Mogo MTB Masterplan Project

TRAIL CONCEPT NORTHERN MAP

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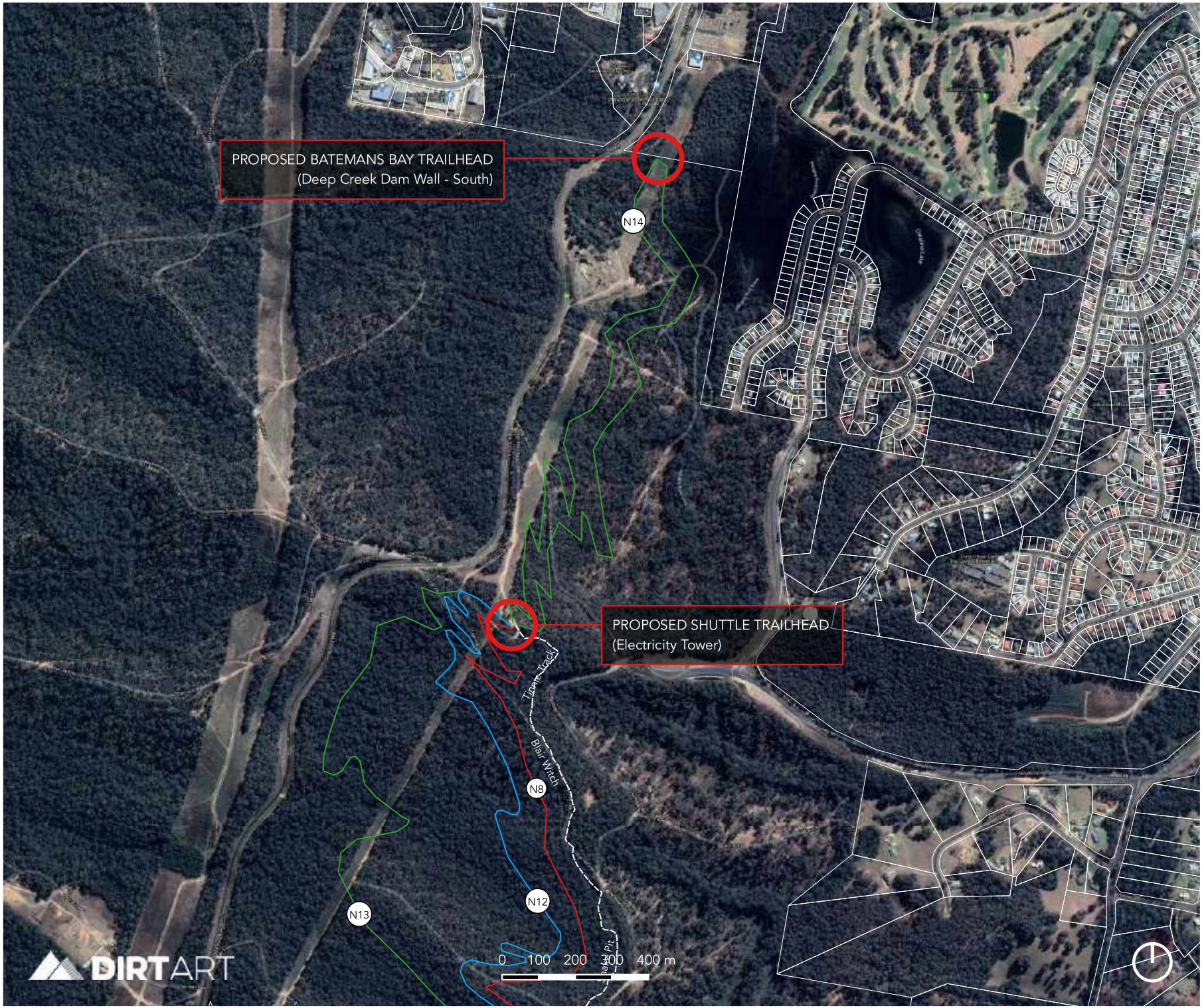

Trail Difficulty
- Green Circle
- Blue Square
- Black Diamond

Proposed Trails
- N8
- N12
- N13
- N14
- Existing Trails

Mogo MTB Masterplan Project

TRAIL CONCEPT CENTRAL MAP

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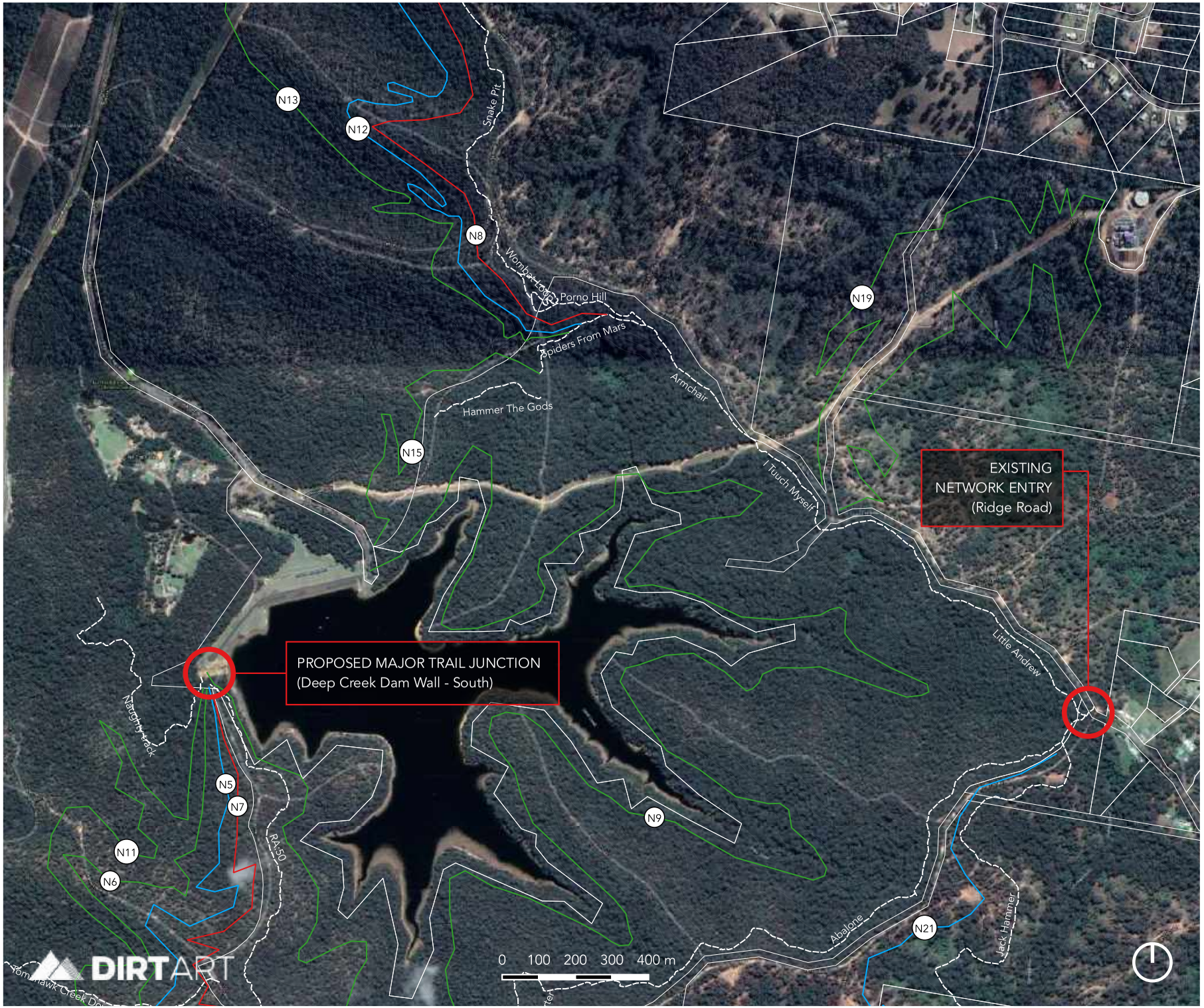

Trail Difficulty
- Green Circle
- Blue Square
- Black Diamond

Proposed Trails
- N5
- N6
- N7
- N8
- N9
- N11
- N12
- N13
- N15
- N19
- N21

Existing Trails
- Existing Trails

Mogo MTB Masterplan Project

TRAIL CONCEPT SOUTHERN MAP

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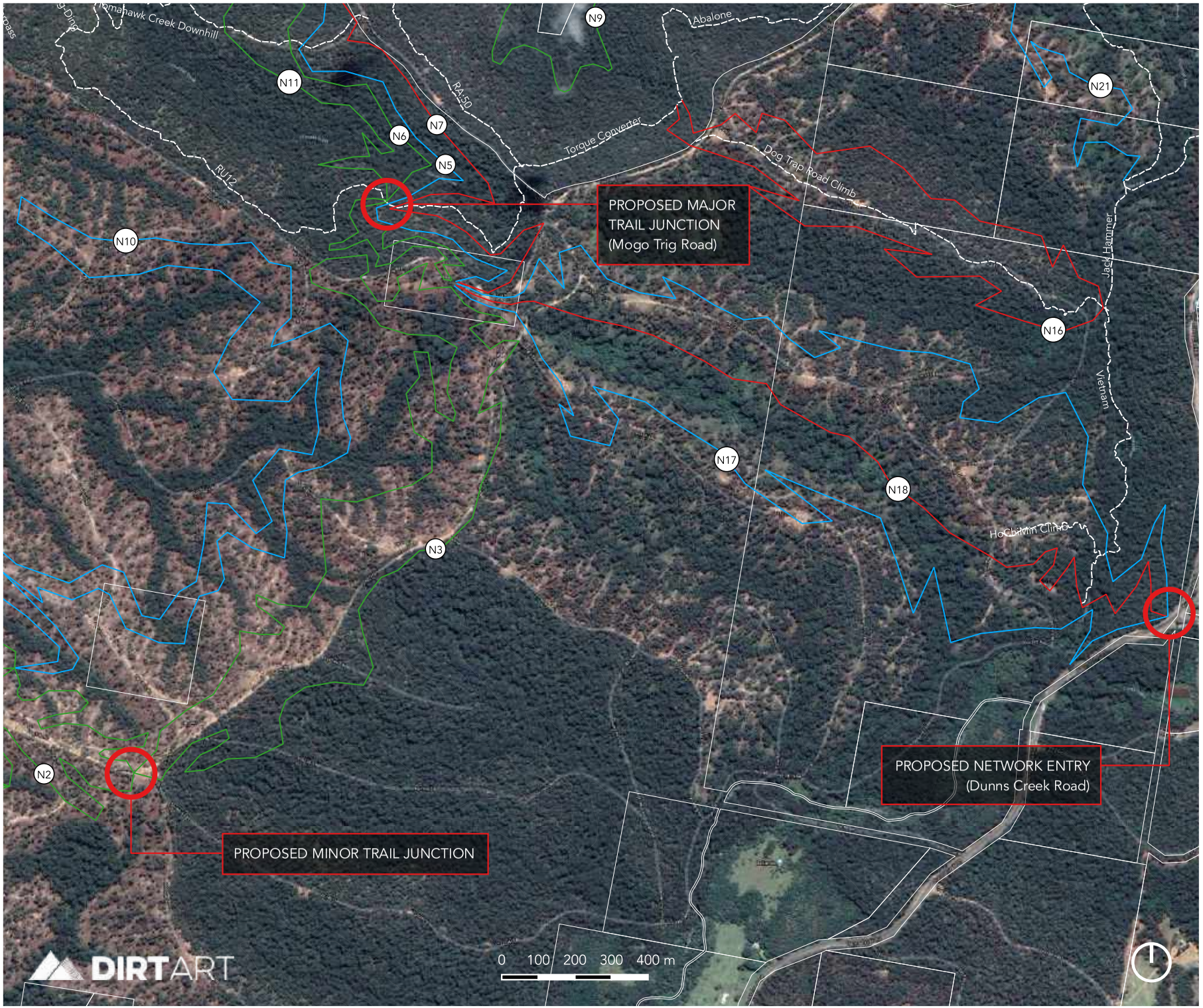

Trail Difficulty
- Green Circle
- Blue Square
- Black Diamond

Proposed Trails
- N2
- N3
- N5
- N6
- N7
- N9
- N10
- N11
- N16
- N17
- N18
- N21
- Existing Trails

Mogo MTB Masterplan Project

TRAIL CONCEPT MOGO MAP

11.03.20

Trail Difficulty
- Green Circle
- Blue Square
- Black Diamond

Proposed Trails
- N1
- N2
- N20
- N22
- Existing Trails

12.6 Proposed Trails

12.6.1 Trail One

Key Stats	
Length	2543m
TDRS	Green Circle
Construction Style	Flow
Format	Loop
Width	1,200mm
Surface	Natural

Trail Overview

Trail 1 is a beginner-friendly loop trail, that introduces riders to the primary trail network. The short loop starts and finishes in the centre of town (Mogo) and provides the basis for exploring the rest of the network proposed around the Deep Creek Dam area. The trail will receive high traffic as it will become the major thoroughfare for riders entering or departing the Mogo Trailhead.

Trails 1, 2, 3, and 20 can be ridden interchangeably to cater for shorter or longer riding options depending on the individual/groups' ability and fitness.

12.6.2 Trail Two

Key Stats	
Length	3391m
TDRS	Green Circle
Construction Style	Flow
Format	Loop
Width	1,200mm
Surface	Natural

Trail Overview

Trail 2 is a short loop that is directly accessed by Trail 1. It provides a perfect beginner loop for riders basing themselves out of the Mogo Trailhead.

Trails 1, 2, 3, and 20 can be ridden interchangeably to cater for shorter or longer riding options depending on the individual/groups' ability and fitness.

12.6.3 Trail Three

Key Stats	
Length	7051m
TDRS	Green Circle
Construction Style	Flow
Format	Loop
Width	1,200mm
Surface	Natural

Trail Overview

Trail 3 is one of the longer Green Circle loops proposed in the development and caters for beginner riders looking to extend their ride to the northern point of Mogo Hill. For first timers, the trail is easily accessible from the Mogo Trailhead and has the added benefit of a scenic viewpoint down to the dam midway through their ride.

Trails 1, 2, 3, and 20 can be ridden interchangeably to cater for shorter or longer riding options depending on the individual/groups' ability and fitness.

Mogo MTB Masterplan Project

TRAIL CONCEPT MT WANDERA

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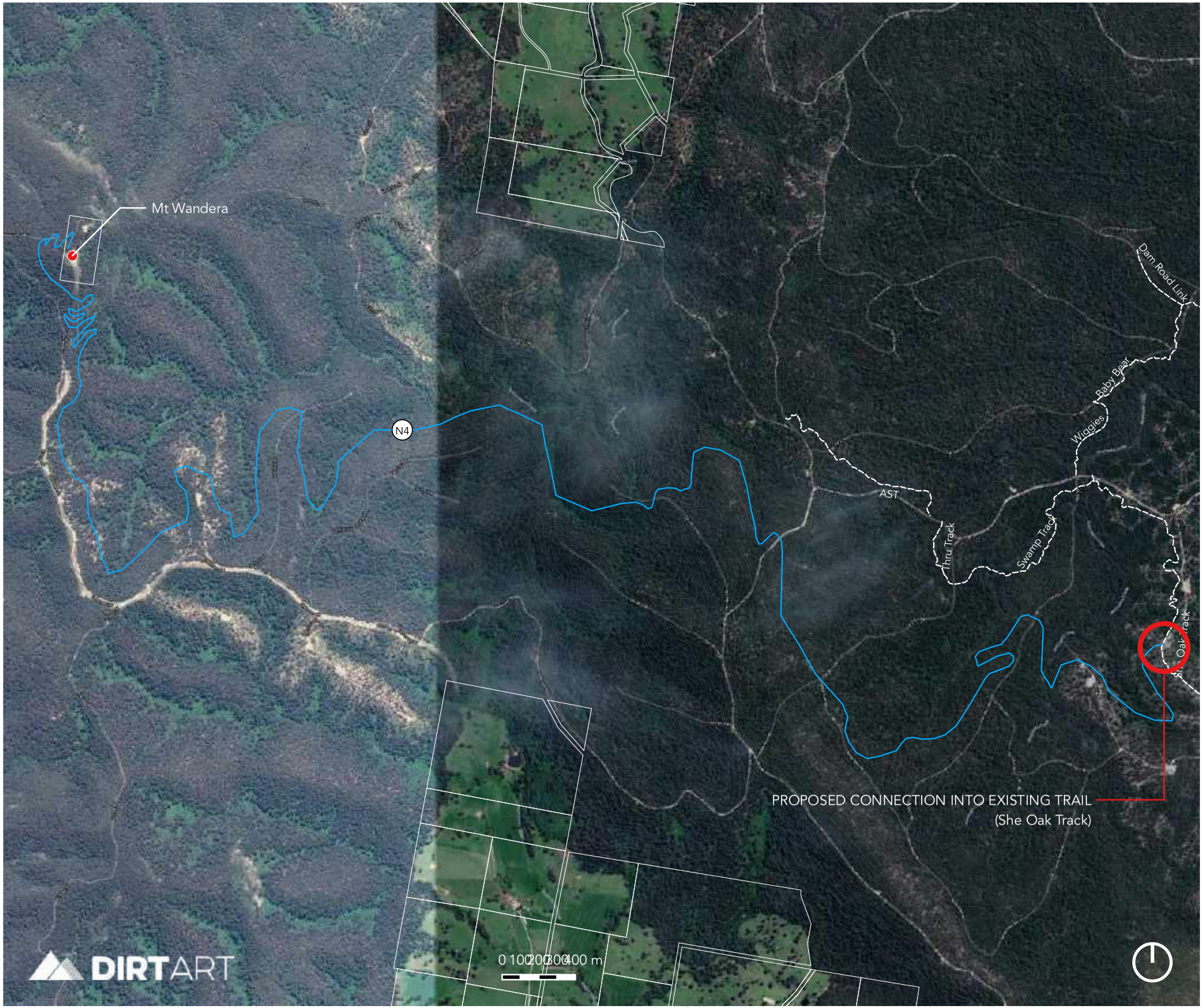

Trail Difficulty
- Green Circle
- Blue Square
- Black Diamond

Proposed Trails
- N4
- Existing Trails
- Mt Wandera

12.6.4 Trail Four

Key Stats	
Length	16802m
TDRS	Blue Square
Construction Style	Wilderness / Adventure
Format	Descent (Shuttle Drop-off)
Width	900mm
Surface	Natural

Trail Overview

Trail 4 represents a unique and novel riding experience in the proposed trail development. As a point-to-point trail, the proposed Trail 4 utilises the elevational opportunity of Mt Wandera offfering a predominately descending experience for riders back towards the Maulbrook Road trail network and eventually into Mogo itself.

Mt Wandera is currently accessible by vehicles via forestry access roads that are generally in good condition as observed at the time of preparing this report. The Wandera Trig Road leading up to the summit would require some resurfacing works prior to operating commercial shuttle services.

The trail concept offers a remote wilderness experience and adventure product different to the rest of the trails proposed in the development, but complimentary to the tourism offering that this project seeks to generate. For most riders, the ride will take a full day with the shuttle trip out to Mt Wandera and the subsequent ride back to Mogo, or onwards to Batemans Bay. Importantly, this trail product presents an instant reason for visiting riders to stay another day or two, in order to explore the rest of the trail network proposed in and around Mogo.

With Batemans Bay as a finish point, the trail provides a unique mountains-to-beach riding opportunity, which will appeal strongly to the tour and/or e-bike markets.

The trail will be a major drawcard for visiting riders, but will be equally appreciated by locals who are already familiar with Mt Wandera and its trail development potential. The proposed trail offering is unlike anything else offered in New South Wales and holds great merit as a trail product that will drive local businesses in providing commercial shuttle or guiding services.

12.6.5 Trail Five

Key Stats	
Length	3098m
TDRS	Blue Square
Construction Style	Flow
Format	Descent
Width	900mm
Surface	Natural

Trail Overview

Trail 5 is proposed to be a fast and flowing descent from Mogo Hill down to the dam wall. The trail will offer riders one of the more sustained descending opportunities within the Deep Creek Dam network.

The trail will give riders the option of pedaling back up to Mogo Hill via Trail 11 or alternatively, utilising a shuttle service to take them up to the start on the access road. Trail 5 presents the intermediate descending option in the three gravity trails proposed from Mogo Hill down to the Deep Creek Dam wall.

12.6.6 Trail Six

Key Stats	
Length	3115m
TDRS	Green Circle
Construction Style	Flow
Format	Descent
Width	1200mm
Surface	Natural

Trail Overview

Trail 6 is proposed to be beginner-friendly descent from Mogo Hill down to the dam wall. The trail will introduce less confident riders to a gravity style trail format and allow them to enjoy a sustained descending experience with the option to pedal back up via Trail 11 or alternatively, to utilize a shuttle service back up to Mogo Hill.

The trail provides a starting point for beginner riders to later progress to more challenging trails such as Trail 5 and Trail 7, which start and finish at the same respective points.

12.6.7 Trail Seven

Key Stats	
Length	3214m
TDRS	Black Diamond
Construction Style	All-Mountain
Format	Descent
Width	900mm
Surface	Natural

Trail Overview

Trail 7 is proposed to be a challenging descent from Mogo Hill down to the dam wall. The trail will offer riders one of the more sustained descending opportunities within the Deep Creek Dam network and will cater for the enthusiast market.

The trail will give riders the option of pedaling back up to Mogo Hill via Trail 11 or alternatively, utilising a shuttle service to take them up to the start on the access road. Trail 7 presents the advanced descending option in the three gravity trails proposed from Mogo Hill down to the Deep Creek Dam wall.

12.6.8 Trail Eight

Key Stats	
Length	2916m
TDRS	Black Diamond
Construction Style	Flow
Format	Descent
Width	900mm
Surface	Natural

Trail Overview

Trail 8 provides an all-mountain trail experience catered towards the enthusiast market and offers advanced riders a more challenging descent following by a climb out of the gully towards the ridgeline located to the north of Deep Creek Dam. The trail starts at the existing electricity tower.

Trails 8, 12, and 13 have an enduro focus and can be utilised for potential future races/events alongside a variety of the other trail offerings within this trail development proposal.

12.6.9 Trail Nine

Key Stats	
Length	11130m
TDRS	Green Circle
Construction Style	Flow
Format	Two-Way / Loop
Width	1200mm
Surface	Natural

Trail Overview

Trail 9 provides a beginner's loop of Deep Creek Dam and suitable alternative for less confident riders to the existing intermediate focused assortment of trails that circumnavigate the upper ridgelines adjacent to the dam. The proposed Green Circle trail will take on a wider trail width and be suited to shared use with walkers and trail runners alike.

The proposed alignment follows high water mark around the dam, giving ample provision for when the water levels are at their highest. As a result, the proposed trail will have minimal elevation gain/loss and be more approachable for those short on time or fitness. The loop seeks to target a user group that has limited off-road riding experience and caters for families with young children. It will be one of the easiest and most scenic trails in the proposed development.

The trail will be suitable for shared-use with walkers.

12.6.10 Trail Ten

Key Stats	
Length	8263m
TDRS	Blue Square
Construction Style	Cross-Country
Format	Loop
Width	900mm
Surface	Natural

Trail Overview

Trail 10 utilises the undulating terrain that sits between Mogo Trig Road to the north, and Dog Trap Road to the south. The proposed loop provides a challenging ride that steadily climbs up towards the north before descending back down to the south again.

12.6.11 Trail Eleven

Key Stats	
Length	4681m
TDRS	Green Circle
Construction Style	N/A
Format	Climb
Width	1,200mm
Surface	Natural

Trail Overview

Trail 11 presents an easy climbing trail for riders preferring to pedal back up to Mogo Hill after descending any of the proposed gravity trails in this zone (Trails 5, 6 and 7). The trail presents an extended ride option for those looking to link the proposed Trail 9 or existing upper dam loop all the way into the cluster of trails that are proposed to the south of Mogo Trig Road.

12.6.12 Trail Twelve

Key Stats	
Length	3798m
TDRS	Blue Square
Construction Style	All-Mountain
Format	Descent
Width	900mm
Surface	Natural

Trail Overview

Trail 12 provides an all-mountain trail experience catered towards the enthusiast market and offer intermediate riders with a challenging series of descents and climbs. The trail starts at the existing electricity tower and makes its way to the ridgeline located to the north of Deep Creek Dam.

Trails 8, 12, and 13 have an enduro focus and can be utilised for potential future races/events alongside a variety of the other trail offerings within this trail development proposal.

12.6.13 Trail Thirteen

Key Stats	
Length	3506m
TDRS	Green Circle
Construction Style	All-Mountain
Format	Descent
Width	1,200mm
Surface	Natural

Trail Overview

Trail 13 provides an all-mountain trail experience catered towards beginners and offers a more remote riding experience. The trail starts at the existing electricity tower and makes its way to the ridgeline located to the north of Deep Creek Dam.

Trails 8, 12, and 13 have an enduro focus and can be utilised for potential future races/events alongside a variety of the other trail offerings within this trail development proposal.

12.6.14 Trail Fourteen

Key Stats	
Length	4732m
TDRS	Green Circle
Construction Style	All-Mountain
Format	Loop
Width	1,200mm
Surface	Natural

Trail Overview

Trail 14 is located at the northern-most point of the proposed trail development area. The trail loop creates a connection to the southern fringe of Batemans Bay with the highpoint of the existing electricity tower, where several enduro trails have been proposed.

12.6.15 Trail Fifteen

Key Stats	
Length	1412m
TDRS	Green Circle
Construction Style	N/A
Format	Climb
Width	1,200mm
Surface	Natural

Trail Overview

Trail 15 provides a more sustainable climbing trail alignment from the end of Deep Creek Dam Road to the existing Spiders from Mars trail, which is located on the ridgeline directly to the north of the dam.

12.6.16 Trail Sixteen

Key Stats	
Length	4143m
TDRS	Black Diamond
Construction Style	All-Mountain
Format	Loop
Width	900mm
Surface	Natural

Trail Overview

Trail 16 proposes to loop around the existing Dog Trap Road Climb and following a more sustainable gradients on either side of the saddle. The trail will offer a challenging descent and climb for riders looking to extend their normal loop around the dam on the existing trails.

12.6.17 Trail Seventeen

Key Stats	
Length	8151m
TDRS	Blue Square
Construction Style	All-Mountain
Format	Loop
Width	900mm
Surface	Natural

Trail Overview

Trail 17 provides a closed loop between Mogo Hill and Dunns Creek Road. The proposed climb will also act as a return for those wishing to ride the proposed Trail 18 descent.

12.6.18 Trail Eighteen

Key Stats	
Length	3056m
TDRS	Black Diamond
Construction Style	Flow
Format	Descent
Width	900mm
Surface	Natural

Trail Overview

Trail 18 offers a challenging descent for advanced riders from Mogo Hill down to Dunns Creek Road. The descending trail utilises the climbing portion of the proposed Trail 17 to bring riders back to its starting point.

12.6.19 Trail Nineteen

Key Stats	
Length	5023m
TDRS	Green Circle
Construction Style	Cross-Country
Format	Loop
Width	1,200mm
Surface	Natural

Trail Overview

Trail 19 is a cross-country loop proposed to the north-east of Deep Creek Dam.

12.6.20 Trail Twenty

Key Stats	
Length	4555m
TDRS	Green Circle
Construction Style	Cross-Country
Format	Loop
Width	1,200mm
Surface	Natural

Trail Overview

Trail 20 forms part of a beginner-friendly network of trails close to the Mogo Trailhead. Trails 1, 2, 3, and 20 can be ridden interchangeably to cater for shorter or longer riding options depending on the individual/groups' ability and fitness.

12.6.21 Trail Twenty-One

Key Stats	
Length	2581m
TDRS	Blue Square
Construction Style	N/A
Format	Climb
Width	900mm
Surface	Natural

Trail Overview

Trail 21 provides a dedicated climbing trail for those wishing to ride the popular Jack Hammer trail in the Deep Creek Dam network. Riders currently have to ride back up the steep and unsustainable Dog Trap Road Climb.

12.6.22 Trail Twenty-Three

Key Stats	
Length	3217m
TDRS	Blue Square
Construction Style	All-Mountain
Format	Loop
Width	900mm
Surface	Natural

Trail Overview

Trail 23 provides a looped descent and climb starting from the popular Abalone Trail. The trail gives riders the option to link the popular Ridge Road entry into the proposed lower dam perimeter loop. The sustained descent makes use of the available elevation available from the Dogtrap Road ridgeline situated to the east of the Deep Creek Dam.

This particular zone has been identified by the local riding community as holding good potential for trail development. The subsequent trail concept capitalises on this potential, and will add great value and benefit to the overall trail masterplan by creating a variety of intermixed loops amongst the existing and proposed trail network.

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TRAIL CONCEPT MAULBROOKS

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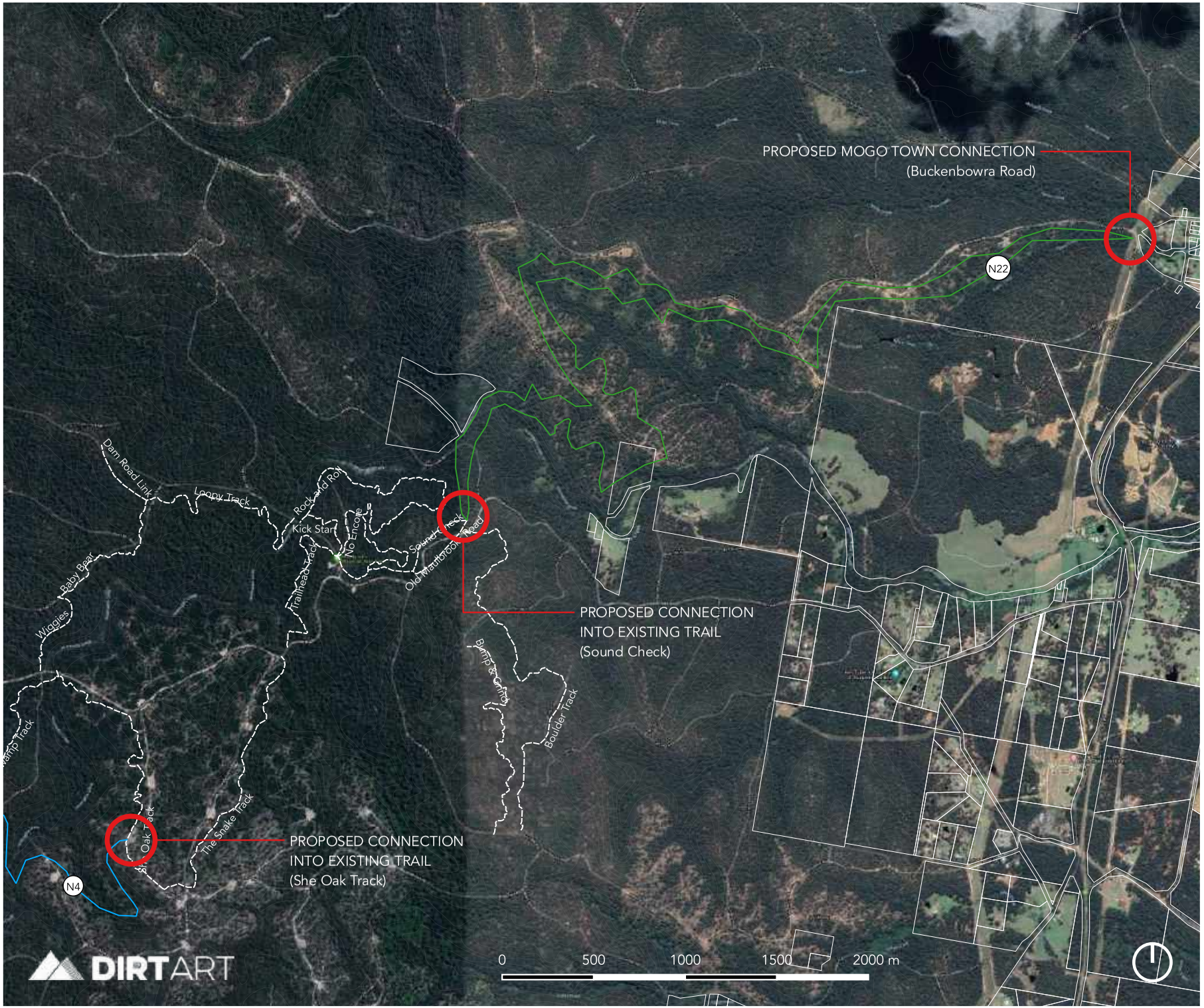

12.6.23 Trail Twenty-Two

Key Stats	
Length	15188m
TDRS	Green Circle
Construction Style	Cross-Country
Format	Loop
Width	900mm
Surface	Natural

Trail Overview

Trail 22 provides a direct connection between Mogo's town centre and the existing Maulbrooks Road trail network. *Dirt Art* acknowledges that there are already opportunities to ride from the town to the trailhead on existing forestry roads. However, these are neither direct nor offer the quality of experience provided by singletrack trails. Thus, the proposed trail offers a looped configuration that can be ridden in its own right or as part of a means of accessing the Maulbrooks Road network via bicycle as opposed to driving to the network.

13 Gravel Grinding Concepts

13.1 Overview

During *Dirt Art's* infield assessments of Mogo and its surroundings, it was evident that there is a network of well-serviced Forestry access roads to the west of the township. It was noted that the undulating gravel roads, steady gradients, and wide tread form the basis of a series of high-quality gravel grinding adventures ranging from 20-100km loops.

As riders travel west through the rolling hills out of Mogo they are greeted with spectacular views to the west as they come out of the tree line and cast their eyes upon the vast grazing plains situated in the basin bounded by Gollarribee Mountain (to the west) and Buckenbowra (to the north). An opportunity exists to utilise established gravel roads to provide a variety of rider experiences that head so far as Monga National Park, which is located approximately 45km north-west from Mogo.

13.2 The Market Opportunity

With the recent rise in popularity of Gravel Grinding in Australia, a significant opportunity exists to utilise the abundance of well-serviced fire trails and non-sealed forestry access roads to the west of Mogo to cater for this largely self-sufficient user group.

The enthusiast market typically starts and finishes their organised rides from a single location, generally one that is appropriately serviced by cafes, bars, and/or restaurants. These amenities are important and highly sort after from riders as it fosters the strong social aspect of the activity, which is often a major drawcard for the likeminded individuals who cherish the post ride wind down at local eateries.

As such, Mogo presents an ideal base and epicenter for these gravel grinds to radiate out from and has the very real potential to bring increased visitation and direct economic impact for local businesses. The town already has a unique and eclectic assortment of shops and cafes that would be well-served in catering for an influx of riders participating in these off-road adventures. In addition to this, a variety of well-established gravel/dirt service roads already provide practical links into town along the western fringe; providing the added benefit of keeping cyclists of major roadways with higher volumes of vehicular traffic.

13.3 Proposed Loops

Dirt Art has developed three gravel grinding loops ranging from 22km, 62km, and 107km options. These loops have been designed to cater for a variety of rider fitness levels, time available, and to capitalise on the scenic natural values of the area. The respective loops are detailed in the following pages.

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CONCEPT GRAVEL GRIND G1 LOOP

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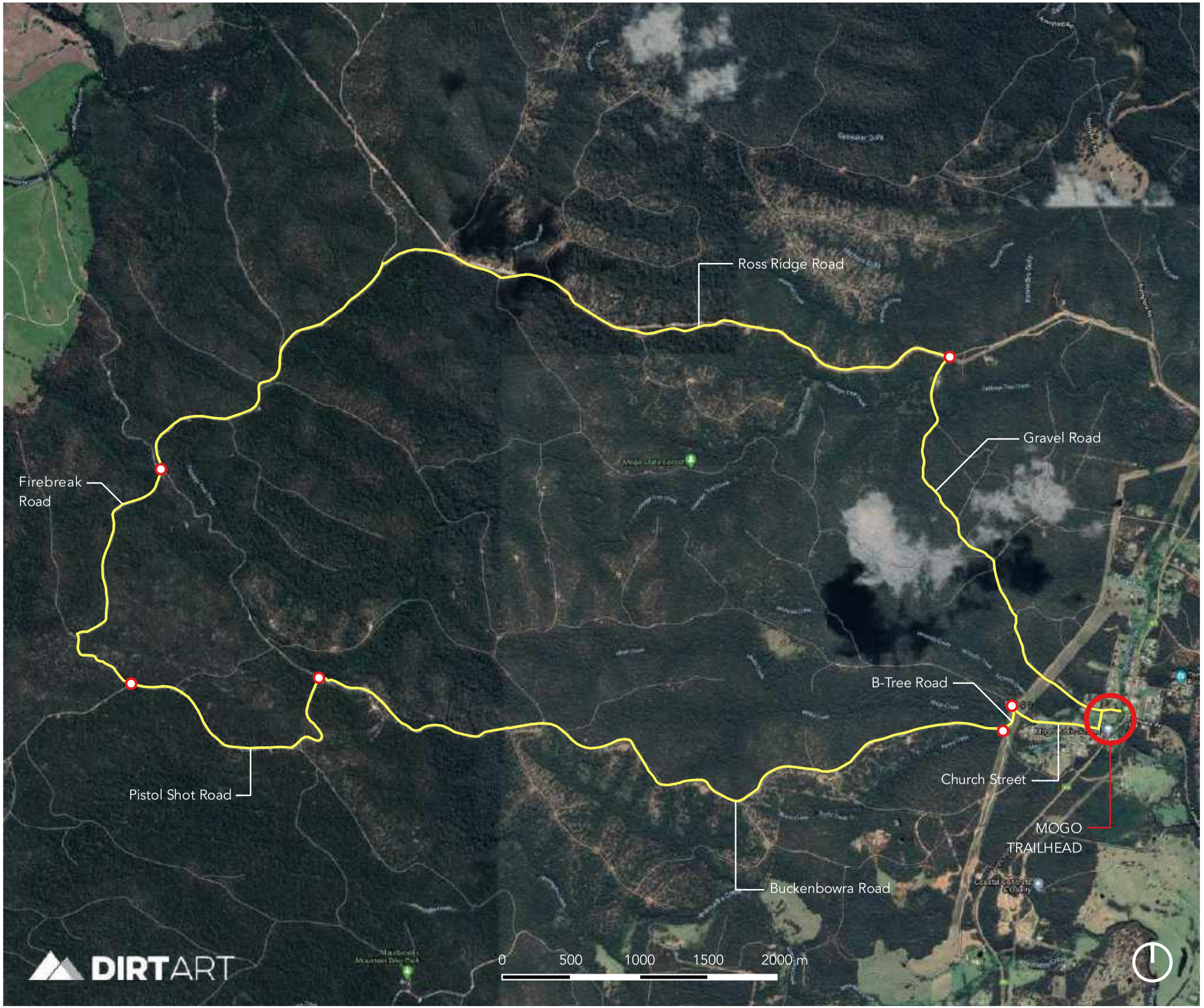

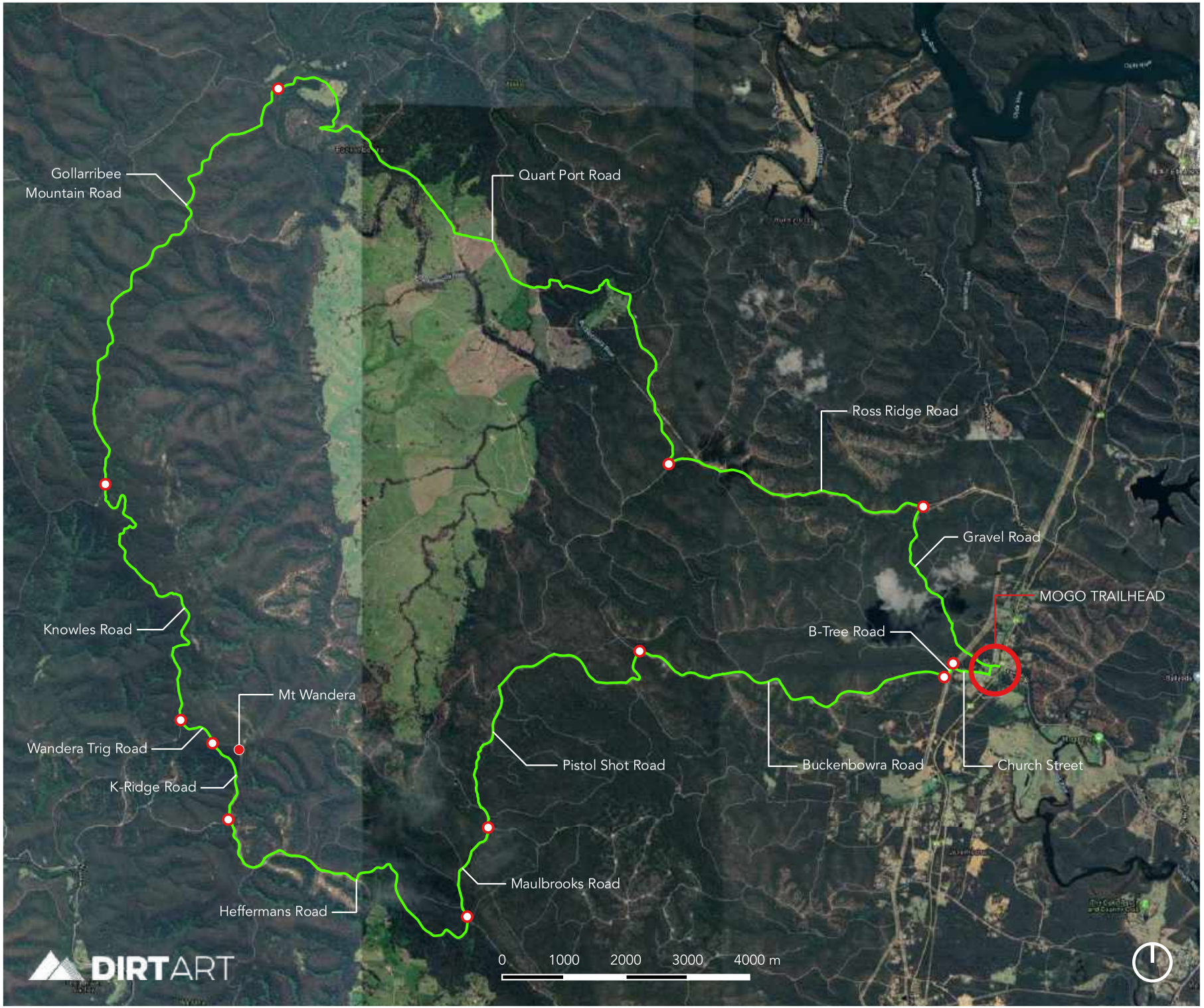

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CONCEPT GRAVEL GRIND G2 LOOP

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CONCEPT GRAVEL GRIND G3 LOOP

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13.3.4 Implementation Plan

The formalisation of a series of gravel grinding loops is relatively low cost as the majority of the trails and infrastructure to cater for the routes already exist. For a modest capital outlay for appropriate signage and maps, there is a real opportunity to capture a steadily growing market sector that flocks to these organised gravel grinding events or adventures. The sport is still relatively new to Australia and as a result, any event or organised ride currently attracts a high participation rate.

The addition of gravel grind routes will also significantly benefit the local community, with a large volume of formalised routes suitable for local recreation.

14 Economic Impact Analysis

14.1 Overview

Mountain bike destination development is a proven driver of economic activity across Australia, with a number of successful destinations now demonstrating that the development of trails can stimulate regional economies.

Destinations such as Blue Derby in Tasmania have brought tens of thousands of visitors to regional communities, establishing dozens of new jobs and a wide variety of new businesses. The mountain bike traveler typically seeks an average 7-day holiday, and will spend more than the average traveller[8].

This report section will examine some economic impact case studies, and will provide a preliminary economic impact assessment for the project.

14.2 Case Studies

14.2.1 Blue Derby

Trail Volume	120
Location	Derby, Tasmania
Visitation (p.a.)	40,000
Economic impact (reported)	$25m
Year in operation	5

Blue Derby was established in 2020 with an initial 20km of trails. Now with over 120km of trails, the destination reportedly sees visitation of over 40,000 riders per annum. Since the trail opening, the town has seen the development of multiple new restaurants and cafes, and a number of new accommodation venues have been constructed.

Widely recognised as Australia's leading trail centre, the Blue Derby trails projects has transformed the ex-tin mining town into a thriving tourist centre.

14.2.2 Rotorua

Trail Volume	225
Location	Rotorua, New Zealand
Visitation (p.a.)	250,000
Economic impact (estimated)	$40m
Year in operation	15

Rotorua in New Zealand is widely recognised as one of the world's leading trail centres. A largely community-driven trail network, the trails are located predominantly in pine plantation area.

While the town of Rotorua has a strong broader tourism industry, mountain biking is a major component of the visitor economy, with an estimated 250,000 annual rider visits.

[8] Australian Mountain Bike Park Profile, Dirt Art 2018

14.2.3 Maydena Bike Park

Trail Volume	75
Location	Maydena, Tasmania
Visitation (p.a.)	25,000
Economic impact (estimated)	$15m
Year in operation	2

Maydena Bike Park is Australia's largest gravity-focused bike park, with 820m vertical elevation and 60+ trails. The park is privately owned, and is operated as a pay-for-use facility with an uplift shuttle service.

In operation for two years, the development of the park has seen property prices in town raise by 100-200%, and the development of two new restaurants and a number of accommodation ventures.

14.3 Estimated Visitation

For the purposes of estimating projected visitation, an assumption has been made that the whole proposed trail network is completed in its entirety. Visitation estimates have been based on comparisons of similar facilities in the Australian industry, using the location and broader context of the proposed trail network. Notably, the Mogo project is benefited significantly through availability of large population bases within driving distance of the trails (Greater Sydney and Canberra).

Notably, the below estimated are considered to be at the low/conservative end of estimates.

Visitation estimates are based on rider days rather than independent visitors. This methodology ensures a greater accuracy through removing the calculation for length of stay for riders. The use of this calculation will make visitation appear higher than if individual visitor numbers were utilised.

Visitation estimates are provided below for the first three years of operation;

Year 1	Year 2	Year 3
45,000	55,000	60,000

14.4 Estimated Economic Impact

Dirt Art has estimated economic impact based on visitor days, rather than estimating length of stays for overnight visitors.

The below estimated economic impact has been based on the following assumptions;

- Overnight visitors spend $172/day[9]
- Day visitor spend is estimated at $40/day

[9] Eurobodalla Tourism Monitor 2017/18 *Destination Research*

- Visitor breakdown is estimated at 25% day visitors and 75% overnight visitors
- A standard tourism development multiplier of x1.9 has been utilised to calculate indirect economic impact

Estimated economic impact is provided below;

Year	Visitor	Volume	Spend	Total Direct	Total Indirect
1	Day	11,250	$40.00	$450,000	$855,000
	Overnight	33,750	$172.00	$5,805,000	$11,029,500
	Total Economic Benefit			$6,255,000	$11,884,500

Year	Visitor	Volume	Spend	Total Direct	Total Indirect
2	Day	13,750	$40.00	$550,000	$1,045,000
	Overnight	41,250	$172.00	$7,095,000	$13,480,500
	Total Economic Benefit			$7,645,000	$14,525,500

Year	Visitor	Volume	Spend	Total Direct	Total Indirect
2	Day	15,000	$40.00	$600,000	$1,140,000
	Overnight	45,000	$172.00	$7,740,000	$14,706,000
	Total Economic Benefit			$8,340,000	$15,846,000

15 Implementation Plan

15.1 Detailed trail design

The concepts provided within this report represent high-level concepts. The trails will require detailed design, including route flagging on the ground. While *Dirt Art* has conducted extensive field surveys, not all trails have been completely ground truthed.

15.2 Approvals

15.2.1 Forestry Corporation of NSW Assessment

Approvals will be required from the Forestry Corporation. Further details will be explored during the next phase of the project.

15.2.2 Development Application

Given the nature, scale and location of the project and proposed works that compose it, it is likely that a development application (DA) will be required. Final determination of a DA requirement will rest with the ESC. A review of environmental factors (REF) will likely form part of the DA process.

15.2.3 Geotechnical Assessment

Geotechnical assessments may be required for some section of trail, particularly at higher elevations.

15.3 Construction Staging

Construction staging will be developed following conclusion of project consultation.

15.4 Construction Approach

15.4.1 Machine construction where possible

Most modern mountain bike trail construction is undertaken with mini-excavators in the size rage of 0.8 to two tonnes. The use of excavators offers significant improvements in efficiency relative to hand-building in most environments. A 1.5-1.8 tonne excavator is used for most trail applications in Australia, and a machine in this size range would be suitable for all proposed trails in this plan.

There are some areas of proposed trail that may require hand build construction methodology, particularly where high levels of ground rock are evident. Notably, *Dirt Art* has worked to minimise construction complexity and is confident that the majority of the trails are able to be constructed by excavator.

It is recommended that where possible machine construction is pursued, where this does not adversely impact the experience provided by a trail and where it does not substantially impact the character of the trail development.

15.4.2 Volunteer construction

While there may be some opportunities to facilitate volunteer construction, ultimately, *Dirt Art* suggest that the project should be planned and budgeted on a complete commercial construction process.

15.4.3 Climatic considerations

Construction at proposed trail network should be viable year-round, with optimal build seasons being Spring and Autumn.

15.5 Signage

15.5.1 Overview

Effective signage is critical for the functionality of any destination mountain bike project, while also assisting in risk and incident management. The signage should focus on large map boards, as well as trail head and way marker signage.

Signage should be consistent with relevant council and land manager signage systems and guidelines.

Given the complex nature of the network, and lack of obvious stacked loops, *Dirt Art* suggest signage also consider showcasing a group of rides, which encompass a range of trails. These 'signature rides' should focus on clustering similar trails to create high-quality trail experiences. Showcasing these rides is an important consideration for visiting riders.

An important consideration is also main road signage, ensuring that visitors are aware of the attraction as they approach via vehicle. Road signage should be consistent with the 2018 Eurobodalla Shire Council Tourism and Wayfinding Signage Strategy (*Wayfound).*

15.5.2 New brand development

Dirt Art suggest that a brand/identity be developed for the trail project by a professional branding agency. This branding should be utilised along with a style guide to influence all digital presence and signage for the trails. Any branding should eb developed within the framework provide by the Eurobodalla All 'Kinds of Natural' branding, which can be found at www.eurbodalla.com.au.

15.5.3 Budget

Dirt Art suggest a signage budget of 2.5% of capital investment ($25,000/$1m investment).

15.6 Suggested Development Budget

15.6.1 Overview

The suggested project budget is confidential due to the tender process that will occur for construction of the trail network.

16 Operational Considerations

16.1 Management Models

Dirt Art suggest that the trails are managed under a single management entity. For most projects of this type this entity would be a local government agency. While this does not necessarily require the agency to accept management responsibility, it ensures the public have a clear contact point for the trails. In most cases this type of agreement would involve the lease/license of trail corridors rather than entire land parcels.

Dirt Art suggest that the future maintenance of the trail network will likely be best delivered through a combination of paid and volunteer maintenance. The new trail development proposed is likely to bring significant additional local visitation to the park, which may provide opportunities to re-invigorate the past volunteer construction program to an extent.

16.2 Trail Maintenance

Trail maintenance is one of the key operational considerations of any trail destination. In general terms, a high-quality mountain bike destination will require regular maintenance, to ensure trails are maintained to a standard expected by the traveling mountain bike rider.

Dirt Art suggest a maintenance budget of approximately $1.50/metre annually for trails.

While some volunteer maintenance may be possible, *Dirt Art* suggests that maintenance should be budgeted at the above commercial rates. While volunteers contribute meaningfully to maintenance of many trail networks, their capacity to manage larger-scale tourism focused trails networks is extremely limited.

16.3 Uplift Opportunities

16.3.1 Overview

Uplift-assisted riding is growing in popularity, with a number of services across Australia proving highly popular with local and visiting riders. Uplifting is generally undertaken using buses and/or 4WD vehicles using trailers or bike racks to transport bikes.

16.3.2 In park uplift opportunities

There is an in park uplift opportunity at the Deep Creek Dam, where an uplift accessed descending trail network has been proposed. While this network only offers ~100m vertical descent, this is adequate enough to warrant consideration of a professional uplift service. Guidelines for uplift service management can be found at Appendix 3.

16.4 Risk and Incident Management

16.4.1 Overview

Risk and incident management is a critically important consideration for any mountain bike trail development and should be considered continually throughout the development and construction process.

A risk and incident management plan, including detailed evacuation planning and incident management is a critical component of facility planning, and must be completed prior to the opening of the trail network.

16.4.2 Key Considerations

Incidents can be minimised through the following key considerations;

- Predictability in trails
- Low consequence trail features (limited gap jumps, blind drops etc.)
- Appropriate trail difficulty grading
- Appropriate signage
- High-quality trail design and construction
- Evacuation points
- Evacuation procedures

16.4.2.1 Predictability in Trails

Predictability is one of the major attributes that helps lower the risk of incidents on trails. To achieve predictability, the trail needs to maintain a level of consistency from the outset, that is, from the start through to the finish of a trail. For example, if a trail is designed and identified as a 'flow trail', the subject rider would expect to experience a fast and flowing set of trail features comprising predominately of smooth and sweeping bends that are well-supported by banked or 'bermed' corners. In this regard, it is best practice not to have the natural character of a trail change unannounced or suddenly in the middle of a trail to a rocky and technical style of trail. This would make the trail 'unpredictable' and subsequently pose a potential hazard to riders as their level of expectation is not aligned with the overall trail offering.

16.4.2.2 Low Consequence Trail Features

Consequence refers in this case refers to the ability of a rider to make a mistake due to poor judgement or lack of riding ability and not result in serious injury to the individual. For example, if a trail is defined as a beginner to intermediate technical trail, the features should all be 'rollable' and or designed as tabletop jumps as opposed to large gap features. A gap in this sense would be defined as a physical or visually prominent space between the jump's take-off point (lip) and corresponding landing. Should a rider misjudge the speed required and come up short on the jump feature, they should land on the flat part of the tabletop or the 'knuckle' of the landing – allowing them adequate time and ability to recover. In other words, a reasonable margin for error.

16.4.2.3 Appropriate Trail Difficulty Grading

Trails should be graded by their difficulty as defined in the International Mountain Bicycling Association's (IMBA) trail difficulty rating system (TDRS). The TDRS is a basic method to categorise trails into various levels of difficulty as defined below:

- White Circle
- Green Circle
- Blue Square
- Black Diamond
- Double Black Diamond

The system is commonly accepted as the international standard at the majority of major mountain biking destinations and bike parks. For non-riders, the difficulty rating system references a similar hierarchy in the ski and snowboard industry.

It is important to note that trail difficulty should be subject to regional considerations and respective of the local offerings in terms of their classification. For example, a Black Diamond trail in a world-renowned destination such as Whistler (Canada) will likely be harder than something that is defined as the same grade in a much smaller local network that does not have the same volume of trail or type of challenging natural terrain.

16.4.2.4 Appropriate Signage

Trail signage should be designed and installed by a suitably qualified trail professional who understands the intricacies of signage location, orientation and functionality. Notably, there can be significant safety and liability issues associated with trail signage not installed correctly. Signs need to convey crucial information such as trail difficulty and safety information in a clear and concise manner. The location of specific signage is essential in ensuring rider safety and managing risk in a trail network. The whereabouts and orientation of a sign can be the difference between a rider seeing, acknowledging, and accepting the risk related to the trail and respective features they are about to embark upon; or alternatively, missing this vital information entirely and subsequently dropping into a trail well outside their skill level and potentially causing serious harm to themselves or other trail users.

Signage should clearly define whether a trail is single direction (e.g. climbing only) or dual direction. The latter type of trail should only be implemented if safe to do so, i.e. adequate trail width and clear line of sight.

16.4.2.5 High Quality Trail Design & Construction

All of the above-mentioned considerations can be suitably managed by an experienced and qualified trail professional. It is often more difficult to retrofit many of these key considerations once a trail has been built. On the contrary, if these trail attributes are instilled from the start from concept through to construction, the trail will naturally perform more efficiently and consistently as a whole.

16.4.2.6 Evacuation Points

Suitable extraction and access routes and locations must be established prior to facility opening. This will include aerial extraction points for helicopter retrieval and potential landing.

Dirt Art suggests engaging with emergency services during this planning process, to ensure these agencies are comfortable with the proposed methodologies and access points.

16.4.2.7 Evacuation Procedures

Attending to and/or evacuating an injured rider is a rare but necessary requirement at any busy trail network. *Dirt Art* suggest that a detailed emergency management plan be developed prior to the opening of the trail network. This plan should detail methodologies of attending and evacuating riders at a number of strategic locations throughout the network.

16.4.3 Management Considerations

16.4.3.1 Overview

Incidents can be managed through the following key considerations;

- Clearly identify primary trail usage
- Permissible secondary trail usage
- Liaison with emergency services
- Noting of key access routes
- Noting of emergency points on all trails
- Consideration of aerial rescue points

16.4.3.2 Clearly identify primary trail usage

Trail signage should clearly demarcate the intended trail usage to ensure there is no user conflict or misunderstandings between the various user groups. The primary trail use should be defined on all trail signage and maps. Mountain bike (only) trails should be clearly stated and signposted as such, while shared use trails for bikers and walkers/runners should be defined with appropriate signage. The latter category of trail is generally limited to trails that have been designed for dual-use purposes with clear line of sight throughout the trail alignment and typically a climbing trail for riders. The ascending nature of the trail is important in this case as it naturally limits the overall speed of those on bicycles and resultingly reduces the potential for user conflict. Shared use trails should generally be limited to White Circle or Green Circle trails due to the adequate nominal trail width specified in IMBA's guidelines for these two grades of trail. Notwithstanding, a user's responsibility and code of conduct is vital at each trailhead and associated signage to reinforce user groups to adhere to a mutual respect for one another.

16.4.3.3 Permissible secondary trail usage

For secondary trail users, such as running or walking, these may deem permissible and safe to be undertaken on certain mountain bike trails. These would normally be limited to White Circle or Green Circle trails. It is not recommended that gravity-orientated descending trails be utilised for shared use with walkers/runners due to the high speed nature of these trails and technical features within the trails themselves. The trails in these categories may have challenging terrain or features that are already difficult for a rider to negotiate let alone trying to avoid other user groups.

For trails that are well suited to a secondary trail user group, it is important for individuals to understand and respect the needs of each group and recognise the secondary nature of their activity in relation to the riders on the trail. This will enable harmonious trail use and help promote a positive relationship between the different user groups. For example, although a trail maybe designed and marked specifically as a mountain bike trail, trail runners often like to utilise the same network of singletrack trails and benefit greatly from doing so. However, this only works if both user groups respect one another and acknowledge a certain degree of a rider's 'right of way' on the specific trail. From a runner's perspective, this would entail being aware of their surroundings (i.e. not listening to music with earbuds in) and stepping aside off the main trail tread momentarily when a rider approaches from behind, allowing them to pass safely and uninhibited. From a rider's viewpoint, if they see a runner ahead on the trail, they should politely notify the runner and ask to pass them when it is safe for the runner to do so. A simple 'thank you' as a rider passes goes a long way in encouraging and fostering a positive relationship between the user groups.

16.4.3.4 Liaison with emergency services

During any new trail development or formalisation of an existing trail network, it is important to liaise with local emergency service providers such as the Police, Ambulance, and Fire and Rescue to seek their advice and guidance as to what information would be useful for them to have on hand regarding the trails and the proposed user groups. As a land manager, it is important to understand how to best assist emergency services in the case of an incident or emergency – e.g. bushfire event. Having an emergency action plan is particularly pertinent given the scale and type of environment (bushland) that mountain bike trails usually exist within.

16.4.3.5 Noting of key access routes

Any trail signage should note key access routes such as nearby roads, tracks, and pathways. Key landmarks are often helpful to individuals trying to locate their whereabouts in a given landscape or trail network.

16.4.3.6 Noting of emergency points on all trails

Emergency access or evacuation points should be formally documented and kept with a nominated person(s) by the land manager. This information should be readily available in the case of an emergency onsite. All trail maps should show the relevant emergency points and necessary contact information. Trail signage can also convey more useful information such as GPS coordinates or directions to the closest access road/track.

16.4.3.7 Consideration of aerial rescue points

Due the remote bushland or wilderness environment that most mountain bike trails are situated within, aerial means of rescue is often the quickest and most efficient method of extracting an injured person. These extraction points can be identified early on in the trail development or formalisation process by liaising with local emergency providers.

17 Branding and Marketing

17.1 Overview

In an increasingly competitive mountain bike destination marketplace, marketing and branding are critical components of any successful trail destination.

Dirt Art strongly suggest the development of a comprehensive marketing plan prior to commencement of works developing new trails.

17.2 Key Strengths

The key strengths of the completed trail network and brand will be;

- A large network of world-class trails
- Excellent elevation opportunities
- Wide variety of loop format trails
- Uplift opportunities
- Coastal location and broader tourism opportunities
- Climate
- High-quality natural environments and viewpoints
- Challenging enthusiast trails

The above key strengths should form the basis of a new branding package.

17.3 Marketing Plan

17.3.1 Overview

The development of the Mogo trail destination should be backed by a comprehensive marketing plan. The plan should work across a range of formats and platforms to target existing and new audiences in the destination's key rider markets.

The marketing plan should not be enacted until significant capital works have been undertaken to ensure the strategy aligns with quality new and upgraded existing trails. Enacting the plan and 'going to market' early risks creating an inflated expectation, which may result in many visitors disappoint, with a genuine risk they may not return.

17.3.2 Marketing formats and channels

17.3.2.1 Content Creation

Quality content is a fundamental component of any marketing strategy. The Mogo Project should develop a large content library of photo and video media, which directly aligns with the core values and strengths of the destination.

A high-quality digital asset library is critical to the marketing strategy as it will provide the content required to drive marketing initiatives through a wide range of channels. Content creation includes self-produced photo and video content, where the destination may produce their own content for distribution through their and other channels. Self-produced and distributed content can be a cost-effective way of producing content that directly aligns with the values of the destination.

17.3.2.2 Social Media

Social media provides a marketing channel that is generally well-aligned with the mountain bike consumer and provides a simple and cost-effective marketing opportunity. While a range of platforms existing, *Dirt Art* suggest that Facebook and Instagram are the two key platforms for targeting mountain bike consumers. Facebook will generally target a slightly older audience, and Instagram a slightly younger audience. Twitter is not considered a highly-relevant platform for mountain bike destinations due to its generally older demographic and journalistic and political focus. Snapchat is a challenging platform to manage relevant content through, and generally offers little scope to target key audiences due to its millennial user focus. If another platform is desired, You Tube is recommended, with scope to create a fantastic video content library. Should You Tube be pursued it must be understood that significant cost and effort will be required to produce regular video updates.

Content should generally be curated specifically to Facebook and Instagram, with the platforms suited to the below approach;

- Facebook: Written content and information (must always be shared with a high-quality image), events, article links
- Instagram: Imagery, video, shorter format written content
- The following key tips are relevant to both platforms;
- Written personality: The writing style portrayed should match the target audience (professional but light hearted), and should be consistent across posts and platforms
- All image and video content should be high-quality, professional
- Content should not be shared identically across platforms unless it is critical news
- Ideal posting regularity is *5* times a week for Facebook and *7* times a week for Instagram (reinforcing the importance of a large content library)
- Video links will generally be downranked by Facebook unless they are directly
- loaded into the platform
- Web site links will generally be downranked by Facebook

17.3.2.3 Influencers

Influencers are a potentially valuable marketing methodology. When engaging influencers, care should be taken to ensure that the influencers channel and audience aligns with the values of the destination. For example, gravity-focused athletes and influencers should not be used to market a cross country-focused trail network.

When utilising influencers, *Dirt Art* recommend keeping scripting and curation to a minimum, instead relying on the influencer to control content so it may be as organic as possible. Basic key messaging notes can be provided to the influencer to ensure that their outputs are consistent with the values of the destination.

17.3.2.4 Digital Media

Digital media provides a range of potentially valuable marketing opportunities, including but not limited to; destination showcases, competitions, and standard news pieces. In Australia, the main digital news outlet specific to mountain bike is Flow Mountain Bike.

Australian destinations have also been known to utilise Pink Bike (a North American supplier, and the world's biggest mountain bike media outlet).
Dirt Art recommend the above two outlets as high-quality opportunities for content creation and distribution. Destination showcases are a particularly strong opportunity well when curated and presented so they are entirely consistent with the key strengths and values of the destination.

17.3.2.5 Print Media

Print media remains a valuable marketing opportunity, though its reach is diminishing as customers continue to shift to digital media consumption. The main print media outlets specific to mountain biking in Australia are; Australian Mountain Bike Magazine, Revolution MTB Magazine and Mountain Biking Australia Magazine. These magazines have the following key reader markets;

- Australian Mountain Bike: Broad audience with a trail riding focus
- Revolution MTB: Gravity-focused with a younger audience
- Mountain Biking Australia Magazine: Trail riding focused with an older audience

When engaging print media, content should be high-quality and consistent with the values of the destination. Paid advertising may also be used in conjunction with destination showcases, strengthening the package.

As the profile of mountain biking continues to grow further towards a mass market activity, there are a growing number of more diverse print media opportunities. These include but are not limited to; airline magazines, travel magazines and outdoor magazines. Trail destinations with a strong beginner-intermediate focus will benefit particularly well from general print media opportunities.

17.3.2.6 Web site

A web site is a functional aid for riders but can also act as a valuable marketing tool. Mountain bike destination web sites should include the following information at a minimum;

- Location information
- Trail information and maps
- Accommodation information
- Local business information (food, beverage and services)
- Regional trail information
- Other things to do (focus on family friendly activities, and non-rider activities such as wineries etc.)

In recent years it has also become common for trail destinations to develop their own bespoke phone app. A phone app can be useful for mapping and trail information, though the pubic application Trail Forks has usurped the need for the mapping function in most bespoke destination apps.

17.4 Marketing Budget

When developing new trails and infrastructure, *Dirt Art* recommend a year one marketing budget of 2.5% of capital spend ($25,000/$1m spent). This budget provides a high-level guide, though notably if a large impact is sought from a small investment, then the percentage marketing spend may need to be 5+% of capital investment. When marketing a broader destination showcase it may also be relevant to request some support (financial and/or in-kind) from the local business community.

18 Conclusion

The Mogo and Batemans Bay areas have been recently devastated by fires, with much of the local bushland severely damaged by fire, along with many houses lost. The local tourism, accommodation and hospitality industries have been severely affected by these fires, and more recently by the COVID-19 pandemic. The potential development of a large-scale mountain bike destination offers genuine potential assist in the recovery of the local economy.

The master plan for this project proposes over 120km of new trail development, which capitalises on the key strengths of the area to create a world-class mountain bike destination. The proposed trail system caters for a broad audience of riders, and a wide variety of riding styles. The hero trail of the project is an iconic wilderness ride descending from Wandera Peak, which provides an epic backcountry descending trail ride, and a potential 'mountains to beach' riding opportunity. The remaining trail system provides a diverse network of trails connecting Batemans Bay and Mogo, and includes a gravity zone from Mogo Hill. The gravity zone provides an uplift opportunity for enduro-focused riding.

The trail system has been designed to minimise approval and construction complexity and costs, and also works to minimise ongoing maintenance. Trails have been located in areas that are conducive to high-quality, sustainable and cost-effective trail construction, while maximising potential to create engaging, enjoyable trail experiences.

The potential economic impact of the project is profound, with a conservative estimate of 45,000 rider days achieved in year one. With the majority (75%) of visitors expected to stay overnight, there will be significant flow on effects into the broader regional economy. It is estimated that the year one indirect economic impact will exceed $10m, with significant potential for new business development and job creation.

The Mogo mountain bike destination project provides a genuine opportunity to create a world-class mountain bike trail centre, which will attract strong visitation from across New South Wales and around Australia. The project has strong potential to become a major pillar in the economic recovery of the region following fires and the tourism downturn associated with the COVID-19 virus.

19 Appendix 1- Uplift Service Provider Plan

Mogo – Uplift Service Provider Plan

Table of Contents

1 Overview

Uplift-assisted mountain biking has been growing in popularity across the past several years, fed by a growing volume of suitable trail product, bike technology advances, and rapidly growing rider demand. Commercial uplift-assisted riding in in Australia has been popular with most major mountain biking destinations now offering the service. Places such as Stromlo (ACT), Derby (TAS) and Maydena Bike Park (TAS) run a commercial uplift service to cater for the growing demand in gravity assisted riding.

Generally provided by the commercial sector, uplifting comes in a variety of styles. In Australia, this service is provided by vehicles rather than a chairlift or gondola, with vehicles in use including; 20 seat buses, 14 seat buses, troop carriers and side-by-side ATV vehicles. The exceptions to this are Mt Buller (VIC) and Thredbo (NSW), which are fortunate enough to be able to re-purpose their winter-orientated infrastructure of their ski fields to cater for the demand of mountain biking.

While not all riders will wish to utilise uplift services, there is no doubt that these services add significant appeal to mountain bike destinations.

The mountain bike trail project at Mogo includes a number of trails that cater well to the provision of an uplift service. This document will provide an overview of the uplift service opportunity and will include a number of recommendations for managing this service.

2 Trail Product

The proposed trail network at Mogo provides potential to access two main trail zones benefited from an uplift service: Mt Wandera (Trail 4) and the gravity trails (Trails 5, 6, and 7) proposed at Mogo Hill in the Deep Creek Dam area. Although these trails can all be accessed via existing or proposed trails, there will be many who will find an uplift service more desirable than pedalling to the start of the trails.

The shuttle route proposed to take riders out to the start of the Mt Wandera wilderness trail will be the primary method of travelling to the start of the trail. The existing forestry access roads and fire trails do not offer an enticing reason alone for the majority of individuals to pedal out to the summit of Mt Wandera; with the exception of those on pedal-assisted bikes (e-bikes). It is expected most people, especially those travelling to the area to ride, will highly value an uplift service and the overall experience of being shuttled to the start of an adventure-based ride. The

physical journey of being driven and dropped off at the summit of a mountain adds to the unique riding experience of this trail product

The later trail zone that suits an uplift service are the three gravity-orientated descending trails (5, 6, and 7) starting at Mogo Hill and finished at the dam wall of Deep Creek Dam. Although a dedicated climbing trail has been proposed, Trail 11, the short turn-around time of a shuttle service and pure convenience will enable riders to repeat the descents as many times as they desire. The three descending trails proposed will lend themselves to being ridden repeatedly as they will be built in a popular flow/freeride style.

It is expected that the nature of the network and the trail styles on offer will result in strong demand for a series of commercial uplift services in Mogo.

3 Uplift Route

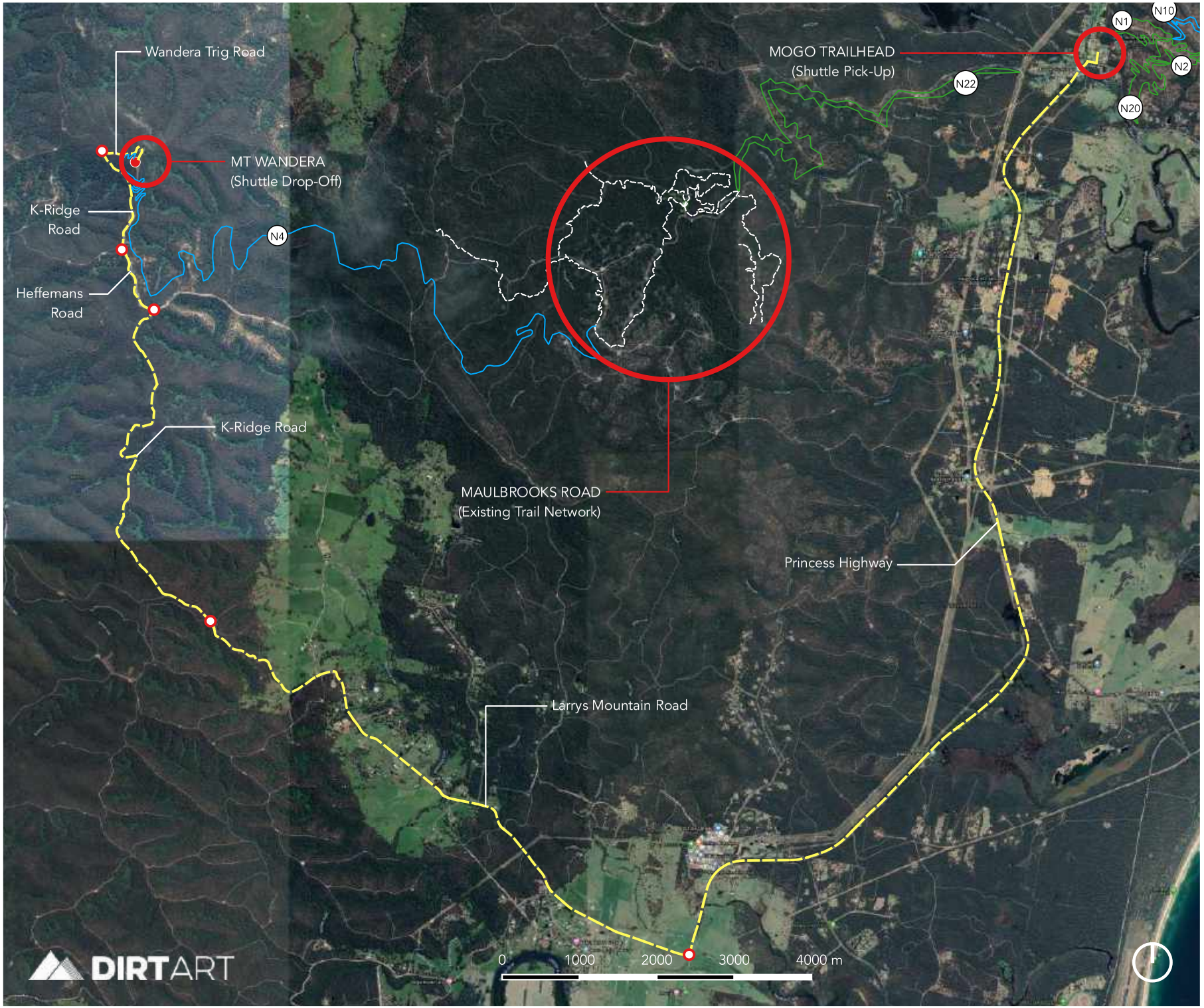
3.1 Mt Wandera Shuttle

The proposed uplift route for the Mt Wandera wilderness trail starts in the centre of town in Mogo, picking up riders from the primary trailhead before travelling south along the Princess Highway to towards Moruya. A right turn on Larrys Mountain Road will take passengers through Mogendoura before ascending up the unsealed K-Ridge Road and onto the ridgeline that will eventually wrap around the north-western face of Mt Wandera via Wandera Trig Road.

The expected travel time is approximately 40-minute (one-way) and covers a total distance of 32.1km. All roads proposed to be utilised are in good condition with the exception of the Wandera Trig Road needing some resurfacing works prior to be ready to receive the higher volume of visitor traffic.

Riders will get glimpses of the trail on their right as the shuttle route begins its climb along the ridgeline towards the summit. This will further add to the unique adventure experience and build on the sense of anticipation/excitement that most first-time visitors will be feeling.

A map showing the uplift route can be found over the page.



Mogo MTB Masterplan Project

SHUTTLE ROUTE MT WANDERA

11.03.20

Trail Difficulty
- Green Circle
- Blue Square
- Black Diamond

Proposed Trails
- N4
- N22

Proposed Shuttle
- Shuttle - Mt Wandera
- Existing Trails
- Mt Wandera

3.2 Mogo Hill Shuttle

The proposed uplift route for the Mogo Hill gravity trails will primarily service a pick-up and drop-off at the top and bottom of the trail zone. Drop-offs will be at a designated trailhead along Mogo Trig Road, while pick-ups will be from the southern end of the dam wall at Deep Creek Dam.

The shuttle route utilises a combination of existing forestry roads and fire trails including Cpt 1421 Road, Myrtle Creek Road, Dog Trap Road, and Mogo Trig Road.

The expected travel time is approximately 5-minutes (one-way) and covers a total distance of 2.3km. All roads proposed to be utilised are in good condition with the exception of the Cpt 142/1 Road, which will require some upgrade works after the recent storm damage to be serviceable.

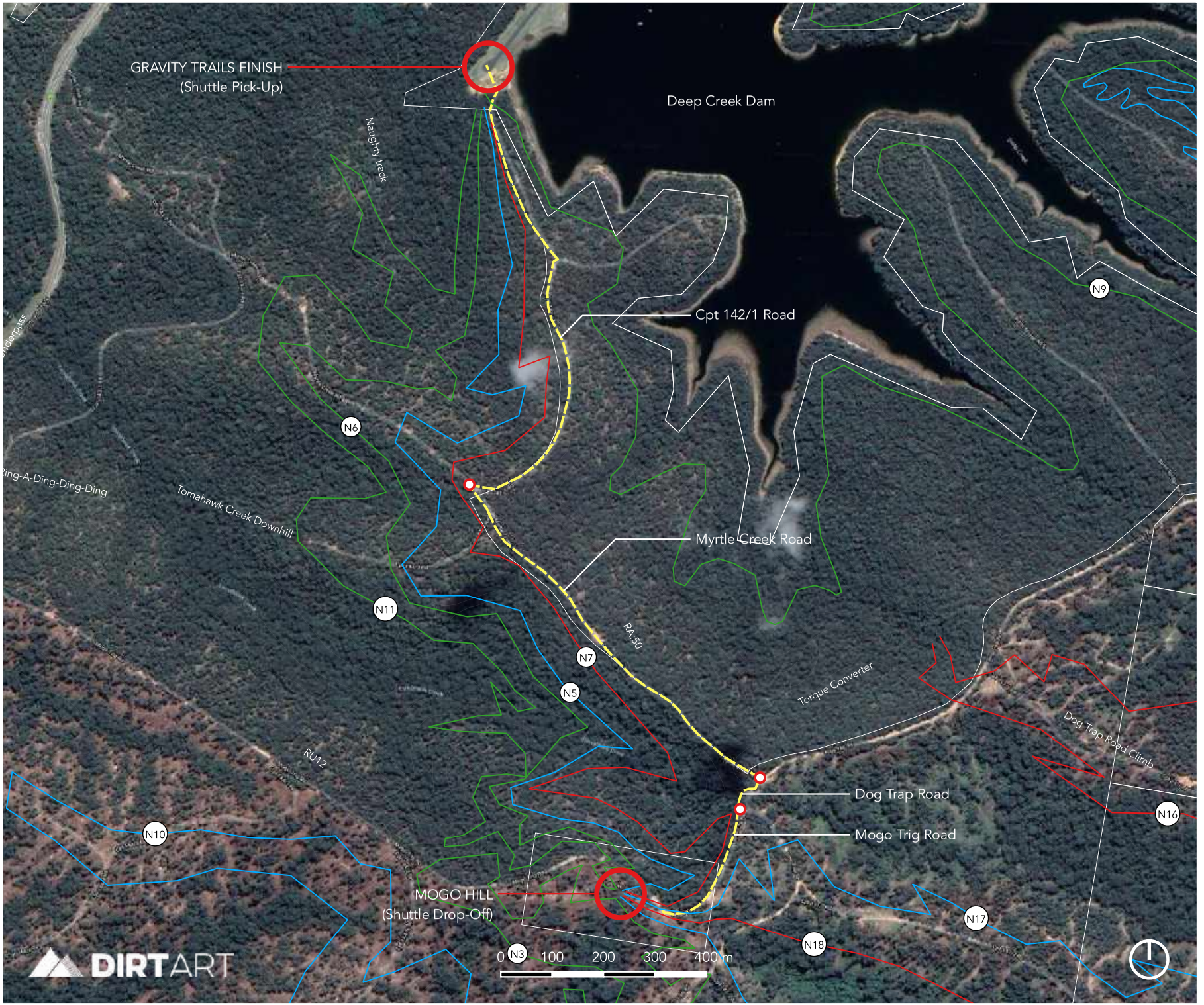
An optional shuttle service from the centre of Mogo town will allow riders to be driven directly to the start of these gravity trails. This optional shuttle route is approximately 8-minutes (one-way) and covers a total distance of 4.4km.

A map showing the uplift route can be found over the page.

Mogo MTB Masterplan Project

SHUTTLE ROUTE MOGO HILL

22.04.20



Trail Difficulty
- Green Circle
- Blue Square
- Black Diamond

Proposed Trails
- N3
- N5
- N6
- N7
- N9
- N10
- N11
- N16
- N17
- N18

Proposed Shuttles
- Shuttle - Mogo Hill

Existing Trails
- Existing Trails
- Lot

4 Managing Road Access

4.1 Overview

Dirt Art strongly suggest that the access track portion of the road is managed as a commercial operator-only road. Public access cannot safely be managed on the current track, and such access poses significant operational issues for all road users, while also risking infrastructure on the site. Public access would also place additional wear on the road, which is already in poor condition.

4.2 Selecting Providers

Dirt Art suggest that the provision of uplift services be offered via an open tender/EOI process. The process should aim to select 2-3 operators, as notably a single provider risks the continuity of the operation, and too many operators reduces commercial viability and makes for a more challenging road management system.

It is suggested that operators must agree to comply with the following minimum requirements;

- Commit to provide continuous service (definition of continuous to be negotiated with providers)
- Commit to minimum vehicle standards
- Show experience managing a similar operation type, or have strong aptitude for running such a service
- Commit to the adherence with the traffic management plan for the operation (to be developed in due course)
- Holds or commits to attain all required permits (vehicle permit, Forestry NSW permits etc.)
- Holds the minimum required insurances (to be determined)
- Commits to utilise a common waiver (preferably to be provided by ESC for consistency)
- Commitment to have one driver each day minimum as a trained first aid provider

Once selected as a provider, operators must supply all required documentation, licenses and insurances to ESC. All providers must be inducted and provide all required documentation before commencing operation.

Once approved as an operator, *Dirt Art* suggest that the ESC supplies providers with consistent vehicle branding to clearly convey their status as an approved uplift provider.

4.3 Managing Providers

4.3.1 Traffic Management Plan

Dirt Art suggest that all operators must operate under a site-specific traffic management plan (TMP). The TMP must include vehicle movement, communication, passing and general safety standards. The TMP will be a comprehensive management document, which all operators must be inducted into.

The TMP should be developed by an appropriately qualified and experienced consultant.

4.3.2 Permits and General Compliance

The ESC must develop and utilise a system which stores and maintains a current database of all provider certifications, insurances and licenses. The system must be able to manage ongoing compliance across all key compliance areas.

4.3.3 Operator Fees

Given the expected scale of the operation, it is likely unfeasible to levy providers with any significant up-front fees. Such fees will also dissuade operators from embracing the project. Instead, it is suggested that providers pay the ESC an ongoing levy, each customer they uplift. The advantage of this model is that the fee is unlikely to be noticeable to the consumer, while the overall return to assist with trail management is likely to be substantial.

Dirt Art suggest that fees in the region of $1-2.00 per uplifted rider will be reasonable, balancing the cost impact to riders with the need to effectively manage road and trail maintenance.

4.3.4 Consumer Fees

While *Dirt Art* do not suggest that ESC set rider uplift fees for commercial providers, there is some advantage in setting a fee range for providers. Setting a fee range ensures that the service will meet market standards, while reducing aggressive price competitiveness that is likely to reduce service standards.

Dirt Art suggest that the likely market range for single uplift fees would be $20-40/uplift lap.

4.3.5 Road Leasing and Licensing

Dirt Art suggest that consideration be given to including the road in the lease agreement between the Forestry NSW and ESC. Such an inclusion potentially streamlines operation for both parties, allowing ESC a clear responsibility to management road, while also allowing for fees to be charged for commercial access to the road beyond the normal uses of Forestry NSW infrastructure.

4.3.6 Benefits to providers

Providers should be provided a range of benefits in exchange for their commitment to operating levies and procedures. These benefits may include such things as;

- Approved provider branding
- Placement on the destination web site
- Promotion through key marketing opportunities
- Promotion through key channels

5 Conclusion

The management of commercial providers should be a centrally coordinated process that uses a system that will ultimately provide consistency, safety and quality to the visiting rider, while maintaining a sustainable financial model for ongoing trail and facility management for the ESC.

The recommendations made within this report are not intended as a management system, rather to provide the basis for the development of such a system. *Dirt Art* recommend that that the ESC work to develop a formal framework for managing providers, which will eventually take form as a dedicated management system.

20 Appendix 2- IMBA TDRS

IMBA Trail Difficulty Rating System

	VERY EASY  White Circle	EASY  Green Circle	INTERMEDIATE  Blue Square	DIFFICULT  Single Black Diamond	EXTREME  Double Black Diamond
Description	Likely to be a fire road or wide single track with a gentle gradient, smooth surface and free of obstacles. Frequent encounters are likely with other cyclists, walkers, runners and horse riders.	Likely to be a combination of fire road or wide single track with a gentle gradient, smooth surface and relatively free of obstacles. Short sections may exceed these criteria. Frequent encounters are likely with other cyclists, walkers, runners and horse riders.	Likely to be a single trail with moderate gradients, variable surface and obstacles. Dual use or preferred use Optional lines desirable	Likely to be a challenging single trail with steep gradients, variable surface and many obstacles. Single use and direction Optional lines XC, DH or trials	Extremely difficult trails will incorporate very steep gradients, highly variable surface and unavoidable, severe obstacles. Single use and direction Optional lines XC, DH or trials
Trail Width	2100mm plus or minus 900mm	900mm plus or minus 300mm for tread or bridges.	600mm plus or minus 300mm for tread or bridges.	300mm plus or minus 150mm for tread and bridges. Structures can vary.	150mm plus or minus 100mm for tread or bridges. Structures can vary.
Trail Surface	Hardened or smooth.	Mostly firm and stable.	Possible sections of rocky or loose tread.	Variable and challenging.	Widely variable and unpredictable.
Average Trail Grade	Climbs and descents are mostly shallow. Less than 5% average.	Climbs and descents are mostly shallow, but may include some moderately steep sections. 7% or less average.	Mostly moderate gradients but may include steep sections. 10% or less average.	Contains steeper descents or climbs. 20% or less average.	Expect prolonged steep, loose and rocky descents or climbs. 20% or greater average
Maximum Trail Grade	Max 10%	Max 15%	Max 20% or greater	Max 20% or greater	Max 40% or greater
Level of Trail Exposure	Firm and level fall zone to either side of trail corridor	Exposure to either side of trail corridor includes downward slopes of up to 10%	Exposure to either side of trail corridor includes downward slopes of up to 20%	Exposure to either side of trail corridor includes steep downward slopes or freefall	Exposure to either side of trail corridor includes steep downward slopes or freefall
Natural Obstacles and Technical Trail Features (TTFs)	No obstacles.	Unavoidable obstacles to 50mm (2") high, such as logs, roots and rocks. Avoidable, rollable obstacles may be present. Unavoidable bridges 900mm wide. Short sections may exceed criteria.	Unavoidable, rollable obstacles to 200mm (8") high, such as logs, roots and rocks. Avoidable obstacles to 600mm may be present. Unavoidable bridges 600mm wide. Width of deck is half the height. Short sections may exceed criteria.	Unavoidable obstacles to 380mm (15") high, such as logs, roots, rocks, drop-offs or constructed obstacles. Avoidable obstacles to 1200mm may be present. Unavoidable bridges 600mm wide. Width of deck is half the height. Short sections may exceed criteria.	Large, committing and unavoidable obstacles to 380mm (15") high. Avoidable obstacles to1200mm may be present. Unavoidable bridges 600mm or narrower. Width of bridges is unpredictable. Short sections may exceed criteria.