



Ku-ring-gai Council

**Draft Recreation in Natural Areas Strategy**

October 2019



# Draft Recreation in Natural Areas Strategy

## Table of Contents

Controlled Document Information.....	4
Purpose .....	6
Vision.....	6
Objectives .....	6
Scope .....	7
Background.....	9
Recreation within an ecological system .....	9
Benefits of nature based recreation .....	10
Nature based recreation in New South Wales .....	10
Nature based recreation in Ku-ring-gai .....	11
Snap shot of current recreation infrastructure in Ku-ring-gai's natural areas.....	12
Looking to the future .....	13
Managing recreation within an ecological context.....	13
Managing increased demand sustainably.....	13
Increased visitation .....	13
A regional perspective.....	13
Future trail networks.....	13
Legislative context .....	14
Development of this strategy – community consultation .....	14
Stage 1: User based consultation.....	14
Stage 2: Consultation with environment groups.....	15
Stage 3: Community forum.....	15
Stage 4: Public exhibition .....	15
Guiding management principles.....	15
Managing environmental impact.....	15
Accessibility and inclusiveness.....	15
Nature play education and citizen science.....	15
Sustainability .....	16
Risk management approach.....	16
Limited resources .....	16
Multi-use and shared facilities .....	16
Bookings .....	16
Codes of Conduct .....	16
Partnerships.....	17
Risk management.....	17
Safety risks .....	17
Environmental risks.....	17
Management actions.....	18
Snapshot of management actions across all recreation activity areas .....	18
Management action table - all recreation activities .....	20
Management actions - trail dependent recreation .....	23
Criteria for assessing trail infrastructure .....	23
Trail closures.....	23
Management action table – trail-dependent recreation activities .....	26
Management actions – mountain biking .....	29
Management action table – mountain biking .....	31
Management actions - rock-climbing, bouldering and abseiling.....	33
Management action table - rock-climbing, bouldering and abseiling .....	35

Management actions - orienteering and rogaining .....36

Pre-assessed locations for on-track events\* .....37

Pre-assessed locations for off-track events .....37

Conditions for on-track and off-track events .....37

Management action table - Orienteering and rogaining .....39

# Controlled Document Information

## Authorisation Details

<b>Controlled Document Number:</b>	N/A	<b>TRIM Record No:</b>	2019/046934
<b>Controlled Document Type:</b>	Strategy		
<b>Controlled Document Name:</b>	Recreation in Natural Areas Strategy		
<b>Version Number:</b>	Version 2		
<b>Department:</b>	Strategy and Environment		
<b>Distribution:</b>	Internal and External		
<b>Review Period:</b> <b>Max &lt; 4 years</b>	4 years	<b>Next Review Date:</b>	4 years after adoption date (date to be confirmed)
<b>Document Status:</b>	Draft		
<b>Approval Type:</b>	Adopted by Council		
<b>Version Start Date:</b>	22 October 2019 (draft)	<b>Version End Date:</b>	February 2020 (draft)

## Related Document Information, Standards & References

<b>Related Legislation:</b>	Local Government Act (NSW) 1993 National Parks and Wildlife Act (NSW) 1974 National Parks and Wildlife Regulation (NSW) 2009 Environmental Planning and Assessment Act (NSW) 1979 Environmental Planning and Regulation (NSW) 2000 Protection of the Environment Operations Act (NSW) 1997 Protection of the Environment Administration Act (NSW) 1991 Environment Protection and Biodiversity Conservation Act (Commonwealth) 1999 Biodiversity Conservation Act 2016 Fisheries Management Act (NSW) 1994 Rural Fires Act (NSW) 1997 Water Management Act (NSW) 2000 Water Management General Regulation (NSW) 2011
<b>Related Policies (Council &amp; Internal)</b>	Biodiversity Policy (2016) Water Sensitive City Policy (2016) Bushland Dumping and Encroachment Policy (2016) Fauna Management Policy (2016) Weed Management Policy (2007) Sustainable Events Management Policy (2019) Urban Forest Strategy (2019)
<b>Related Documents - Procedures, Guidelines, Forms, WHS Modules/PCD's, Risk Assessments, Work Method Statements, etc</b>	Ku-ring-gai Bushland Reserves Plan of Management (2014)

## Version History

Version Number	Version Start Date	Version End Date	Author	Details and Comments
1	9 November 2010	February 2020 (to be confirmed)	Peter Davies	First version of Strategy
2	February 2020 (to be confirmed)	Four years after adoption date (date to be confirmed)	Marnie Kikken	A complete review of the Strategy has been undertaken and the management actions updated. The scope of the Strategy has narrowed to apply to land owned or managed by Council that is dedicated and categorised as Natural Areas under the <i>Local Government Act 1993</i> . Activities within the scope of this Strategy are all track dependant recreation (such as bush walking, running and bird watching; mountain biking (all disciplines); orienteering and rogaining; and rock climbing, abseiling and bouldering.

## Purpose

The Recreation in Natural Areas Strategy (the Strategy) provides a management framework for the provision and support of a diverse and accessible range of recreation opportunities in the natural areas of Ku-ring-gai in a way that protects and enhances our local environment.

## Vision

**A Ku-ring-gai where** recreation activities in natural areas are conducted in harmony with the local environment and within ecological limits and where important environmental, social and cultural values are preserved.

**A Ku-ring-gai with** well maintained, connected, accessible and highly valued trail networks and recreation infrastructure where locals and visitors can enjoy and connect with nature in sustainable ways.

**A Ku-ring-gai where** recreation users use and share resources appropriately, amicably and safely; and where the impacts of nature-based recreation are controlled and remediated to acceptable levels.

## Objectives

The objectives of this Strategy are to:

- Provide and support a range of diverse, inclusive and accessible recreation activities and infrastructure within Ku-ring-gai's natural areas
- Manage recreation in natural areas to ensure the protection of environmental, social and cultural values
- Prevent the unauthorised construction and use of informal tracks and trails and other recreation infrastructure within the Ku-ring-gai Local Government Area (LGA)
- Create an informed and educated community who appreciate the value of our natural areas and sustainable, nature based recreation
- Promote Ku-ring-gai's nature based recreation opportunities to encourage active and healthy lifestyles
- Identify management actions that improve the overall experience of recreation in Ku-ring-gai
- Participate in regional collaborations, advocacy and partnerships to represent the interests of Ku-ring-gai's recreation user groups and individuals.



## Scope

The Strategy applies to land owned or managed by Council that is dedicated and categorised as Natural Areas under the *Local Government Act 1993*.

For the purpose of the Strategy, 'recreation in natural areas' includes activities and experiences:

- that are dependent on the natural environment
- where an appreciation of nature is a key motivational factor;
- that do not require substantial modification of the natural environment; and
- where the natural environment is critical to the participation and satisfaction of participants; not just incidental to it

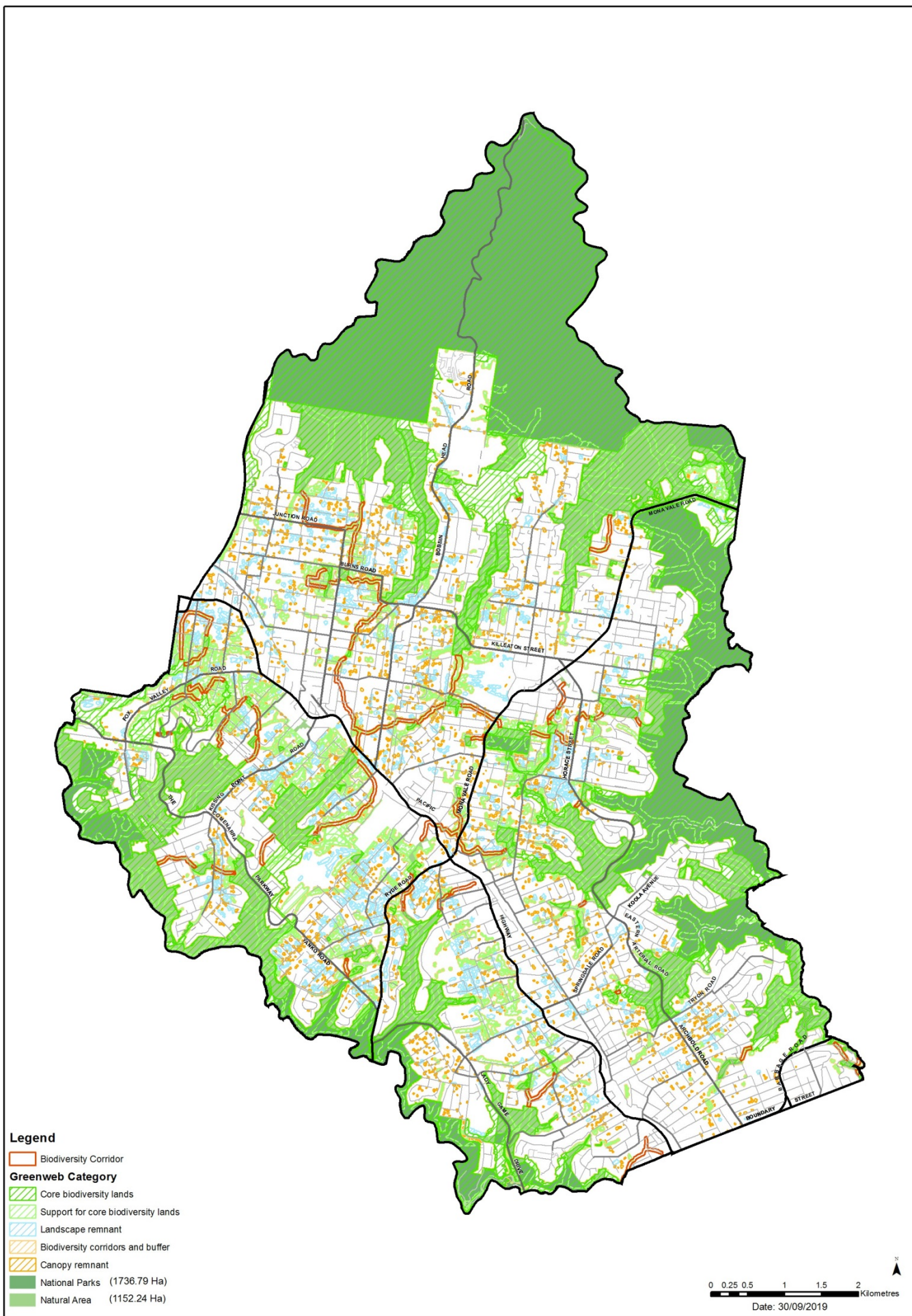
Activities within the scope of this Strategy include:

- All track dependant recreation (such as bush walking, running and bird watching)
- Mountain biking (all disciplines)
- Orienteering and rogaining
- Rock climbing, abseiling and bouldering

This strategy focuses on the Natural Areas within the Ku-ring-gai Local Government Area (LGA), as shown in Figure 1. However, the Strategy broadly applies to all land within the jurisdiction of Ku-ring-gai Council.







**Figure 1:** Natural Areas and ecological assets within the Ku-ring-gai LGA



## Background

Ku-ring-gai Council manages 1,152 hectares of bushland, comprising 24 vegetation communities. This includes seven vegetation communities listed under the *Biodiversity Conservation Act 2016* and four listed under the *Environment Protection and Biodiversity Conservation Act 1999*. These vegetation communities provide habitat for more than 700 native plant species and over 300 vertebrate species, including at least 10 threatened flora species and 23 threatened fauna species (12 mammal, 8 bird, 2 amphibian and 1 reptile species). For a comprehensive listing of Ku-ring-gai's flora and fauna, refer to Council's Biodiversity and Riparian Lands Study.<sup>1</sup> These natural assets are highly valued by the community (as depicted in Figure 1).

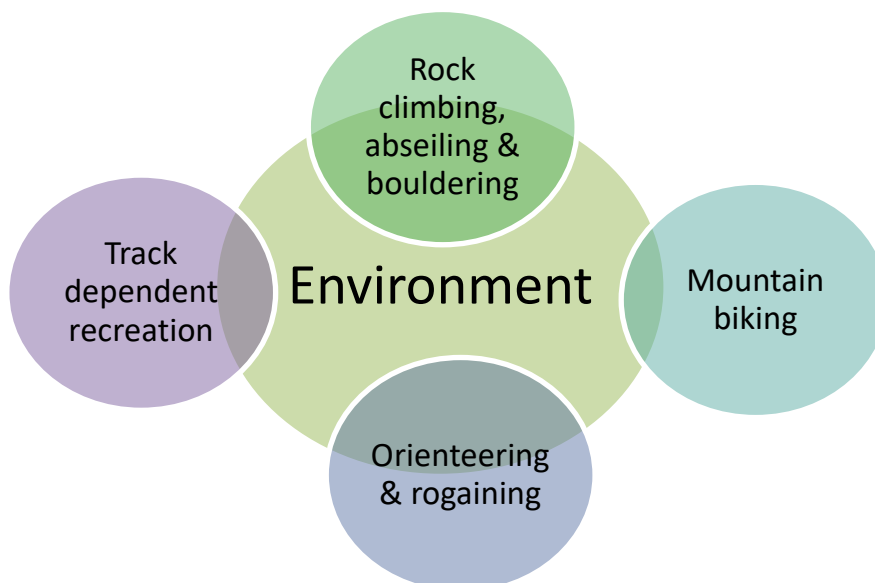
### Recreation within an ecological system

In Ku-ring-gai, nature based recreation is dependent on a healthy and expansive bushland reserves network and the adjoining bushland of national parks and other LGAs. Wildlife corridors and connectivity, whilst crucial for the health of our wildlife and bushland, in some instances also provide strategic recreational and commuting links.

Nature-based recreation operates within an ecological system, where respect and protection of this ecological system and the services the system provides is paramount to the sustainability of the system. Whilst recognising the importance of providing opportunities to participate in recreation activities within Ku-ring-gai's natural areas, Council and the community must manage the potential detrimental impacts of these activities on ecosystem components. In providing recreation opportunities, the limits of the ecological system needs to be considered, as well as the capacity of an area to support recreation infrastructure, so that unacceptable and often cumulative damage to these ecological systems is avoided, both now and for future generations. If not managed correctly, recreation in natural areas can have serious and irreversible impacts on the environment and act to enhance a number of key threatening processes.

**There is a need to provide a range of diverse, inclusive and accessible recreation activities and infrastructure within Ku-ring-gai's natural areas whilst conserving and protecting Ku-ring-gai's environmental assets and values.**

The natural areas within Ku-ring-gai define its character. Many residents and visitors to Ku-ring-gai come to experience and connect with nature. Preserving our natural environment for future generations is a shared responsibility of Council and the community.



**Figure 2:** Recreation within an ecological system

<sup>1</sup>Ku-ring-gai Biodiversity and Riparian Lands Study, [http://www.kmc.nsw.gov.au/Plans\\_regulation/Building\\_and\\_development/Town\\_Planning\\_documents/Supporting\\_documents](http://www.kmc.nsw.gov.au/Plans_regulation/Building_and_development/Town_Planning_documents/Supporting_documents)

## Benefits of nature based recreation

Nature based recreation benefits individuals and the wider community by improving physical and mental health (with associated economic benefits), facilitating social interactions, providing economic development and increasing environmental awareness and stewardship.

There are numerous health benefits associated with recreation, including: improved short term memory, reduced stress, reduced fatigue, reduced depression and anxiety, improved ability to focus, lowered blood pressure, a boosted immune system, stronger bones and muscles; a reduced risk of obesity and lifestyle related illnesses across life stages, such as diabetes, heart attack or stroke; and increased life expectancy. Regular exercise can also improve coordination, balance and flexibility.

Participation in recreational activities is an important contributor to mental health, general wellbeing and quality of life, boosting self-esteem and personal growth.

Sporting and other recreational events attract visitors to cities and communities, and are significant drivers for the visitor economy. An active population leads to improved productivity as well as addressing preventative health costs facing governments.<sup>2</sup>

Recreation brings people and communities together which contributes to a stronger, more socially inclusive society. Recreation promotes social bonds by uniting families and friends and provides a positive outlet for our youth. Proximity to recreation facilities leads to volunteerism and livelier communities. People who spend time in natural areas are also more likely to develop an appreciation and understanding of the value of the natural environment and to contribute towards sustaining and conserving it.

## Nature based recreation in New South Wales

**NSW residents aged 15+ participated in nature based outdoor recreation 53 million times in 2018\***

*\* Marsden Jacob report for Outdoors NSW (2018), New South Wales Nature-Based Outdoor Economy, Key estimates and recommendations, <http://outdoorsnsw.org.au/about/history/>*

In New South Wales (NSW), people enjoy a myriad of outdoor pursuits, both as individuals and as groups. Open space, national parks, harbours, beaches, coastal areas, creek corridors, waterfront promenades, playgrounds, and reserves are all utilised by outdoor enthusiasts. These spaces are integral to the character and life of our cities. With future urban growth and development, access to high quality open space will become increasingly important. Our parks, green spaces and natural landscapes are the places where people can relax, exercise, play and enjoy our natural heritage and culture. Critically, these places also provide habitat for wildlife, help protect NSW from the impacts of climate change and provide ecological services essential for human health and productivity.

NSW Department of Planning and Environment population projections show that NSW will grow to 9.9 million people by 2036; a population increase of 2.71 million compared to 2011.<sup>3</sup> As the population in NSW grows and our cities expand, demand for open spaces and the ability to connect with nature through recreation will similarly increase.

According to the AusPlay April 2019 State and Territory Results, 4,019,600 NSW adults (15 years +), representing 63% of the NSW adult population, participated in sport or physical activity at least three times per week in 2018. This was in line with the national rate of 63%. A total 5,286,100 NSW adults, representing 82% of the NSW adult population, participated in physical activity at least 1 time per week.

Unlike the adult data, the 2019 AusPlay survey measured children's participation in organised sport or physical activity outside of school hours in 2018. It found that 346,800 NSW children aged 0 – 14 years, representing 23% of the NSW child population, participated at least three times per week. A total of

---

<sup>2</sup> NSW Office of Sport's Strategic Plan 2018-2022, <https://sport.nsw.gov.au/sites/default/files/OoS-Strategic-Plan-2018-2022.pdf>

<sup>3</sup> NSW Department of Planning and Environment, 2016 NSW population and household projections <https://www.planning.nsw.gov.au/Research-and-Demography/Demography/Population-projections>

912,300 NSW children, representing 61% of the NSW child population, participated at least once a week.<sup>4</sup>

Two reports released in 2013 by the Australian Sports Commission, in partnership with the CSIRO, reported research that Australians are increasingly favouring more flexible, non-organised forms of physical activity, such as running with headphones on and pursuing new adventure sports.<sup>5</sup>

AusPlay participation rates show that the proportion of the NSW population that participate in physical activity, as well as sporting and recreational pursuits, is generally increasing. In 2018 walking (recreational) was the most popular activity, with a 44.2% participation rate. Bush walking was the seventh most popular activity, with a 5.9% participation rate.<sup>6</sup>

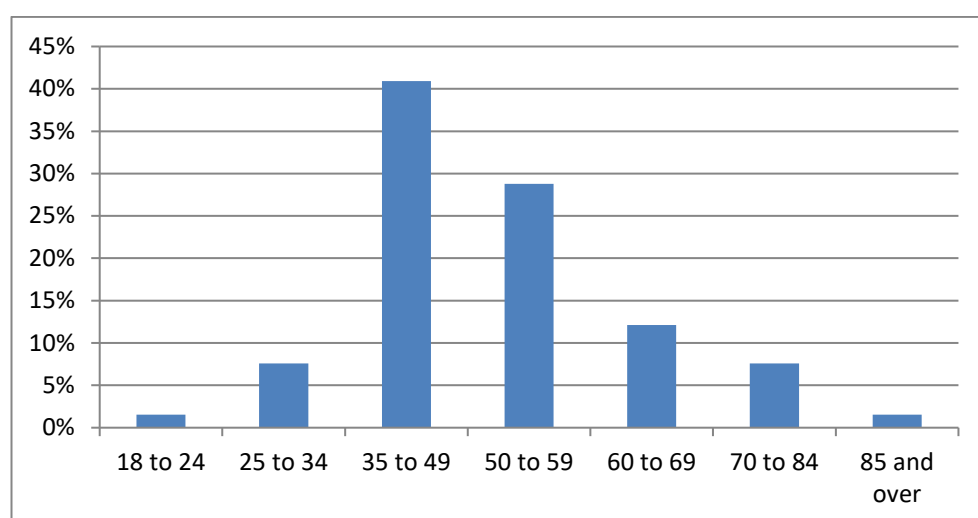
### Nature based recreation in Ku-ring-gai

Sustained population growth in Ku-ring-gai and in neighbouring local government areas will continue to increase the demand for access to Ku-ring-gai's natural areas for recreation pursuits.

There is limited information regarding the demand for and participation in recreation activities within Ku-ring-gai. Anecdotal evidence suggests there is significant growth in a number of activities, with high traffic on bush tracks and trails and the inclusion of many recreation sites within Ku-ring-gai on public forums and webpages focused on outdoor recreation.

Population size is a determining factor for the demand placed on natural areas for recreation. The population of Ku-ring-gai in 2016 was 123,143 people<sup>7</sup>, with population projected to grow to 154,500 by 2036.<sup>8</sup>

Whether it is a family looking for an easy bushwalk or an elite athlete looking for an extreme challenge, residents and visitors alike enjoy Ku-ring-gai's bushland. Responses to a survey conducted as part of the consultation for the development of this Strategy indicates that a broad range of age groups are involved in recreation in Ku-ring-gai's natural areas:



**Figure 3:** Age range of people participating in recreation in Ku-ring-gai's natural areas (based on responses to consultation survey)

<sup>4</sup> Australian Government, Australian Sports Commission, 2019 Sport Australia AusPlay state/territory results: <https://www.clearinghouseforsport.gov.au/research/smi/ausplay/results/state>

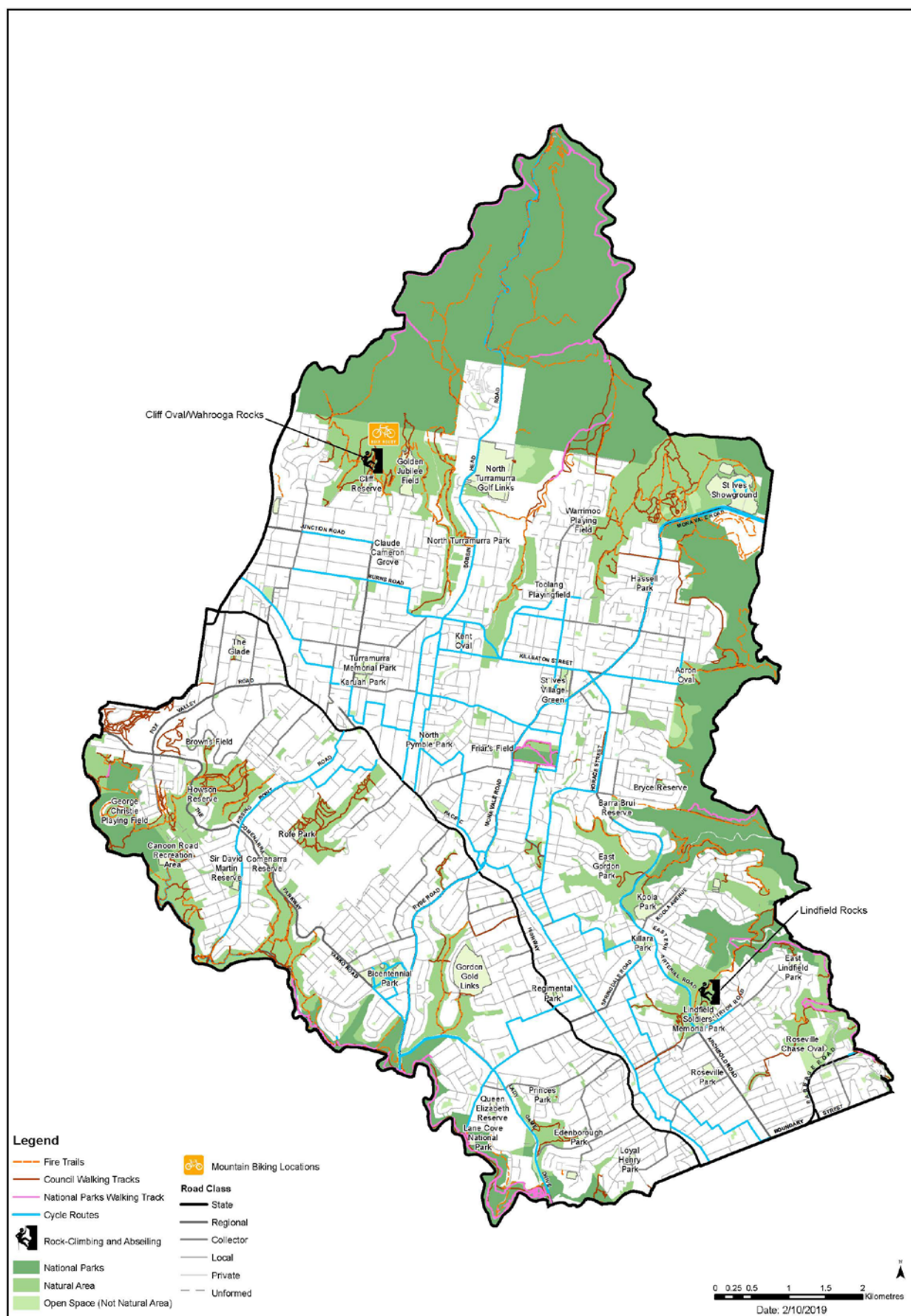
<sup>5</sup> Hajkowicz, S.A., Cook, H., Wilhelmseder, L., Boughen, N., 2013. The Future of Australian Sport: Megatrends shaping the sports sector over coming decades. A Consultancy Report for the Australian Sports Commission. CSIRO, Australia.

<sup>6</sup> Australian Government, Australian Sports Commission, 2019 Sport Australia AusPlay state/territory results: <https://www.clearinghouseforsport.gov.au/research/smi/ausplay/results/state>

<sup>7</sup> Ku-ring-gai Community Profile

<sup>8</sup> NSW Government 2016, 2016 NSW population and household projections, <https://www.planning.nsw.gov.au/Research-and-Demography/Demography/Population-projections>

The current track, trail and other recreation infrastructure within Ku-ring-gai's natural areas are shown in Figure 4:





## Looking to the future

### Managing recreation within an ecological context

Ku-ring-gai has unique strengths as a nature based recreation destination and through the provision of high quality, well-constructed and maintained facilities a balance can be reached between meeting community demand for nature-based recreation and the vital need to protect and enhance our ecosystems and biodiversity. Whilst over exploitation presents a risk to Ku-ring-gai's native bushland, an increased understanding and appreciation of Ku-ring-gai's native bushland through recreation is also an opportunity to inspire a sense of stewardship and environmental protection.

The beauty and health of our natural areas are the reason that Ku-ring-gai is and will continue to be a popular nature based recreation destination. However, these natural areas are unable to provide for all recreation pursuits at all levels of skill. The natural areas of Ku-ring-gai are ecologically sensitive and vulnerable to over-exploitation. Biotic and abiotic factors, such as topography, erosional landscapes, demography and prevalence of rare and threatened species and ecological communities means Ku-ring-gai is not suited to some recreation pursuits and there is limited recreation infrastructure that can be provided due to the area's ecological constraints.

When looking at recreation opportunities, Ku-ring-gai has an obligation to consider the environmental and social impacts and ensure these impacts are clearly identified and mitigated.

### Managing increased demand sustainably

The Department of Planning, Industry and Environment estimate that by 2036 Ku-ring-gai's resident population will reach 154,500 people, increasing by 25% or 31,000 new residents compared to 2016.<sup>9</sup> The population increase will be accommodated through a substantial expansion of medium- to high-density residential development. This trend means that bushland will more frequently become the "backyard" to a greater number of residents. With more people looking to access and enjoy Ku-ring-gai's natural areas, the pressures on its natural ecosystems grows. Additionally, a greater number of recreation users have the potential to increase conflicts between user groups, especially with multi-use facilities.

### Increased visitation

As Sydney's population expands, people from across the city will be looking to get out and explore nature. Ku-ring-gai LGA's close proximity to the Sydney CBD and its connectivity to three national parks makes it a great place to set out and explore Sydney's natural environment, whether on foot or on a bike. Ku-ring-gai's bushland reserves offer unique and varied experiences for nature based recreation, with a long history of rock-climbing and bush walking built on a legacy of conservation.

### A regional perspective

By adopting a regional approach for the provision of recreation, Ku-ring-gai Council will be able to focus on high quality local experiences supported with adequate infrastructure and maintenance schedules. Where Ku-ring-gai is unable or unsuited to provide for a recreation pursuit, Council will take an advocacy role and seek to promote regional opportunities. This approach requires far greater collaboration between land managers across the region and recognition from recreation users that not all activities will be catered for within any single LGA. Whilst Ku-ring-gai will host opportunities worth travelling for, similarly, some nature-based recreation will require participants to travel out of Ku-ring-gai.

### Future trail networks

Ku-ring-gai's natural areas offer a multitude of recreation opportunities which are either wholly dependent on tracks and trails, or require trails to provide access to rock faces or other features. Some of the activities currently conducted on bushland tracks and trails in Ku-ring-gai include:

- bushwalking;
- dog walking;
- rock climbing, bouldering and abseiling;
- mountain biking and BMX riding;
- orienteering and rogaining;

---

<sup>9</sup> NSW Government 2016, 2016 NSW population and household projections, <https://www.planning.nsw.gov.au/Research-and-Demography/Demography/Population-projections>

- bird watching;
- running and jogging; and
- horse riding.

Recreation and the activities people engage in are constantly evolving. Land managers need to recognise how natural areas are used, and consider future use and recreation trends. In order to future proof recreation experiences, Ku-ring-gai will primarily focus on a multi-use track and trail network capable of supporting many different recreation pursuits.

## Legislative context

Section 8A (2) of the *Local Government Act 1993* require Councils to consider the principles of ecologically sustainable development; diverse community needs and interests; and the long term and cumulative impacts of actions on future generations in their decision making.

The core objectives for the management of community land categorised as Natural Areas under the *NSW Local Government Act 1993* include:

- a) to conserve biodiversity and maintain ecosystem function in respect of the land, or the feature or habitat in respect of which the land is categorised as a natural area, and
- b) to maintain the land, or that feature or habitat, in its natural state and setting, and
- c) to provide for the restoration and regeneration of the land, and
- d) to provide for community use of and access to the land in such a manner as will minimise and mitigate any disturbance caused by human intrusion.

## Development of this strategy – community consultation

The development of this Strategy involved extensive community consultation over a number of stages.

### Stage 1: User based consultation

Input was sought through an online survey and four consultation workshops with primarily individuals, and representatives of groups, who undertake recreation activities in our natural areas. The workshops focused on:

- Mountain biking (all disciplines)
- Orienteering and rogaining
- Rock climbing, abseiling and bouldering, and
- Track dependant recreation

At the workshops, participants were asked to provide feedback on the following areas relating to their recreation activity area:

- Amount of infrastructure
- Appropriateness / suitability of infrastructure
- Condition of infrastructure
- Bookings process
- Signage
- Access
- Promotion/ communication
- Advocacy

Additionally, at each of the four user group workshops, participants were engaged in discussions related to risk management and ecological sustainability.

**Across the four user group workshops, 95% of participants agreed or strongly agreed with the statement “*there is a need to balance conservation and recreation*”**

## Stage 2: Consultation with environment groups

Input was then sought through an online survey and consultation workshop with individuals and representatives of environment or community groups who have a specific interest in the Strategy from an environmental perspective. Through the workshop, Council sought specific input on strategies to proactively manage the potential impacts of recreation in natural areas and to balance the need for environmental protection with the demand for recreation.

**95% of workshop participants agreed or strongly agreed with the statement “People who get out and experience natural areas are more likely to fight for their protection”**

## Stage 3: Community forum

Following the targeted consultation sessions, the draft Strategy was presented at a community forum. At the forum Council:

- provided a summary of the key issues raised at the consultation workshops and the response to these issues in the Strategy;
- outlined the framework for the Strategy; and
- provided the management actions in the Strategy for the four activity areas (mountain biking, orienteering / rogaining, rock-climbing/abseiling and track dependent recreation) and invited feedback on these management actions.

## Stage 4: Public exhibition

The Strategy was also placed on public exhibition prior to its adoption by Council, offering another chance for the community to provide feedback.

## Guiding management principles

The following management principles form the basis of this Strategy:

### Managing environmental impact

Disturbances from recreation include vehicle use, people trampling plants, the exposure of natural areas to the infiltration of weeds or feral species, such as foxes and rabbits, and the intensification of soil erosion. Unmanaged disturbances may result in a decline of flora and fauna species diversity, distribution and abundance, as well as a degradation of the structure of vegetation communities, habitat quality and function. Remnant vegetation within urban bushland is subject to a greater number of disturbances than large intact areas of bushland. Council will ensure that recreation use does not exceed the carrying capacity of the ecosystem.

### Accessibility and inclusiveness

Where possible, Council will look at access / inclusivity issues to ensure that people of different abilities have opportunities to enjoy recreation in natural areas.

### Nature play education and citizen science

Council will promote and support nature play for children, being unstructured play outdoors that gets children active or thinking actively, with the end goal of building skills and ability to play without the need for parental or adult control.

Council will also promote and support citizen science, which actively involves citizens in scientific endeavours that generates new knowledge or understanding.

**Nature play is, of itself, an intrinsic good and from it flow benefits in health, cognitive, social and emotional development and in the building of resilience and creativity. Experience in nature as a child also leads to environmental stewardship later in life \*.**

\* Nature Play Australia, 2019, <https://www.natureplay.org.au/about>

## **Sustainability**

Whilst recognising the importance of providing opportunities for people to get out and enjoy our natural areas through recreation pursuits, Council will manage the potential of these activities to degrade the natural environment and by ensuring that they are only carried out in appropriate areas and in an environmentally, socially and economically sustainable way. In line with the principles of ecologically sustainable development, Council seeks to meet the needs of present generations without jeopardising the ability of future generations to meet their own needs.

## **Risk management approach**

There are many inherent risks to recreation in a natural area setting. Risks can relate directly to those participating in recreation, to others in the community impacted as bystanders, or to the environment, and can be negative or positive. Council will adopt a risk management approach when managing recreation in its natural areas.

Council has completed a risk assessment for recreation activities conducted within Ku-ring-gai's natural areas, which forms part of this Strategy (see the risk management section below). Council will take steps and / or work with individual users and / or user groups to implement controls to reduce risks and ensure recreation in natural areas is conducted in a safe and environmentally sustainable manner. Reducing risk is a shared responsibility.

## **Limited resources**

Within the Ku-ring-gai LGA there are limits to the amount of natural areas and space that can be provided for recreation, as well as limits to the amount of funding and time available for Council to dedicate to recreation projects and programs. In some cases, Council will not be able to provide infrastructure for recreation activities within natural areas, for financial, social or environmental reasons, or a combination of these. In these cases, Council will seek partnerships and grant funding, where appropriate, or play an advocacy role in promoting recreation opportunities regionally.

## **Multi-use and shared facilities**

Council recognises the diverse range of users with an interest in accessing and enjoying the natural areas of Ku-ring-gai. Whilst multi-use tracks and trails are generally able to safely accommodate user groups undertaking different activities, there are some instances where one activity may impinge on the ability of other user groups to safely use an area or trail. This Strategy strives to balance the needs of all user groups with a focus on a multi-use trail network complimented with limited single use infrastructure.

Recreation infrastructure has to respond to increasingly complex and diverse social and recreation patterns. This diversity requires a variety of flexible infrastructure and amenities, capable of being multifunctional and accessible. Infrastructure, including tracks and trails designed for a single purpose lack the flexibility to respond to changing needs or to accommodate more than one type of activity. To make the best use of limited resources, recreation facilities that provide for multiple uses and serve a range of population groups, as well as being capable of adapting as needs change over time will be a preference.

## **Bookings**

Council will focus on a single, quick and easy recreation booking application process, which allows for efficient and consistent assessment and approvals. Fees for bookings will be clearly established and non-for profit groups and clubs will only be generally only be required to make nominal, if any, payment.

Bookings allow Council to assess potential environmental impacts associated with an activity and identify mitigation measures; ensure limits on numbers of people using a space at any given time; and obtain documentation, such as public liability insurance or qualifications, for certain events. Bookings also allow for Council, where considered appropriate and desired by event organisers, to further promote events.

## **Codes of Conduct**

Council will work with community groups, clubs and recreation participants to develop codes of conduct. Codes of conduct set out the expectations of users, the community and Council and help guide participants to partake in recreation in natural areas in a socially and environmentally sustainable way.



The community and Council may choose to adopt in whole or part codes of conducts produced by the Australian Adventure Activity Standard and the related Good Practice Guides.<sup>10</sup>

## Partnerships

Ku-ring-gai Council adjoins land managed by Northern Beaches Council, Hornsby Council, Willoughby Council and NSW National Parks. In order to optimise recreation experience and create strategic linkages, Council will work with all land managers within the Northern Sydney region. Additionally, on a larger regional and state level, Council will seek to collaborate with state organisations to advocate and promote the recreational interests of residents within Ku-ring-gai.

## Risk management

Risk management is a shared responsibility. Council has conducted a risk assessment (see Appendix 1) for trail dependent recreation, mountain biking, rock climbing and bouldering and orienteering, which identifies a number of controls to reduce the risks or consequences associated with recreation in natural areas. These risk controls will be implemented as part of the delivery of this Strategy; however, the risks from these activities cannot be completely eliminated. Those participating in recreation in natural areas do so at their own risk.

## Safety risks

Natural areas are dynamic and changing environments containing numerous hazards. Many activities conducted in natural areas have the potential to cause serious risk of injury or death, to both those participating in recreation activities and to bystanders. All recreation users are required to take responsibility for their own and others' safety.

In many circumstances, individuals have modified the natural environment to accommodate certain recreation activities without Council knowledge or approval. For example, rock climbers may have installed bolts and belay points on many rock faces; downhill mountain bike riders may have built jumps and berms; and walkers may have carved out informal tracks. These modifications are not authorised or maintained by Council, and as such, their safety and structural integrity are unknown.

Council has a duty of care to people using natural areas managed by Council. However, many nature based recreation activities are inherently high-risk and these risks need to be understood by all participants. Recent reforms to insurance liability legislation have placed much of the responsibility for personal safety in recreation activities back onto the individual participant.

## Environmental risks

Recreation in natural areas has the potential to impact upon the natural environment. Managing environmental impacts is a major challenge to land managers and involves expert planning, community engagement and continual monitoring.

Many of the potential impacts are the same across different landscapes, communities and activities, whilst others may be environment, community or activity specific.

Environmental risks include but are not limited to:

1. encroachment and illegal clearing
2. unauthorised activities such as track/jump building
3. weed infestation
4. feral and domestic species
5. accelerated erosion
6. changes to natural hydrology
7. fragmentation of ecosystems and loss of habitat; and
8. removal of bush rock, logs and plants from bushland.

The risk assessment is only a starting point and all persons, groups or organisations entering bushland or participating in recreation need to be aware of the risks and potential harm associated with accessing natural areas. All persons must also be aware of how to pursue recreation safely.

---

<sup>10</sup> Outdoor Council of Australia (2019), Australian Adventure Activity Standards, <https://australianaas.org.au/>

## Management actions

### Snapshot of management actions across all recreation activity areas

Below is a snapshot of the key management actions for implementation across all of the recreation activity areas. The management actions for each recreation activity area are further detailed in the following sections.

ACTIVITY	Provision of new infrastructure	Enhanced experience and improved infrastructure	Advocacy and promotion	Restrict or close
All		Improve website and information Improve interpretive and directional signage More rubbish bins and access to water sources Develop standardised online booking and approval processes and fee structures Actions to improve access and inclusivity Develop codes of conduct Establish and manage an Environmental Advisory Group	Advocate for improved public / community transport	
Track dependent recreation	Develop strategic linkages	Actions to improve access and inclusivity Conduct an audit of Council's trail networks and provide updated mapping and walking trail grading Provide education to recreational users Designate single-use walking trails Implement a trail maintenance schedule to maintain walking trail grades Respond to extreme weather events / warnings	Advocate for improved public / community transport Work collaboratively with neighbouring landholders to identify and construct key strategic trail linkages across land tenures	Measures to temporarily or permanently close trails, due to unauthorised construction, inappropriate use and environmental damage Develop an effective and enforceable (i) unauthorised trail; and (ii) authorised trail closure and communication process Proactive management and stakeholder engagement

ACTIVITY	Provision of new infrastructure	Enhanced experience and improved infrastructure	Advocacy and promotion	Restrict or close
<b>Mountain biking</b>	<p>Re-open and upgrade the 'southern' section of the Warrimoo downhill mountain bike track</p> <p>Develop strategic linkages</p>	<p>Establish and coordinate a TrailCare volunteer group</p> <p>Establish and manage a Mountain Bike Riding Advisory Group</p> <p>Conduct grading for selected mountain bike tracks and develop and promote a regional mountain biking map</p> <p>Install warning signage at key locations and trailheads</p> <p>Investigate the installation of bike racks at key mountain bike trailheads</p> <p>Designate the Warrimoo downhill mountain bike track as single-use and provide signage</p>	<p>Work collaboratively with neighbouring landholders to identify and construct key strategic mountain bike track linkages across land tenures</p> <p>Chair a Regional Land Managers Committee with adjoining landholders and government agencies</p>	<p>Implement measures to temporarily or permanently close trails, due to unauthorised construction, inappropriate use and environmental damage</p> <p>Develop an effective and enforceable (i) unauthorised trail; and (ii) authorised trail closure and communication process</p> <p>Proactive management and stakeholder engagement</p>
<b>Rock-climbing, abseiling and bouldering</b>	<p>Formalise the walk-up track from the bottom of Cliff Oval to the top of the climbing rocks</p> <p>Provide certainty of access for the Cliff Oval, North Wahroonga and Lindfield Rocks climbing sites within future plans of management</p>	<p>Support and promote CragCare groups</p> <p>Install warning signage at key locations and trailheads</p> <p>Provide access to the toilets (for bookings) and promote amenity opening and closing times</p>		<p>Monitor Aboriginal heritage sites affected by climbing and mitigate impacts if necessary</p>
<b>Orienteering and rogaining</b>	<p>Establish permanent orienteering courses in appropriate locations</p>	<p>Host annual planning events with orienteering clubs</p> <p>Prepare a general environmental assessment template for orienteering and rogaining events</p> <p>Investigate the possibility of a storage facility within the Ku-ring-gai LGA</p>		

## Management action table - all recreation activities

Below are the key management actions for implementation across all recreation activities in Ku-ring-gai's natural areas:

Action area	Management action	Timeframe	Responsibility
<b>IMPROVE INFRASTRUCTURE / ENHANCE EXPERIENCE</b>			
<b>Website</b>	Develop 'recreation in natural areas' specific pages on Council's website to disseminate information such as recreational opportunities and locations in the Ku-ring-gai Local Government Area (LGA), recreation activity profiles, safety information (including links to safety apps), codes of conduct, environmental considerations, track and facility closures, transport information and recreation events (in an events calendar).	Ongoing	Environment and Sustainability
<b>Information</b>	Continually update and provide maps showing recreation opportunities and locations across the Ku-ring-gai LGA.	Ongoing	Environment and Sustainability
	Investigate the use of the Snap, Send and Solve <sup>11</sup> application to facilitate effective maintenance and environmental monitoring of Council's recreation trails and facilities.	2019/20	Environment and Sustainability
	Improve the information displayed on Council's amenities, in parks, ovals and reserves adjacent to recreation trails and facilities, including accessibility and opening and closing times.	Ongoing	Infrastructure Services
	Provide fact sheets for recreation event managers regarding the local environment and how to recreate responsibly in natural areas	Ongoing	Environment and Sustainability
<b>Interpretive and directional signage</b>	Conduct a signage audit to determine the locations and condition of interpretive and directional recreation signage in Ku-ring-gai's natural areas.	2019/20	Environment and Sustainability
	In collaboration with the community and other land managers and based on the signage audit, develop and implement an <i>Interpretive and Directional Signage Strategy</i> to support recreation in Ku-ring-gai's natural areas. Signage will be designed to inform users of environmental, Aboriginal and other significant site attributes, to provide trail and track maps and grading, to promote responsible user behaviour, to encourage environmental	Ongoing	Environment and Sustainability

<sup>11</sup> Snap Send Solve provides a platform that enables authorities and their customers to identify and resolve local issues <https://www.snapsendsolve.com/>



Action area	Management action	Timeframe	Responsibility
	stewardship and to improve safety; all to enhance the user experience.		
<b>More rubbish bins and access to water sources</b>	Increase waste collection points and waste collection services, in line with community demand, and investigate the installation of water stations at key trailheads and strategic recreation locations across the Ku-ring-gai LGA.	Ongoing	Waste and Cleansing Services
<b>Booking processes and fee structures</b>	Develop standardised online booking and approval processes and fee structures for organised and commercial groups and for events, for all endorsed recreation activities in Ku-ring-gai's natural areas; to limit numbers on sites, provide equitable access; and provide consistent fees for users.	2019/20	Environment and Sustainability
<b>Access and inclusivity</b>	Work collaboratively with access and inclusivity groups to implement solutions that remove the barriers and obstacles that prevent people from participating in recreation activities.	Ongoing	Environment and Sustainability
	Implement the Naturally Accessible Framework <sup>12</sup> , to improve access to Ku-ring-gai's natural areas for people with mobility-based disabilities through improving access through information, rather than infrastructure.	Ongoing	Environment and Sustainability
<b>Codes of Conduct</b>	In collaboration with recreation user groups, develop codes of conduct for endorsed recreation activities in Ku-ring-gai's natural areas, as well as dog walking and horse riding, to facilitate responsible and safe user behaviour and practices and to reduce conflict between recreation user groups and individuals. Codes of conduct will guide users to partake in recreation in natural areas in a socially and environmentally sustainable way.	2019/20	Environment and Sustainability Recreation users
<b>Environmental Advisory Group</b>	Establish and manage an Environmental Advisory Group, with representatives from Council, the community and environment groups, to provide advice on environmental issues and opportunities in relation to recreation in natural areas and to assist	Ongoing	Environment and Sustainability Bushland Services

<sup>12</sup> National Parks Association of NSW, Naturally Accessible, <http://www.naturallyaccessible.org/>

Action area	Management action	Timeframe	Responsibility
	Council in promoting responsible and sustainable recreation in the region.		
<b>ADVOCATE / PROMOTE</b>			
<b>Public transport</b>	Advocate for improved public / community transport from rail and bus stations to trail heads across the Ku-ring-gai LGA, including to state government and transport authorities.	Ongoing	Environment and Sustainability

## Management actions - trail dependent recreation

Within Ku-ring-gai's natural areas, the majority of recreation is trail dependant. A well-maintained and connected trail network benefits multiple user groups and allows people of all ages and abilities to enjoy and connect with nature through recreation and exploration. These trails are also crucial for fire management, for accessing and servicing utilities and for providing access for environmental monitoring and conservation.

**'Bushwalkers took simple recreation a step further and became conservationists. Early bushwalkers and hiking groups played an important role in the modern conservation movement'**\*

*\* Harper 2007: 'The Ways of the Bushwalker: On Foot in Australia'*

Well-managed trail networks require appropriate planning, skilful construction and regular maintenance in order to maximise the user experience and minimise environmental impacts. Poorly designed, located and maintained trails can have a significant impact on the sensitive environments they pass through. Trails that have inadequate drainage and weed management will contribute to soil erosion and lead to diminished water quality within our waterways. If poorly managed, trails increase edge effects, contribute to the fragmentation of habitat, assist in the spread of exotic weed species and pathogens and can open up areas of bushland to feral vertebrates.

To optimise user experience throughout the trail network, Council will focus on improving infrastructure and access to information. Network expansion will be focused around strategic linkages and multi-use opportunities whilst unused, badly maintained or inappropriate trails will be closed and rehabilitated.

Information through signage, Council's website and the grading of trails will help users to plan and navigate the trail network and provide context of place for locals and visitors to the region. Information on points of interest, the natural environment and Aboriginal heritage will make recreation in natural areas more meaningful and provide the connection to nature that people are seeking.

Improved accessibility to the trail network will allow people of different abilities to make informed choices regarding what trails are suitable and what trails will offer an appropriate level of challenge and interest.

### Criteria for assessing trail infrastructure

Ku-ring-gai Council has and will continue to investigate opportunities to provide additional recreation opportunities and strives to place itself as a regional leader in the provision of recreational activities that are well suited to the unique physical, social and environmental characteristics of the Ku-ring-gai area.

The primary considerations for assessing any construction and maintenance of Ku-ring-gai's trail network for recreational purposes are:

- Bushland significance ratings
- Type of vegetation community
- Threatened ecological communities and flora and fauna species
- Aboriginal and European heritage
- Soil landscapes and characteristics
- Topography and slope
- Access and connectivity
- Community requirements

### Trail closures

In some instances, due to changing environmental, social or legislative conditions or informed through monitoring and an improved understanding of environmental and social impacts, trails may be closed or re-aligned permanently or temporarily. Where the trail closure affects informal or unauthorised tracks, or illegally constructed jumps or other infrastructure, there are a range of enforcement actions that may be taken by Council, including:

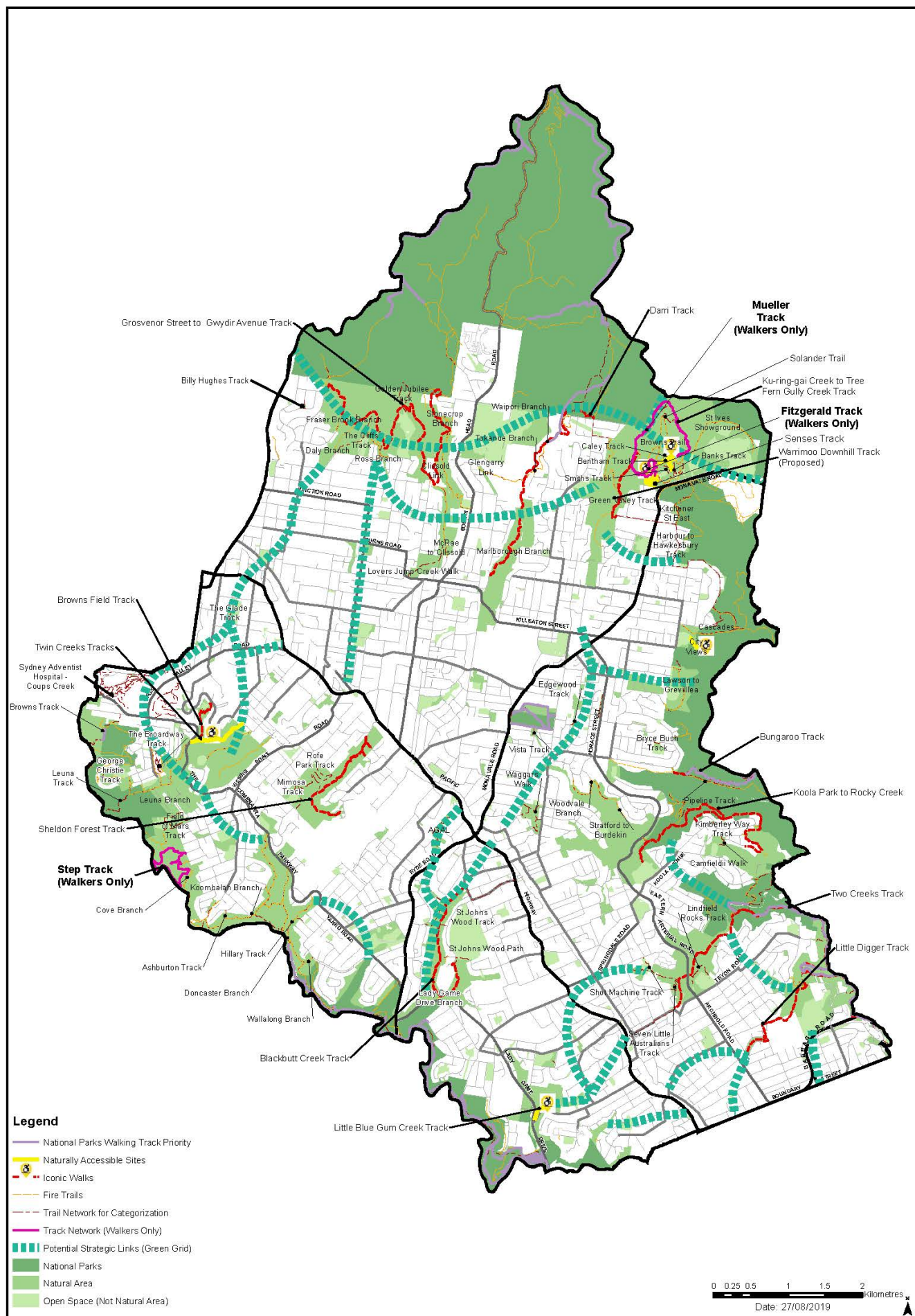
- An order or issue notice to stop work, demolish, alter, repair or remove the unauthorised structure/works
- The issuing of fines (penalty infringement notices)
- Bushland remediation works and the associated cost recovery
- Commencement of legal proceedings in a Court to remedy or restrain unlawful activities

Council will strive to work with the community to opportunities across the region and will allocate significant funding to the construction and maintenance of high quality experiences such as the Warrimoo Downhill track whilst working with compliance and bushland operations staff to deconstruct, rehabilitate and monitor illegally constructed tracks.

For those community members wanting to be involved in track construction, Council will support the establishment of TrailCare groups who will work under the direction of Council or trained professionals.







## Management action table – trail-dependent recreation activities

Below are the key management actions for implementation across trail-dependant recreation activities in Ku-ring-gai's natural areas:

Action area	Management action	Timeframe	Responsibility
<b>PROVIDE INFRASTRUCTURE</b>			
<b>Strategic linkages / trail network development</b>	Identify strategic trails within Ku-ring-gai's natural areas for formalisation or construction, if feasible, in accordance with Sydney's Green Grid <sup>13</sup> and Ku-ring-gai's Green Grid Strategy.	Ongoing	Environment and Sustainability Bushland Services
<b>ENHANCE EXPERIENCE / IMPROVE INFRASTRUCTURE</b>			
<b>Inclusivity</b>	Complete mapping under the Naturally Accessible Framework <sup>14</sup> for prioritised tracks and promote through Council's website. Prioritised tracks have been selected based on typography, destination and tracks that form loops: <ul style="list-style-type: none"> <li>Little Blue Gum Creek Track - West Pymble</li> <li>Ku-ring-gai Wildflower Gardens</li> <li>Mitchell to Howson, Twin Creeks – Turramurra City Views, Acron Oval – St Ives</li> </ul>	2019/21	Environment and Sustainability Bushland Services
	Promote the Naturally Accessible Framework on Council website and provide the methodology to encourage community contribution to the increasing the number of formal tracks mapped.	Ongoing	Environment and Sustainability
<b>Information</b>	Conduct an audit of Council's trail networks and provide updated mapping. Categorise trail network into formal, informal and closed: <ul style="list-style-type: none"> <li>Formal trails will be on a maintenance schedule, they will be graded and walking maps will be produced</li> <li>Informal trails will remain open, they will appear on Council's online mapping but will not be graded and will not receive scheduled maintenance.</li> <li>Closed trails are will be rehabilitated where possible and people will be asked not to use them.</li> </ul>	2019/21	Bushland Services
	Conduct grading for all authorised trails, according to the Australian Walking Track Grading System, and add to Council's walking track brochures, website and signage.	2019/21	Bushland Services

<sup>13</sup> Office of the Government Architect, Sydney Green Grid, Spatial Framework and Project Opportunities.

<sup>14</sup> National Parks Association of NSW, Naturally Accessible, <http://www.naturallyaccessible.org/>

Action area	Management action	Timeframe	Responsibility
	Update Council's website with available walking trail information and resources, including maps, trail condition; safety information; and details of other relevant websites, forums and mapping applications.	2019/22	Bushland Services
	Provide nature play and citizen science information and resources on Council's website.	2019-2020	Environment and Sustainability
	Provide temporary or permanent trail closure information on Council's website and at relevant facilities.	Ongoing	Bushland Services
<b>Education</b>	Promote or host events to educate recreation user groups and individuals on how to stay safe and avoid environmental impacts whilst recreating in natural areas.	Ongoing	Environment and Sustainability
<b>Single use trails</b>	Identify trails designated as single-use through the trail network audit, sign post and conduct compliance.	2019/21	Environment and Sustainability Bushland Services
<b>Maintenance</b>	Implement a trail maintenance schedule based on Walking Track Standard AS 2156.1. Trails will receive the maintenance frequency required to maintain designated grades.	2019 - 2021 (initial schedule and grading) and then ongoing	Bushland Services
<b>Emergency management</b>	Develop and implement a process for responding to extreme weather events / warnings, including providing trail closure information on Council's website	Ongoing	Environment and Sustainability
<b>ADVOCATE / PROMOTE</b>			
<b>Public transport</b>	Advocate for improved public / community transport from rail and bus stations to trail heads across the Ku-ring-gai LGA, including to state government and transport authorities		Environment and Sustainability
<b>Strategic linkages</b>	Work collaboratively with neighbouring landholders (primarily other councils and NSW National Parks) to identify and construct key strategic trail linkages across land tenures, if feasible	Ongoing	Environment and Sustainability
<b>RESTRICT / CLOSE</b>			
<b>Trail closures</b>	Take measures to temporarily or permanently close trails, where appropriate, due to factors such as: <ul style="list-style-type: none"> <li>• Unauthorised construction</li> <li>• Inappropriate use</li> <li>• Environmental damage</li> </ul>	Ongoing	Environment and Sustainability Bushland Services Regulation and Compliance
	Develop an effective and enforceable (i) unauthorised trail; and (ii) authorised trail closure and communication process. In some	2019/20	Environment and Sustainability Bushland Services

Action area	Management action	Timeframe	Responsibility
	cases, Council will pursue prosecution for unauthorised clearing or environmental harm.		Regulation and Compliance
<b>Unauthorised trail construction</b>	Reduce the incidence and impacts of unauthorised trail construction through proactive management and stakeholder engagement.	Ongoing	Environment and Sustainability Bushland Services Regulation and Compliance



## Management actions – mountain biking

Ku-ring-gai Council owns or manages significant areas of bushland with appropriate terrain, substrate and connections for many different disciplines of mountain biking.

If poorly managed, however, mountain biking tracks can put increased pressure on the environment through over exploitation, degradation of habitat and unauthorised expansion of track networks.

Ku-ring-gai Council's challenge is to respond to the community's desire for improvements to mountain biking infrastructure whilst working to mitigate the environmental concerns related to the activity. In order to do this, Council will focus on providing low impact, high quality mountain biking facilities to fill gaps in the regional mountain biking offering; manage the impacts associated with mountain bike tracks through appropriate construction and maintenance regimes; and work proactively to close and rehabilitate unauthorised or inappropriate mountain bike tracks.

In addition, Council will look for opportunities for regional infrastructure development and, strategic linkages. Council will proactively work with mountain biking groups to provide sustainable tracks to reduce the number of environmentally damaging, unauthorised tracks.

Mountain biking is an inherently dangerous activity that can result in serious injury or death. Riders should stay within their level of capability and understand the risks associated with the activity, to themselves, others and the environment.

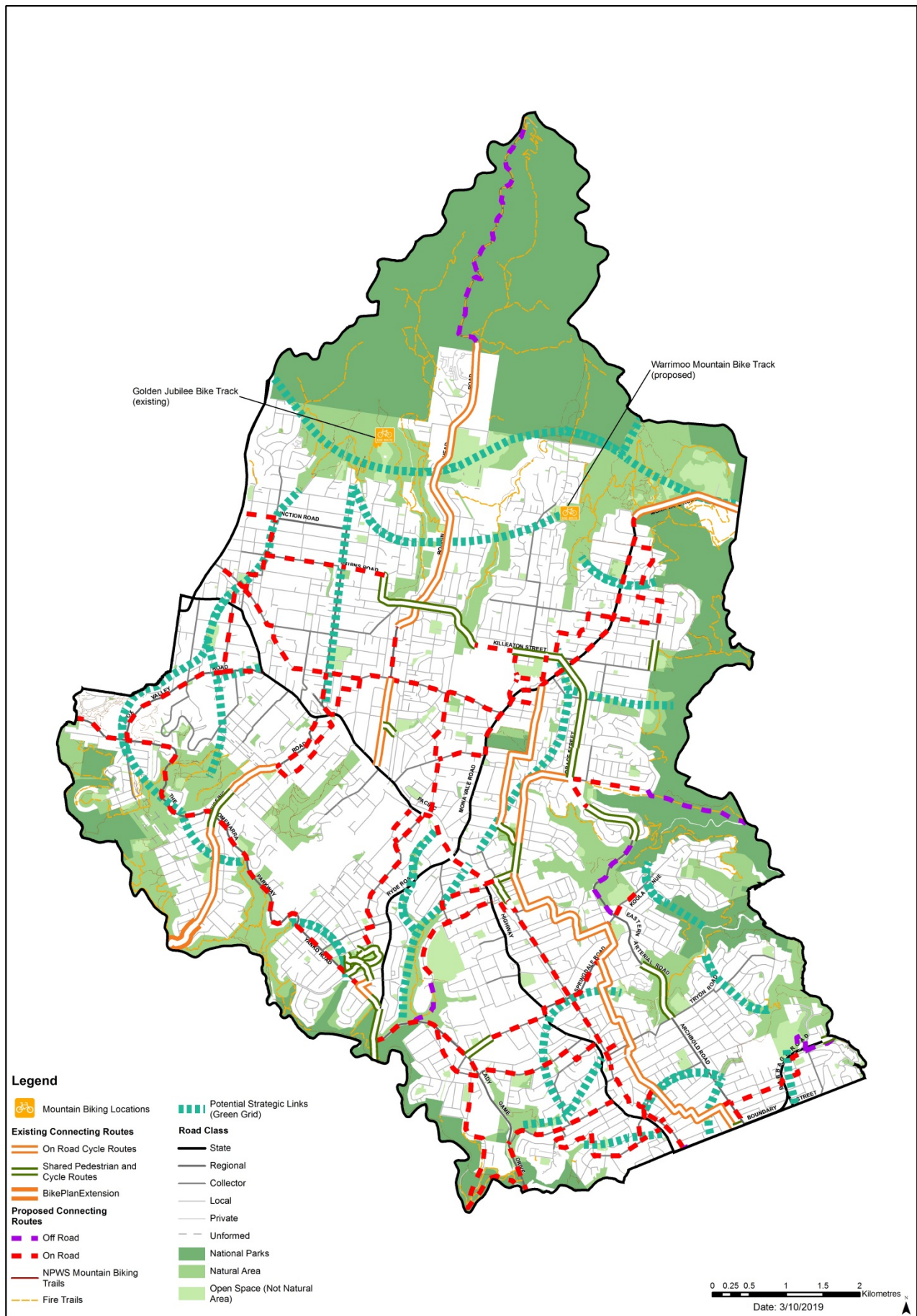
### Warrimoo downhill mountain bike track

**The Warrimoo downhill mountain bike track is a highly valued downhill series of tracks with a long history. Council has taken action to close large segments of the track network due to the impacts the current track network is having on the threatened Coastal Upland Swamp vegetation community and a number of threatened species. Council has worked closely with consultants, track builders, State agencies and the community to find a sustainable option to provide a continuing downhill mountain biking experience.**

**Council, in collaboration with community 'Moo Volunteers', will formalise and maintain a reduced downhill track network to a higher environmental standard that avoids the highly sensitive environmental areas, whilst a series of other tracks will be closed and rehabilitated.**







**Figure 6:** Strategic direction for mountain biking

## Management action table – mountain biking

Below are the key management actions for implementation for mountain biking activities in Ku-ring-gai's natural areas:

Action area	Management action	Timeframe	Responsibility
<b>PROVIDE INFRASTRUCTURE</b>			
<b>Formalisation of Warrimoo downhill mountain bike track</b>	Re-open and upgrade the 'southern' section of the Warrimoo downhill mountain bike track, to minimise impacts to the surrounding environment.	2019/20	Environment and Sustainability Bushland Services
<b>Strategic linkages</b>	Identify strategic mountain bike tracks within Ku-ring-gai's natural areas for formalisation or construction, if feasible, in accordance with Sydney's Green Grid <sup>15</sup> and Ku-ring-gai's Green Grid Strategy.	2019/22	Environment and Sustainability Bushland Services
<b>ENHANCE EXPERIENCE / IMPROVE INFRASTRUCTURE</b>			
<b>Volunteerism</b>	Establish and coordinate a TrailCare volunteer group, named the 'Moo Volunteers', to assist with the construction and maintenance of the Warrimoo downhill mountain bike track.	2019/20	Environment and Sustainability 'Moo Volunteers'
<b>Advisory group</b>	Establish and manage a Mountain Bike Riding Advisory Group, with representatives from Council, the community, environment groups and other mountain biking stakeholders, to provide advice on key mountain biking issues and opportunities and to assist Council in promoting responsible and sustainable mountain biking riding in the region.	Ongoing	Environment and Sustainability Bushland Services
<b>Information</b>	Update Council's website with available mountain bike track information and resources, including maps, track condition; navigational and safety information; and details of other relevant websites, forums and mapping applications.	2019/21	Environment and Sustainability Bushland Services
	Provide temporary or permanent mountain bike track closure information on Council's website and at relevant facilities	Ongoing	Bushland services
	Conduct grading for selected mountain bike tracks, according to International Mountain Bicycling Association (IMBA) or equivalent standards, and add to Council's mountain bike maps, website and signage.	2019/21	Environment and Sustainability Bushland Services
	Develop a regional mountain biking map to assist in gap analysis and to promote the	2019/20	Environment and Sustainability

<sup>15</sup> Office of the Government Architect, Sydney Green Grid, Spatial Framework and Project Opportunities.

Action area	Management action	Timeframe	Responsibility
	mountain biking facilities within the region.		
<b>Warning signage</b>	Install warning signage at key locations and trailheads regarding the danger of mountain biking as an activity and advising riders of the inherent risks.	2019/20	Environment and Sustainability Bushland Services Corporate Risk & Assurance
<b>Supporting infrastructure</b>	Investigate the installation of bike racks at key mountain bike trailheads within the Ku-ring-gai LGA and install, if feasible.	2019/21	Environment and Sustainability Bushland Services
<b>Single-use track</b>	Designate the Warrimoo downhill mountain bike track as single-use and provide signage.	2019	Environment and Sustainability Bushland Services
<b>ADVOCATE / PROMOTE</b>			
<b>Strategic linkages</b>	Work collaboratively with neighbouring landholders (primarily other councils and NSW National Parks) to identify and construct key strategic mountain bike track linkages across land tenures, if feasible.	Ongoing	Environment and Sustainability
<b>Regional collaboration</b>	Chair a Regional Land Managers Committee with adjoining landholders and government agencies, to collaborate on cross tenure mountain biking issues and opportunities, policy and strategy development, resource allocation and impact reduction.	Ongoing	Environment and Sustainability Bushland Services
<b>RESTRICT / CLOSE</b>			
<b>Mountain bike track closures</b>	Take measures to temporarily or permanently close mountain bike tracks, where appropriate, due to factors such as: <ul style="list-style-type: none"> <li>• Unauthorised construction</li> <li>• Inappropriate use</li> <li>• Environmental damage</li> </ul>	Ongoing	Environment and Sustainability Bushland Services Regulation and Compliance
	Develop an effective and enforceable (i) unauthorised mountain bike track; and (ii) authorised mountain bike track closure and communication process. In some cases, Council will pursue prosecution for unauthorised clearing or environmental harm.	2019/20	Environment and Sustainability Bushland Services Regulation and Compliance
<b>Unauthorised mountain bike track construction</b>	Reduce the incidence and impacts of unauthorised mountain bike track construction through proactive management and stakeholder engagement.	Ongoing	Environment and Sustainability Bushland Services Regulation and Compliance

## Management actions - rock-climbing, bouldering and abseiling

This section of the Strategy deals with three distinct forms of climbing. These are:

### Rock-climbing

- Ascending, traversing or descending vertical or near vertical natural surfaces or artificial surfaces.

### Bouldering

- A form of climbing activity, limited in height and for which fall safety can be achieved by the provision of an impact absorbing system, by a spotter providing control of a fall or by a combination of these measures.

### Abseiling

- Descending vertical or near vertical natural surfaces or artificial surfaces using ropes and descending friction devices to manage the descent. It is also known as rappelling. Abseiling can occur on a single-pitch or multi-pitch.

Council has a long history with those who rock-climb, boulder and abseil (referred to collectively as climbers in this document). Ku-ring-gai is an epicentre of climbing in Sydney. Within Ku-ring-gai, the well-known climbing sites of Cliff Oval at Wahroonga and Lindfield Rocks are highly valued by local climbers, scout groups, emergency services and others. Climbing and in particular bouldering, have experienced a surge in popularity in recent years, evidenced by the number of indoor climbing and bouldering gyms.

The climbing community have an ethic of treading carefully, not leaving a trace and being respectful to other users. In 2017, Council conducted an assessment of the environmental impacts associated with climbing and found that, in general, sites were well looked after and had minimal rubbish and damage to vegetation or other vandalism. In some local government areas and within national parks, climbers have affected Aboriginal art or other heritage items. Ku-ring-gai's LGA has sensitive Aboriginal heritage items and these need to be protected.

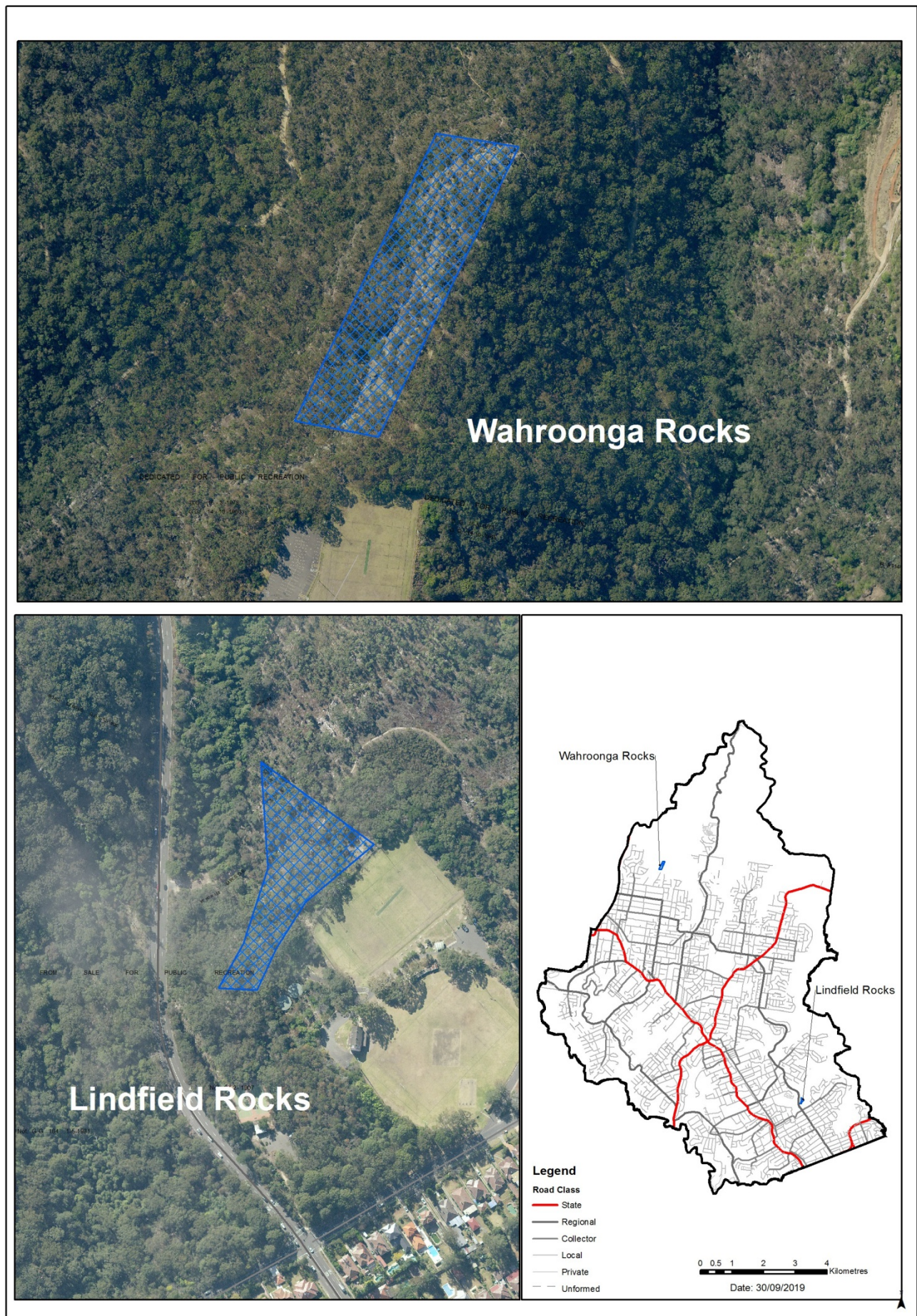
Climbers require very little input from land managers. They are often self-organised and self-governed. With the provision of suitable trails to local 'craggs' and through working with the climbing community to support the environmental ethic which governs the sport, Ku-ring-gai Council consider the impacts on the environment at the designated climbing sites to be minimal.

However, there are potential impacts associated with climbing, including; inappropriate placement of crash mats used during bouldering, incorrect use of trees as support and climbers not staying on formed tracks and trails. All climbers need to ensure they are aware appropriate techniques to keep themselves, others and the environment safe.

Climbing and abseiling are inherently dangerous activities that can result in serious injury or death. Ku-ring-gai Council has no role in the establishment of bolts or any other infrastructure used for climbing. All climbers do so at their own risk. All participants should stay within their level of capability and understand the risks associated with the activity, to themselves, others and the environment.

Whilst Council acknowledges the use of Cliff Oval at Wahroonga and Lindfield Rocks for climbing, abseiling and bouldering and permits these activities at these sites, Council takes on no liability for any of the infrastructure associated with climbing at these sites and reserves the right to close off public access to these sites, if required.





**Figure 7:** Strategic direction for rock-climbing, bouldering and abseiling



## Management action table - rock-climbing, bouldering and abseiling

Below are the key management actions for implementation for rock climbing, abseiling and bouldering activities in Ku-ring-gai's natural areas:

Action area	Management action	Timeframe	Responsibility
<b>PROVIDE INFRASTRUCTURE</b>			
<b>Formalisation of trail at Cliff Oval climbing rocks</b>	Formalise the walk-up track from the bottom of Cliff Oval to the top of the climbing rocks, to reduce trampling of vegetation	2020/21	Environment and Sustainability Bushland Services
<b>Certainty of access</b>	Include climbing at Cliff Oval, North Wahroonga and Lindfield Rocks as permissible activities within future plans of management	2020/22	Environment and Sustainability
<b>ENHANCE EXPERIENCE / IMPROVE INFRASTRUCTURE</b>			
<b>Crag Care</b>	Support and promote Crag Care groups at Cliff Oval, North Wahroonga and Lindfield Rocks climbing sites to be stewards of the site.	2019/2021	Environment and Sustainability
<b>Information</b>	Update Council's website with information and resources on the Cliff Oval, North Wahroonga and Lindfield Rocks climbing sites; safety information; Aboriginal heritage information; and details of other relevant websites, forums and mapping applications.	2020/23	Environment and Sustainability
<b>Warning signage</b>	Install warning signage at key locations and trailheads regarding the danger of rock climbing, abseiling and bouldering as an activity and advising climbers of the inherent risks.	2019	Environment and Sustainability Bushland Services Corporate Risk and Assurance
<b>Amenities</b>	Provide access to the toilets (for bookings) at Lindfield Oval and Cliff Oval, North Wahroonga and promote amenity opening and closing times on Council's website and at the facilities.	Ongoing	Community Development
<b>RESTRICT / CLOSE</b>			
<b>Mitigate the impacts on Aboriginal heritage</b>	Monitor Aboriginal heritage sites affected by climbing, in collaboration with the Aboriginal Heritage Office, and mitigate impacts if necessary.	Ongoing	Environment and Sustainability

## Management actions - orienteering and rogaining

This section deals with orienteering, rogaining and permanent orienteer courses.

Orienteering and rogaining are sports where participants find checkpoints that are marked on a map as quickly as possible.

### Orienteering

- Orienteering involves individuals using a special map to locate checkpoints in a specific order. checkpoints have to be visited in a specified order

### Rogaining

- Rogaining is a team sport, with 2-5 people per team. There is no given order to the checkpoints; instead, every checkpoint gives a number of points. The task is to get as many points as possible within a given time limit

### Permanent orienteering course

- Permanent orienteering courses consist of a map of an area with a series of 'controls' marked on it. The control points correspond to markers on the ground, such as posts or orange and white labels. Visitors navigate around the course, practising their map reading and exploring the area at their own pace

Orienteering and rogaining involve navigating from point to point. The aim is to use a special orienteering map to navigate around a course. Geocaching is a similar activity undertaken by small groups or individuals. Some orienteering and rogaining events are road based, whilst others move through bushland, open space and other public spaces. Orienteering and rogaining are great ways for people to enjoy natural areas, but these activities must be managed to avoid damage to sensitive environments.

Ku-ring-gai Council has hosted orienteering and rogaining events across parts of Ku-ring-gai for many years and the Ku-ring-gai LGA is a key location for the Sydney Summer Series.

The majority of people involved in orienteering and rogaining do so to enjoy the natural environment and are accepting of conditions regarding no-go zones and sensitive areas.

Coordinated planning and assessment can eliminate the environmental risks associated with smaller events and largely mitigate the environmental impacts of larger events when held in appropriate locations and with the appropriate restrictions on participation numbers and frequency of events. Well-planned and managed orienteering and rogaining events are a low impact recreation activity.

This Strategy will build on Council's existing relationships with orienteering and regaining organisations to plan events in appropriate locations and at appropriate times of the year, and will seek to support events by providing greater access to facilities and improving the booking procedures.

Council has identified the following actions to improve and promote orienteering and rogaining events in a sustainable way:

- Not-for-profit events, with fewer than 100 participants and which adhere to approval conditions, will only be required to book picnic areas or tables;
- Council has identified five reserves where, subject to conditions, off track events have been pre-assessed for a limited number of events and deemed suitable. Approval is still required.
- Council has identified six reserves where, subject to conditions, on-track events have been pre-assessed for a limited number of events and deemed suitable. Approval is still required.
- Events in other areas or where certain criteria are not met will be assessed on a case-by-case basis.

Orienteering NSW and affiliated organisations seeking to host events in Ku-ring-gai will be encouraged to consider pre-assessed sites, as this will reduce the assessment time and improve the likelihood of approval. Council staff will consider each event on its merit and consider any potential environmental or social impact. Where appropriate, Council will refuse events or impose specific conditions. Events may be limited according to frequency or timing. For example, events in Sheldon Forest are restricted to one on-track event per year. Following events, community and staff feedback will ensure adherence to all conditions and help improve management of future events.

## Pre-assessed locations for on-track events\*

- St Ives Wildflower Gardens
- Primula Oval and Princes Park
- Acron Oval and Douglas Street reserve
- Sheldon Forest/Rofe Park
- Bicentennial Park and bushland West Pymble
- Wahroonga Park

\* These reserves contain threatened ecological communities and species and hence orienteering and rogaining events will be limited in these areas. Non-compliance with approval conditions may lead to Council not approving future events or penalties.<sup>16</sup>

## Pre-assessed locations for off-track events

- Seven Little Australian Reserve
- Twin Creeks Reserve
- St Ives Showground
- Bradley Park
- Lindfield Soldiers' Memorial Park

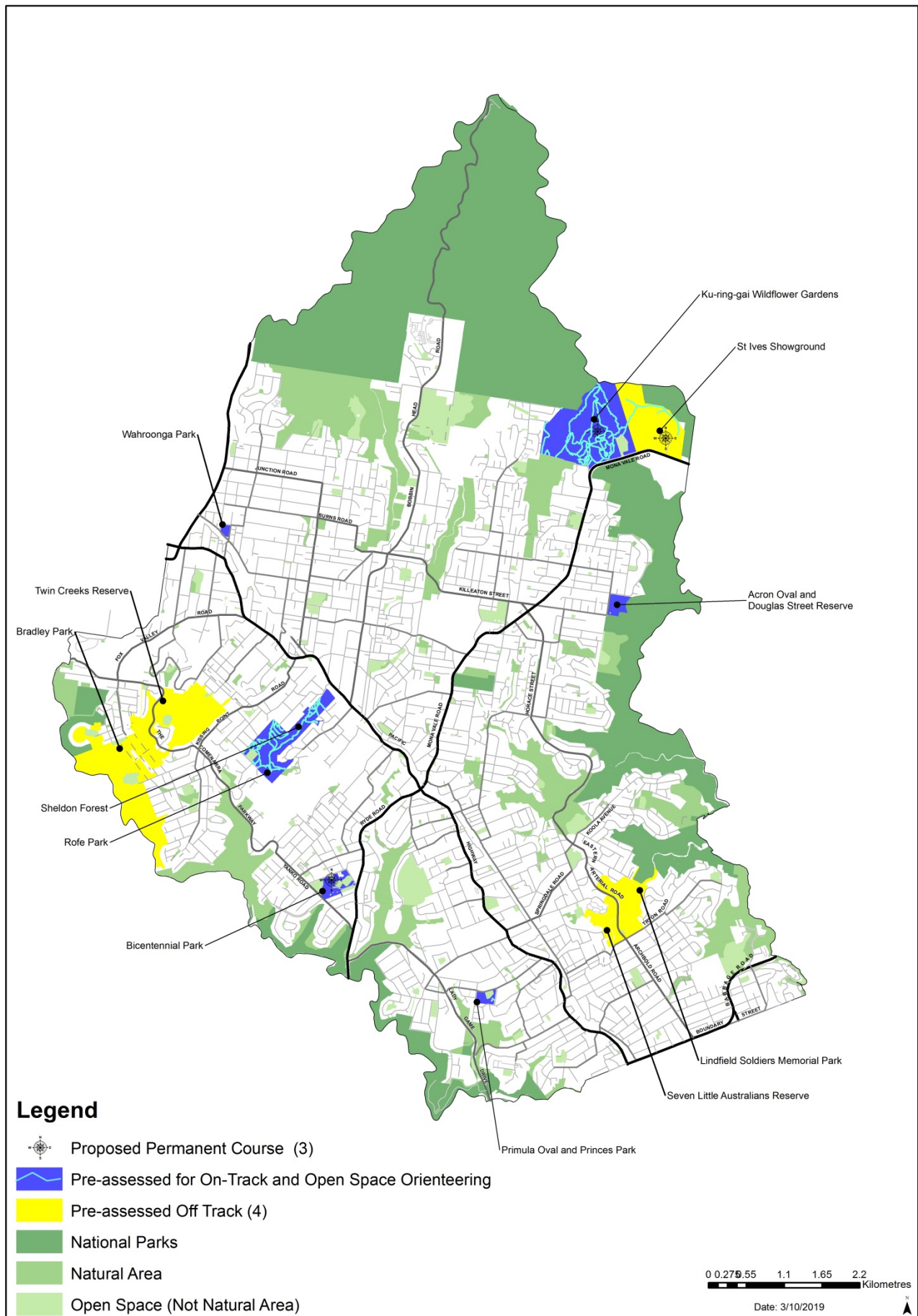
## Conditions for on-track and off-track events

- Activity is to remain on designated tracks/trails at all times when in bushland for on-track events.
- Care is to be taken not to trample any vegetation or disturb any fauna
- All rubbish brought in must be taken out and disposed of appropriately, including any flagging tape or signage used
- Participants must be respectful to all other park or bushland users and residents
- Participants must follow instructions provided by event organisers, Council staff or other relevant authorities
- Restricted areas must be indicated on event maps and participants must avoid all areas marked as out of bounds
- Participants are not to jump any fences or other barricades erected by Council. Control points are to be set up in areas which are accessible by formal tracks and in a way which discourages 'cheating' by providing no or little benefit of going off-track.
- Applications must include a risk assessment identifying potential risks to the environment, participants and bystanders, with appropriate controls identified
- Events must consider Council's 'How to run a sustainable event guide'



---

<sup>16</sup> Biodiversity Conservation Act 2016



**Figure 8:** Strategic direction for orienteering and rogaining



## Management action table - Orienteering and rogaining

Below are the key management actions for implementation for orienteering and rogaining activities in Ku-ring-gai's natural areas:

Action area	Management action	Timeframe	Responsibility
<b>PROVIDE INFRASTRUCTURE</b>			
<b>Establish permanent orienteering courses</b>	Work with Orienteering NSW to create a permanent orienteering course for beginners and enthusiasts at Bicentennial Park and investigate options for permanent orienteering courses at the Ku-ring-gai Wildflower Garden and the St Ives Showground. Permanent courses are primarily virtual and completed with a paper map or through a smart phone application.	2019/20	Environment and Sustainability Orienteering NSW
<b>ENHANCE EXPERIENCE / IMPROVE INFRASTRUCTURE</b>			
<b>Information</b>	Update Council's website with a profile of orienteering and rogaining activities; upcoming events; previous events; information on planned hazard reduction burns and ecological burns near Council's pre-approved orienteering and rogaining sites; and ways people can get involved.	Ongoing	Environment and Sustainability
	Provide opening and closing times for amenities located near Council's pre-approved orienteering and rogaining sites, for event planning	2019/20	Environment and Sustainability
<b>Planning events</b>	Host a planning event at the beginning of each calendar year with orienteering clubs to allow upfront assessments and approvals for proposed orienteering and rogaining events for the following 12 months	Ongoing	Environment and Sustainability
<b>Safety and environmental protection</b>	Prepare a general environmental assessment template for orienteering and rogaining events.	2019/20	Environment and Sustainability
<b>Storage facility</b>	Investigate the possibility of a storage facility within the Ku-ring-gai LGA for orienteering groups to store equipment.	2019-2021	Environment and Sustainability



## Appendix 1 – risk register and controls

Risk	Initial Risk Rating	All Controls	Current Risk Rating
New unauthorised tracks and trails created through bushland	Medium - 4	<b>C01434</b> - Liaise with user groups to ensure no illegal track building <b>C01435</b> - Strategically assess and authorise particular tracks or segments of tracks to satisfy community need whilst protecting bushland <b>C01436</b> - Restrict access to and close unauthorised tracks and trails where appropriate	Medium - 8
Use of site/s by non-experienced participants	High - 12	<b>C01213</b> - Signage – including pictograms and disclaimer	Medium - 5
Injury to onlookers observing abseiling, rock climbing or bouldering activities through slips, trips and falls	High - 9	<b>C01210</b> - Signage – including pictograms and disclaimer <b>C01211</b> - Disclaimer related to inherent risk of participating and observing high-risk activities on website and in the strategy <b>C01212</b> - Information provided about the sites and use of the site for specific activities.	Medium - 5
Falling objects from cliff face causing injury to bystanders	Medium - 4	<b>C01233</b> - Signage - including pictograms warning of possible falling objects. <b>C01234</b> - Webpage and hiring kits with Code of Conduct <b>C01235</b> - Disclaimer related to inherent risk of sites provided on website, in strategy and within hiring documentation.	Medium - 5
Impact to aboriginal heritage site or artefact	High - 12	<b>C01432</b> - Relevant databases are consulted for construction of any tracks/facilities <b>C01433</b> - Education of user groups and Council Staff	Medium - 4
Increase the spread of invasive species	High - 12	<b>C01437</b> - TAP Fox baiting program <b>C01438</b> - Continue to monitor for foxes and other vertebrate pest species and conduct pest control activities in line with best practice guidelines <b>C01729</b> - Conduct weed works along tracks	Medium - 4

Erosion and sedimentation from use or construction of tracks and trails	<b>Medium - 8</b>	<b>C01260</b> - maintenance and monitoring for fire trails and walking tracks <b>C01261</b> - Closure and rehabilitation of unauthorised or inappropriate tracks and trails	<b>Medium - 4</b>
Closure of, or restriction of access to, recreation facility or opportunity causing delivery or reputation consequents	<b>Medium - 4</b>	<b>C01259</b> - Process for closure established in strategy along with clear and transparent guideline for assessment	<b>Medium - 4</b>
Trampling of flora including threatened species by individuals or groups partaking in recreation in a bushland setting	<b>Medium - 4</b>	<b>C01274</b> - Monitoring of impacts along tracks and trails and at known locations <b>C01275</b> - Mapping of threatened and sensitive species to inform track location and provisioning of recreation facilities <b>C01276</b> - Interpretive signage at sensitive locations to prevent unintentional impacts	<b>Medium - 4</b>
Promote or allow a key threatening process	<b>Medium - 4</b>	<b>C01277</b> - Closure and rehabilitation of unauthorised or inappropriately located facilities <b>C01278</b> - Assessment and planning of recreation facilities with thorough impact assessments (MWA, PIA, DAs or REFs) where appropriate	<b>Medium - 4</b>
Site management - project impacting the site conditions and waste impacting the environment	<b>Medium - 4</b>	<b>C01236</b> - Environmental inspection schedule to monitor and manage sites <b>C01245</b> - Leave no trace template provided to all bookings and commercial operators	<b>Low - 3</b>

Unsafe or inappropriate bolts, pivots or anchorage points causing injury or fatality to user for abseiling, bouldering or rock climbing	High - 12	<p><b>C01216</b> - Council do not install any bolts, anchorage points or pivots.</p> <p><b>C01217</b> - Disclaimer on website in strategy and on signage advising Council does not install, maintain or monitor bolts, pivots, anchorage points or other equipment.</p> <p><b>C01218</b> - Code of conduct for climbers and users of site attached to strategy</p> <p><b>C01219</b> - Recommendations for all commercial operators and climbers to have independently certified safety and function of all anchorage points, bolts and pivots prior to use</p> <p><b>C01220</b> - Recommendation on website, in strategy and on signs for all users to be suitably trained and qualified.</p>	Low - 2
Closure of recreation facilities or restriction of access to recreation opportunities	High - 11	<p><b>C01307</b> - Communication and consultation with identified user groups</p> <p><b>C01308</b> - Place signs at sites to advice of the closure</p>	Low - 2
Injury to a member of the public whilst participating as an individual or within a non-commercial social group in abseiling, rock climbing or bouldering	High - 9	<p><b>C01252</b> - Disclaimer on website, in strategy and on signage advising Council does not install, maintain or monitor bolts, pivots, anchorage points or other equipment.</p> <p><b>C01253</b> - Recommendations for all commercial operators and climbers to independently certify safety and function of all anchorage points, bolts and pivots prior to use</p> <p><b>C01254</b> - Recommendation on website, in strategy and on signs for all users to be suitably trained and qualified.</p>	Low - 2
Use of trees as anchorage points causing injury or damage while abseiling or rock climbing	Medium - 7	<p><b>C01224</b> - Signage at designated sites advising users not to use trees as anchorage points</p> <p><b>C01225</b> - Environmental inspection schedule for designated sites</p> <p><b>C01246</b> - Code of conduct highlight unacceptable use of trees provided as a component of the booking kit for all commercial operators.</p>	Low - 2

Use of inappropriate or uncertified equipment	<b>Medium - 5</b>	<b>C01255</b> - Warning against the use of inappropriate or unsafe equipment on website, in strategy and on signage <b>C01256</b> - Requirement for all commercial and individual users to maintain relevant equipment certification and adhere to safety standards	<b>Low - 2</b>
Injury or fatality whilst participating in recreation within a bushland setting	<b>Medium - 5</b>	<b>C01262</b> - Disclaimer and information about the inherent risks of recreation in a bushland setting provided within the strategy, on councils website and were on signage at certain locations <b>C01263</b> - Maintenance regimes for tracks and trails to ensure they are up to standard. <b>C01264</b> - closure of unsafe or unauthorised tracks and trails	<b>Low - 2</b>
Participants in bushland recreation becoming lost	<b>Medium - 5</b>	<b>C01265</b> - Maps for major tracks and trails <b>C01266</b> - Maintain maps and make available on website <b>C01267</b> - Include recommendation on letting someone know where you are going included in recreation strategy and advertised on website <b>C01268</b> - Development of a code of conduct for safe recreation in a bushland setting	<b>Low - 2</b>
Unauthorised or incorrect access to site	<b>Low - 3</b>	<b>C01237</b> - Place all signage on asset register and implement maintenance and monitoring schedule.	<b>Low - 1</b>
Unauthorised or incorrect Access to sites	<b>Low - 1</b>	<b>C01238</b> - Track and trail inspection and maintenance schedule <b>C01239</b> - Implement track and trail inspection and maintenance schedule as part of strategy.	<b>Low - 1</b>