



Ku-ring-gai Council

THE GLADE
LANDSCAPE MASTERPLAN



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1.6	March 2024	Landscape Masterplan - Adopted 19 March 2024 OMC
1.5	February 2024	Landscape Masterplan for Council Approval
1.4	May 2023	Landscape Masterplan for Council Approval
1.3	October 2022	Landscape Masterplan for Council Approval
1.2	August 2022	Landscape Masterplan for Council Approval
1.1	July 2022	Draft for Public Exhibition
1.0	June 2022	Draft for Internal Review
Version	Date	Issue

Document distribution Internal	Document status Draft	TRIM container
Document owner Strategy and Environment	Contact Officer Senior Landscape Architect	TRIM file
Approval date	Approval by Council	
Effective date	Review period 10 years	Review date Annually

Introduction

Ku-ring-gai Council has developed a Landscape Masterplan for The Glade which will prioritise works over the next 10 years.

The Glade is classified as a District Park because of its size, location, large areas of public recreation space, and its unique landscape character and heritage. The draft *Greener Places Design Guide* (Government Architect New South Wales) outlines that a District Park is:

- is distributed to allow for a 2km catchment of most houses;
- serves several neighbourhoods;
- has users that are willing to drive up to 30 minutes to access the park;
- has 50% road frontage to support visibility and accessibility;
- has extensive recreation space, and often operates as a sporting facility;
- contains local and destination play space opportunities, including large active spaces for youth;
- contains picnic and gathering spaces for large groups, and;
- may contain exercise equipment stations.

The Landscape Masterplan aims to conserve, protect and enhance the landscape character of The Glade while improving the amenity and aesthetics of the park.

The Landscape Masterplan gives consideration to:

- upholding good stewardship of the parkland;
- improving access to the park for all users and community groups;
- improving opportunities for community recreation, leisure and enjoyment;
- preserving and retaining the distinctive landscape character that acknowledges heritage and history;
- maintaining, improving and embellishing existing park facilities and buildings whilst balancing the demands on the facilities;
- integrating sustainable and environmental principles into park design;
- implementing a risk assessment and crime prevention through environmental design;
- on-going maintenance of the park and long-term viability;
- providing an implementation program for the development of the park including resource implications, estimated costs and priorities;
- focussing Council resources to the areas that will deliver the greatest benefit to our residents, and;
- providing a holistic approach to design that allows for improvements to occur in stages as funding becomes available.

The Landscape Masterplan is a long-range document identifying priorities for improvements over the next 10 years. It will be monitored on an annual basis and reviewed as required.

What is a Landscape Masterplan?

A Landscape Masterplan is a plan that is developed after analysing existing site elements and features, considering community and stakeholder consultation and determining the functions of a site. Opportunities, conflicts and constraints are identified in the development of an overall plan to guide the long term management of the park. The Landscape Masterplan is a strategic document that enables Council to work in stages as funds become available to revitalise the parkland and make the most of the established landscape character and the area's rich history.

Council's Landscape Architects have prepared this plan in consultation with residents and stakeholders to determine the need for upgrade works and allocation of priorities for funding future staging of works.

Location

The Glade is located on Darramurragal country. It comprises 4.45 hectares of parkland bordered by residential lots to the east, The Glade (a street) to the north, Koora Avenue to the west, and Tanderra Street to the south.

In the immediate vicinity of the park is Abbotsleigh School. The wider setting comprises low density residential housing bounded by Pacific Highway and Cumberland Highway to the north and west and is interspersed with various natural areas and creek lines that connect to Lane Cove National Park to the south.



Location Map



The Vision for The Glade

The Glade will maintain its character as a diverse recreation space, whilst protecting the natural bushland surrounds. Improvements to active and passive recreation, and opportunities for socialisation will improve the park to the level required for a District Park.

History and Heritage

Aboriginal Heritage

For thousands of years the Ku-ring-gai area was home to the Durrumurragal people. Aboriginal people fished and hunted in the waters and hinterlands of the area, and all clans harvested food from the surrounding bush. Self-sufficient and with strong connections to neighbouring clans, they had no need to travel far from their lands, since the resources about them were so abundant, and trade with other tribal groups was well established. Moving throughout their country in accordance with the seasons, they spent perhaps only 4-5 hours per day working to ensure their survival. With such a large amount of leisure time available, they developed a rich and complex ritual life through their language, customs, spirituality, and law at the very heart of which was their continued connection to land¹.

Wahroonga is Aboriginal land: The meaning of 'Wahroonga' - an Aboriginal word - is 'our home'.

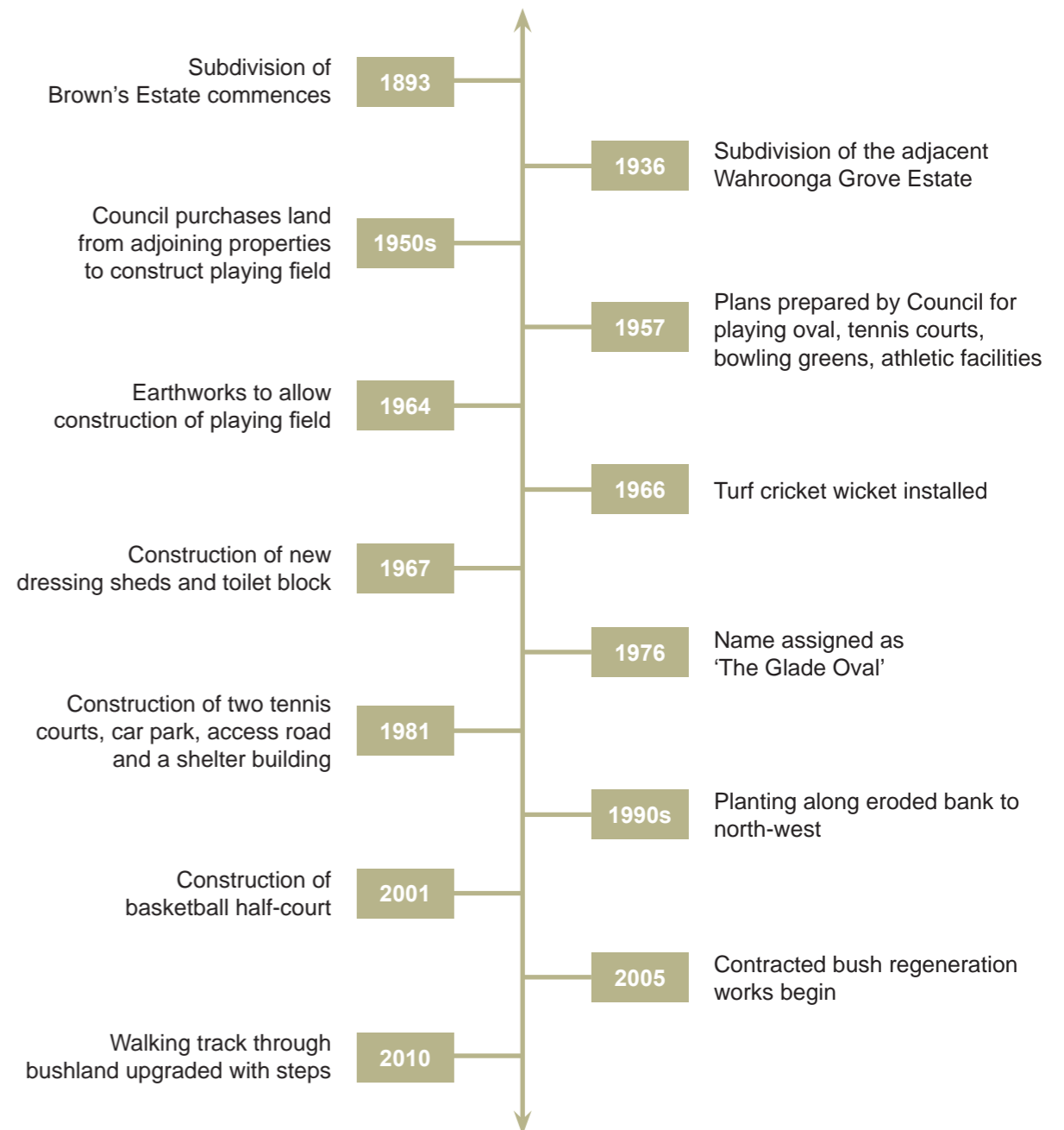
European Heritage

The North Shore Railway line was established in 1890, and subdivision of orchards and large estates for residential development near the railway stations proceeded thereafter. The location of stations along the railway defined the focus of the neighbourhood areas (with the exception of St Ives, which developed on Mona Vale Road at a later stage). The railway line was duplicated in 1909, and electrified in 1928. The subsequent opening of the Sydney Harbour Bridge in 1932 led to a major shift of Sydney's wealthy (the business owners and managers, the doctors, solicitors, architects, artists, politicians) to the north shore, and particularly Ku-ring-gai, from other areas of Sydney (Ashfield, Burwood and Strathfield).

Governor Darling made a 640 acre (259ha) grant in 1838 to emancipated convict Thomas Hyndes. Hyndes had been in possession of the land since 1830 working it with convict labour and supplying timber to the colony. The land encompassed the area now bounded by Pacific Highway, Fox Valley Road, and Hewitt Avenue. Hyndes built a home for himself in Wahroonga. In 1840 Hyndes sold the land and it was again sold in 1854, to John Brown, a timber merchant.

This land extended from Pearce's Corner, Wahroonga, fronting Lane Cove Road (now Pacific Highway) to a short distance beyond its junction with Fox Valley Road and extending to the boundary of the Lane Cove River. Brown aspired to own a square mile of land. This was a magnificent forest area then. Brown cleared land for an orchard and felled forest trees for timber. His expanding interests led to the name 'The Squire'. The names of Brown's sons and daughters have been perpetuated in the names of Lucinda, Ada and Roland Avenues, Wahroonga, in the vicinity.

No real subdivision was effected until 1893, when Francis Gerard purchased 'The Foxground Estate' from John Brown, later re-offered for sale (c. 1900) as Brown's Estate. The earlier subdivisions were closer to the Pacific Highway and Fox Valley Road.



1943



1961



1972



1988



2020

1. Aboriginal Heritage and History Within the Ku-ring-gai Local Government Area, 2015 (extract from the Ku-ring-gai Council Aboriginal Site Management Report 2015) prepared by the Aboriginal Heritage Office for Ku-ring-gai Council (Thorne 1968: 39)

The insertion of smaller streets, avenues and cul-de-sacs within the Brown's Estate subdivision continued through the early 20th century - subdivisions of this period prior to 1925 included Gilda Avenue and Myall Avenue. Myall Avenue was offered for sale in 1925 as "7 choice home sites" as part of the "Warrawee Toohey's Estate". The subdivision of this cul-de-sac included the circular planting bed at the end of the street, and a pedestrian walkway into an adjacent reserve. A covenant attached to the subdivision required housing to be more than 1000 pounds in cost.²

Home sites in The Glade were auctioned as the Wahroonga Grove Estate on 7 November 1936 by RT Forsyth Ltd. The estate had been surveyed by CP Johns. EJ Johns was the local agent of the North Shore Land Co, and the estate office was in his house Wyona at No 12 Lucinda Avenue.

The newly constructed road – The Glade – was tar-paved, kerbed and guttered. Electricity, gas and water was available. The estate was advertised as "Town planned select garden area surrounded by some of the most beautiful homes on the North Shore line", set in "spacious park-like area" and "only 7 minutes from Wahroonga Station along a beautiful scenic walk".

It appears none of the 20 lots was sold and a second auction of the estate was held on 7 May 1938. The residence of Norman Laing on Lot 15 (No 11) was shown on the notice.

In March 1954 Ku-ring-gai Council resumed 'part' of the subdivision; this consisted of lots 11 and 12 that now form the North West corner of The Glade reserve.³

There are a number of properties in the periphery of The Glade listed as items of Local Heritage significance of which land was subsumed for the development of the park. These include:

- 19 Ada Avenue, "Oakhill";
- 21-23 Ada Avenue, "Pevensey";
- 25 Ada Avenue, "Patlin";
- 29 Ada Avenue, "Carinya";
- 11 The Glade, and;
- 28 Lucinda Avenue, "Matakana".

Providing pedestrian access to The Glade is The Glade Walk. This runs along the southern boundary of Abbotsleigh School, connecting The Glade and Ada Avenue. The Glade is located close to the C4 Mahratta Heritage Conservation area.



2. Ku-ring-gai Heritage Conservation Areas North Inventory Sheet, 2010, P Davies
3. The Historian Volume 35 No 1, October 2006

Flyer for Wahroonga Grove Estate Auction c.1936

Flyer for Wahroonga Grove Estate Auction c.1936



The Glade Oval c.1971

Flyer for Brown's Estate Auction

Community Engagement Phase One

In March 2022, Council sought feedback from the local community to help prepare the draft Landscape Masterplan for The Glade. Notification letters and invitations to complete the online survey were sent to 570 local residents. The feedback survey was also available online via the Council website.

A total of 104 feedback surveys were received. The insights from the feedback survey are summarised below.

Key words for what people appreciate about the park:

- open space;
- relaxed;
- natural;
- community;
- close-by, and;
- variety.

Users of the park:

- typically walk to get there;
- visit weekly, and spend at least half an hour there;
- mostly attend to exercise or play sport;
- attend with family, and;
- feel it is a positive place to socialise.

Following an analysis of respondents' detailed comments, people would like to see the following prioritised in the Landscape Masterplan:

- Improved drainage.
- Improvements to the toilet facilities adjacent the oval.
- Play space upgrade.
- Upgrade of the stairs through the natural area (Koora Ave to Tanderra Street).
- Improvements to accessibility, including a perimeter path.
- More seating.
- Shelter, picnic facilities, bubblers and BBQ.
- A dog off-leash area in the south eastern corner of the park.
- More signage – interpretive for the natural area and regulatory for dog owners.

Residents appreciate the open, green and natural aspects of The Glade. They generally feel that there is a balance between the sports utilisation and the ability to use the park for unstructured recreation. The park provides good opportunities to socialise, and people appreciate the bushland setting.

Respondents would like to see additional seating, tables and covered areas, access to the toilet facilities adjacent the multi-use courts, and upgrades to the amenities building (which is currently an interim demountable facility), park entrances, and children's playground to improve accessibility and inclusivity. There were quite a few respondents who expressed dissatisfaction with the multi-use courts, as they felt it detracts from tennis. Whilst there were a number of requests for an dog-off leash area, there was a proportional number of respondents who raised issues about dogs being off-leash and owners not picking up after their dogs.

There were a few requests to upgrade parking, improve the lighting, and works to improve the natural area and increase formalised planting around the park.

Generally people were happy with the field condition apart from drainage, but not happy with the condition of the cricket nets.

Overall as a district park, The Glade rated 4 out of 5 stars with residents surveyed. The park is generally well loved, but responses indicated that there are areas for improvement. The responses to the user survey were reviewed and analysed and helped to inform the preparation of the Opportunities and Constraints mapping, and the draft Landscape Masterplan.

Landscape Masterplan
The Glade • Wahroonga

Ku-ring-gai Council is developing a landscape masterplan to guide the park's future management. **Comments close on 10 April.**

To find out more and have your say scan the QR code or visit:
krg.engagementhub.com.au/thegladowahroongapt1

Community consultation poster

Community Engagement Phase Two

In July/August 2022, Council placed the draft Landscape Masterplan for The Glade on public exhibition. Notification letters and invitations to complete the online survey were sent to 570 local residents. The feedback survey was also available online via the Council website.

The draft landscape masterplan document was downloaded on 290 occasions, and a total of 30 online surveys were completed. There were 6 email submissions received, and 1 hardcopy submission.

80% of respondents rated the draft landscape masterplan as 'very good' or 'good', indicating strong support for the proposal.

All of the community feedback received has guided the preparation of the final landscape masterplan and, whilst it has not been possible to implement all of the community's ideas, the amended landscape masterplan has sought to provide a balanced solution considering the many and varied opinions expressed during consultation with available funds.

Key amendments to the draft landscape masterplan following phase two community engagement include;

- Deletion of the option for an off-leash dog area
- Deletion of the option to remove the existing half-court basketball
- Installation of the new amenities building in the optional location on the eastern side of the field
- Removal of existing cricket practice nets and replacement with new nets in the location of old amenities building on the western side of the oval

The priorities identified as part of the feedback received include improvements to drainage, and the upgrade of the track from Koora Avenue to Tanderra Street as an accessible path.



Draft Landscape Masterplan The Glade • Wahroonga

After talking to the community about The Glade, we've developed a draft landscape masterplan. The plan outlines potential improvements (subject to funding) and how the park might be used in the future. We'd like to hear what you think of this plan.

Improvements include:

- Pedestrian pathways connecting facilities and improving access through the park
- New park furniture including seats, bins, bubblers and bike racks
- Upgraded drainage and irrigation for the sportsfield
- More protection for the endangered Blue Gum High Forest
- Relocating the cricket practice nets to a new location next to the sportsfield
- Replacing the demountable toilets with a new amenities building (already in progress)
- Installing an accessible unisex toilet next to the playground
- Expanding the playground and adding a new shelter and picnic facilities
- Providing an accessible path from Koora Avenue to the car park

The Glade Draft Landscape Masterplan



Have your say

Complete a short online survey between **18 July and 15 August 2022** to help us finalise the masterplan.



Scan the QR code or visit krg.engagementhub.com.au/gladewahroongalm to view the plan and make a comment.

Enquiries: 9424 0000



Landscape Character

Landscape character is defined as the distinct elements and features of a landscape. Landscapes evolve over time as a result of both natural and cultural processes.

The Glade is set in a quiet suburban context, surrounded by remnant bushland punctuated by Coups Creek. Residential properties form the boundary along the eastern edge of the site, together with houses along Koora Street on the western side. The Glade, and The Glade Walk form the northern boundary with a number of properties having an informal boundary with the park. Tanderra Street forms the southern edge, with homes on the southern side of the road.

The playing field is set well below Koora Avenue accentuating the site's seclusion. The site then steps down again between the oval and the rest of the park to the south. There are three key entry points into the site - one specifically for vehicles via the car park off Tanderra Street to the south, which forms the main entry. The other access points off Koora Avenue are cater more for pedestrians, however these do not include provision for equitable access. The northern portion of the site is dominated by the oval, with the southern portion split into bushland to the west, and parkland to the east. The northern oval accommodates a full size cricket pitch during the summer season, and single senior and junior football fields during the winter months.

To the south, a selection of sports facilities and a play space are set amongst a treed area, with connection to a small car park and maintenance access. A dual-bay set of cricket practice nets, a basketball half-court and two, floodlit, multi-use courts which operate as basketball, tennis and netball feature in the south of the site. An amenities building, accessible for users with a key, is located adjacent to the courts, north of the fenced play area. This incorporates an undercover seating area, sink and two toilets. To the west of the northern field, a demountable toilet facility is currently located on the footprint of an old amenities building which was demolished after a tree fell on it. This is a temporary structure that is due to be replaced with a permanent upgraded building.

The maintenance access between the car park and the field provides the main formal access through the site. A path through the bush also links the two ends of the site. This intersects with the stepped pedestrian access from Koora Avenue to Tanderra Street.

Furniture on the site is all nearing the end of its useful life, and will need to be replaced with accessible models. Current elements include seating, picnic settings, bins and drink fountains. The existing play space is fenced. Other fencing around the site includes timber and steel barrier rails, fencing to the multi-use courts, and a fence along the southern boundary of the oval separating the northern and southern portions of the site.

The bushland character of the site is typified by Blue Gum High Forest species, with a mixture of mature exotic tree species providing features around the site. The Glade does not contain any formal garden beds, with a predominance of turf. The natural area located in the western half of the site, south of the old amenities block, is referred to as The Glade Reserve and is designated as a Biodiversity Offset Scheme site. Coups Creek flows through this area to the south. A timber-edged earth track runs beside the creek from the natural area's northern entry to a bridge located on the stepped path between Koora Avenue and Tanderra Street. This pleasant walking track is popular with local residents.

The embankment to the west of the oval contains a mixture of native and exotic species, predominated by Blue Gum High Forest community species. The embankment is steep, and there a few locations where informal paths have been created down the slope. A single track traverses the bank between the seating node at the midpoint of the oval along Koora Avenue, connecting to the formal set of stairs along the boundary of the biobanking site leading down to the amenities building.



Multi-use Hard Courts



Play Space



Cricket Practice Nets



Oval

Social and Cultural Character

The park is well utilised by local residents as a place to exercise, walk the dog, play and socialise. The survey results suggest that users attend the park on a weekly basis whether for organised sport or informal recreation. The park's predominant use is as a sports field hosting cricket in the summer season and football in the winter season. Throughout the year local schools utilise the space for sports activities.

Local sporting clubs that use the ground include:

- Northern Suburbs Football Association (NSFA);
- Ku-ring-gai Netball Association, and;
- Hornsby Ku-ring-gai and Hills District Cricket Association Inc. (HKHDCA).

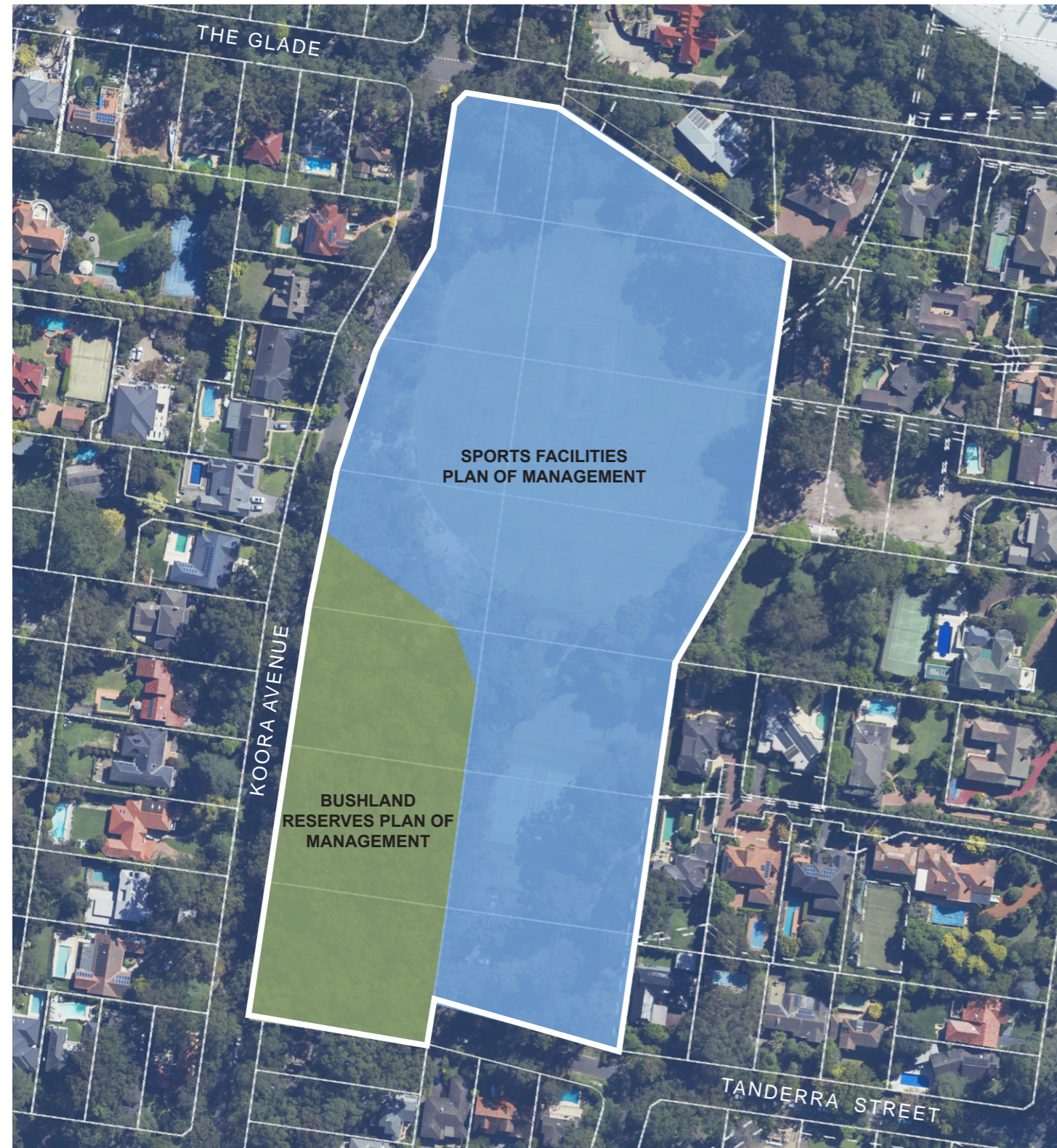
School groups include:

- Warrawee Public School;
- Wahroonga Adventist School, and;
- Knox Grammar.

Park Elements and Context

The following sections explore in detail the existing condition of the park's different spaces, natural features and built elements, and examines their potential for retention, removal or replacement. The diagrams provide a visual reference for the features as they are at the time of producing this document. The text associated with the diagrams provides commentary on the elements as they are, and their future within the context of the masterplan.

As a preface to this, the Council contextual constraints are explored in relation to Plans of Management and the Local Environment Plan. An Opportunities and Constraints plan at the end of this section provides an introduction to the conceptual plan for the park.



Land Management Map

Plans of Management

There are two Plans of Management which govern the activities and management of The Glade including. These are the:

- Generic Plan of Management - Sportsgrounds (2023), and;
- Bushland Reserves Plan of Management (2017).

Council is currently updating these Plans of Management in line with the State Government requirements for Crown Lands wherein Plans of Management applicable to the park will change. The Landscape Masterplan will be updated as required to reflect this. A brief summary of the relevant requirements from these plans related to The Glade are included here, however the complete Plan of Management documents should be referred to.

Generic Plan of Management - Sportsgrounds

Definition of Sports Facilities

Sports facilities may be defined as an area providing for structured or unstructured active recreation. This includes training and competition, which may be undertaken either individually or as a team, as well as social active recreational pursuits.

Community Land that is held under the category "Sportsground" is intended to encourage, promote and facilitate recreational pursuits in the community involving organised and informal sporting activities and games.

Ownership and Management

The Glade is on land owned by the Crown. The principles of management of this land as set out in the Local Government Act 1993 are:

- That environmental protection principles be observed in relation to the management and administration of Crown Land;
- That the natural resources of Crown Land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible;
- That public use and enjoyment of appropriate Crown Land be encouraged;
- That where appropriate, multiple use of Crown Land be encouraged;
- That where appropriate, Crown Land should be used and managed in such a way that both the land and its resources are sustained in perpetuity, and;
- That Crown land be occupied, used, sold, leased, licensed or otherwise dealt with in the best interests of the State consistent with the above principles.

The Local Government Act 1993 specifies the following core objectives for community land categorised as sportsground:

- To encourage, promote and facilitate recreational pursuits in the community involving organised and informal sporting activities and games.
- To ensure that such activities are managed having regards to any adverse impact on nearby residences.

Role

Council's sports facilities play an important role in both a regional and local context by providing significant active and passive sporting and recreational opportunities with many community benefits.

Sports facilities also have an environmental role by providing surrounding natural vegetation and habitats for fauna and a natural setting for non-specific general open space usage, unorganised activities, sports and games.

Council's sports facilities provide many benefits to our community including:

Social

- sporting and recreational opportunities
- youth development
- improved quality of life
- improved health benefits
- provision of outdoor meeting places

Environmental

- visual amenity
- provision of habitat

- provision of carbon sinks

Economic

- increased economic benefits
- may increase nearby property values

Governance

- multiple uses and purposes
- provision of community facilities.

Values

Social Values:

Sport and outdoor recreation provide a forum for community development and social interaction. Engaging in sport provides people with an opportunity to socialise and build community networks in a relaxed atmosphere. Interacting as part of a team can aid individual development as well as broader community development through the learning of skills such as communication, negotiation and cooperation. Sports facilities also have value as informal meeting places which enhance social interaction within our community and may be used in times of emergency as a refuge.

Recreation is becoming an increasingly important value for individuals and the wider community as people are realising the benefits of recreation in achieving quality of life. Sports facilities provide a significant amount of recreation opportunities to the community such as regular participation in physical activity which can improve overall mental and physical health. It also mitigates the risks associated with obesity and sedentary lifestyles.

Through Council's visioning exercise, our community identified a need to strive for healthier lifestyle practices to achieve physical, mental and social wellbeing.

Environmental Values:

Ku-ring-gai's sports facilities network provides significant environmental value to the area. By being a significant section of Council's open space reserve system, our sports facilities provide habitat and biolinkage opportunities for flora and fauna with many of our sites containing or being adjacent to significant stands of native vegetation and urban bushland.

Our sports facilities network also provides attractive visual amenity with native vegetation and landscaping which breaks up the urban landscape. In addition to this, the vegetation and canopy trees on our sports facilities provide microclimate effects to the local area through mitigating wind velocity and the heat island effect created within urbanised areas.

Economic Values:

The economic values of Council's sports facilities are two-fold. Council's facilities can provide suitable venues to host the growing demand for sports tourism bringing cash flow into the area from throughout the region. This not only has a direct effect on the value to facility users but also provides indirect value to local retailers and local accommodation.

The second economic value is that our sports facilities add to the visual amenity of our streetscapes which can have a positive effect on land and property values of the area.

Current and Permitted Uses

The land covered by this Plan is currently used for and is permitted for recreational and other community purposes including:

- Access roads**
- Advertising and sponsorship signage**
- Alternate energy technology**
- Art and cultural classes and events
- Biodiversity enhancement**
- Canteens
- Casual playing of games or informal sporting activities**
- Car parking in approved areas**
- Clubhouse and amenities**
- Commercial activities
- Community events (fundraising/charity events, special events)
- Community notice signs and temporary signs
- Dog training and exercise

- Drainage and irrigation**
- Emergency use
- Equestrian events and training
- Filming and photography (commercial and amateur)
- Fitness and wellbeing programs
- Gaming (poker machines)
- Landscaping**
- Licensed bar and bistro
- Maintenance buildings
- Markets
- Mobile food vendors
- Multi-use path networks
- Natural areas (parks and bushland)**
- Organised sports competitions*(**)
- Organised sport training**
- Outdoor film screening
- Passive recreation**
- Personal training
- Playing of a musical instrument, or singing, for fee or reward
- Private events (i.e. weddings, birthdays)
- Public performance or education
- Public utility infrastructure**
- Remediation works
- School sport and recreation**
- School vacation activities
- Shade structures
- Sportsground maintenance**
- Storage facilities
- Telecommunication facilities
- Temporary structures (i.e.: marquees, tents, stages)
- Visitor facilities
- Water reuse and recycling**
- Youth programs and events.

*Includes, but is not exclusive to: Soccer; AFL; Baseball; Rugby, Rugby League; Softball; Touch football; Oztag; Netball; Tennis; Lawn Bowls; Croquet; Athletics; Ultimate Frisbee; Cricket; Lacrosse; Hockey; Archery; etc.

**Denotes current use at The Glade

Bushland Reserves Plan of Management

Principles of Ecological Sustainable Development

The principles for the management of the bushland reserves aim to ensure that Council:

1. Manages its reserves in accordance with relevant recovery and threat abatement strategies (referred to as threatened species priority action statements) and plans prepared by the NSW Office of Environment and Heritage (OEH), and Commonwealth Department of the Environment (DE).
2. Protects, conserves, and enhances the natural, cultural, scientific and scenic values of Ku-ring-gai Council bushland reserves.
3. Provides appropriate recreation opportunities that are consistent with requirements for the conservation of the bushland ecosystems and particularly threatened species, populations and ecological communities.
4. Promotes community awareness of the natural and cultural significance of the reserves.
5. Manages fire hazards within and adjoining Council reserves and private lands to protect life and property and in accordance with natural fire regimes; and
6. Implements measures directed at minimising and managing the impacts from threats and pressures on the values and condition of the land.

Categorisation of 'Natural Areas' Core objectives Local Government Act 1993, 36E

- conserve biodiversity and maintain ecosystem functions in respect of the land, or the feature or habitat in respect of which the land is categorised as a natural area
- maintain the land or that feature of habitat, in its natural state and setting
- provide for the restoration and regeneration of the land
- 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, and
- assist in and facilitate the implementation of any provisions restricting to use and management of the land that are set out in a recovery plan or threat abatement plan prepared under the Threatened Species Conservation Act 1995 or the Fisheries Management Act 1994.

Further categorisation of 'Natural Areas' Bushland - Core objectives Local Government Act 1993, 36J

- ensure the ongoing ecological viability of the land by protecting the ecological biodiversity and habitat values of the land, the flora and fauna (including invertebrates, fungi and micro-organisms) of the land and other ecological values of the land
- protect the aesthetic, heritage, recreational, educational and scientific values of the land
- promote the management of the land in a manner that protects and enhances the values and quality of the land and facilitates public enjoyment of the land, and to implement measures directed to minimising or mitigating any disturbance caused by human intrusion
- restore degraded bushland
- protect existing landforms such as natural drainage lines, watercourses and foreshores
- retain bushland in parcels of a size and configuration that will enable the existing plant and animal communities to survive in the long term; and
- protect bushland as a natural stabiliser of the soil surface.

Blue Gum High Forest

Blue Gum High Forest (BGHF) occurs over relatively fertile soils, derived from Wianamatta shale, in areas of high rainfall. It is characterised by a distinctively tall, open canopy dominated by Sydney Blue Gum (*Eucalyptus saligna*) and/or Blackbutt (*Eucalyptus pilularis*). BGHF is listed in NSW as a critically endangered ecological community under the Threatened Species Conservation Act 1995 and the Commonwealth Environment Protection & Biodiversity Conservation Act 1999. Recent revision of the final determination of Blue Gum High Forest (BGHF) as a critically endangered ecological community under the Threatened Species Conservation Act 1995 has broadened the scope and extent of BGHF. This now encompasses "small clumps of trees without a native understorey" and "below ground soil seed banks and dormant structures" (NSW SC 2007).

Restricted to the northern half of Sydney, extensive clearing since settlement has left less than five (5%) percent of the original extent of BGHF. Existing remnants of this plant community average about two (2) hectares or less and are particularly vulnerable to fragmentation, increased nutrients, altered fire regimes and development (NSW NPWS /DEH (a) and (b)).

Recreational Use in Reserves

Appropriate Use

- Bushwalking, running and nature based activities on designated walking trails*
- Walking of dogs with leashes on designated walking trails (with the exception of Conservation Agreements and Wildlife Protection Areas)*
- Bicycle use on designated service trails
- Abseiling and rock climbing in designated areas and with conditions
- Informal bike tracks and illegally constructed jumps cause damage and erosion to bushland reserves, and conflict with passive recreational use. Located mostly along urban edges and on fire trails, Council has identified specific periods of activity (e.g. often constructed in school holidays) and works towards the remediation of impacts caused by such activities. It is acknowledged however, that a balance must be found between protecting the bushland and providing a "positive" experience of bushland for people from a variety of demographics and different interests and backgrounds, particularly youth*.

**Denotes current use at The Glade*

Authorised Activities in the Reserves

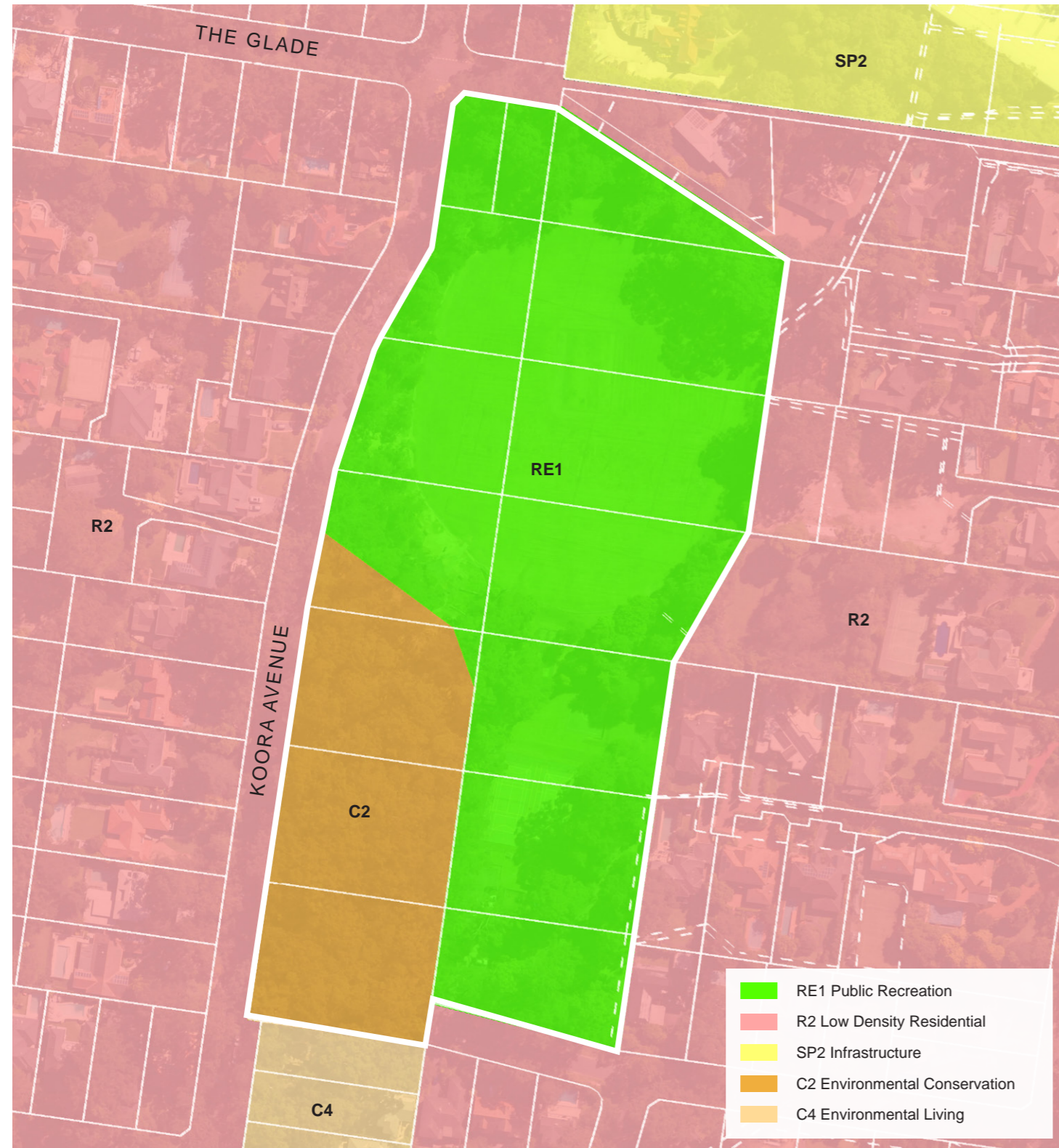
The following activities are authorised by the Plan of Management. Exceptions may be in place for certain reserves, as indicated:

- passive recreation activities such as bushwalking and picnicking, and specific community orientated non-commercial events that do not compromise the core objectives of "natural areas"
- regulated commercial, cultural or active recreation activities that are compatible with the principles of this Plan and consistent with specific reserve management such as filming or mountain bike riding on designated tracks (Council permission may be required and fees may also apply for certain activities – for example filming)
- replacement/upgrading of facilities in their current locality
- activities consistent with the management requirements of the various NSW OEH recovery plans
- bushland restoration and regeneration works and activities by Council or contractors or community groups authorised by Council
- reduction of fire hazard in accordance with Council's annual fuel management program approved by the Hornsby Ku-ring-gai Bush Fire Management Coordinating Committee
- maintenance of existing roads, tracks and trails, including drainage, stormwater and track works on existing infrastructure
- construction of new strategic tracks and trails, or asset protection zones (firebreaks), for recreation and or hazard reduction purposes (pursuant to the Environmental Planning and Assessment Act 1979)
- maintenance of existing signage and passive recreation facilities
- construction and maintenance of strategic sediment and pollution control devices in waterways to improve water quality and aquatic habitats pursuant to the Environmental Planning and Assessment Act 1979) or NSW Department of Primary Industries (fisheries) requirements and to Council's Integrated Water Management Policy (2008)
- Collection of seeds and other plant propagules for Council's plant nursery, or by other bodies or persons who have Council approval and appropriate permits or licences where necessary. Collection of seeds and propagules will be carried out according to industry best practice guidelines in relation to biodiversity, provenance and in sustainable quantities
- scientific research and specimen collection with appropriate ethics approval, permits or licences where necessary and with Council approval
- pest animal control and management pursuant to relevant acts or off label permits; and
- the grant of a lease or licence or other estate (including entering into a biobanking agreement within the meaning of Part 7A of the Threatened Species Conservation Act 1995) in respect of the land to which this plan applies is expressly authorised for any purpose for which the land was used at the date of adoption of this plan. This does not exempt future use review and modifications.

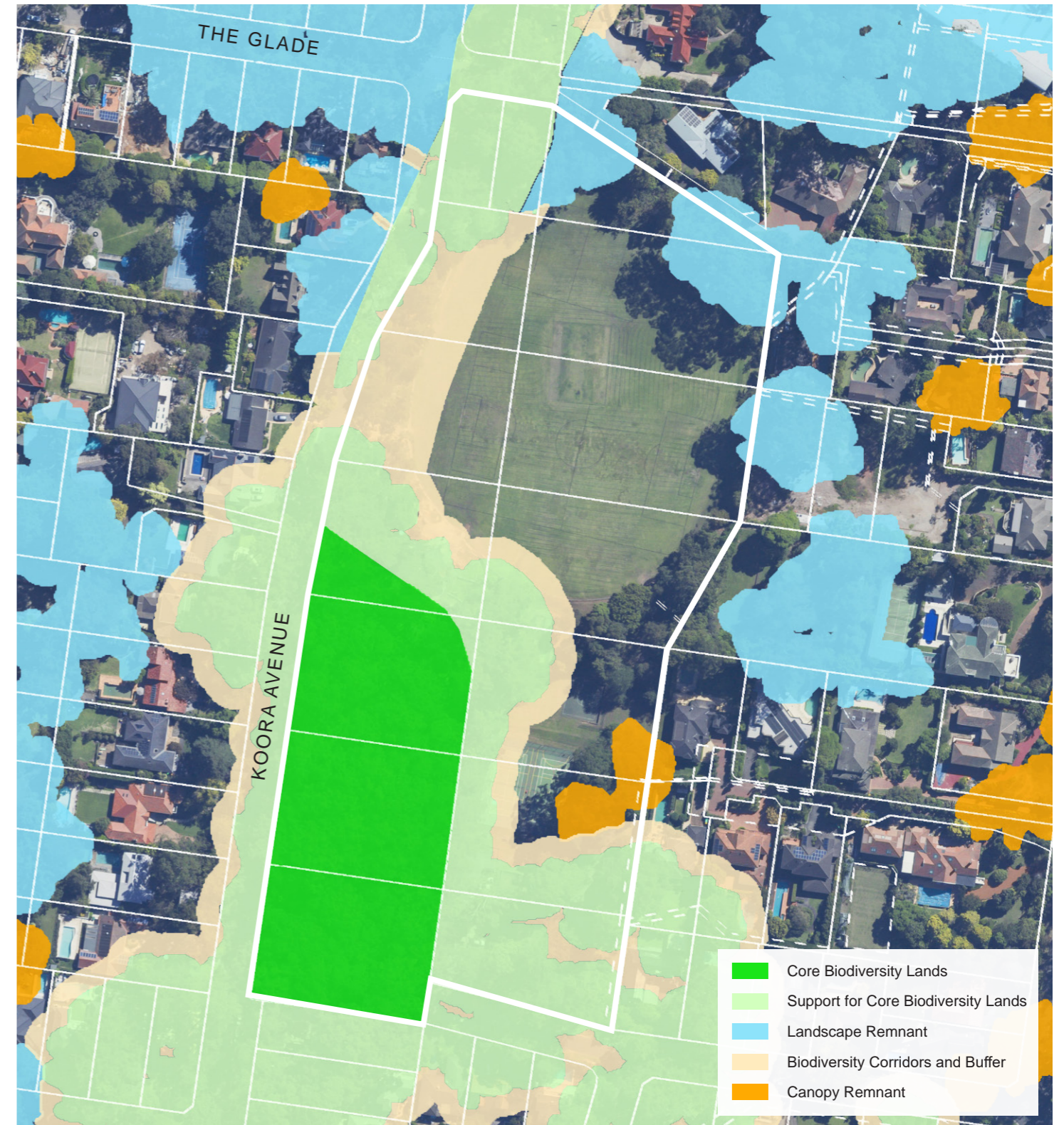
Local Environment Plan

The Glade is governed by the Ku-ring-gai Local Environment Plan, 2015. The controls relevant to the park as shown on the plans include zoning and biodiversity.

The park itself is zoned as RE1 Public Recreation and C2 Environmental Conservation. Council's Greeweb mapping identifies the site as containing Core Biodiversity Lands (Blue Gum High Forest), including some remnant trees. The biodiversity of the site is to be protected and enhanced through the retention of trees and supplementary planting. There are no items of heritage significance within the park.



Local Environment Plan Map



Greenweb Map

Existing Park Functions

The park is predominantly open grassed area dedicated as sports field (A), utilised by cricket and football. This area is fenced and typically accommodates active recreation. In the centre of the field is a turf cricket wicket used throughout the summer season. Senior and junior football fields are line marked every winter season. The turf is in reasonable condition, however the drainage is inadequate, and watering relies on a quick-coupled irrigation system.

The amenities structures (B) are located adjacent the main oval, and on the southern side of the multi-use courts.



Existing Park Functions Map

Cricket practice nets (C) are located to the south of the main oval and run in a north-south alignment. These nets contain synthetic practice wickets and black chain mesh fencing. The nets are in need of repair and upgrade as their location is shaded and prone to inundation.

A basket ball half court (D) was installed in 2001, and the multi-use courts (E) have been in place since the 1980s. These were originally installed as tennis courts. Line marking and posts to facilitate basketball and netball were installed more recently. Flood lighting was also incorporated within the last 10 years.

The car park (F) is located off Tanderra Street and is the only vehicular access to the park for visitors. The car park incorporates spaces for 12 vehicles, and gated maintenance access which connects the car park to the northern sports field.

A play space (G) that targets children aged 4-11 is located behind the amenities building adjacent to the car park, and will be discussed in further detail in the 'Play Space' section of the document.

The remnant Blue Gum High Forest bushland (H) is a Biodiversity Offset Scheme site, and features an attractive bushwalking track adjacent to Coups Creek.

The park has a number of entry points (I) for pedestrians to access the facilities. The main entry into the park is from the car park off Tanderra Street. Breaks in the steel barrier rail fence along Koora Avenue provide opportunities to enter the park from the west. There is also an entry in the south-eastern corner of the site from Tanderra Street.

Formal paths (J) provide limited accessibility through the park. From the north, access is primarily informal with the maintenance route providing the only hardstand path from the oval to the rest of the park. Additionally, The Glade Reserve track provides a link between the oval and the steps that link Koora Avenue and the car park, running alongside Coups Creek. A concrete path links between the car park, the amenities building, and the multi-use courts.

Informal paths (K) have been identified linking entry points with the oval, around the perimeter of the oval, and alongside the multi-use courts. A desire line between the seating area (second entry heading south along Koora Avenue) and the oval has been established down the embankment, and will be remediated as part of the masterplan works.



Sports Field



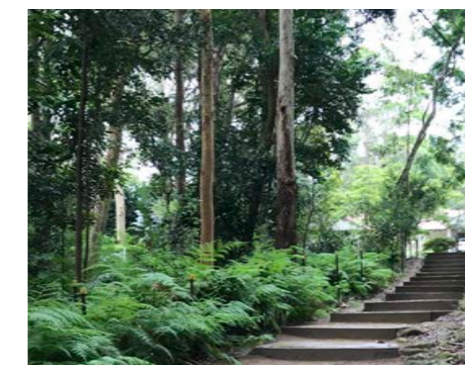
Cricket Practice Nets



Car Park



Amenities Structure near Play Space



Bushland



Formal Path

Existing Structures and Furniture

The seats provided within the park are located adjacent to, or on, a hardstand, with a back but without armrests (A). All seats require upgrading to models with both backs and armrests, and on a more generous consolidated hardstand. The location of seats will need to be considered with future provision of pathways and at more frequent intervals. Two picnic table and seats settings (B) are located adjacent to the multi-use courts. Picnic shelters and barbeques are not currently provided, and will need to be considered in the masterplan.



Existing Structures and Furniture Map

There are two amenities buildings (D) located in the park. The original amenities building situated adjacent to the oval on the western side was demolished after a tree fell on it during a storm event, and has been replaced temporarily with a demountable toilet structure. A new, prefabricated amenities building has been installed on site on the eastern side of the oval. The other amenities building, accessible for users with a key, is located adjacent to the courts north of the fenced play area. This incorporates an undercover seating area, sink, two toilets and two table and seat settings.

Three drinking fountains (H) are located around the park. These are all old models which are due for replacement with accessible units in suitable locations in the vicinity of the existing ones. There are two Sulo style bins (I) for general waste located in the park which should be replaced with general waste and recycling bins in stainless steel surrounds.

A brick storage shed (J) is located adjacent to the amenities building west of the oval. This stores the roller for the turf wicket, and has a timber door which is locked. The building is in reasonable condition and could be cosmetically renovated for retention as an alternative storage facility.

Chain mesh fencing (K) surrounds the multi-use courts, with recent upgrades due to tree damage on the western side. There are two gates - one to the north, and one to the south - to facilitate access into the courts, which are not locked. The oval has a portion of low (approximately 800mm high) chain mesh fencing around the southern side of the field. The half court basketball also has chain mesh fencing to three sides on top of the retaining wall. Other mesh style fencing is located in and around the bushland.

The play space is completely fenced with tubular playground fencing (L), with one gate located on the northern side, and another opposite on the south.

Post and rail barriers (M) are located along the edges of the car park and the Tanderra Street frontage (timber), and steel along the Koora Avenue boundary.

Signage consists of interpretive and regulatory signs, with approximately 9 regulatory signs around the park, and approximately 6 interpretive signs in the bushland and vegetated areas.



Seat



Picnic Table and Seat



Bin



Chain Mesh Fencing



Playground Fencing

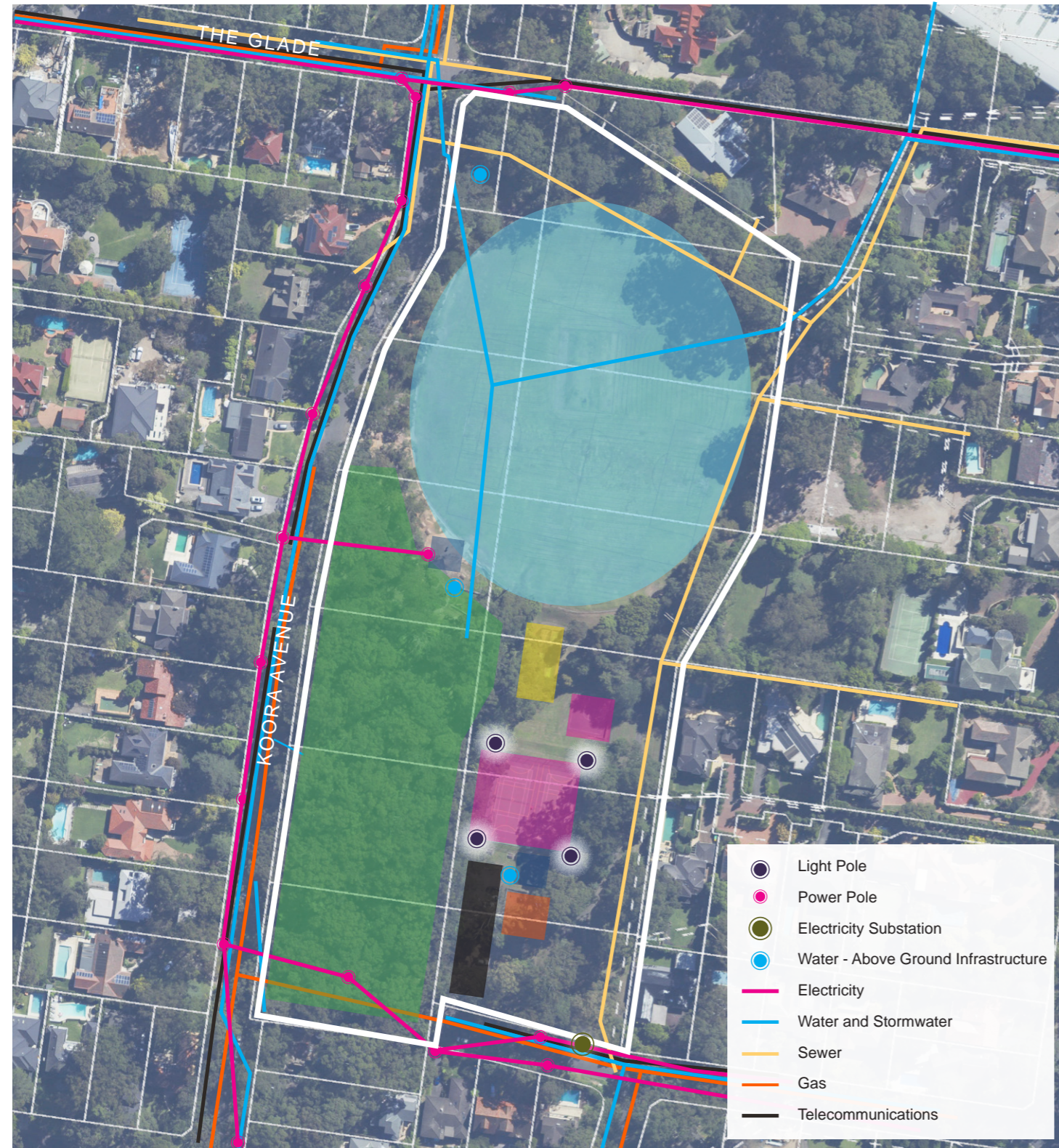


Post and Rail Barrier

Existing Services, Infrastructure, Lighting and Safety

Services within the park are owned by the following providers:

- Ausgrid
- Sydney Water
- Jemena
- Telstra
- NBN



Existing Services, Infrastructure, Lighting and Safety Map

Ausgrid's electrical assets include power poles and aerial cables. Power poles are located on the track between Koora Avenue and Tanderra Street, with a connection from Koora Avenue to the amenities building. An electrical substation is located on the park boundary on Tanderra Street. Flood lighting is provided in the park to light the multi-use courts, and there is no pedestrian lighting within the park.

Sydney Water assets within the park include sewer infrastructure, with potable water services located outside the park boundary. There are connections to potable water such as taps, a drinking fountain and to the amenities building however these were not identified through the survey or Dial Before You Dig data. Internal investigations into the feasibility of stormwater harvesting for re-use in irrigation have been completed and a preliminary concept has been developed. Rainwater harvesting off the amenities building for toilet flushing reuse can be incorporated if required.

A Jemena gas pipeline (medium pressure) is located along the track between Koora Avenue and Tanderra Street.

Telstra services are restricted to the north-west corner of the site along The Glade, with other services occurring outside the park boundary in Tanderra Street.

NBN services are located outside the park boundary in Tanderra Street.

Passive surveillance of the park is limited due to the surrounding bushland and the orientation of residential blocks around the park, however due to the open nature of the site, there have been very few reports of anti-social behaviour.



Light Pole



Electricity Substation



Services Infrastructure



Drinking Fountain



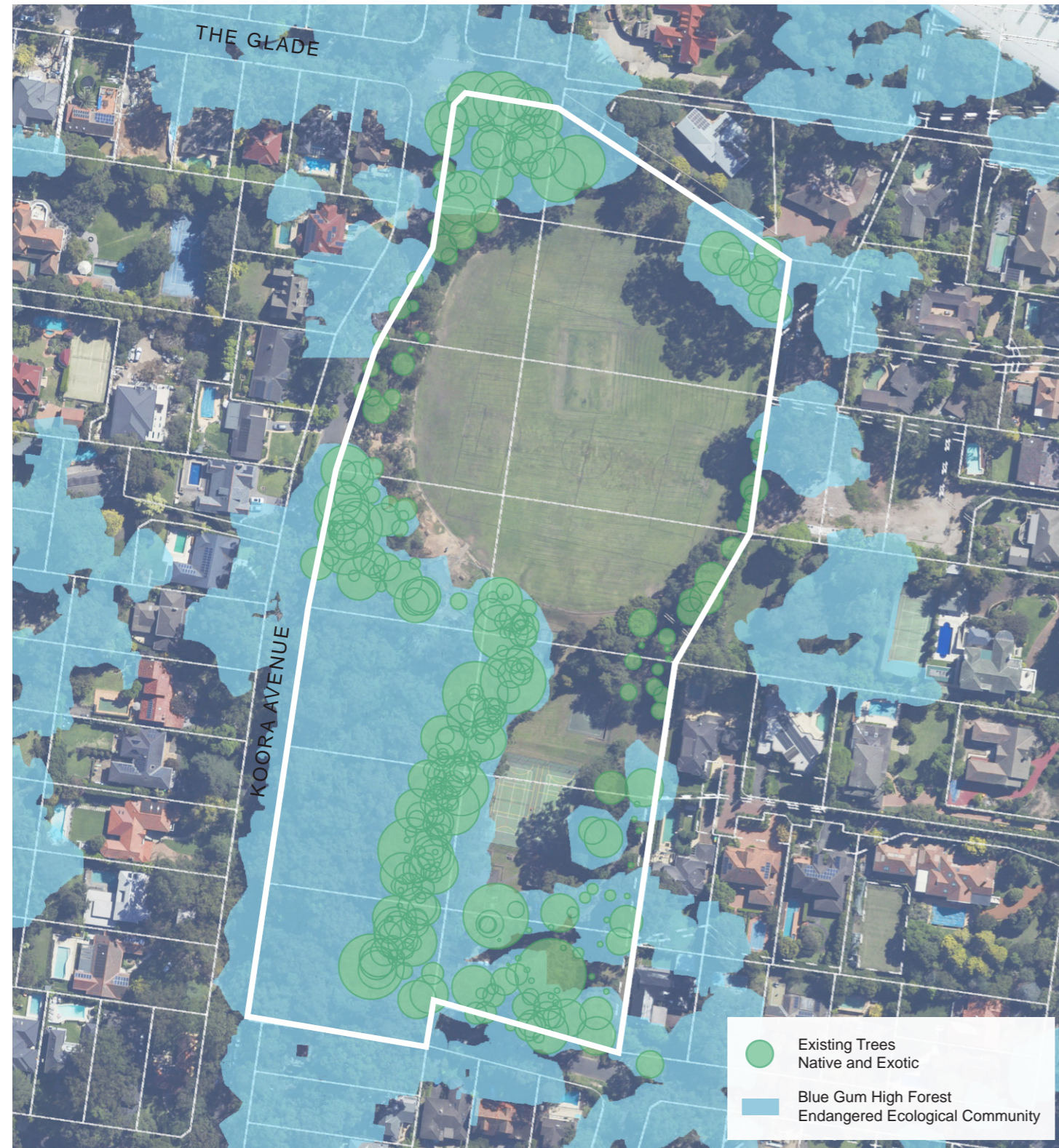
Drinking Fountain



Drinking Fountain

Existing Trees and Vegetation

Approximately 25% of the site is well vegetated with Blue Gum High Forest Ecological Community (classified as critically endangered), which is identified as core biodiversity land in the most dense areas. The quality of the vegetation on the site nominated as 'The Glade Reserve' (identified as 'C2' on the LEP zoning map) is considered high, and is a Biodiversity Offsets Scheme site. Surrounding vegetation is classified as supporting and buffer/corridors, and is protected under threatened species legislation. This area is currently undergoing a long term program of regeneration by Council's Natural Resources Team. The dominant locally-indigenous tree species found in this area include *Eucalyptus saligna* (Sydney Blue Gum) and *Eucalyptus pilularis* (Blackbutt).



Existing Trees and Vegetation Map

The Glade has a typical parkland character, with trees and lawn punctuating the active recreation areas. The remainder of the site has been cleared for sports and recreation use and is mowed grass.

There are no formalised planting beds, hedging or curated garden areas within the park.

There is evidence in early photos that pine trees have been planted on the embankment surrounding the western edge of the oval, which have become weeds on the site and should be removed where possible. There is also a selection of mature exotic species on the site which provide autumn colour and species diversity.

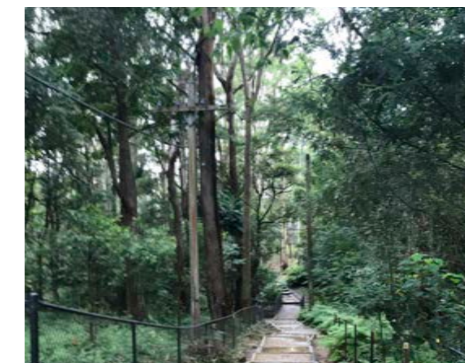
Any proposed planting at the site should preferably be from provenance grown stock for Blue Gum High Forest Vegetation Association. Consideration should be given to potential future field lighting to ensure that no trees at mature height will interfere with this.

Replacement tree planting at The Glade should comprise of the following local native species:

- *Eucalyptus saligna* (Sydney Blue Gum) and
- *Eucalyptus pilularis* (Blackbutt).
- *Syncarpia glomulifera* (Turpentine)
- *Eucalyptus paniculata* (Grey Ironbark)
- *Angophora costata* (Sydney Red Gum)
- *Allocasuarina torulosa* (Forest Oak)
- *Acmena smithii* (Lillypilly)
- *Elaeocarpus reticulatus* (Blueberry Ash)



Mixture of Exotic and Native Trees (south-east of site)



Endemic Blue Gum High Forest (south-west of site)

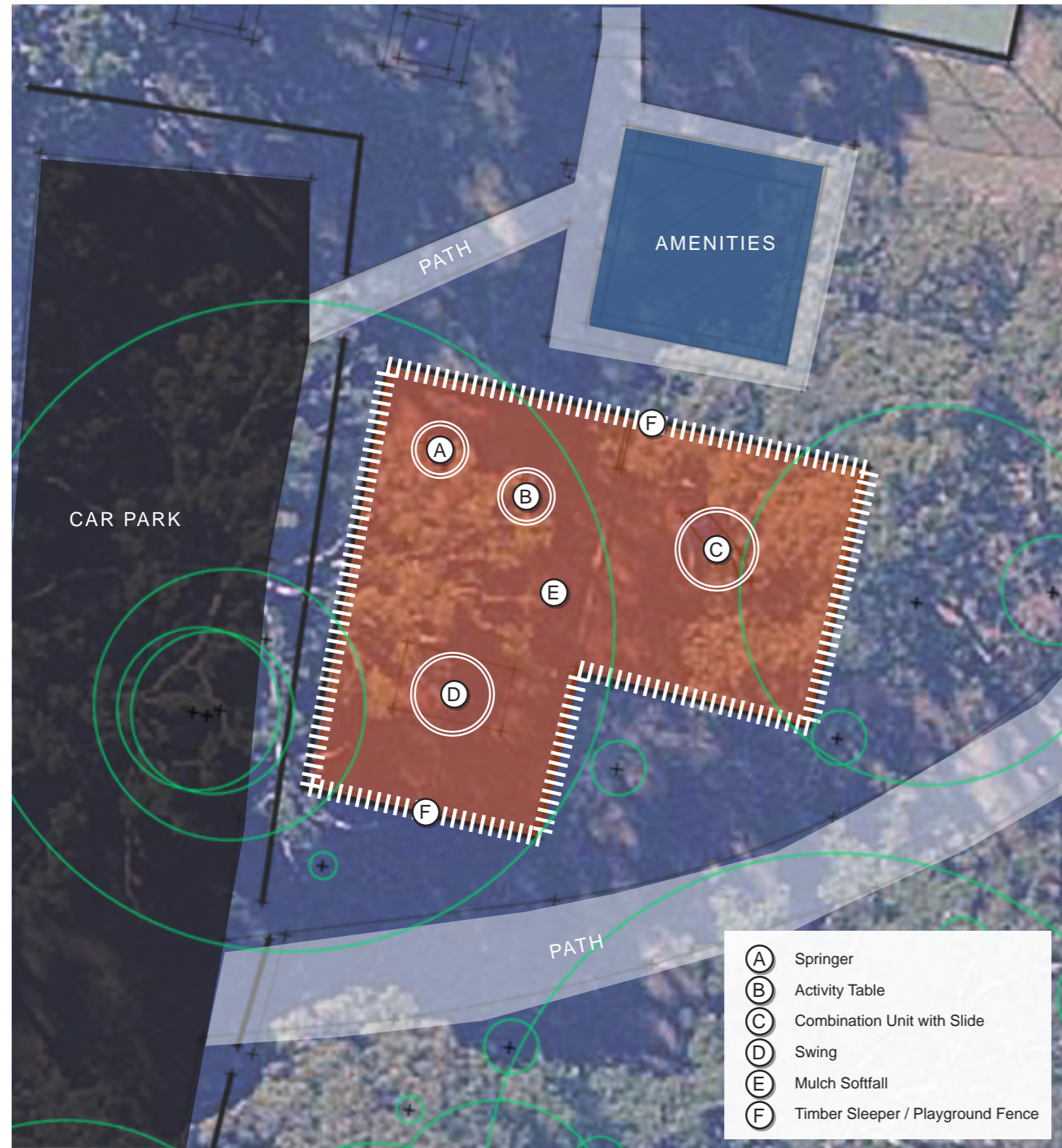


Planted Native Trees around the Oval (north-west of site)

Existing Play Space

The Glade is designated as a District Park due to its size and provision of active recreation facilities. Currently the park's play space does not meet the desired requirements of a District Park due to the limited play equipment and the lack of complementary facilities immediately adjacent the play space, such as shelters and toilet facilities. An upgrade of the playground is required to diversify play opportunities, create an accessible and inclusive play space, and promote the park as an important recreational location for the local community.

The existing play space consists of a two-level terraced area surfaced with playground mulch bounded by timber edging. The upper level accommodates a combination unit with slide, whilst the lower level has a sailing boat activity table, swings, and a springer unit. These are all focussed toward a younger children (4-11) age bracket. There are several trees which provide shade within the area set amongst turf for informal play. The play space is completely fenced.



Existing Play Space Map



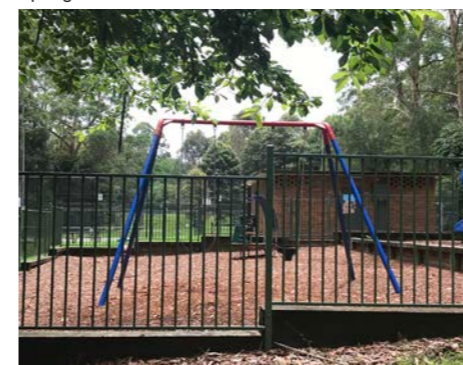
Springer



Activity Table



Combination Unit with Slide



Swing

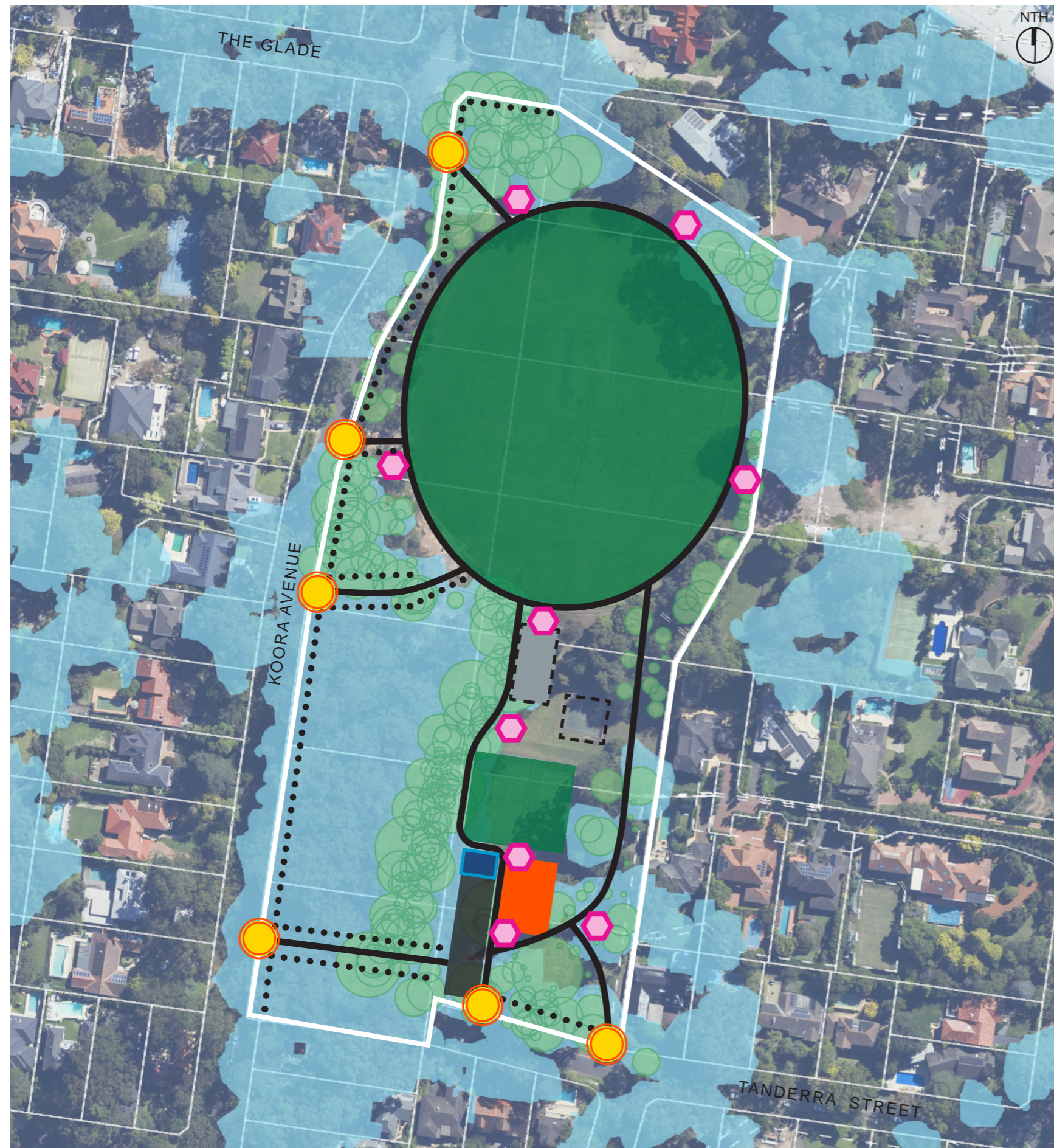


Mulch Softfall



Timber Sleeper / Playground Fence

Opportunities and Constraints









Opportunities and Constraints Plan





The Glade presents an excellent framework for an improved district level park. Its location and established presence will continue to attract users from across Ku-ring-gai. No substantial changes are proposed for the overall fabric of the park, however significant infrastructure upgrades will contribute to making the park more accessible, functional and desirable as a destination.

The diagram adjacent gives an outline of the opportunities for park improvements and those existing features which act as constraints. This has informed the Landscape Masterplan concept which is in the following sections.

Opportunities

-  Create new path network to improve access
-  Upgrades to improve access and entry points
-  Potential replacement of existing southern amenities block with more open structure in new location
-  Opportunity to upgrade and expand play space
-  Review location and retention of cricket nets and half court basketball
-  Opportunities for new furniture including shelter, picnic settings, seats, bins, bicycle parking, drinking fountains, and exercise equipment

Constraints

-  Retain and protect existing trees
-  Retain and protect existing Blue Gum High Forest Vegetation
-  Maintain existing playing field and multi-use courts
-  Upgrade fencing and explore options for alternative materials / alignment

Drainage

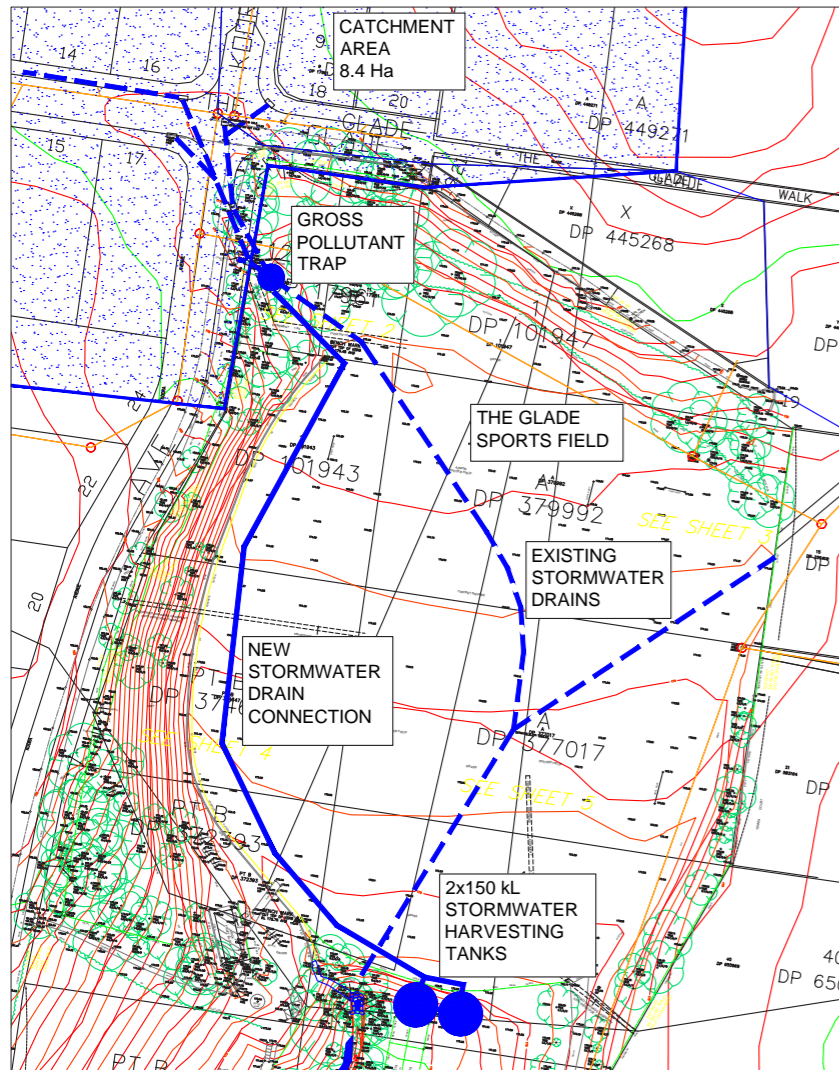
Preliminary investigations into the feasibility of stormwater harvesting for The Glade were conducted in 2008. These identified two main stormwater lines passing under the field, connected at a large buried junction pit under the field. Both lines have similar size catchments, with the boundary being Pacific Highway to the north. A survey for all surface structures was obtained, however no inverts of piped infrastructure were available. Considerable effort was put into obtaining levels for pits and pipes, the latter mainly through manually measuring pits on site. A CCTV investigation of the drainage network was also conducted to determine the connectivity. This revealed the approximate location of the junction pit, which was confirmed by obtaining the original design drawings of the system. CCTV also showed a previously unknown pipe, most likely coming from the Abbotsleigh School upstream. Further investigation into the pipe configuration was undertaken with the help of the drainage team.

Drainage Concept

A number of options were considered to harvest the stormwater directly from the two main stormwater drains under the field; however, this was not considered feasible due to the depth of the pipe invert being up to 4m below the field's surface at the southern boundary.

The selected option chosen for future investigation and design is as follows:

- Install a gross pollutant trap (GPT) at the north western side of the field with easy maintenance access from Koora Avenue.
- Locate 2 x 150 kL tanks below the field's southern embankment. Adjust the tank level to allow connection of the new drainage pipes from the GPT at Koora Avenue to gravity feed into the top of the SWH tanks.
- Grassed biofilter swale drains around the field with grated pits and filter bags to intercept and treat overland flows before connecting into the two 150kL SWH tanks.
- Retain the existing concrete gutter to the western boundary and connect this to the tanks via a grated pit and filter bag.
- Two 150 kL tanks will provide an estimated stormwater harvesting reliability of 75%



Drainage Concept Plan

The Glade Landscape Masterplan



REFER LANDSCAPE MASTERPLAN (NORTH)

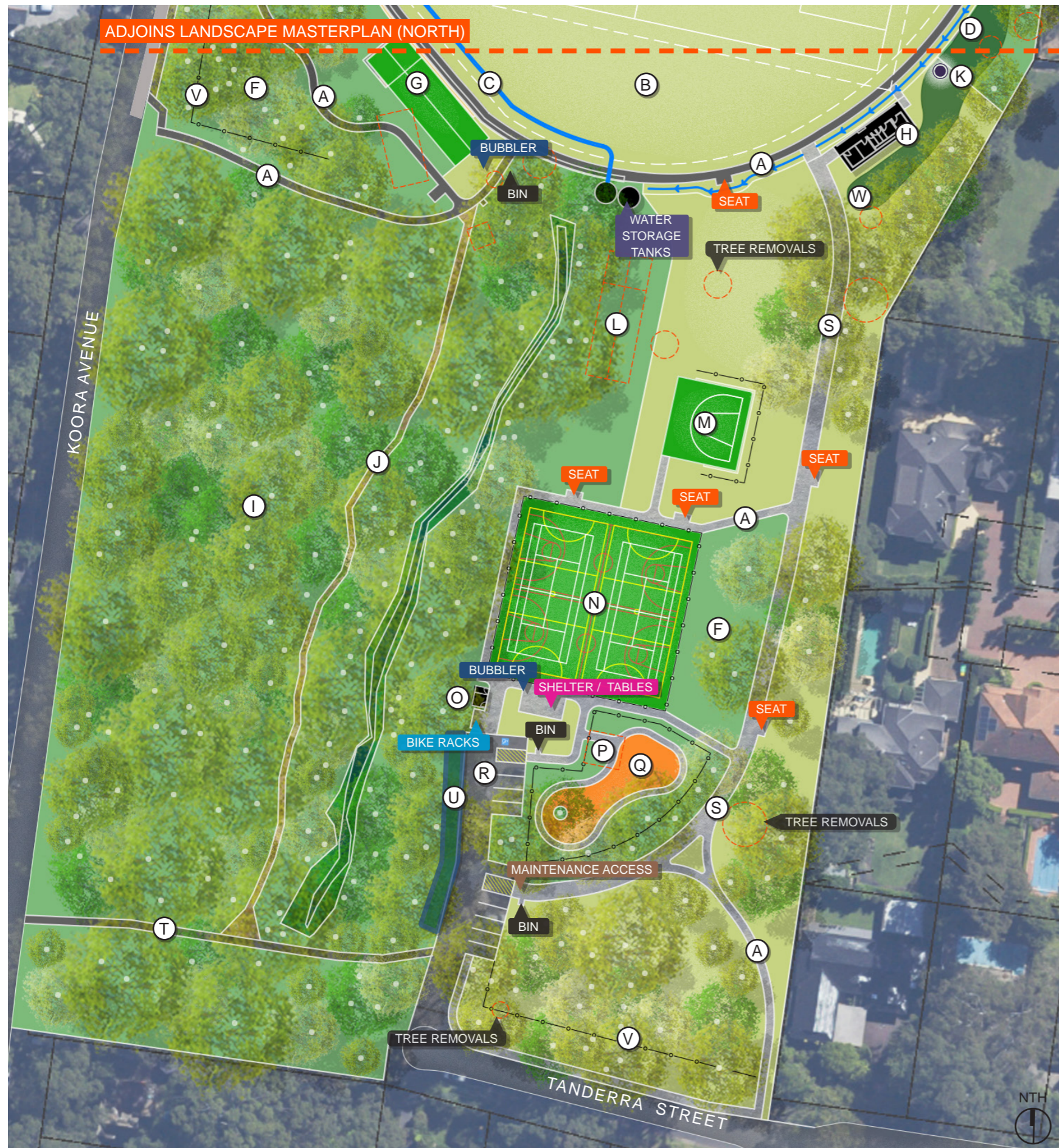
REFER LANDSCAPE MASTERPLAN (SOUTH)

The Glade Landscape Masterplan (North)



- (A) Install perimeter pedestrian path network connecting to park facilities and park entries
- (B) Retain existing field. Upgrade and improve drainage
- (C) Install gross pollutant trap at park boundary and new drainage pipes connecting to water storage tanks
- (D) Construct swale around perimeter of field to improve drainage
- (E) Incorporate rock stabilisation to base of embankment
- (F) 'No-mow' zone and bushland regeneration works
- (G) Install cricket practice nets in new location to better connect with playing field
- (H) Upgraded amenities facilities
- (I) Retain and protect Blue Gum High Forest Ecological Community
- (J) Retain / upgrade track through bushland
- (K) LED field lighting
- (L) Remove and relocate existing cricket nets and replace with bushland area
- (M) Retain basketball half court
- (N) Retain existing multi-use tennis / basketball / netball courts
- (O) Install accessible, unisex toilet in new location
- (P) Remove existing amenities building to allow expansion of existing play space
- (Q) Upgrade and expand play space to provide fenced area with wider range of play opportunities
- (R) Upgrade car park to provide accessible parking space. Install wheel stops and rationalise existing barrier fence
- (S) Upgrade existing pedestrian path / service vehicle access
- (T) Upgrade existing stairs to provide accessible path
- (U) WSUD / Rain garden
- (V) Rationalise / upgrade existing barrier fences
- (W) Screen planting
- (X) Formalised parking on Koora Ave

The Glade Landscape Masterplan (South)



- (A) Install perimeter pedestrian path network connecting to park facilities and park entries
- (B) Retain existing field. Upgrade and improve drainage
- (C) Install gross pollutant trap at park boundary and new drainage pipes connecting to water storage tanks
- (D) Construct swale around perimeter of field to improve drainage
- (E) Incorporate rock stabilisation to base of embankment
- (F) 'No-mow' zone and bushland regeneration works
- (G) Install cricket practice nets in new location to better connect with playing field
- (H) Upgraded amenities facilities
- (I) Retain and protect Blue Gum High Forest Ecological Community
- (J) Retain / upgrade track through bushland
- (K) LED field lighting
- (L) Remove and relocate existing cricket nets and replace with bushland area
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- (R) Upgrade car park to provide accessible parking space. Install wheel stops and rationalise existing barrier fence
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- (T) Upgrade existing stairs to provide accessible path
- (U) WSUD / Rain garden
- (V) Rationalise / upgrade existing barrier fences
- (W) Screen planting
- (X) Formalised parking on Koora Ave

Project Budget

Council's District Park Landscape Masterplans are used in the preparation of the Parks Development Program in Council's Delivery Program and annual Operational Plan. Each masterplan is staged to be implemented over a number of years.

The primary source of funding for the proposed works is the Ku-ring-gai Contributions Plan 2010 Works Programmes: Local parks, Local sporting facilities – Existing Open Space Embellishment which provides funding for the upgrade of The Glade to district park standards. There is approximately \$1,000,000 in funding available for the project for years 2024-2026, with grant opportunities to be explored during design and construction stages to bolster this.

Potential funding sources from grants include:

- NSW State Government's Places to Play, Community Building Partnerships, Crown Reserves Improvement Fund Grant, and Environmental Restoration and Rehabilitation
- Grants offered by NSW Office of Sport
- Grants for sustainable initiative including LED lighting and rainwater harvesting

Some works identified in the master plan are of an operational nature and can be completed within existing recurrent budgets.

Indicative Project Staging

Stage 1 - 2024

- Detail design and tender for Stage 1 package of works including:
 - Screen planting
 - Upgrade to drainage
 - Upgrade to Koorra Ave to Tanderra Street access
 - Upgraded park entries and paths, including fencing
 - Stage 1 tree removals and replacement, planting

Stage 2 - 2025

- Construction of Stage 1 works
- Detail design and tender for Stage 2 package of works including:
 - New play space
 - New seating, furniture, signage, shelter and BBQ facilities
 - Stage 2 tree removals and replacement

Stage 3 - 2026

- Construction of remaining Stage 1 works, and Stage 2 works
- Upgrade to cricket practice net facilities - detail design and construction
- Bush remediation works
- Stage 3 tree removals and replacement

What are Contributions Plans?

Ku-ring-gai Council's Contributions Plan 2010 allows a consolidated approach to providing infrastructure as a result of new development by authorising proportional contributions from new development towards the provision of infrastructure for that development.

The Plan aims to maintain the amenity of the local environment within Ku-ring-gai by ensuring that new development provides for its fair share of funds towards parkland improvements on a pro-rata per-capita basis so that the existing population does not suffer a significant progressive and cumulative reduction in access to parks and recreation facilities – and the urban amenity that results – as a result of significant population growth related to increased housing through development.

For further information contact:

Ku-ring-gai Council

P: 02 9424 0000

F: 02 9424 0001

E: krq@krq.nsw.gov.au

W: krq.nsw.gov.au

