immediately opposite the subject land has been subject to extensive rainforest regeneration, and now provides an important link between the Lumley Park rainforest remnant and the Maguires Creek remnant to the north of the subject land.



Figure 4: Much of the land surrounding Tosha Falls was still cleared in the late 1970s and early 1980s
(Photo courtesy of Mitchell family)

4.3 Heritage

A Heritage Assessment of the Alstonville Plateau (Gardiner and Knox, 1996) lists Tosha Falls as one of five significant waterfalls on the Alstonville Plateau that were suggested by the local community as being important natural heritage items. A high priority action of the same report is that Council “actively manage its natural areas”, and that “Council investigate building a walking track from Lumley Park to Tosha Falls along an existing public easement”. Tosha Falls is not listed in the current Local Environmental Plan as a heritage item.

The neighbouring property to the west of Tosha Falls is called Cascade Farm, but the sign at the gate says “Tosha Farm”. The current owner indicates that it was called this when they bought it about 40 years ago, and they understand the falls and farm are both named after a racehorse (Mitchell, 2017, pers comm). *The Clarence and Richmond Examiner* (Sporting Notes) of 9 September 1913 indicates that a horse named Tosha did race and win events at Victoria Park (and potentially other tracks including Queensland). The Royal Agricultural Society of Queensland (Toowoomba Show website) indicates that Athol Strong was born at Alstonville, and he trained a horse called Tosha to win 17 races. A member of the Gray family (that once lived on Cascade Farm) has confirmed that Athol Strong did own the property at some time in the 1950s and 1960s. Hence, there is probably a link between the name of the falls, a horse called Tosha and a previous owner (Gardiner, 2017).

The Alstonville Plateau Historical Society, in its submission to the Ballina Community Based Heritage Study, commented that Tosha Falls had also been called Cascade Falls, Grays Falls or Elliotts Falls after the two pioneering families that owned property adjacent to the falls. They also believe it has been used by locals as a swimming hole since the 1800s.

More recently the Alstonville Plateau Heritage Society (Gardiner, 2017) has supplied the following information on Tosha Falls. Gardiner (2017) states that “an early reference to these falls appears in Frank Russell’s (c1906) *Farm Life on the Richmond Tweed* published by John Sands Sydney

(page 127). It describes the 300 acre property owned by William Elliott fronting what is now Pearce’s Creek Road. The description of the falls on Maguires Creek is as follows “*Situated in the immediate vicinity of a creek, and possessing a very pretty waterfall, is Cascade farm...*”. Actually the property was owned by two brothers W D and A I Elliott. William Dixon Elliott was well known in the district being a Director of the Alstonville Butter Factory. He resigned this position in 1927 due to ill health and went to Sydney (*Northern Star* 16/12/1927 p 3). His brother Albert carried on until 1951 when the farm was put up for auction sale (*Northern Star* 13/10/1951 p 9). In 1951, it was still referred to as Cascade Farm. So until this time, the falls were probably known as Cascade or Elliotts falls. Other references to the falls are recorded in the Alstonville Plateau Historical Society’s book *Milestones and Memories* (2007). “Tinny” Fuller, who grew up in Alstonville, told us several times about going to Tosha Falls. At first he said “we went through Grays farm and to Grays falls (now Tosha falls)” (p 53), and then he said explicitly that he “and his mates went swimming at Gray’s falls (Tosha falls) – often there were between thirty and fifty kids at one time.”

The Ballina Community Based Heritage Study (BSC 2008) states:

The shire’s waterfalls that were utilised by the public for recreation include Cawleys, Dalwood, Tosha and Marshalls Falls on the Alstonville Plateau and Killen Falls at Newrybar. Evidence of the use of these falls is scant, mostly derived from oral accounts and photographic evidence (these photos taken to promote these places). The scant nature of this evidence does not diminish the significance these areas had as places of recreation. The broader context of the history of the use of the natural environment for leisure demonstrates the popularity and widespread patronage of natural recreational spots.

The use of these places was passive, with sightseeing, walking and picnicking enjoyed in these areas. Miss Lois Gray, whose family were early ‘pioneers’ at Alstonville made notes on its early history in the 1960s from accounts passed to her, including the cultural and recreational history of the area. Lois notes that ‘in the early days ... Lois of picnics were held in the area. Marshalls Falls and the Cascades

[Tosha] on Mr. Moses Gray's farm was popular places [sic]. Similarly Ida Clothier (nee Crawford) remembers outings to the shire's falls.

'The bountiful rainfall of those days kept the creeks full and clean, and the rushing waterfalls were a popular place to take our visitors.'

Marshall's Falls further down the creek, having a straight drop of 70 feet, was a favourite picnic spot for visitors from Lismore. The scrub track leading to it being an added attraction with its border of tree ferns, bungalows, vines, giant fig trees and the chance of seeing the little paddymelons, attractive little creatures'.



Figure 5: Swimming at Tosha Falls in the 1950s. Note the cleared land above the falls (Photo courtesy of APHS)

4.4 Aboriginal Heritage

It can be assumed that all streams and waterholes were used by Aboriginal people throughout the Alstonville Plateau prior to white settlement.

Tosha Falls, however, is not registered as a site on the AHIMS register. At the time of preparing this draft management plan, the Jali Local Aboriginal Land Council had not responded.

4.5 Existing Easements for Pedestrian Access

A subdivision of land around Tosha Falls (registered in 1977) established 20 metre wide easements for the purposes of pedestrian access over private land in proximity to Maguires Creek. These easements link the Council STP land (and Tosha Falls) back to Pearces Creek Road in two places (Part B – Appendix D). The easements continue past Tosha Falls and connect through to the Maguires Creek Big Scrub remnant, downstream of the subject land. The establishment of the easements is consistent with a Council policy adopted on 20 January 1975 (Public Access – Creek Banks) that requires 20 metre pedestrian easements to be created if any property with a creek frontage is subdivided.

5 Issues in the Management Area

5.1 Safety and Risk

Jumping from the rocks at Tosha Falls is a common practice, and this may pose a risk to both the jumper and anyone in the water. The jumping rock at Tosha Falls is only about 3 metres above the water, is quite sheer and the pool below is relatively deep. These factors assist in reducing risk to users. The site is already signposted to warn against the dangers of jumping from the rocks and swimming in the waterhole. Jumping off a rock face is an inherently risky activity that should be discouraged.

Slip and trip type injuries are possible when both accessing the site and getting in and out of the water. Council currently mows from Johnstons Road to the falls regularly as part of its STP property maintenance. The access from Johnstons Road to the falls is mown grass that is partly the edge of the major wastewater pond. It is easy to walk but has a slight cross fall that may be difficult for the elderly or the disabled. It is relatively flat over its length, and a trail could be identified a little further from the edge of the wastewater pond (thus reducing cross fall) to cater for all ages and abilities of site users. Council does not support swimming in this location, and modifying the edge of the pool to create easier access will send a mixed message to visitors. It is not recommended.

Snakes can be an issue in hot weather. Mowing the grass will assist in protecting site users by providing better vision to the walking trail.

Anecdotal advice is that some visitors bring alcohol on to the Tosha Falls site. It would be very difficult to clean up broken glass if bottles were smashed either intentionally or accidentally. Alcohol can also cause behavioural issues with some visitors and make the subject land less attractive to families and more attractive for parties. The subject land can only be declared an “alcohol prohibited area” under the *Local Government Act 1993* with approval of the Local Area Commander of Police, and this normally occurs where there is an increased risk of alcohol-related crime or

anti-social behaviour. In the absence of reports from the Police, the area could be signposted as “glass free” to reduce the risk from broken glass.

Hazard warning signs consistent with Australian Standards should be located at appropriate points on entry to the site and at the falls, and replaced if stolen or vandalised.

5.2 Water Quality and Swimming

The waterhole below Tosha Falls has been a local swimming spot for a long time. For most of its history it has been surrounded by private land and access has been at the discretion of neighbours (other than by trespass). Council does not identify Tosha Falls as a location for swimming.

Council has collected water samples regularly downstream of the falls as a baseline for Maguires Creek. The creek receives treated wastewater from the Alstonville STP at a location approximately 300 metres downstream of the falls. Water quality data for Maguires Creek (below the falls but above the wastewater outlet) is provided in Part B – Appendix E. Although this data has not been collected for the purposes of assessing if it meets standards for swimming, it does give an indication of water quality.

A recent study (Hachich, et al, 2012) comparing thermotolerant coliform counts to *E. coli* (the coliform that is normally tested for swimming water standards) suggested that “1000 thermotolerant coliforms would correspond to approximately 800 *E. coli*”. This was based on a two year sampling program from 25 sites collecting 380 samples. If this ratio is applied to the Maguires Creek data (between the falls and the STP outlet) then the 90 percentile level of 1,650 thermotolerant coliforms per 100 ml of water equates to approximately 1,320 *E. coli* per 100 ml of water. The standard normally required for swimming water is less than 40 *E. coli* per 100 ml of water, to avoid illness (Table 1). When levels exceed 500, there may be a significant risk of illness.

Category	95 th Percentile of enterococci (cfu/100 mL)	Basis of derivation	Estimation of probability
A	≤40	No illness seen in most epidemiological studies	GI* illness risk <1% AFRI** risk <0.3%
B	41–200	Upper level is above the threshold of illness transmission reported in most studies	GI illness risk >1–5% AFRI risk >0.3–1.9%
C	201–500	Represents a substantial elevation in the probability of adverse health outcomes	GI illness risk >5–10% AFRI risk >1.9–3.9%
D	>500	Above this level there may be a significant risk of high levels of illness transmission	GI illness risk >10% AFRI risk >3.9%

* GI = gastrointestinal
 ** AFRI = acute febrile respiratory illness

Table 1: Microbial assessment categories for fresh water (source NHMRC 2008)

Note: *Enterococci is a group of faecal bacteria common to the faecal matter of warm-blooded animals, including humans; a subset of the faecal streptococci, but generally the vast majority; now referred to in Europe as the intestinal enterococci. Escherichia coli (E. coli) is a bacterium found in the gut, used as an indicator of faecal contamination of water (from warm-blooded animals and humans).*

Like the majority of natural swimming locations in the Shire, the water quality is variable depending on weather, especially rainfall, and land uses in the catchment. Water quality data for the site collected below the falls demonstrates that variability. The safety to users can also change at any time without warning (eg due to an outbreak of blue-green algae or a branch dropping into the waterhole from upstream). Council does not have a life guard on duty or any life saving equipment at or near the site (other than a first aid kit at the Altonville STP during working hours). Notwithstanding this, the site still attracts some users where the ‘wild state’ of the locality is the attraction to swim there.

If Council permits access to Tosha Falls (via Johnstons Road or another option) then it is permitting the public to access land under its care and control. However, if it is aware that the public enter this land now (which they do) then it already has a duty of care to the public.

It is important that Council indicates to the public that it is not recommending Tosha Falls and the waterhole as a place to swim or jump off the rocks. Council’s risk management strategy is to ensure that it takes reasonable steps to guard site users against reasonably foreseeable risk of injury arising from being on the subject site. This would likely include:

- Site safety inspections to be conducted (noting inspections are currently carried out by Council officers) on a regular basis.

- Any ropes or devices (such as swings) for entering the pool should be removed as soon as practicable.
- Expand the information on Council's Beachwatch website regarding water quality at Tosha Falls such as blue-green algae outbreaks, as well as pollution signs.
- Hazard warning signs should be replaced if stolen or vandalised.
- Install warning signage at the site indicating that the site is not routinely monitored by Council for water quality parameters and therefore swimming is not recommended.
- If Council decided to promote the site as a swimming location, regular water quality monitoring should be undertaken and suitable associated signage erected. This would require significant resourcing.

5.3 Site Access

Although the site can be accessed by road (and a short walk), it is closer to the northern suburban edge of Alstonville than it is to Johnstons Road. The trespass occurs largely from drainage or road reserves that about Lot 2 DP 1182136, owned by the Prendergast family. In particular, it occurs from the north-western corner of Tanamera drainage reserve, Banjo Place, Kim Court, Rosedale Place and Hillburn Place. Many of the trespassers are children or teenagers, and the paths they choose are insensitive to the privacy of those that live near the falls or near to the key trespass access points.

Observations of the neighbours suggest that the level of trespass is at times regular and highly disruptive to the peaceful enjoyment of private land.

The trespass access points are all from public land or road reserves that are poorly fenced and signposted. Past attempts to do both have been subject to vandalism. The trespass has been reported by neighbours to local Police, but this has not resulted in any obvious reduction in trespass.



Figure 6: Trespass and privacy issues related to accessing Tosha Falls

5.4 Johnstons Road

At the termination of Johnstons Road, there is currently a wire fence that is signposted “Sewage Treatment Works – Private Property – No Entry Permitted”. Council has in recent years regarded this site as Operational land that should not be accessed by the public. There is an argument that if the public cannot access lawfully from Johnstons Road then this exacerbates the trespass issue across other neighbours’ land. The use of the site by the general public during warm weather indicates that users do not take the Johnstons Road signage seriously.

Despite the signage saying “No Entry Permitted”, there is a gap in the Johnstons Road fence that allows pedestrian access. During the most recent warm weather (January/February 2017), the main fence at Johnstons Road was cut several times to allow private vehicles to access the falls. This

has been done after hours and the purpose of the vehicle access is not known. Council has repaired the fence promptly after each event. Other parks nearby that have been subject to unauthorised vehicle entry have been “fenced” with large rocks to prevent vehicle access. That may be appropriate in this location also.

Parking is available at the end of Johnstons Road. At least 10 cars could be easily accommodated in the wide road reserve with minimal modifications to the surface. A sign could indicate that rear to kerb 90 degree parking is preferred. Rock bollards could be located to block illegal vehicle access, while still allowing emergency and maintenance vehicles through a locked vehicle gate.

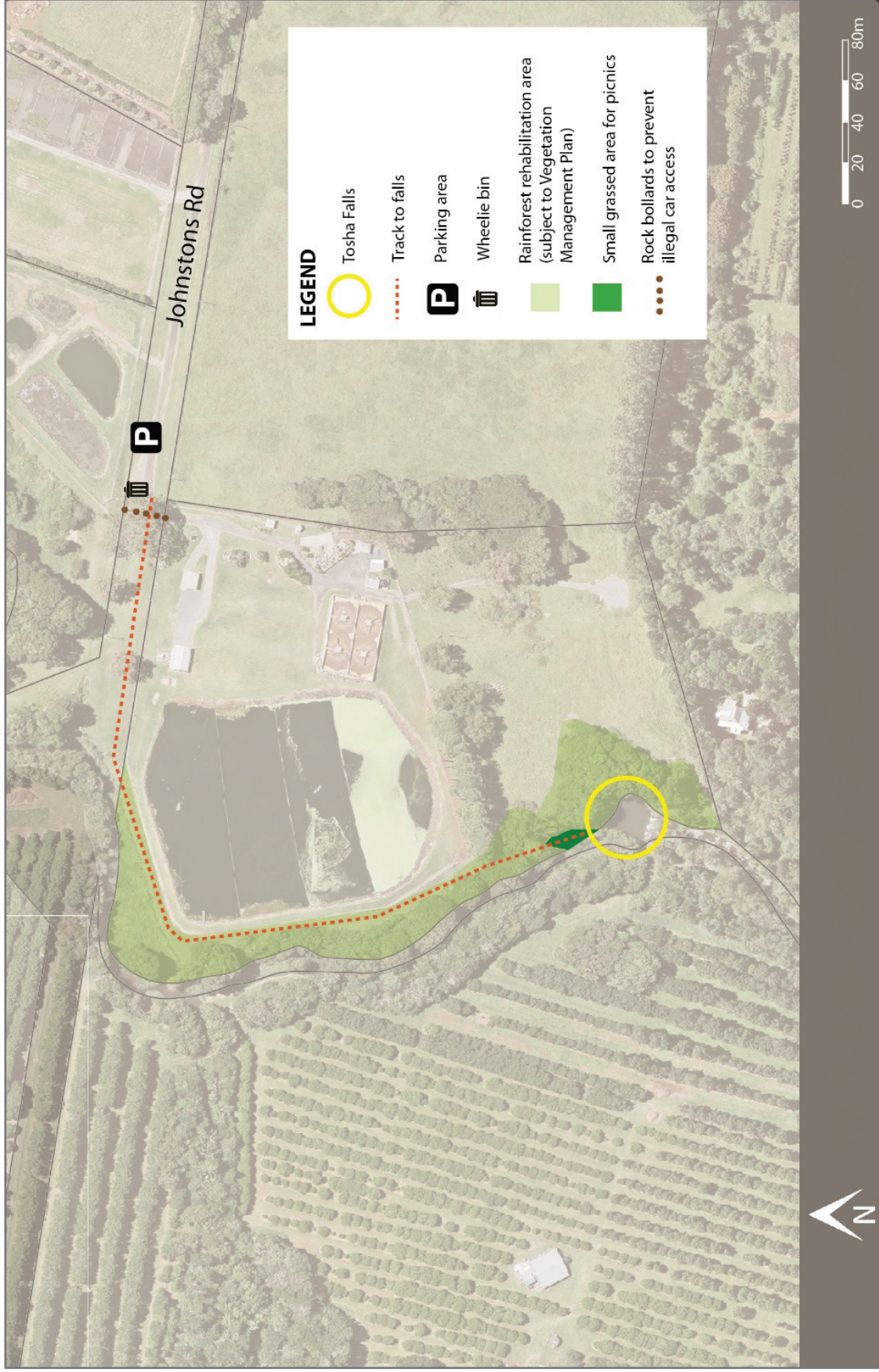


Figure 7: Accessing Tosha Falls from Johnstons Road

5.5 Other Access Options

Several options exist that might provide access to Tosha Falls other than via Johnstons Road.

Option 1: From Lumley Park via a creek side easement

This option has been considered for many years and has been supported by some neighbours. It was also raised in a 1996 heritage assessment. Mr Prendergast indicates that it was the reason for the creation of an easement across Lot 2 DP 1182136 in 1977. The presence of an easement for public access indicates the idea has probably been supported in the past by Council officers. It would be a pleasant creek side walk to an interesting destination.

Starting a walking track from Lumley Park through to Tosha Falls also has the advantage of existing parking and toilets for users. The main problem is that Lumley Park is on the western edge of Alstonville, and the younger site users that currently access Tosha Falls are unlikely to walk out to Lumley Park and then walk back to the falls. Creating this path may not stop the trespass issue.

The cost of creating a path (including any creek crossings), its environmental impact in a riparian rainforest corridor, and the problems of construction and maintenance in a partly flood affected area are all considerations that may also inhibit this option being realised. However, it is a potentially worthy project to consider in the long term.

Option 2: A direct pedestrian easement across Lot 2 DP 1182136 from a public road near to the site

This option was canvassed with the owners of Lot 2 DP 1182136. The shape of their land is long and narrow, and the locations that best respond to existing trespass locations (say Rosedale Place) would place an easement across their land, effectively cutting it off from the balance. There would be no advantage for the land owners, and they would still have people crossing their farmland with all the problems that it brings.

Neighbours to the Tanamera drainage reserve, Banjo Place, Kim Court, Rosedale Place and Hillburn Place may also object if the easement was near them as it could create traffic in their streets if people drive to the easement. It would also create pedestrian traffic near to private homes as the access became more widely known. This may affect privacy.

Option 3: Acquisition of part of Lot 2 DP 1182136 to create public land from a public road direct to Council land at Tosha Falls

This option has been offered to Council by the owners of Lot 2 DP 1182136, however negotiations have never taken place. The cost of this option and how much land is required are unknown. It has a clear advantage for the land owner as they do not have to manage land on either side of an easement and they receive financial compensation for the loss of some of their land. If it is well located, it may satisfy the 'direct route' that young site users of Tosha Falls apparently desire.

Depending on the location, it could have the same negative impacts as the direct easement option (traffic and privacy). The cost of this option would include the acquisition costs plus any path construction and maintenance costs. It requires further investigation and negotiation but is a potentially worthy option to consider in the long term. The best location for this acquisition would be at the end of Rosedale Place as this is a central and direct access point to the falls from suburban Alstonville and is already apparently well used by trespassers (neighbour's observations). However, it is the primary access to the worker's cottage on Lot 2 DP 1182136, and an easement for this use would be required. Neighbours in Rosedale Place may also object to this option as it could create traffic in their street. It would also create pedestrian traffic near to private homes as the access became more widely known. This may affect privacy.

Option 4: Prevent access to Tosha Falls

This option is the current situation, and the level of usage and willingness by some to trespass indicates that it does not work very well. Signs and fences will deter some but not everyone. The site has been a popular destination for a very long time and that is unlikely to change.

If site users know there is an opportunity to visit the site without trespass then many will use that option.

It is important to note that prevention of access at trespass locations is still part of the solution to better management of Tosha Falls. It will require Council to work together with land owners to achieve results.



Figure 8: Accessing Tosha Falls other than from Johnstons Road

5.6 Environmental Restoration

There is a stark contrast between the extensive rainforest regeneration undertaken by the neighbouring property and the weed dominated Council land. Council has a vegetation management plan for the site (prepared in 2007) that can be relatively quickly checked and updated as required. It is based on a combination of weeding in all locations, planting in some locations and assisted natural regeneration in other locations. It can be implemented over time as resources become available. Rehabilitation of the subject land will increase biodiversity as well as providing an improved riparian link between the Maguires Creek rainforest remnant and the Lumley Park rainforest remnant. It would also improve water quality and improve the overall visitor experience by bringing people into a riparian rainforest as opposed to a riparian weed forest.

5.7 Rubbish and Toilets

There is no rubbish bin located at or near Tosha Falls. The nearest rubbish bins and public toilet are at Lumley Park in Alstonville, off Pearcees Creek Road. STP staff pick up rubbish and suggest that if a bin were provided, it should be located at the Johnstons Road access point so it can easily be emptied and monitored. There is a risk that it may become a destination for household rubbish dumping.

Given the level of use at the site, it may be preferable to not provide a bin and thereby encourage people to take rubbish with them. This has been successful in remote nature reserves where regular bin collection is impractical.

There is also an argument that Tosha Falls is pretty much the same as it has been for many decades (plus or minus surrounding vegetation). To make any significant changes to infrastructure or facilities will impact on something that is very simple and popular with local people.

A bin at the Johnstons Road site entrance is warranted as a trial. If it creates problems, it can be removed easily at minimal cost. It can be emptied in

conjunction with waste collection from the STP. Figure 7 shows a possible location for a bin.

A toilet near the Johnstons Road access point is relatively simple to install from an infrastructure perspective as there is an opportunity to dispose of waste direct to the STP, which can also supply recycled water for flushing and electricity for construction. However, with relatively low use rates (especially in winter) and most visitors being locals, it is not warranted at this stage. If the falls become more popular in the future, this position could be reconsidered. In this case a toilet connected to the STP at the Johnstons Road entrance is the preferred location, but it is not recommended.

5.8 Dogs

If dogs are brought to the falls, this could be a risk to other users and wildlife. Dogs swimming in the waterhole would not assist with water quality and would not be conducive to the area being platypus habitat.

Unless dogs are on leads, it would not be possible to stop them from straying onto adjacent private land near the falls. Permitting dogs also brings with it the need for dog faeces bags and a rubbish bin to dispose of them. The site is also mooted for environmental restoration, and dogs are not consistent with that outcome. Neighbours have suggested that dogs should not be permitted at the site.

Under the *Companion Animals Act 1988*, dogs are prohibited in the following places:

- In or within 10 metres of any children's play areas
- Recreation areas where dogs are declared prohibited
- Wildlife protection areas.

A dog off leash area is already available at Gap Road, Alstonville.

Dogs should not be permitted on the subject land.

6 Management Strategies and Actions

An outline of the recommended strategies and actions is provided below:

- Hazard signage is required for public safety and this should include water quality warnings.
- Council needs to implement its risk management strategy for this site including water quality testing, site safety inspections, and hazard signage maintenance and replacement.
- Access to the falls should be pedestrian only (via Johnstons Road), with stronger measures than current fencing required to keep vehicles out. The existing grass and dirt track is adequate but needs to be marked to make the access self-evident.
- Parking should be signposted at the Johnstons Road entrance to encourage orderly use of the space. No treatment of the road verge is recommended at this stage due to the low level of usage.
- Alstonville residents should be made aware of the access via Johnstons Road and should be requested to not trespass across private land to get to the site.
- A wheelie bin should be trialled at the Johnstons Road entrance to establish if littering is reduced at the site. If there is no noticeable improvement or it is abused or vandalised, it can be removed easily.

Priority 1 = Are required for public safety or risk reasons; can be implemented within 12 months of adopting the management plan; are relatively low cost.

Priority 2 = Can be implemented within 1 to 3 years of adopting the management plan; are more expensive to implement.

Priority 3 = May take more than 3 years to implement after adopting the management plan; are more expensive to implement; may not be feasible once investigations are completed.

- The rainforest rehabilitation will be a major ecological improvement that will benefit users and the environment over time.
- In the longer term, other access options can be negotiated and assessed in more detail. This includes a possible trail linking Lumley Park to Tosha Falls and Johnstons Road.

No facilities are recommended at the falls itself. No toilet is recommended for the site at this stage as the level of use does not warrant it. This could be reassessed if the level of use changes in the future.

It is not recommended that Council promotes or advertises Tosha Falls.

6.1 Summary of Strategies and Actions

The approach taken with this management plan is to document actions and strategies, and then cluster them into three priority options to manage and develop the site. Council can then consider these options that represent a minimal, moderate and major approach in terms of risk and safety, timing, feasibility and cost. Risk and safety is the dominant factor in prioritising the actions. They are a cumulative set of options with Priority 1 being the baseline of actions that should be undertaken. Priority 2 (if adopted) will be in addition to Priority 1, and Priority 3 (if adopted) will be in addition to Priorities 1 and 2.

Objective	PRIORITY 1: Strategies and Actions	Cost (ex GST)
<p>Ensure the ecological viability of the land by protecting its biodiversity and promoting rehabilitation of rainforest;</p> <p>And</p> <p>Protect and respect the aesthetic, heritage, recreation, education and scientific values of the land and Maguires Creek.</p>	<p>Declare the subject land to be a dog prohibited area.</p>	<p>Minimal</p>
<p>Minimise impacts arising from the use of the subject land on adjacent private land (in particular trespass and privacy);</p> <p>And</p> <p>Provide that any use of the subject land does not unduly impact on the operational use of the balance of the site as an STP;</p> <p>And</p> <p>Provide for the safety of the users of the subject land.</p>	<p>Establish Johnstons Road access as a lawful pedestrian access to Tosha Falls, including parking signage.</p> <p>Modify signage at entrance to mark it as an access to Tosha Falls for pedestrians only.</p> <p>Use large rocks to block the fence area so that vehicles cannot access the falls. Retain the vehicle gate for maintenance and emergencies.</p> <p>Use signage and track markers to direct visitors to access the falls. Locate the mown track to guide pedestrians to the more level areas of land.</p>	<p>\$375 (\$375 per sign)</p> <p>\$375</p> <p>\$1,200 (\$150 per rock)</p> <p>\$750 (\$185 per sign)</p>
	<p>Implement risk management strategy on an ongoing basis:</p> <ul style="list-style-type: none"> ▪ Undertake site safety inspections at the falls not less than monthly. ▪ Undertake periodic water quality monitoring at the falls using the criteria normally assessed for human contact (only where Council promotes the site for swimming; swimming is not currently recommended or promoted). <p>Follow up with tour operators that visit Tosha Falls to ensure they have a licence with Ballina Shire Council to operate on public land and that they have appropriate insurance in place (consistent with Council policy).</p>	<p>\$2,500 (per annum)</p> <p>Minimal</p>

Objective	PRIORITY 1: Strategies and Actions	Cost (ex GST)
<p>Provide facilities and information proportionate and relevant to site use that allow the safe enjoyment of the land by the public;</p> <p>And</p> <p>Provide for the safety of the users of the subject land.</p>	<p>Provide signage alerting the public of potential risk where required or appropriate based on Australian Standards for hazard signage.</p> <p>Provide signage advising that Council does not make any claim that the water in Maguires Creek meets the standard required for swimming, and that swimming is not advised.</p> <p>Provide signage directing pedestrian traffic to designated access track/path and to keep out of vegetation rehabilitation areas.</p> <p>Declare the area to be glass free to reduce risk related to broken glass.</p>	<p>\$375</p> <p>\$375</p> <p>\$750</p> <p>Minimal</p>
<p>Provide facilities and information proportionate and relevant to site use that allow the safe enjoyment of the land by the public;</p> <p>And</p> <p>Minimise impacts arising from the use of the subject land on adjacent private land (in particular trespass and privacy).</p>	<p>Retain a small grassed area adjacent to the waterhole below the falls for a family picnic area.</p>	<p>Minimal</p>
<p>Minimise impacts arising from the use of the subject land on adjacent private land (in particular trespass and privacy);</p> <p>And</p> <p>Provide for the safety of the users of the subject land.</p>	<p>Work with neighbours to erect appropriate signage at key locations where trespass occurs, and maintain it if it is vandalised. Signage should identify private land and nominate Johnstons Road as the public access to Tosha Falls.</p> <p>Engage in further consultation with affected neighbours in relation to fencing and trespass issues.</p> <p>Prepare a communication strategy for Alstonville residents to advise that access is permitted from Johnstons Road and that all other access points are not available to the public.</p>	<p>\$2,250</p> <p>Minimal</p> <p>\$1,500 (plus print costs if required)</p>

Table 2: Priority 1 Strategies and Actions – Summary and Costs

Objective	PRIORITY 2: Strategies and Actions	Cost (ex GST)
<p>Ensure the ecological viability of the land by protecting its biodiversity and promoting rehabilitation of rainforest;</p> <p>And</p> <p>Protect and respect the aesthetic, heritage, recreation, education and scientific values of the land and Maguires Creek.</p>	<p>Update Tosha Falls Vegetation Management Plan 2007.</p>	<p>\$3,000</p>
<p>Provide facilities and information proportionate and relevant to site use that allow the safe enjoyment of the land by the public;</p> <p>And</p> <p>Minimise impacts arising from the use of the subject land on adjacent private land (in particular trespass and privacy).</p>	<p>Undertake an assessment of the biodiversity values of the site as a benchmark for future recovery works. Include identification of terrestrial threatened flora and likely fauna habitat.</p> <p>Trial a wheelie bin for rubbish at the Johnstons Road entrance for a period of 12 months. This action is contingent on there being no need for significant road works to achieve it.</p>	<p>\$8,000</p> <p>\$1,000 (plus waste collection charges)</p>

Table 3: Priority 2 Strategies and Actions – Summary and Costs

Objective	PRIORITY 3: Strategies and Actions	Cost (ex GST)
<p>Ensure the ecological viability of the land by protecting its biodiversity and promoting rehabilitation of rainforest;</p> <p>And</p> <p>Protect and respect the aesthetic, heritage, recreation, education and scientific values of the land and Maguires Creek.</p>	<p>Implement the updated Tosha Falls Vegetation Management Plan – to achieve riparian rainforest rehabilitation throughout the entire subject land.</p> <p><i>Note: This action is not funded and is subject to review once an updated Tosha Falls Vegetation Management Plan is completed.</i></p>	<p>\$50k – \$100k</p>
<p>Provide facilities and information proportionate and relevant to site use that allow the safe enjoyment of the land by the public;</p> <p>And</p> <p>Minimise impacts arising from the use of the subject land on adjacent private land (in particular trespass and privacy).</p>	<p>Investigate a Lumley Park to Tosha Falls walking track as part of the recreation trail system for Alstonville.</p> <p><i>Note: This action is consistent with the adopted Alstonville Strategic Plan.</i></p>	<p>TBC</p>

Table 4: Priority 3 Strategies and Actions – Summary and Costs

The full suite of possible actions and strategies is presented in Figure 9.

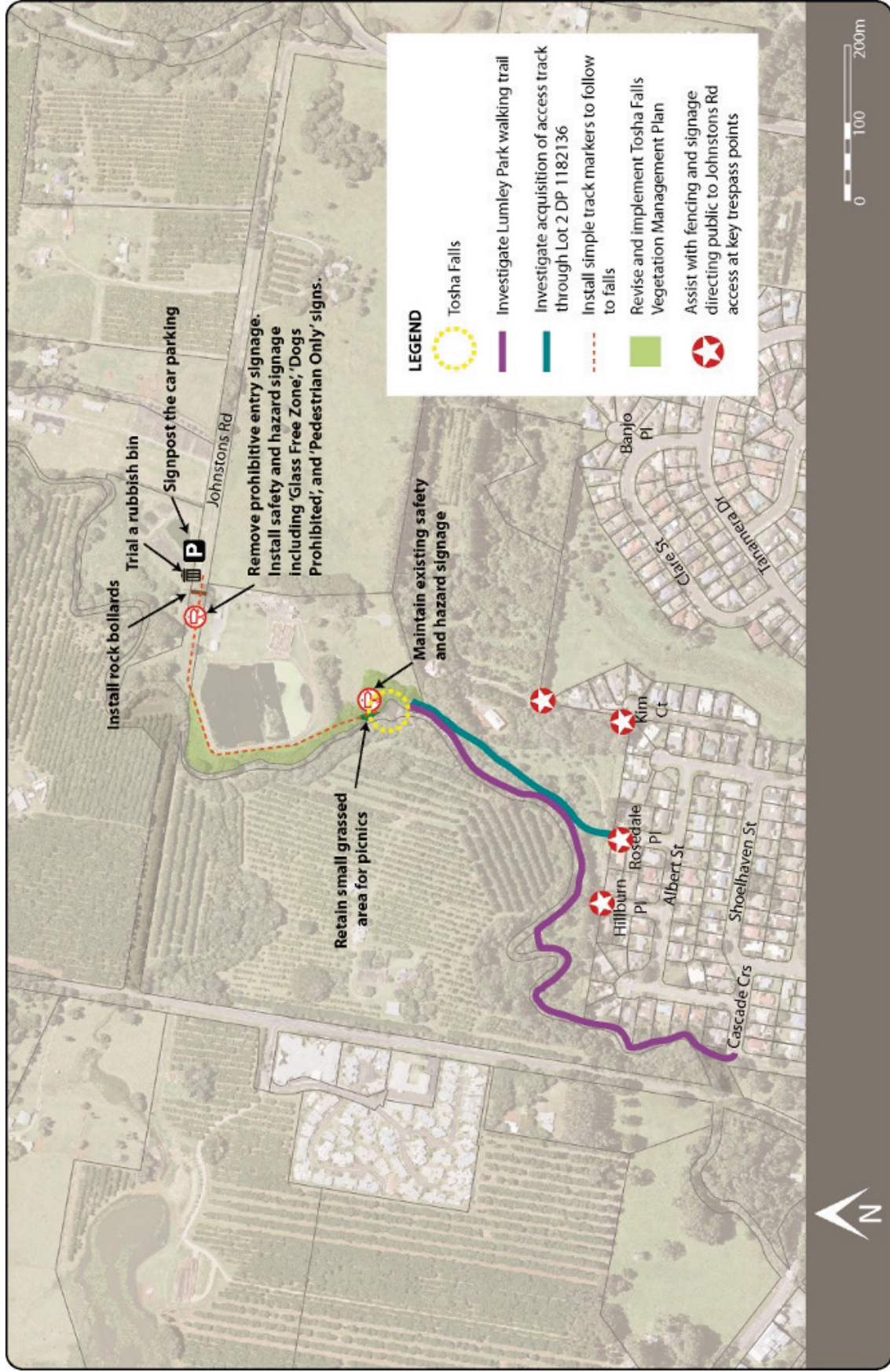


Figure 9: Possible Strategies and Actions illustrated on a site map (not all actions adopted)

Discussion of the costs of actions and strategies, and how they might be funded is included in Part B to this management plan.

Site photographs and infrastructure examples are shown in Part B – Appendix F.

6.2 Monitoring

As this site has never been subject to a management plan, it is important that the actions are monitored to establish if the anticipated outcomes have been achieved.

The management plan should be monitored on an annual basis, and comprehensively reviewed after five years.

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