A photograph of a dirt path leading through a lush green park. The path is in the foreground, leading towards a grassy area in the background. There are trees and bushes on both sides of the path. The text "COOKS RIVER PARKLANDS, PLAN OF MANAGEMENT + MASTER PLAN" is overlaid on the top left of the image.

COOKS RIVER PARKLANDS, PLAN OF MANAGEMENT + MASTER PLAN

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Front cover image: Richardson's Lookout above Thornley Street, Marrickville
Photography by Marrickville Council



Document Control

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07.04.2016	04	Draft issue 04 - For ELT input	DP/JB
18.04.2016	05	Draft issue 05 - For Council	DP/PM



Tree vegetation in HJ Mahoney Reserve, Marrickville. Photography by Marrickville Council.

Executive Summary

Cooks River Parklands Plan of Management + Master Plan

Extensive research in 2012 resulted in the Recreation Needs Research - Strategic Directions for Marrickville, which identified the Cooks River Parklands as being in need of improved recreation and environmental outcomes for the community. Marrickville Council initiated the planning process to develop Plans of Management and Master Plans for 2.5 kilometres of the Cooks River Foreshore in July 2014. The scope of the project includes the following parks and recreation reserves:

- > HJ Mahoney Reserve;
- > Steel Park;
- > Warren Park;
- > Richardson's Lookout;
- > Cooks River Foreshore;
- > Kendrick Park; and
- > Fatima Island.

The report outlines all the legislative requirements for a Plan of Management. The report is divided into eight sections, within which, each of the parks are described separately. The sections include: Project context, existing site description and site analysis, park categorisation, leases and licences, engagement overview and common themes, designs including proposed strategies and the implementation plan.

The report provides information on the Cooks River Parklands as a connected series of open space areas that form the northern riparian corridor of the lower Cooks River. The report balances interests of passive and organised recreation, biodiversity, stormwater treatment, heritage, pedestrian and cyclist circulation. It aims to deliver balanced outcomes that facilitate multipurpose infrastructure and use outcomes that provide for all park users and the environment. The design outcomes are a direct representation of requests from the community engagement process.

The key design strategies proposed for each the parks include:

HJ Mahoney Reserve

- > Construction of water sensitive urban design initiatives including an ephemeral wetland and swale for water treatment from Wharf Street. The design provides for recreation nodes including barbecues, a shade structure, picnic facilities, seating, planting and shade trees.
- > Naturalisation of the river edge with a share pathway, shade trees, habitat provision and seating.
- > Retention of the sports field, athletics facilities and amenities building.
- > Development of a youth facility with multi use courts, skatable seating and retention of the existing graffiti street art wall.

Steel Park

- > Implementation of the DAB expansion Master Plan.
- > Integration of WSUD initiatives to existing and new car parking areas along with water treatment from Illawarra Road and implementation of associated passive recreation opportunities of seating and shade.
- > Additional seating around the playing fields for sports viewing

and terraces on the embankment from Thornley Street.

- > Expansion of the existing children's playground, picnic facilities, shade shelters and barbecues.
- > Provision of a vegetative buffer between users and the river near the play facilities to limit water access by users.
- > Upgrade of the playing fields with new turf and drainage.

Richardson's Lookout, Warren Park and the Cooks River Foreshore

- > Implementation of water sensitive urban design initiatives to reduce erosion and treat storm water from Thornley Street and Warren Park.
- > Implement staged exercise circuit with new equipment along the foreshore.
- > Additional vegetation and naturalisation of unused areas under existing fig trees and on dangerously steep slopes (in Richardson's Lookout) to increase biodiversity, habitat values and provide for a safe park.
- > Provision of a river viewing platform, additional signage, seating and other park furniture.
- > Retain open space for informal recreation

Mackey Park

- > Naturalisation of the Sydney Water drainage channel with passive recreation items to increase park use opportunities.
- > Increase recreation opportunities along the foreshore with seating and picnic tables.
- > Provide an additional pathway connection from the foreshore to Richardson Crescent.
- > Reconfigure the playing fields to reduce cricket ball conflict with the adjacent children's playground.
- > Reconfigure the playing field line markings and the additional of new goalpost sleeves to increase flexibility of playing field and reduce turf wearing.
- > Upgrade children's playground with new equipment, seating, shade and landscaping.
- > Implement staged exercise circuit with new equipment along the foreshore.

Kendrick Park and Fatima Island

- > Retention of Fatima Island as a natural river asset.
- > Additional planting areas including the development of a low vegetative buffer with the Princes Highway to enable better mental separation from the traffic and noise.
- > Upgrade the existing children's playground, barbecue facilities and shade structures.

The design strategies are described on scaled plans as well as in text and imagery.

Implementation of the proposed plans

The implementation plan articulates the estimated costs for each project. Performance measure targets and a time frame for implementation is also provided. Each of the proposed upgrades are prioritised according to community feedback and have informed the Long Term Financial Plan.



Open Space, Kendrick Park, Tempe. Photography by Marrickville Council.

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Steel Park, Marrickville. Photography by Marrickville Council.

01_ Project Context





Kendrick Park, Tempe. Photography by Marrickville Council.

01_ Project Context

Introduction

Overview

Council conducted an extensive research project in 2012 resulting in the development of the Recreation Needs Research - Strategic Directions for Marrickville. The study identified the community need for improved recreation and environmental outcomes for the Cooks River and its parklands.

In July 2014 Marrickville Council initiated the planning process to develop plans of management and master plans for open space along 2.5 kilometres of the Cooks River foreshore. The project scope includes the following parks and reserves:

- > HJ Mahoney Reserve;
- > Steel Park;
- > Warren Park;
- > Richardson's Lookout;
- > Cooks River Foreshore;
- > Kendrick Park; and
- > Fatima Island.

The purpose of the report is to inform the long-term financial plan and the open space asset plan, in order to plan staged upgrades over the next ten years.

This report views the Cooks River Parklands as a connected series of open space areas that form the northern riparian corridor of the lower Cooks River. The report balances interests of passive and organised recreation, biodiversity, stormwater management, heritage, pedestrian and cyclist circulation. It aims to deliver balanced outcomes that facilitate multipurpose infrastructure and use outcomes that provide for the environment and all park users. Outcomes and decisions are based on the user needs research, project community engagement, site analysis, design and engineering best practice.

Our Place, Our Vision 2023: Marrickville's Community Strategic Plan

Council parklands service multiple community needs as demonstrated by the extensive list of relevant outcomes in Our Place, Our Vision 2023, Marrickville's Community Strategic Plan (CSP). The ongoing management of the Cooks River Parklands is consistent with the CSP, promoting the shared vision of the community and Council. It also provides us with a focus; enabling us to allocate the required resources to translate our vision into action. The following pages show how the Cooks River Parklands Plan of Management and Master Plan integrate with, and actively support, our community's strategic outcomes.

The development of the Cooks River Parklands Plan of Management and Master Plan was informed by community and stakeholder engagement, research and analysis of the sites and user groups and related strategies and plans. Ongoing implementation will be achieved through not only our targeted Action Plan, but Council's four year Delivery Program, annual Operational Plan and Resourcing Strategy.

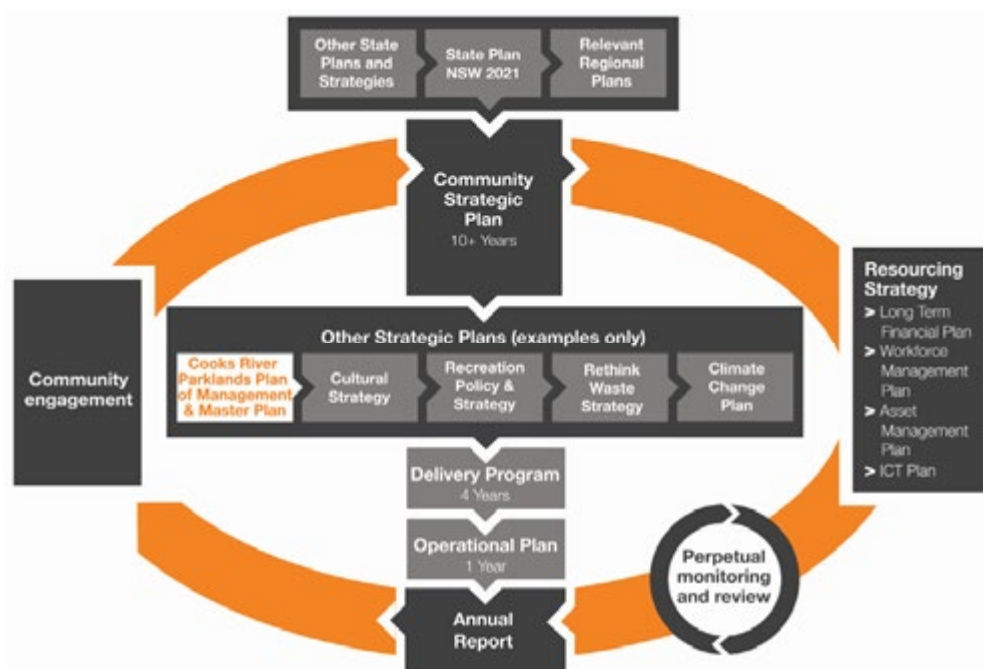


Figure - 01: Planning context, strategic alignment and process.

01_ Project Context

Strategic Alignment

OUR PLACE, OUR VISION 2023 Marrickville Community Strategic Plan

ALIGNMENT OF THE COOKS RIVER PARKLANDS PLAN OF MANAGEMENT AND MASTER PLAN WITH THE COMMUNITY STRATEGIC PLAN AND DELIVERY PROGRAM

KEY RESULT AREAS

These are the big picture results which the community would like Council and its many partners to focus on achieving

KEY RESULT AREAS

- KRA 1** - A diverse community that is socially just, educated, safe and healthy.
- KRA 2** - A creative and cultural Marrickville.
- KRA 3** - A vibrant economy and well planned, sustainable urban environment and infrastructure.
- KRA 4** - An innovative, effective, consultative and representative Council.

OUTCOME STATEMENT

These are detailed outcomes under each KRA. They are more specific than the KRAs, but still focus on the end result rather than how to get there

OUTCOMES

- 1.1** The community is active and healthy;
- 1.2** The community has improved access to a range of local services for all ages and abilities;
- 1.3** The community has increased opportunities for participation and enjoyment;
- 1.4** The community feels safe, connected and has access to infrastructure;
- 2.1** Marrickville is a creative community participating in arts and cultural activities at all stages of life;
- 2.3** The community understands and has a strong sense of history;
- 2.4** Increased awareness and appreciation of Aboriginal art, culture and history in Marrickville;
- 3.1** The community is responding to climate change and is actively reducing greenhouse gas emissions.
- 3.3** The community walks, rides and uses public transport.
- 3.6** Marrickville's parks, grounds and open spaces provide diverse opportunities for recreation and enjoyment and are designed with community input.
- 3.7** Marrickville is a water sensitive community that: supplies water from within its catchment; provides green infrastructure to support ecosystem services and collaborates to make plans, designs and decisions that are water sensitive.
- 3.8** Marrickville has thriving natural habitats.
- 3.9** Marrickville's built environment demonstrates good urban design and the conservation of heritage, as well as social and environmental sustainability.
- 4.3** Council is innovative in its delivery of services and projects.
- 4.4** Council operations are high quality, sustainable, ethical and efficient.
- 4.5** Council is financially viable and provides value for money in the delivery of its services.

Figure - 02: Aligning the Cooks River Parklands with the Community Strategic Plan

01_ Project Context

Strategic Alignment

OUR PLACE, OUR VISION 2023 Marrickville Community Strategic Plan

ALIGNMENT OF THE COOKS RIVER PARKLANDS PLAN OF MANAGEMENT AND MASTER PLAN WITH THE COMMUNITY STRATEGIC PLAN AND DELIVERY PROGRAM

DELIVERY PROGRAM OBJECTIVES

These guide the specific actions related to this plan and define how to achieve the outcomes

STRATEGY OBJECTIVES

- 1.1.1** Provide the community with access to diverse and affordable sporting and recreation opportunities.
- 1.1.2** Provide sport and recreation facilities, programs and services that meet the present and future needs of the community.
- 1.1.3** Support the mental health and well-being of citizens.
- 1.2.2** Deliver and improve a wide range of essential community services that produce better outcomes for people of all ages and abilities.
- 1.2.3** Collaborate with other agencies to plan and deliver a range of programs that meet community needs and promote community well-being.
- 1.2.4** Community and Council facilities are well managed.
- 1.3.4** There are safe places for people to meet and interact.
- 1.4.1** Plan and advocate for improved accessibility including accessible transport options and well maintained and accessible pathways.
- 1.4.2** Collaborate to address crime and improve safety.
- 2.1.1** Provide community members with access to arts and cultural activities and facilities.
- 2.1.2** Develop a community culture where everybody feels comfortable expressing their chosen cultural life, including their cultural practices, art and languages.
- 2.1.4** Integrate public art and street art into public spaces.
- 2.1.6** Provide cultural infrastructure through a range of affordable and accessible facilities.
- 2.3.1** Record and promote the area's diverse cultural history for current and future generations.
- 2.3.2** Engender a sense of community pride in and respect for the area's diverse history.
- 2.4.1** Protect Aboriginal Culture and History in Marrickville.
- 2.4.3** Increase interpretative signage and aboriginal art in public places.
- 3.1.3** Enhance Council's and the community's ability to adapt to a changing climate.
- 3.3.1** Plan and provide accessible and well connected footpaths, cycle ways and associated facilities.
- 3.3.2** Promote accessibility of railway stations and bus stops.
- 3.3.3** Support and promote cycling, walking and use of public transport and other alternative transport modes to reduce car use.
- 3.6.1** Ensure Council's parks are well maintained, accessible and visually appealing.

01_ Project Context

Strategic Alignment

OUR PLACE, OUR VISION 2023 Marrickville Community Strategic Plan

DELIVERY PROGRAM OBJECTIVES

These guide the specific actions related to this plan and define how to achieve the outcomes

ALIGNMENT OF THE COOKS RIVER PARKLANDS PLAN OF MANAGEMENT AND MASTER PLAN WITH THE COMMUNITY STRATEGIC PLAN AND DELIVERY PROGRAM

STRATEGY OBJECTIVES

- 3.6.2** Ensure Council's playgrounds are safe, accessible and offer a range of opportunities for creative play and exploration.
- 3.6.3** Ensure Council's sporting facilities are sustainable, accessible and offer a diverse range of recreational opportunities.
- 3.7.1** Reduce the use of potable mains water in homes, businesses, Council facilities and public spaces.
- 3.7.2** Manage the stormwater system and its impact on the urban environment.
- 3.7.3** Support regional projects to improve the health of the Cooks River, Botany Bay, Lower Parramatta River, Sydney Harbour and their catchments.
- 3.7.4** Implement sustainable urban water management.
- 3.8.1** Protect and enhance Marrickville's biodiversity and Priority Biodiversity Areas.
- 3.9.1** Provide effective planning controls to ensure that the built environment reflects community expectations and changing needs, conserves heritage and is socially and environmentally sustainable.
- 4.3.2** Council works collaboratively with new and existing partners to tackle complex problems.
- 4.4.1** Implement best practice governance standards, transparent decision making and a strong ethical culture.
- 4.5.1** Provide financial information and services to support effective decision making.
- 4.5.3** Ensure Council's property assets are well managed.

01_ Project Context

Strategic Alignment

OUR PLACE, OUR VISION 2023 Marrickville Community Strategic Plan

ALIGNMENT OF THE COOKS RIVER PARKLANDS PLAN OF MANAGEMENT AND MASTER PLAN WITH THE COMMUNITY STRATEGIC PLAN AND DELIVERY PROGRAM

ACTIONS

The detailed set of actions which Council will undertake to help achieve the community vision are not contained in the Community Strategic Plan, but are specified in its Delivery Programs and Operational Plan

ACTIONS

1. Complete community engagement to determine how the Cooks River Parklands are used, how the community want to use the facilities and how they would like the parks to look like in the future.
2. Undertake existing site appraisal and analysis of the parklands and their connections.
3. Develop design principles for the design of all parks.
4. Outline design strategies that articulate proposed park upgrades.
5. Provide an opinion of probable costs for the proposed park upgrades.
6. Provide a list of prioritised upgrades with financial implications integrated into the Long Term Financial Plan and Open Space Asset Management Plan. Ensure the priorities are aligned with feedback as described during the engagement sessions.

01_ Project Context

Scope of Work

The Cooks River Parklands are located in the suburbs of Marrickville and Tempe within the Marrickville Local Government Area (LGA). The parklands are adjacent to both Rockdale and Canterbury Council areas and the suburbs of Wolli Creek and Earlwood. The Cooks River Parklands project includes the following parks and reserves bounded by the following streets and landmarks:

HJ Mahoney Reserve

HJ Mahoney Reserve is bounded by Wharf Street to the north, Illawarra Road to the east, the Cooks River to the south and the Marrickville Golf Course to the west.

Steel Park

Steel Park is bounded by Thornley Street to the north, residential properties and the Cooks River Foreshore Park to the east, the Cooks River to the south and Illawarra Road to the west.

Warren Park

Warren Park is bounded by Thornley Street to the north, residential properties to the east, the Cooks River Foreshore Park to the south and residential properties to the west.

Richardson's Lookout

Richardson's Lookout is bounded by Holt Crescent to the north, residential properties to the east, Thornley Street to the south and Mansion Street to the west.

Cooks River Foreshore

The Cooks River Foreshore is bounded by Warren Park to the north, Mackey Park to the east, the Cooks River to the south and Steel Park to the west.

Mackey Park

Mackey Park is bounded by Premier Street and Richardson's Crescent to the north, Richardson's Crescent and Bayview Avenue to the east, the Cooks River to the south and Carrington Avenue, Cooks River Foreshore Park and residential properties to the west. The Concordia Club is located within the boundaries of Mackey Park, however is outside the scope of this document.

Kendrick Park

Kendrick Park is bounded by View Street and residential properties to the north, Princes Highway to the east, Cooks River to the south and the Tempe train station and rail line to the west.

Fatima Island

Fatima Island is an ephemeral island located in the Cooks River. The island is surrounded by tidal river water which means the island edges expand and contract according to the river tidal currents and flood levels.

The location of the parks are highlighted in figure 03 and the park and project scope plan is highlighted in figures 04 and 05.

The designs for the Master Plans have considered pedestrian and cycle connections between the parklands, along streets and through the Tempe train station car park. The design strategies recommendations in the Master Plan include areas within the public domain outside the park lot boundaries.

01_ Project Context

Location Plan - Regional Context

LEGEND

- Marrickville LGA Boundary
- Cooks River Parklands

Cooks River



Figure 03: Location plan.

01_ Project Context

Scope Plan

LEGEND

..... Site Boundary



Figure 04: Scope of the parklands for the Master Plans and Plans of Management.

01_ Project Context

Scope Plan

LEGEND

..... Site Boundary

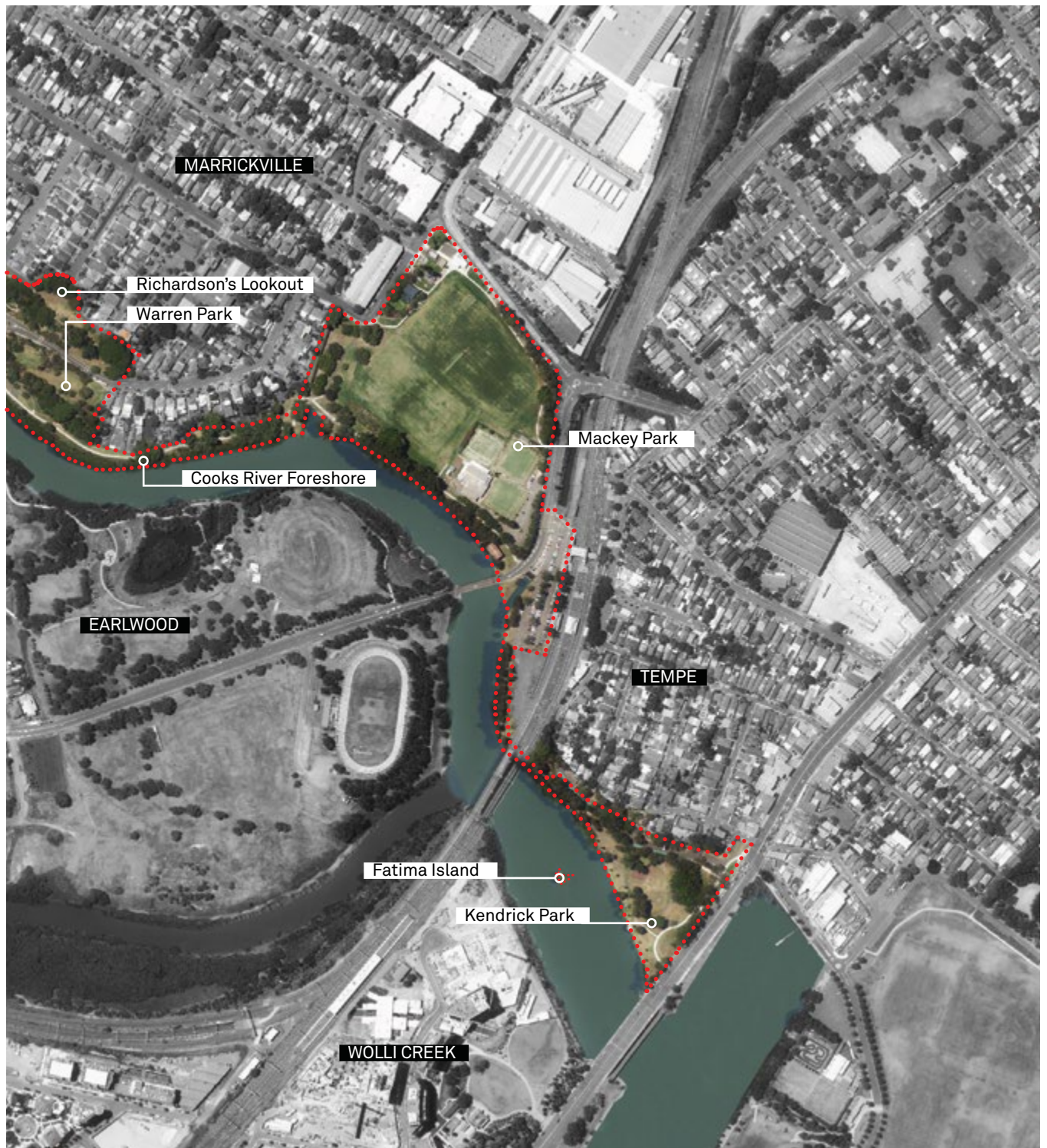


Figure 05: Scope of the parklands for the Master Plans and Plans of Management.

0 50 100 200
metres

01_ Project Context

Scope of Work_ Climate change

The IPCC (2014) and the CSIRO (2014) outline the world is undergoing rapid warming. The warming is having measurable impacts on our daily climate with increasing extremes of temperature, rainfall intensity, rainfall variability and the severity of storms. Rising sea levels have been attributed to increasing temperatures and in combination with increased storm events and rainfall intensity, the result is more frequent flood inundation of the foreshore areas including the recreation spaces of the Cooks River.

With so many variables in calculating the full affects of climate change, scientific models vary greatly in the predicted outcomes. Worst case scenarios predict the open space along the Cooks River will be regularly inundated, severely degrading their ability to function as viable open space.

The scope of the Cooks River Master Plan is unable to fully mitigate the affects of climate change. What is proposed are outcomes tied to other benefits such as increasing revegetation for biodiversity outcomes, which also provide a natural protective barrier to the foreshore and by providing WSUD initiatives for water treatment that also reduce flood events. These integrated measures will help longer term solutions to become more resilient to climate change and delay their implementation. Should in the future additional funding opportunities become available this document recommends a holistic and integrated approach with other councils within the Cooks River catchment to combat climate change impacts.

The Cooks River Plans of Management and Master Plans are aligned with Marrickville Council's Climate Change Plan objectives and will help implement strategies that will provide green infrastructure for ecosystem services and enable resilience, within the local community..

01_ Project Context

How to use this document

This report is proposed to be a holistic reference guide for all proposed use and upgrade works along the Cooks River between HJ Mahoney Reserve and Kendrick Park including Fatima Island. The document is divided into seven sections which describe each of the parks separately.

01 Project context

The project context provides an introduction and the background to the project, including definitions, planning framework, strategic alignment, project objectives and methodology.

02 Existing site description (appraisal) and site analysis

Each of the physical elements that occur within the parks are described in their existing condition. The descriptions include service locations, contours, existing trees, buildings, furniture and includes existing and associated uses.

03 Engagement overview and common themes

The community engagement process that was undertaken is described in this section of the report. The outcomes are summarised with recommendations that were undertaken to produce the proposed park upgrades as listed in the design section.

04 Park categorisation

Park categorisation outlines whether each park area is either Crown land or community land managed by Council. For community land, the document outlines whether it is a sportsground, general community use, a park, an area of cultural significance or a natural area. The land categorisation stipulates what activities relating to use can or cannot take place within the park.

05 Leasing and licensing

Leasing and licensing outlines whether there are existing leases and licences existing within the parks. This section outlines whether future leases and licences are possible within any park area.

06 Design

Park upgrades and improvements are outlined in both words and imagery, with design principles setting the lens through which decisions are to be made of all the parks upgrades. Plans highlight the overall design outcome, while the strategies provide site specific outcomes. Images help to articulate the required finish and character of the proposed work.

07 Implementation plan

Each of the proposed upgrades is costed via an opinion of probable costs. The upgrades are grouped as potential deliverable projects and are prioritised according to asset condition, cost benefit, related strategy priorities and need as requested by the community.

01_ Project Context

Project Methodology

The project methodology was undertaken in several phases of work. The methodology aimed to provide a process that ensures best practice outcomes and provides for user needs.

The 9 phases include:

Phase 01: Establish project aims and objectives. Establish a project program, methodology and identify all stakeholders.

Phase 03: Undertake extensive community and stakeholder engagement to understand how the park is used now and in the future. Investigate aspirations for future use and the parks' appearance. A community engagement report was produced following this phase of work capturing all communications and common themes.

Phase 04: Extensive site analysis established park opportunities and constraints. Elements considered include access, safety, legislative requirements including Council policies, existing trees and vegetation, history, pedestrian and cycle connections, vehicle access, maintenance, flooding, drainage issues, topography, geology, biodiversity, categorisation and microclimate,

Phase 05: Develop draft plan designs and write Plan of Management and Master Plan design strategies. Precedent imagery and detailed text were used to express the constructed outcomes for the parks.

Phase 06: Detailed Council stakeholder and peer review of the documents. Feedback informed design and document changes to ensure all discipline perspectives are considered.

Phase 07: Develop opinions of probable costs and establish prioritised list of projects that are reflective of user needs. Coordinate financial implications to identify availability of funding and input for the long term financial plan, project open space - asset management plan and capital works program.

Phase 08: Release the documents for public exhibition and undertake further stakeholder engagement following Council endorsing the plan for this purpose. Feedback collated for inclusion in the Plan of Management and Master Plan.

Phase 09: Update documents from feedback and finalise report and report to Council.

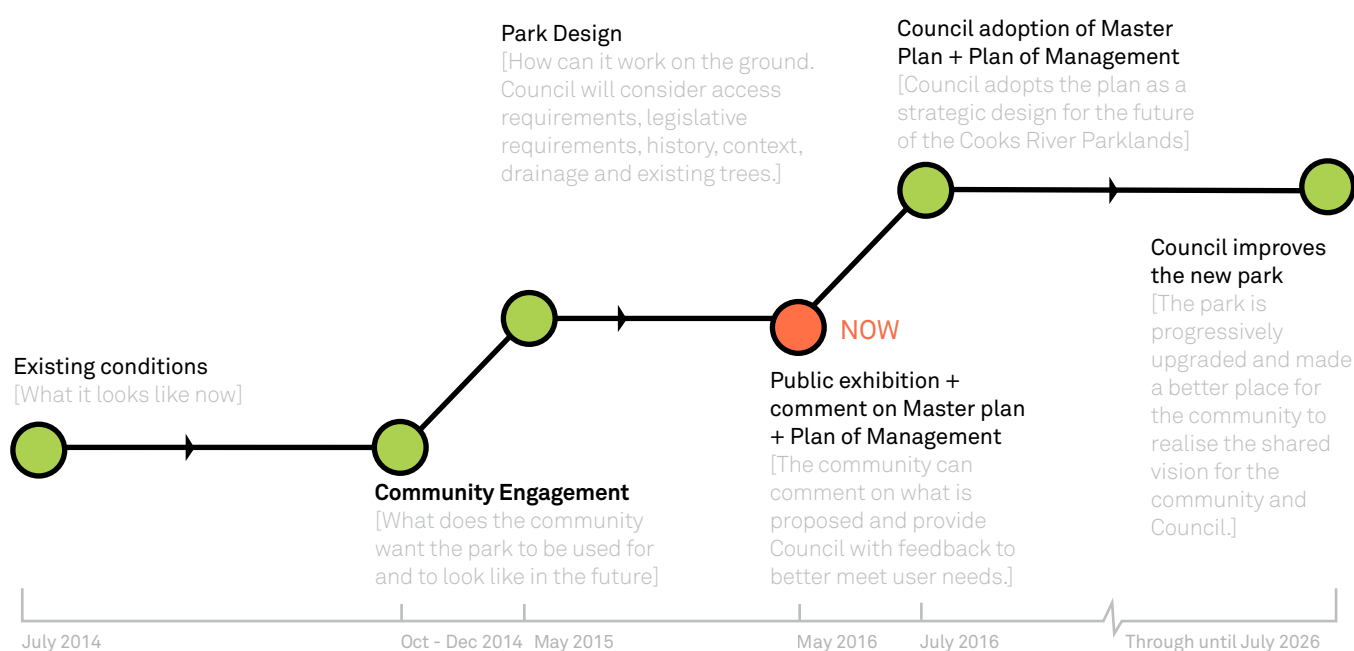


Figure 06: Summarised diagram of the process to develop a Plan of Management and Master Plan.

01_ Project Context

Planning Context

What is a Plan of Management?

A plan of management is a strategic document providing a planning and management framework for the future use, development and maintenance of areas of community land in accordance with the *Local Government Act 1993*. Plans of management are required for community land owned by Council.

Crown land - Management requirements

From the *Crown Lands Act 1989*, the principles of Crown land management are:

- (a) that environmental protection principles be observed in relation to the management and administration of Crown land.
- (b) that the natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible.
- (c) that public use and enjoyment of appropriate Crown land be encouraged.
- (e) 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
- (f) that Crown land be occupied, used, sold, leased, licenced or otherwise dealt with in the best interest of the State consistent with the above principles.

Community land - Local Government Act requirements

Public land as defined under the *Local Government Act 1993*, must be classified as either community or operational land. Land classified as 'community' reflects the importance to the community in that the land is for use by the general public. All community land requires a plan of management to govern and manage the use of the land. The plan of management must include the following:

- > The categorisation of the land.
- > Objectives and performance targets of the plan with respect to the land.
- > The means by which Council proposes to achieve its performance with respect to the plan's objectives and performance targets.
- > The condition of the land and of any buildings improvements on the land.
- > The use of the land and of any buildings or improvements as at the date of adoption.
- > Specify the purposes for which any further development of the land will be permitted, whether under lease or licence or otherwise.
- > Describe the scale and intensity of any such permitted use or development.

Community land must be categorised as one of the following:

- > A natural area.
- > A sportsground.
- > A park.
- > An area of cultural significance.
- > General community use.

The full list of parks and their existing categorisation is located in section 03 and the proposed categorisation is in section 04.

What is a Master Plan?

A master plan is to be read in conjunction with the plan of management. The master plan is the illustrative representation of the proposed construction and design outcomes. It highlights long-term planning aspirations. It establishes best practice outcomes and a clear vision. It uses community goals and desires for the project, giving spatial organisation and a plan for implementation.

Other relevant legislation

- > Companion Animals Act.
- > Disability Discrimination Act.
- > Environmental Planning and Assessment Act 1979
- > National Construction Code 2015.
- > National Parks and Wildlife Act 1974.
- > Native Vegetation Act 2003
- > Noxious Weeds Act 1993
- > State Environmental Planning Policy (infrastructure) 2007.
- > Threatened Species Conservation Act 1995.
- > Work, Health and Safety Act.

Local planning context

Relevant Marrickville Council Studies, Strategies and Policies include:

- > Asset Management Strategy and Asset Management Plans.
- > Bicycle Strategy (2007).
- > Biodiversity Strategy 2011-2021 and Biodiversity Action Plan (2011-2015).
- > Companion Animals Management Plan.
- > Cooks River Foreshores Strategic Plan 1997.
- > Cooks River Signage Strategy.
- > DDA Access Policy and Access Action plan 2004.
- > Kendrick Park Conservation and Management Plan.
- > Mackey Park WSUD Concept report
- > Mackey Park Contamination Management Plan.
- > Marrickville Community Strategy Plan 2013.
- > Marrickville LEP 2011.
- > Recreation Needs Research - Strategic Directions for Marrickville 2012.
- > Recreation Strategy and Policy 2013.
- > Strategy for a Water Sensitive Community.
- > Subcatchment Management Plans.
- > Urban Forest Strategy.
- > Water Savings Action Plan 2013.
- > Wharf Street WSUD Concept Design.

01_ Project Context

Values, Roles and Objectives

Council has a strong commitment to provide recreation facilities and services that are articulated through the Recreation Policy and Strategy 2013. This specifically includes:

Lifelong Recreation

> Inclusive access to best practice and innovative recreation opportunities for the Marrickville Community.

Active in Marrickville

> Enrichment of the health and well-being of the Marrickville community through participation in a diverse range of recreational activities.

The Recreation Economy

> Support for local recreation businesses and organisations that facilitate recreation in Marrickville and add economic value to the community.

Consistent with the Recreation Policy and strategy, the desired roles of the Cooks River Parklands including: HJ Mahoney Reserve, Steel Park, Richardson's Lookout, Warren Park, Cooks River Foreshore, Mackey Park, Kendrick Park and Fatima Island are outlined in the following table.

Value	Role
Lifelong Recreation	<ul style="list-style-type: none">> An accessible park for people of all abilities.> Provide a place for children and young people to play.> Provide a place for informal recreation including safe walking paths and ancillary facilities such as shade and seating for all ages.> To maintain the cultural heritage and character of the parks and surrounding areas through acknowledgement and expression of local heritage.> To enrich the local community through art.
Active in Marrickville	<ul style="list-style-type: none">> A park that is well connected to the surrounding urban environment.> An opportunity to engage in informal active recreation activities.> An opportunity for leisure.> An opportunity to participate in organised sporting activities.> Protection and preservation of plantings within the park.> Sustainable management of recreation and community facilities.> Preserve and enhance the biodiversity value of priority areas, specifically the Cooks River corridor.> Enhance local and regional habitat connectivity.> Reduce and eliminate threats to biodiversity protection.> Engage and educate the community to help protect values.> Provide green infrastructure to support ecosystem services.

Value	Role
The Recreation Economy	<ul style="list-style-type: none">> Provide appropriate recreation facilities for future incoming populations.> Maintain and actively seek new partnerships.> Recreation facilities are safe, equitable, inclusive and affordable.



01_ Project Context

Project objectives

The following is a list of project objectives.

Lifelong Recreation Objectives

- > Provide multifunctional infrastructure that promotes recreation and meets community needs for open space.
- > Improve the visual impact of infrastructure elements.
- > Ensure each park retains its unique sense of place.
- > Improve microclimate affects of wind and temperature through appropriate arrangement of trees and park elements to ensure human comfort is improved.
- > Maximise the river as a recreation and environmental resource for the community to enjoy.
- > Provide a safe environment for all users at all times.
- > Ensure passive recreation activities are considered and appropriately catered for within the parks and foreshore areas.

Active in Marrickville

- > Promote infiltration of rainwater in all parks, minimising stormwater runoff to the Cooks River.
- > Improve stormwater quality.
- > Increase habitat values and opportunities within the parks and along the river foreshore.
- > Provide tree planting for shade and shelter as well as green relief in a highly urbanised environment.

The Recreation Economy

- > Park design and material selection should maximise resource efficiency and promote sustainability.
- > Maximise use of space. Ensure park elements have multifunction purposes. Consider use times and possible compatible functions.
- > Maximise efficiency for maintenance.
- > Ensure quadruple bottom line sustainability principles are applied to materials section.



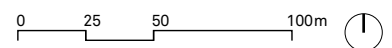
Mackey Park, Marrickville. Photography by Marrickville Council.

02_ Existing Site Appraisal + Site Analysis





Figure 07: Physical elements - HJ Mahoney Reserve.



HJ Mahoney Reserve Parklands Elements_ 01 Art wall; 02 Car parking area; 03 Playing field 04 Amenities building 05 Athletic equipment 06 picnic facilities.

02_ Existing Site Appraisal + Site Analysis

HJ Mahoney Reserve

Land	HJ Mahoney Reserve
Title Information	Lot 1, DP504365, Lot 2, DP504365, Lot 3, DP10133, Lot 4, DP10133, Lot 5, DP10133, Lot 6 DP10133, Lots 7 & 8, DP10133, Lot A DP1164, Lots 55 to 57 incl. Sec. 1 DP272, Lots 43 & 44, Sec. 2 DP272, Lot 45, Sec. 2 DP272, Lot 46 & 47, Sec. 2 DP272, Lot 48, Sec. 2, DP272, Lot 49 & 50, Sec. 2 DP272, Part Lots 46 to 49 incl. Sec 1 DP272, Lots 54 & 58, Sec 1 DP272, Lots B to F incl. and Part Lot G, DP1164, Part Lot G, DP1164, Part Lots 46 & 49, Sec. 1 DP272. Closed road (formerly Livingstone Rd) Govt. Gaz. 5.1.1945. Closed roads (formerly Beauchamp Rd and Riverside St) Land grant 26.5.1965.
Ownership	Marrickville Council
Location	HJ Mahoney Reserve is located in the suburb of Marrickville, in the southern portion of the Marrickville Local Government Area (Refer Figure xx)
Total area	33,000 m2
Zoning	RE1 Public Recreation
Existing Classification	Community land

Overview: HJ Mahoney Reserve is an quiet park that is used for both passive and active recreation.

Character: HJ Mahoney Reserve has an informal open character. The perimeter of the park is lined with spreading mature shade trees, while the centre of the park is an open playing field. The trees in combination with the open playing field define its character. The river edge has excellent views along the river in both directions.

Pathways: HJ Mahoney Reserve has a limited number of pathways. Along Illawarra Road, there is a concrete pedestrian pathway that connects over the Cooks River to Earlwood in the Canterbury Local Government Area. There is a pedestrian crossing and refuge island that connects to Steel Park across Illawarra Road. There is a concrete apron around the amenities building which has connections to an adjacent car park. The existing pathways are in fair condition.

Elsewhere there are a number of foot traffic wear marks in the turf including along the foreshore connecting Marrickville Golf Course to Illawarra Road.

Street art wall: HJ Mahoney Reserve has a ball sport practice wall converted into a legal street art gallery wall. The wall is heavily used and changes daily. There is a concrete apron that surrounds the wall. No bins or other infrastructure is provided to support this function.

Fencing: A 1800mm high chain wire fence is located along the boundary interface with the Marrickville Golf Course. The interface with Wharf Street has a 900mm chain wire fence running east for approximately 100m from the amenities building towards Illawarra Road. This fence is in poor condition with rust and vandalism.

The interface along Illawarra Road has a post and rail fence that connects with the Cooks River Bridge. The post and rails wrap around onto Wharf Street for a short distance joining the chain wire fence. Another post and rail fence exists from the amenities building running west along Wharf Street to the Golf Course boundary. The post and rail fences are painted white and in good condition.

Park furniture: HJ Mahoney Reserve has a scattering of seats and picnic tables particularly along the Wharf Street and Illawarra Road interfaces. Along Wharf Street there is an electric barbecue and drink fountains. The park has wheeled bins attached to lockable poles. All park furniture is in poor condition and of considerable age.

Foreshore edge interface: Steel sheet piling along the river edge creates a variable vertical drop of at least 1.0m. The sheet piling prohibits safe access to the river from the park.

Car parking: 90 degree car parking is provided adjacent the amenities building on Wharf Street. Eight car parking spaces are provided. The car park surface is asphalt with a concrete gutter. Wharf Street has parallel street parking provided along its length. Vehicle access into the park is via a locked gate along Wharf Street.

Playing field: A turf playing field occupies the centre of HJ Mahoney Reserve. The playing field is configured for soccer, AFL and athletics use. The use for athletics, is the only playing field in the LGA for this use. The playing surface has good drainage and fair grass cover.

Trees: HJ Mahoney Reserve is edged with mature tree species. Each side of the park has different species combinations. The river edge and Illawarra Road is defined by Figs, *Ficus obliqua* and Poplar trees, *Populus deltoides*. The western edge is dominated by mixed Eucalypt species with She-Oak, *Casuarina glauca*. The northern edge is mixed with Eucalyptus species though is dominated by Swamp Mahogany, *Eucalyptus robusta*. Several new Eucalypt trees have been planted as advanced stock in the south-western corner of the park. These trees have replaced several Poplar trees that were in decline and removed by Council.



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Figure 08: Mahoney reserve Parklands Elements: 01 BBQ facilities; 02 Park identification and regulatory signage; 03 Street art wall; 04 coir matting and western boundary with Marrickville Golf Course; 05 Wharf Street fencing and entry gate; 06 Planting field and athletics infrastructure; 07 Cooks River interface highlighting the sheet piling; 08 New tree plantings in the SW park corner; 09 Playing field with athletics and soccer infrastructure; 10 Park trees and Wharf street fencing and parallel street parking; 11 90 degree park car parking; 12 Swamp Mahoney dominated northern park edge planting.

02_ Existing Site Appraisal + Site Analysis

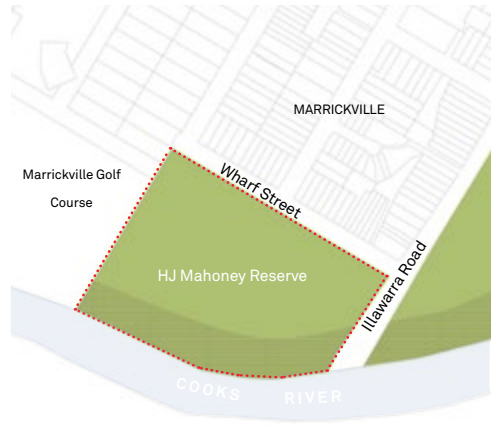
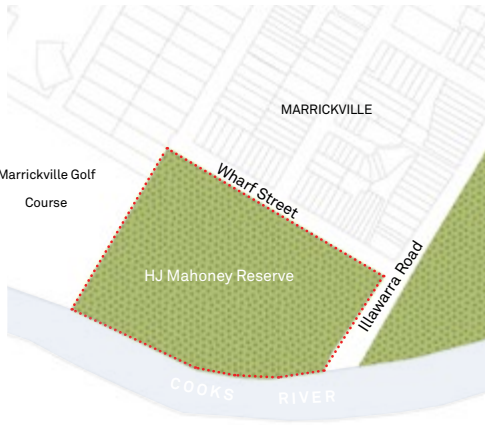
HJ Mahoney Reserve

Plantings: HJ Mahoney Reserve has limited ground cover and shrub plantings. The western boundary with the Marrickville Golf Club has coir matting beneath mature trees that supports some ground cover grasses. An area adjacent the amenities building has some low shrubs and ground covers in planting beds. Elsewhere, the park is dominated by mown turf.

Signage: Signage in HJ Mahoney Reserve is not coordinated. Regulatory and identification signage elements are located on individual poles and in different park locations. Much of the signage is out-dated in its graphic appearance.

Lighting: HJ Mahoney Reserve has pole top sport lighting and the amenities building has security lighting. Light spill from neighbouring streets illuminate the park edges.

Toilet and amenity building: The amenities building is centrally located on the northern edge of HJ Mahoney Reserve adjacent the road and car park. The facility is situated amongst an irregular copse of shade trees overlooking the playing fields. To the front of the building there are some low areas that can become waterlogged following rain events. The brick building with skillion roof houses male and female toilets, change rooms, kiosk and an electrical room.



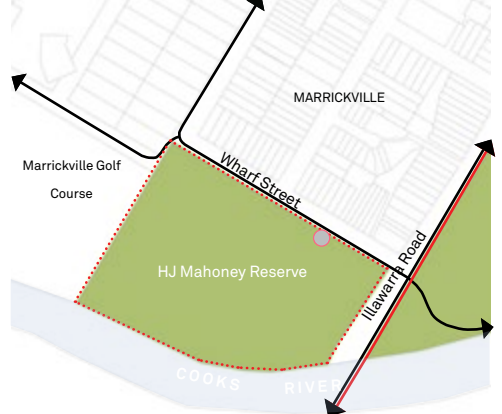
Fauna linkages



Soil Types



Cooks River Foreshore Development Offset



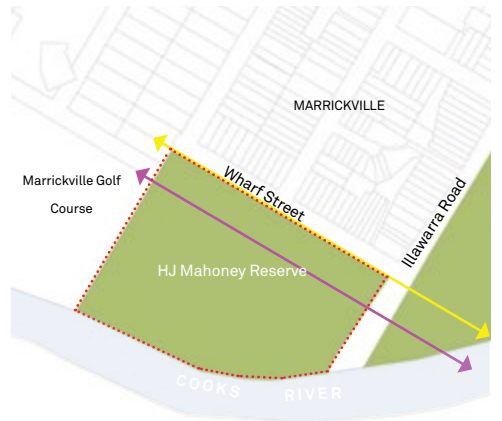
Road ownership and transport options



Built Structures and playing field use layout



Cycleway connections



Stormwater Pipes



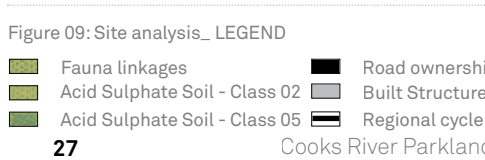
Sewer connections



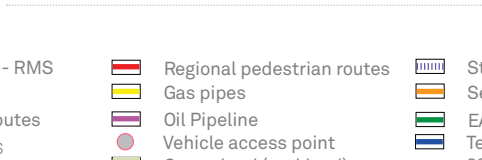
Gas and Oil Pipeline



Electrical cables and lighting connections Cables



Contours



Trees



Figure 09: Site analysis_ LEGEND

Fauna linkages	Road ownership - RMS	Regional pedestrian routes	Stormwater pipes	Potable water connections
Acid Sulphate Soil - Class 02	Built Structures	Gas pipes	Sewer connections	Existing contours
Acid Sulphate Soil - Class 05	Regional cycle routes	Oil Pipeline	EA Transmission	Existing trees
	Crown land (parkland)	Vehicle access point	Telecommunications connections	Public bus stop

02_ Existing Site Appraisal + Site Analysis

HJ Mahoney Reserve - Site Constraints

Fauna Linkage: The whole of HJ Mahoney Reserve is designated as a fauna link. Fauna links act to connect remnant bushland and facilitate fauna movement.

Soils: HJ Mahoney Reserve has two types of acid sulphate soil: type 02 and type 05. Excavation of soil within the park should proceed with caution not to disturb the acid sulphate soils. Class 02 soils may be exposed from any excavation works. Class 05 soils may be exposed when excavation is deeper than 5.0m. Construction work within HJ Mahoney Reserve will require appropriate construction methods and approvals to deal with Acid Sulphate Soil.

Cooks River foreshore development offset: The foreshore offset zone in Steel Park is a designation that limits construction within 10.0m of the river edge. Full details of construction implications need to be discussed with the NSW Department of Primary Industries: Water.

Built structures: Built structure in HJ Mahoney Reserve include an amenities building located at the northern edge of the park near Wharf Street. Towards the eastern portion of the park there is a street art wall and associated concrete pad. The northern half of the park has a scattering of furniture items including drink fountains, picnic tables, barbecue facilities and seating.

Playing field layout: The field accommodates AFL playing requirements as well as 400m running track for school athletics.

Road ownership: Illawarra Road is a State owned road. Other streets around HJ Mahoney Reserve are Council assets.

Pedestrian and cycleway connections: The cycleway connection is along Wharf Street which connects to the golf course. There are no formalised pedestrian connections between Steel Park and the golf course. A pedestrian pathway along Illawarra Road connects to Earlwood (south) and Marrickville (north). A traffic island has been provided as a pedestrian refuge when crossing Illawarra Road to Steel Park.

Underground services: There are a number of underground services located within HJ Mahoney Reserve, the most restrictive of which is the oil and gas pipeline that requires a 6.0m easement.

Heritage: There are no items listed of heritage significance located in HJ Mahoney Reserve.

Contours and landform: HJ Mahoney Reserve is located on the Cooks River flood plain. Due to the relatively flat, low nature of the park, storm events cause flood inundation of the park. The park has a change in elevation of less than 1.0m.

Public transport: HJ Mahoney Reserve is served by bus connections along Illawarra Road. The 423 bus connects to the

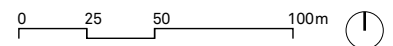
city and Haymarket, while the L23 bus connects to Kingsgove.

Maintenance: Marrickville Council currently undertakes the majority of regular maintenance of the park including:

- > Tree pruning.
- > Grass maintenance - (mowing, edge trimming etc.).
- > Fulfilment of maintenance obligations required in relevant leases and licences.
- > Inspection and repair of buildings.
- > Maintenance of park furniture.
- > Maintenance and repair of playing fields.
- > Repairs to signage.
- > Mulching of planted areas.
- > Repairs and line marking for athletics.



Figure 10: Physical elements - Steel Park.



Steel Park_ 01 Cricket pitch; 02 Playing field; 03 Amenities building; 04 Car park; 05 Water play park; 06 Children's play facilities; 07 Picnic facilities 08 Saltwater marsh and revegetation 09 Exercise equipment station 10 DAB centre 11 DAB centre car parks 12 Battered grass slope 13 Rock escarpment and weeds to park boundary 14 Pedestrian and bicycle connection to Mackey Park 15 Pedestrian and bicycle connection to Canterbury LGA

02_ Existing Site Appraisal + Site Analysis

Steel Park

Land	Steel Park
Title Information	Lot 8 to 14 inclusive in D, parts of Lots 1 to 7 inclusive and part of Lot 21 of Sec. 10 in DP1142, Lot 1 in DP165198, Lots 101 and 102 in DP872574, Lots A and B in DP444772, Lots B, C and E in DP396792, Lot B in DP312643 Lot 1 in DP169629, Lots 1 to 9 inclusive and Lot 12 DP10415, Lot 1 in DP304931, Lot 1 in DP106006, Lot 1 DP324452, Lot 1 in DP181731, DP180155, Part 10 in DP68580.
Ownership	Marrickville Council
Location	Steel Park is located in the suburb of Marrickville, in the southern portion of the Marrickville Local Government Area (Refer Figure xx)
Total area	63,000 m2 (approx.)
Zoning	RE1 Public Recreation
Existing Classification	Community land

Overview: Steel Park is one of the busiest parks in the Marrickville LGA. The park has had recent upgrades and includes average playing fields, natural areas, play elements includes a water play park, amenities building, DAB, riverside share pathway and exercise equipment.

Character: The character of Steel Park is dominated by three major elements; the Debbie and Abbey Borgia Community Recreation Centre (DAB), the sports fields and the river edge with its vegetation and play facilities.

The DAB is located in the north-western corner of the park and feels like a distinctly separate part of the park. The scale of the building, large car parking areas and fencing dominate this park area.

The open nature of the playing fields contrasts strongly with the tall dense river edge and playground vegetation and the DAB. The tall trees planted in grid formation around the play facilities provide a unique experience with filtered light and shade in summer and access to sun in winter. The play facilities themselves contribute to the parks character with their high visitation and close proximity to the car park and access points to the park.

The river edge is dominated by tall lush vegetation which is visible from all parts of the park and acts as a distinctive visual marker for the river.

Pathways: The pedestrian pathways within Steel Park are mostly located around the children's play area, the riverside cycle way and as access paths to the DAB Community Recreation Centre. The pathways are constructed of in situ concrete and vary in width depending on function. The pathways in Steel Park are in good condition.

Fencing: The DAB centre has its perimeter defined with a chain link fence, effectively segregating the DAB from the rest of the park. The interface with Illawarra Road has a post and rail barrier fence. A black metal 1200mm high 'pool-style' fence has recently been constructed and divides the children's playground from the riverside and cycle way. Ball netting has been provided at the southern edge of the playing field, to help shield the children's playground from stray field balls. The fencing in Steel Park varies from excellent (play park) to fair (DAB interface).

Park furniture: Park furniture in Steel Park is a mix of types and ages. The majority of the furniture elements are located near the children's playground. Within this area there are six barbecues, one drinking water fountain, several different seating options and picnic tables. The area has one shade structures with picnic facilities. Wheeled bins are provided within the park, with the majority of these adjacent the children's playground. Bike racks are also provided. Elsewhere in the park seats are provided adjacent the pedestrian footpaths and as spectator seating around the playing fields. The park furniture in Steel Park is of good condition.

Foreshore edge interface: The foreshore edge interface is generally naturalised with the majority of the interface supporting mangrove vegetation. Other sections include low stone walling edged with turf and an areas of salt marsh vegetation.

Car parking: Steel Park has three car parking areas. One is accessed off Illawarra Road providing car parking for the children's play ground and picnic areas. Another car park adjacent the DAB is accessed off Illawarra Road and is for users of the DAB facility. The third car park is accessed off Thornley Street and is primarily used by users of the DAB facility. Both the DAB car parking areas are out-of date car parking designs, while the play facility parking areas has been configured as a standard WSUD layout.

Playing field: The playing fields at Steel Park accommodate cricket (summer) and soccer (winter) and are large enough to include three separate soccer games at the same time. The fields have one permanent cricket pitch for summer play. The playing surface is average and has some depressions and wear areas, particularly following heavy use by sports users.



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Figure 11: Steel Park Elements: 01 WSUD drainage swale in car park 02 Turf river edge near the children's playground 03 Shared pathway and tall Poplar trees near the children's playground 04 Playing field including cricket pitch. 05 exercise equipment and associated signage 06 Fencing and DAB car park 07 Park open space with Council's Magic Yellow Bus and river side planting. 08 Park edge with residential properties. 09 Riverside vegetation 10 View across the sporting field 11 Shade trees near the DAB at the edge of the playing field. 12 Riverside shared pathway connection to the Cooks River Foreshore and Warren Park

02_ Existing Site Appraisal + Site Analysis

Steel Park

Trees: Steel Park has a mixture of tree species that are of different ages. The tallest of the trees in Steel Park are located within the Children's playground. Planted in grid formation, Poplar trees, *Populus deltoides* provide excellent shade in summer and sun in winter. The river edge is dominated by Mangrove, *Avicennia marina* and She-Oak, *Casuarina glauca* species. Park trees along the Illawarra Road interface include Fig Trees, *Ficus obliqua* and Norfolk Island hibiscus, *Lagunaria patersonii*. A forest area adjacent the car park includes mixed *Eucalyptus* species and some *Casuarina* species. Mixed, mostly *Eucalyptus* and *ficus* species are located adjacent the DAB near Thornley street on a sloping area between the road and playing field.

Plantings: Planting areas of shrubs and groundcovers are located in small pockets around Steel Park. The largest area of planting is located adjacent the car park and children's playground. The planting includes a drainage swale, saltwater marsh wetland and an area of native trees, grasses, shrubs and ground covers. An almost continuous section of native plantings extend along the interface with the river which includes plantings of both Mangrove, *Avicennia marina* and She-oak, *Casuarina glauca*. The northern interface of Steel Park abuts several residential properties and a steep rock cliff. Widespread weed species are located at the top and bottom of the rock cliff.

Exercise Equipment: An exercise equipment station is located adjacent the share pathway at the eastern end of Steel Park. Five elements of static equipment are grouped with softfall and signage that displays instructions for use. The equipment receives a moderate level of use and is in good condition.

Playground and Water Play park: The children's playground and water play park elements are located at the south-western corner of Steel Park. The play facilities include four swings, one flying fox, one slide, two skater twirls, two 3D climbing structures, two toddler rockers and a toddler slide. The water play elements include three separate areas of play with creeks, bubblers and water jets. The play facilities receive a very high level of use.

Vehicle Access: Steel Park has maintenance vehicle access off Illawarra Road via a lockable gate. Maintenance vehicles use the share pathway for access around the park.

Signage: Signage in Steel Park is not coordinated. Regulatory and identification signage are located on separate poles and in different park locations.

Lighting: Steel Park has eight pole top sport lighting poles and the amenities building has security lighting. The barbecue and picnic facilities have pedestrian and amenity lighting. Light spill from neighbouring streets illuminate the park edges.

Toilet and Amenity Building: The amenities building is located adjacent the vehicle car park and water play area at the south-western corner of the park. Nearby vegetation still allows for clear sight lines from the street and most parts of Steel Park. The building is a single storey facility that includes two change room areas, kiosk area and a storage area, an electrical room and separated male and female toilets. The facility has rendered concrete brick walls, tiled floors and concrete slab roof.

Concrete Slab: There is an extensive area of concrete slab near the children's play area and the amenities building. The concrete slab is used as a stopping area for the social enterprise coffee cart.

Debbie and Abbey Borgia Centre (DAB): The DAB includes indoor sports courts, administration offices, cafe and circulation spaces. A child care and expanded DAB facility and relocated car parking is proposed for the DAB. The DAB / future daycare facility configuration 'turns away' from Steel Park, rather addressing Illawarra Road and Thornley Street. Adjacent the DAB is an irrigation header tank.



Fauna linkages



Soil types



Cooks River foreshore development offset



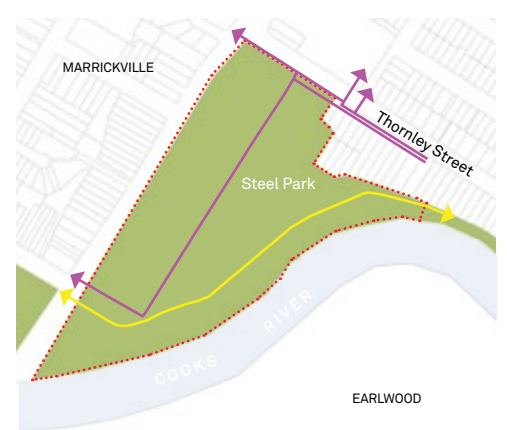
Road ownership and transport options



Built structures & playing field layout



Regional pedestrian and cycleway connections



Potable water and stormwater pipes



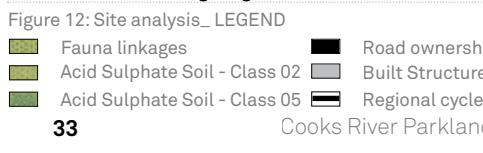
Sewer and telecommunications connections



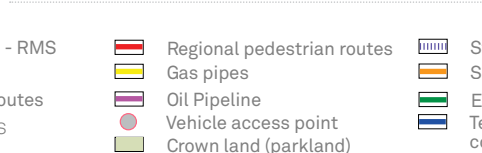
Gas and oil pipeline



Electrical cables and lighting connections



Contours



Trees



Figure 12: Site analysis_ LEGEND

Fauna linkages	Road ownership - RMS
Acid Sulphate Soil - Class 02	Built Structures
Acid Sulphate Soil - Class 05	Regional cycle routes

Regional pedestrian routes	Stormwater pipes
Gas pipes	Sewer connections
Oil Pipeline	EA Transmission
Vehicle access point	Telecommunications connections
Crown land (parkland)	

Potable water connections
Existing contours
Existing trees
Public bus stop

02_ Existing Site Appraisal + Site Analysis

Steel Park - Constraints

Fauna Linkage: Steel Park is designated as a fauna habitat link. Fauna links act to connect remnant bushland and facilitate fauna movement.

Soils: Steel Park has two types of acid sulphate soil: type 02 and type 05. Excavation of soil within the park should proceed with caution not to disturb the acid sulphate soil. Class 02 soils may be exposed from any excavation works. Class 05 soils may be exposed when excavation is deeper than 5.0m. Construction work within Steel Park will require appropriate construction methods and approvals to deal with Acid Sulphate Soil.

Cooks River foreshore development offset: The foreshore offset zone in Steel Park is a designation that limits construction within 10.0m of the river edge. Full details of construction implications need to be discussed with the NSW Department of Primary Industries: Water.

Built structures: The largest built structure in the park is the Debbie and Abbey Borgia (DAB), which is located in the north-western corner of the parkland. The DAB facility includes two car parking areas, pathways and landscaping associated with the building. Along the western edge of Illawarra Road there is an amenities building including toilets and change rooms. Adjacent the amenities building is a car park and driveway access from Illawarra Road. Nearby is a children's playground that has material shade structures covering a water play park, and one timber and corrugated iron picnic shade structure.

Road ownership: Illawarra Road is a state owned road. Other streets around Steel Park are Council assets.

Pedestrian / cycleway connections: The riverside pedestrian / share pathway travels through Steel Park. The cycle connection links to an on road cycle link along Illawarra Road to Marrickville and across the Cooks River to Earlwood. A further connection crosses Illawarra Road and links through the Marrickville Golf Course along Wharf Street.

Underground services: Steel Park has a number of underground services including electrical, telecommunications, sewer, potable water and stormwater. Oil and gas pipelines also pass through Steel Park, which has a 6.0m easement.

Contours and landform: Much of Steel Park is on the Cooks River floodplain and has little variation in elevation. The north-eastern part of the park has a rock escarpment on the park boundary with residential properties. Nearby between the residences and the DAB centre, a portion of the park also slopes up to Thornley Street.

Heritage: There are no items of heritage significance in Steel Park.

Playing field layout: The field layout accommodates two fields for soccer and one training field as well as one cricket oval with a centre concrete pitch.

Public transport: Steel Park is served by bus connections along Illawarra Road. The 423 bus connects to the City and Haymarket, while the L23 bus connects to Kingsgove.

Maintenance: Marrickville Council currently undertakes the majority of regular maintenance of the park including:

- > Tree pruning.
- > Grass maintenance - (mowing, edge trimming etc.).
- > Fulfilment of maintenance obligations required in relevant leases and licences.
- > Inspection and repair of buildings.
- > Maintenance of park furniture.
- > Maintenance and repair of playing fields.
- > Repairs to signage.
- > Mulching of planting areas.
- > Repairs and line marking.
- > DAB maintenance subject to agreements with service provider.



Figure 13: Physical elements - Richardson's Lookout, Warren Park and the Cooks River Foreshore.

Richardson's Lookout, Warren Park and the Cooks River Foreshore_ 01 Historic Cooks Pine; 02 Historic Fig Tree; 03 Thornley Street rain garden; 04 Vegetated escarpment; 05 Richardson's Lookout kickabout space 06 Warren Park kickabout space; 07 Vegetated escarpment; 08 Driveway access 09 Water and sewer pipeline 10 Cooks River Foreshore and pedestrian / cycleway 11 Poplar trees

02_ Existing Site Appraisal + Site Analysis

Warren Park, Richardson's Lookout and the Cooks River Foreshore

Land	Richardson's Lookout
Title Information	Lot 3, DP582062, Lot 1, DP582062, Lot 4, DP582062, Lot 5, DP582062
Ownership	Marrickville Council
Location	Richardson's Lookout is located in the suburb of Marrickville, in the southern portion of the Marrickville Local Government Area (Refer Figure xx)
Total area	9,120 m2 (approx.)
Zoning	RE1 Public Recreation and heritage item
Existing Classification	Community land
Land	Warren Park
Title information	Lot 1, DP582062, Lot 2 DP582062
Ownership	Marrickville Council
Location	Warren Park is located in the suburb of Marrickville, in the southern portion of the Marrickville Local Government Area (Refer Figure xx)
Total area	7,435 m2 (approx.)
Zoning	RE1 Public Recreation and heritage item
Existing Classification	Community land
Land	Cooks River Foreshore
Title information	Lot 2, DP582062
Ownership	Crown
Location	Cooks River Foreshore is located in the suburb of Marrickville, in the southern portion of the Marrickville Local Government Area (Refer Figure xx)
Total area	9,255 m2 (approx.)
Zoning	RE1 Public Recreation
Existing Classification	Crown land and community land

Overview: Richardson's Lookout, Warren Park and the Cooks River Foreshore are local parks dominated by their park topography. Each of the parks are flat or slightly undulating and are separated by steep rock escarpments are covered in dense vegetation. The flat areas are dominated by open turf and used as flexible kick-about spaces.

Character: The dense vegetation, terraced landscape and an outlook over the river and middle distant horizon, helps create a park character that is peaceful and natural. The parks orientate themselves towards the Cooks River and the vegetation within the parks shield park visitors from the rest of the city and the dense urban character of the nearby suburbs.

Pathways: Concrete pathways are used as through park linkages within each of the parks. The widest concrete pathway is located on the Cooks River Foreshore and is a shared cycle/pedestrian link. Concrete pathways in Warren Park do not connect at the eastern end with pedestrian pathways along Thornley Street. Richardson's Lookout has several informal gravel pathways that meander along the escarpment edge. There are steps leading from the foreshore to Warren Park along the escarpment. The foreshore pathway is in excellent condition, other concrete pathways are in good condition and the asphalt driveway access is in fair condition. The tertiary, exploratory pathways in Richardson's Lookout are in good condition.

Fencing: Warren Park has chain wire fencing along its interface with Thornley Street, this is in fair condition. Similar fencing is used as a barrier to the escarpment in Richardson's Lookout, above Thornley Street. This fencing is in poor condition. Fencing is located along the property boundaries with residential dwellings between Warren and Mackey Parks, this fencing is privately owned and varies in condition.

Park furniture: Each of the parks has a scattering of furniture items. Richardson's Lookout and Warren Park have several timber seats located under shade trees. The foreshore has a unique site specific timber and sand stone seat associated with interpretive art. The scattered furniture elements are in average condition.

Art and interpretation: Two groups of totem polls interpreting indigenous stories from the site are located within the parks. One group is located near the escarpment in Richardson's Lookout, while the other is associated with a seating nook along the Cooks River Foreshore.

Foreshore edge interface: The foreshore is mostly naturalised with several bands of vegetation. *Avicennia marina*, the Grey Mangrove dominates the intertidal zone of the river. Mangroves give way to salt tolerant species on the river bank. Samphire, *Sarcocornia quinqueflora*, Saltwater Couch, *Sporobolus virginicus* and New Zealand Spinach, *Tetragonia tetragonioides* dominate this zone. A small section near the driveway to Thornley Street has stormwater outfall and is clear of vegetation providing picturesque views across the river.



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Figure 14: Warren Park, Richardson's Lookout and the Cooks River Foreshore Park Elements:
 01 Mangrove and foreshore interface. 02 interpretive art elements along the foreshore. 03 poplar trees along the Cooks River Foreshore. 04 Rock escarpment between Warren Park and the Cooks River Foreshore, highlighting dense vegetation. 05 Drainage line between Warren Park and the Cooks River Foreshore. 06 Missing pathway connection, Warren Park. 07 Historical park references. 08 Fencing to Thornley Street 09 Open space in Warren Park. 10 Thornley Street rain garden. 11 Open space in Richardson's Lookout 12 Turf batter in Richardson's Lookout causing maintenance issues.

02_ Existing Site Appraisal + Site Analysis

Warren Park, Richardson's Lookout and the Cooks River Foreshore

A concrete share pathway is located near the river edge and is adjacent mix of native grasses and groundcovers. The share pathways runs the length of the foreshore and links to Mackey Park (east), and Steel Park (west). Except for a few locations the zone between the bike path and residential properties or escarpment is generally turf.

Car parking and access: There is no car parking in Warren Park, Richardson's Lookout or along the Cooks River Foreshore. Street parking is available around Richardson's Lookout and Warren Park. Vehicle access is available to the Cooks River Foreshore from Thornley Street down a sloped driveway for maintenance and equal access. Vehicle access is also available along the foreshore via the share pathway.

Open space: Both Richardson's Lookout and Warren Park have open turf kick-a-bout spaces available for use. They are located towards the centre of the parks surrounded by vegetation. There is a small area of open space near the intersection of the driveway from Thornley Street and stairs to Warren Park along the Cooks River Foreshore. This open space helps with sight lines at the intersection of the pathways, particularly for bike users.

Trees: Warren Park, Richardson's Lookout and the Cooks River Foreshore has an abundance of trees of different species and ages. Richardson's Lookout has two significant trees that pre-date the designation of the park. One, a fig tree, *ficus spp.* was part of The Warren Estate and a second tree, a Cooks River Pine, *Araucaria columnaris*, is likely to have originated from a convent from the early 1900's.

Richardson's Lookout has a number of advanced fig trees with large spreading canopies that are located along the park street edge. Similarly large fig trees are located at the eastern end of Richardson's Lookout near residential properties and Thornley Street. The escarpment in Richardson's Lookout has well established mixed plantings of *Ficus*, *Casuarina*, *Banksia*, and *Eucalyptus*.

Warren Park has scattered Eucalypt species, She-Oak, *Casuarina spp.* and Fig, *Ficus macrophylla*, on the escarpment down to the Cooks River Foreshore. The trees are of mixed age and quality.

The Cooks River Foreshore is dominated by mangrove trees, *Avicennia marina* growing in the intertidal zone. There are also a few She-Oak species, *Casuarina glauca* growing on the foreshore. In the zone near Mackey Park there is an avenue of mature Poplar trees, *Populus deltoides* growing on the foreshore adjacent the mangrove trees. The shade and leaf drop from the Poplar trees are damaging the mangroves and water quality of the Cooks River.

Plantings: All three parks are dominated by low grass, and groundcovers, shrubs and trees located in planting areas on each of the two escarpments that terrace through the parks. The foreshore also has extensive areas of grasses and groundcovers planted between the pedestrian / cycle pathway and the river edge / mangrove intertidal zone. Warren Park has substantial vegetation established near the interface with Thornley Street.

Terrain and drainage: The parks have distinctive topography with a terraced landscape. The eastern end of Richardson's Lookout has turf batters of greater than 1:3 slope, which are difficult to maintain and use.

The eastern end of Warren Park has a turf swale that drains into an eroded series of rock terraces down the escarpment that terminates at the Cooks River Foreshore. Adjacent Thornley Street on the lower parts of Richardson's Lookout is the Thornley Street rain garden. The rain garden treats stormwater from upstream of the park. It travels through a vegetated rock swale ending up in a vegetated rain garden. The WSUD initiative was designed for Council several years ago and is a successful example of integrated infrastructure provided multipurpose outcomes for a park and the community.

Signage: New signage has been installed within Richardson's Lookout. The signage is an excellent example of integrated wayfinding, identification and interpretive signage. Elsewhere there is signage along the foreshore that highlights a community garden for a local child care centre. The parks otherwise lack signage.

Lighting: There is no park lighting with the parks. Richardson's Lookout and Warren Park receive light spill from nearby streets.



Fauna linkages



Soil Types



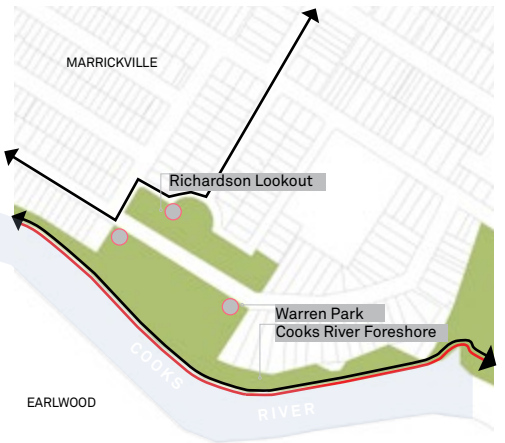
Cocks River Foreshore Development Offset



Road ownership, transport options & land ownership



Built Structures



Cycleway connections



Stormwater Pipes



Sewer connections



Heritage Elements



Electrical cables and lighting connections



Contours



Trees

Figure 15: Site Analysis_ LEGEND

- Fauna linkages
- Acid Sulphate Soil - Class 02
- Acid Sulphate Soil - Class 05
- Road ownership - RMS
- Built Structures
- Regional cycle routes

- Regional pedestrian routes
- Gas pipes
- Oil Pipeline
- Crown land (parkland)

- Stormwater pipes
- Sewer connections
- EA Transmission
- Telecommunications connections

- Potable water connections
- Existing contours
- Existing trees
- Public bus stop

02_ Existing Site Appraisal + Site Analysis

Warren Park, Richardson's Lookout and the Cooks River Foreshore – Constraints

Fauna linkage: Warren Park, Richardson's Lookout and the Cooks River Foreshore are all designated as a fauna habitat link. Fauna links act to connect remnant bushland and facilitate fauna movement.

Soils: Warren Park, Richardson's Lookout and the Cooks River Foreshore has one type of acid sulphate soil: type 05. Excavation of soil within the park should proceed with caution not to disturb the acid sulphate soil. Class 05 soils may be exposed when excavation is deeper than 5.0m. Construction work within Warren Park, Richardson's Lookout and the Cooks River Foreshore will require appropriate construction methods and approvals to deal with Acid Sulphate Soil.

Cooks River foreshore development offset: The foreshore offset zone in Warren Park and the Cooks River Foreshore is a designation that limits construction within 10.0 m of the river edge. Full details of construction implications need to be discussed with the NSW Department of Primary Industries: Water.

Built Structures: There are several built structures in Warren Park, Richardson's Lookout and the Cooks River Foreshore, and some of these have been mentioned already. Within Richardson's Lookout there are two pillars from the prior occupation of the site. Warren Park has a concrete artistic interpretation integrated into a turf mound. Warren Park also has a asphalt driveway that connects Thornley Street to the Cooks River Foreshore pathway for maintenance access. Within Richardson's Lookout, at the Thornley Street level a constructed rain garden treats storm water.

Road ownership: The roads around Warren Park, Richardson's Lookout and the Cooks River Foreshore are local road and owned by Council.

Pedestrian / cycleway connections: The riverside share pathway travels along the Cooks River Foreshore connecting with Mackey Park (east) and Steel Park (west).

Underground services: Warren Park, Richardson's Lookout and the Cooks River Foreshore have underground services including electrical, telecommunications, sewer, potable water and stormwater. Oil and gas pipelines pass through Richardson's Lookout, Warren Park and the Cooks River Foreshore, which have 6.0m easements, the locations of which are not fully surveyed.

Contours and landform: The Cooks River Foreshore is located on the Cooks River floodplain having less than 1.0m change in elevation. Warren Park is terraced up a rock escarpment, more than 10.0m above the foreshore and river. Warren Park is slightly undulating and generally slopes towards the river. Richardson's Lookout is located approximately 10.0m above Warren Park on a rock escarpment. The eastern section of Richardson's Lookout is sloping towards the east without an escarpment.

Heritage: There are several items of heritage significance in Warren Park, Richardson's Lookout and the Cooks River Foreshore, including: the water / sewer pipeline, rock burial tombs and the Richardson's Lookout itself. Richardson's Lookout is of local significance and has several features requiring preservation.

Within Richardson's Lookout there is a New Caledonian Pine that is believed to be a remnant planting from Carmelite Convent. A Port Jackson Fig, near the rock lookout, is an original planting from the 1800's Holt Estate. Most importantly in Richardson's Lookout, is the preservation of the space as open space, as it has been open space for the entirety of European settlement and has been a part in its current form since the 1920s. The Gateposts located in Richardson's Lookout are significant as they are from Thomas Holt's estate, though are no longer in the same location.

Within the rock escarpment between Warren Park and the Cooks River Foreshore there is a carved burial tomb from the Holt's Estate. Although never used they highlight a burial practice that was typical of the 19th century.

Along the Cooks River Foreshore, an aqueduct crosses the Cooks River from Earlwood and is of State significance. The aqueduct is a Sydney Water asset and was constructed in 1895. The aqueduct is constructed with brick arches and steel truss. This is noted as a rare example of this construction type in New South Wales, when not used as a rail bridge. The aqueduct is a significant landmark on the journey between Steel Park and Mackey Park.

Open space: Warren Park and Richardson's Lookout both have an area of open space areas that allow for informal recreation and general kick-a-bout.

Public transport: Richardson's Lookout, Warren Park and the Cooks River Foreshore does not have direct public transport connections. The closest public transport routes are via Steel Park (Illawarra Road) and the Tempe Train Station, opposite Mackey Park.

Maintenance: Marrickville Council currently undertakes the majority of regular maintenance of the park including:

- > Tree pruning.
- > Grass maintenance - (mowing, edge trimming etc.).
- > Inspection and repair of buildings.
- > Maintenance of park furniture.
- > Repairs to signage.
- > Mulching of planting areas.



Figure 16: Physical elements - Mackey Park.

Mackey Park_ 01 Amenities building; 02 Sydney Water infrastructure - pumping station; 03 Children's playground; 04 Fence between playground and sports field; 05 Drainage channel; 06 GPT and associated Sydney Water infrastructure; 07 river foreshore and pedestrian / cycle link; 08 Concordia Club; 09 River Canoe Club; 10 Tempe train station car park; 11 Croquet Club lawns; 12 WSUD wetland water treatment area; 13 Playing fields; 14 Concordia Club Car park; 15 Vegetated batter; 16 Mature Poplar and fig trees.

02_ Existing Site Appraisal + Site Analysis

Mackey Park

Land	Mackey Park
Title Information	Lot 1, DP908763, Lot 70, DP1066013, Lot 71, DP1066013, Lot 72, DP1066013, Lot 7307, DP 1145332
Ownership	Crown
Location	Mackey Park is located in the suburb of Marrickville, in the southern portion of the Marrickville Local Government Area (Refer Figure xx)
Total area	53,000 m ²
Zoning	RE1 Public Recreation
Existing Classification	Crown land

Overview: Mackey Park is a large riverside park located in the suburb of Marrickville. The park has a strong sports focus with large areas of the park designated as playing fields. The park contains three buildings; an amenities and sport club, the Concordia Club and Croquet greens and River Canoe Club, although the Concordia Club is outside the scope of the document. The Cooks River is adjacent the park, but is difficult to see from most areas due to riverside earth mounding.

Character: The character of Mackey Park is dominated by the vast open space of the playing fields. Excellent horizon views can be obtained from the playing fields. The wide horizon and views provide a sense of space and openness.

This character contrasts significantly with the river foreshore shared pathway. This section is dominated by tall trees, dense shade and picturesque water views along the Cooks River.

Pathways: The largest of the pathways through Mackey Park is the pedestrian / cycle share path that runs along the river foreshore. The share pathway connects with Tempe Station and Kendrick Park to the east and Steel Park to the west. There is a concrete pathway connection between Carrington Road and the riverside share path. This links to the street footpath that connects to Richardson's Crescent. The amenities building has a concrete apron that connects to both Carrington Road and Richardson's Crescent. The apron also connects to a pathway that leads through the children's playground. All pathways are in good condition.

Fencing: Mackey Park has extensive fencing. The interface with Richardson's Crescent is fenced with chain wire fencing which is in good condition. Ball nets are located at the southern and northern edges of the playing fields, also in good condition. Pool style fencing runs along the western edge of the playing field adjacent the children's playground and associated footpath. Chain wire fencing is also located along the park boundary with Carrington Road. The Concordia Club is surrounded by chain wire fencing.

Some of this fencing is damaged with informal access at various locations. The fencing near the Concordia Club has significant vegetation associated with it at many locations. The fencing and shrubs separates the Concordia Club from the rest of the park. The chain wire fencing in Mackey Park is generally in fair condition, however fencing near the Concordia Club is in poor condition.

Park Furniture: Furniture is provided in Mackey Park in a variety of locations although is concentrated around the children's playground. The furniture includes picnic tables, timber topped seats, wheeled bins, one 2.0x2.0m picnic shelter and drinking fountains. Park furniture in Mackey Park is in average condition.

Foreshore edge interface: The foreshore within Mackey Park provides excellent river views. The river edge is constructed from sandstone block work and is of a considerable age. The wall at several locations is failing with the high tide regularly overtopping the wall. At the western end of the foreshore interface, there is significant Sydney Water infrastructure that includes concrete barriers, water release infrastructure and a channelled creek. All parts of the foreshore interface have significant shade trees of mixed species, mostly growing out of turf.

Car parking: Mackey Park has on street parking and a parking area associated with the Concordia Club. The Croquet Club and Concordia Club parking is located near Bayview Avenue.

Playing field: The playing fields can accommodate up to three senior soccer fields. AFL is played in winter and cricket in summer. Recent upgrade works included drainage and new turf to the playing surface. This has improved drainage and the longevity of the turf through the winter season. The playing fields have a very high level of use. The current configuration of the playing fields for cricket has caused ball strike issues in the adjacent children's playground.

Playground: The playground is located at the western end of Mackey Park adjacent Carrington Road. The playground is fenced on almost all four sides by either chain wire or pool style fencing. The play items include six swings, two climbing structures, two slides, one monkey bar structure, three toddler play elements.

Trees: There is a wide variety of tree species located in Mackey Park. The most dominate of the groupings are along the Cooks River foreshore where a mature avenue of Poplar Trees, *Populus deltoides* and scattered She-oak, *Casuarina glauca* are established. The Concordia Club has mixed species including Umbrella Trees, *Schefflera actinophylla* and Oliander, *Nerium oleander*. Along the interface with Richardson's Crescent, there are extensive mixed Eucalyptus spp. The area near a drainage canal and children's playground has many different species including *Eucalyptus* spp; Plane Trees, *Platanus acerifolia*; and *Calistemon* spp.



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Figure 17. Mackey Park Elements: **01** Foreshore pedestrian pathway through Mackey Park. **02** Concordia Club and Croquet Lawns. **03** Mackey Park rain garden. **04** Mackey Park playing field. **05** Marrickville Red Devils kiosk and amenities building. **06** Ball fence. **07** Sydney Water owned drainage channel **08** playing field turf surface. **09** Cooks River edge and damaged retaining walls. **10** River Canoe Club building. **11** Tempe train station car park highlighting pedestrian and cycle way through the car park traffic lane. **12** Fencing to the Concordia Club.

02_ Existing Site Appraisal + Site Analysis

Mackey Park

Plantings: A fenced area towards the south west of the playing field contains a biofiltration system and associated constructed wetland with plant species including *Carrex*, *Lomandra* and *Phragmites*. Elsewhere there is only limited plantings except for shrubs around the Concordia Club, some sparse grasses beneath the Eucalypt species adjacent Richardson's Crescent and a mass area of weeds and She-Oak, *Casuarina glauca* specimens near the south-western foreshore associated with the Sydney Water infrastructure. The children's playground has planting areas established with mowing edges, however only turf grass is currently growing in this area.

Signage: The share pathway is signed with Cooks River signage. Elsewhere only regulatory signage exists within the park.

Lighting: Pole top pedestrian lighting is used along pathways. The playing fields also have sports lighting which is used during evening sporting events.

Concordia Club: The Concordia Club is excluded from the scope of this document

Croquet Club: Located at the eastern end of Mackey Park. The club is segregated from the majority of the park via chain wire fencing and shrub plantings. The croquet lawns are located to the north and east of the Concordia Club and visitor car parking. The croquet lawns are accessed from Bayview Avenue.

River Canoe Club: The River Canoe Club has a building located within Mackey Park at the south-eastern corner, abutting the Cooks River foreshore. The building is a two storey structure, constructed of painted timber and corrugated roofing. The River Canoe Club has river access with canoe launch facilities. Vehicle access to the River Canoe Club is via the Concordia Club car park.

Toilet and amenity building: The toilet and amenities building is located at the north-western corner of the park, adjacent the intersection of Carrington Road and Richardson's Crescent. The amenities building includes, kiosk, office area, club room, storage, change rooms, male, female and disabled toilet and an electrical cupboard. The toilets address Carrington Road, while the kiosk addresses Mackey Park with an undercover concrete area for serving.

Sydney Water infrastructure: Sydney Water has several infrastructure items including a concrete drainage channel that extends from the Cooks River to Carrington Road. Also present is a pumping station, dam walls, one way valves and stormwater outfalls on the banks of the Cooks River at the point where the concrete lined channel meets the river.



Fauna linkages



Soil Types



Cooks River foreshore development offset



Road ownership, transport options & land ownership



Built Structures



Cycleway / pedestrian connections



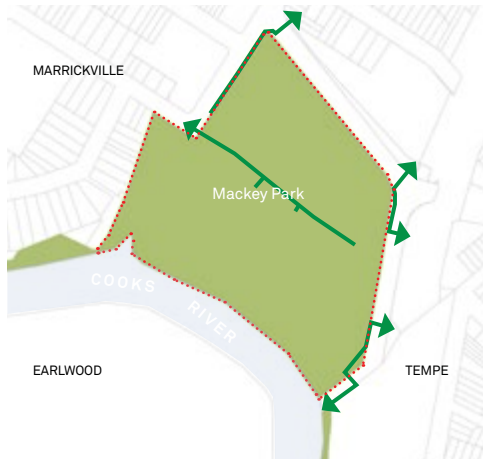
Stormwater pipes and potable water connections



Sewer connections



Gas and oil pipeline



Electrical cables and lighting connections
Figure 17: Site analysis_ LEGEND



Contours



Trees

Fauna linkages	Road ownership - RMS	Regional pedestrian routes	Stormwater pipes	Potable water connections
Acid Sulphate Soil - Class 02	Built Structures	Gas pipes	Sewer connections	Existing contours
Acid Sulphate Soil - Class 05	Regional cycle routes	Oil Pipeline	EA Transmission	Existing trees
	Cooks River Parklands	Crown land (parkland)	Telecommunications connections	Public bus stop
			Pedestrian pathway	Train Station

02_ Existing Site Appraisal + Site Analysis

Mackey Park Constraints

Fauna Linkage: Mackey Park is designated as a fauna habitat link. Fauna links act to connect remnant bushland and facilitate fauna movement.

Soils: Mackey Park has one type of acid sulphate soil: type 02. Excavation of soil within the park should proceed with caution not to disturb the acid sulphate soil. Class 02 soils may be exposed from any excavation works. Construction work within Mackey Park will require appropriate construction methods and approvals to deal with Acid Sulphate Soil.

Cooks River foreshore development offset: The foreshore offset zone in Mackey Park limits construction within 10.0 m of the river edge. Full details of construction implications need to be discussed with the NSW Department of Primary Industries: Water.

Built structures: There are several built structures in Mackey Park, and some of these have been mentioned already. There is an amenities building with toilets, change rooms and a kiosk near the corner of Carrington Road and Richardson's Crescent. Nearby there are several pumping stations and other Sydney Water infrastructure.

Along the western edge of the park, Sydney Water maintain a concrete lined drainage channel and GPT and associated infrastructure.

The eastern edge of the park has the River Canoe Club, Croquet Club and associated driveways, car park and service access.

Mackey Park has some furniture items primary located with a play ground near the western end of the park.

Road ownership: The roads around Mackey Park are local road and owned by Council. The bridge across the Cooks River is a state asset.

Pedestrian and cycleway connections: The riverside pedestrian and cycle pathway passes through the park with connections to Kendrick and Steel Park. The pedestrian and cycle link also connects to the Carrington Road cycleway. The pedestrian pathway network also extend around the perimeter of the park along the streets.

Underground services: Mackey Park has a number of underground services including electrical, telecommunications, sewer, potable water and stormwater. Oil and gas pipelines also pass through Steel Park, which have 6.0m easements.

Contours and landform: Mackey Park is located on the Cooks River flood plain. The majority of the park has little change in elevation, except for the north-west which has a gentle rise and the north east which as a steep vegetated batter to the road

intersection. The share pathway is located on a bund, elevated from both the river on one side and the park on the other.

Heritage: There are no items of heritage significance in Mackey Park. Opposite the park however, the Tempe train station is of state significance. The context of the station with its visual connections to the Cooks River, Mackey Park and residential Tempe is noted as being significant and should be maintained.

Field layout: The field layout in Mackey Park allows for three fields set up for soccer.

Public transport: The Tempe Train Station is located opposite Mackey Park. The Tempe Train Station is located on the Illawarra Line between Wolli Creek (south) and Sydenham Station (north).

Maintenance: Marrickville Council currently undertakes the majority of regular maintenance of the park including:

- > Tree pruning.
- > Grass maintenance - (mowing, edge trimming etc.).
- > Inspection and repair of buildings.
- > Maintenance of park furniture.
- > Mulching of planting areas.
- > Maintenance and repair of playing fields.
- > Repairs to signage.
- > Repairs and line marking for sports.



Figure 18: Physical elements - Kendrick Park + Fatima Island.

Kendrick Park_ 01 Pedestrian / cycle crossing under rail bridge; 02 Naturalised section of Kendrick Park; 03 Car park; 04 Vehicle access 05 Amenities building; 06 Canoe launch and salt water marsh terraces; 07 Children's playground; 08 Picnic shelter and BBQ facilities; 09 Large canopy fig trees; 10 Pedestrian crossing to Tempe Reserve; 11 Tempe train station car park.

02_ Existing Site Appraisal + Site Analysis

Kendrick Park + Fatima Island

Land	Kendrick Park
Title Information	Lot 1, DP124369
Ownership	Council
Location	Kendrick Park is located in the suburb of Tempe, in the south-eastern portion of the Marrickville Local Government Area (Refer Figure xx)
Total area	20,458 m ²
Zoning	RE1 Public Recreation
Existing Classification	Community land
Land	Fatima Island
Title Information	Lot 638, DP46579
Ownership	Council
Location	Fatima Island is located in the Cooks River within the suburb of Tempe, in the south-eastern portion of the Marrickville Local Government Area (Refer Figure xx)
Total area	190 m ²
Zoning	RE1 Public Recreation
Existing Classification	Crown land

Overview: Kendrick Park and Fatima Island are situated in the suburb of Tempe. Kendrick Park is bordered by the Illawarra railway line to the west, the Cooks River to the south, the Princes Highway to the east and residential Tempe to the north. Kendrick Park is a moderately used park with picturesque views across the Cooks River.

Fatima Island is a small ephemeral island located in the centre of the Cooks River channel. The island is comprised of a several small trees and a failing rock wall.

Character: The character of Kendrick Park is defined by the proximity of the Princes Highway, the Cooks River and a planted escarpment north of the park. Close to the highway traffic noise and air pollution create an unfavourable experience along the transport corridor interface. Elsewhere, an open kick-a-bout space with picturesque views to the river, extensive native vegetation and a rock escarpment provide a relaxed natural character.

Pathways: Pathways through Kendrick Park are well established. Pathways follow the river and the highway with connections between these features and a car park. The cycle way is marked with green paint where it joins the car park road from near the train station to the Princess Highway pedestrian / cycle path. Pathways within Kendrick Park are in good condition. There are no pathways on Fatima island.

Fencing: Fencing is limited in Kendrick Park and are RailCorp assets. Fencing is along the train line and along the connection to the Tempe Station car park. Fencing in Kendrick Park is in fair condition. There is no fencing on Fatima Island.

Park furniture: Kendrick Park has scattered park furniture. Furniture includes three picnic shelters, one double barbecue, seating, wheeled bins, one used-charcoal barbecue bin, picnic tables and barbecues. A water tap and drinking bubbler is located at the centre of the park. Most of the furniture in Kendrick Park is of average condition. There is no park furniture on Fatima Island.

Foreshore edge interface: The foreshore interface varies in Kendrick Park. There is access with concrete steps into the river towards to eastern end of the park. Elsewhere there is a combination of rip-rap style rock lined edging, rock and salt marsh terraces and sloped vegetated river banks. Fatima Island has salt marsh, mangrove vegetation, silt and sand as its river edge interface. A small failing rock retaining wall is also in place along its south eastern edge.

Car parking: Kendrick Park has 90 degree angle parking in tow car parks, located near the northern edge of the park. Maintenance vehicle access into the park is from the car park, with lockable access gate. Vehicle access to the car park is via Bay Street. There is no car parking on Fatima Island

Open space: The centre of the Kendrick Park is open with a kick-a-bout space which allows for informal recreation. Fatima Island is covered with salt mash and mangrove vegetation with no open space.

Trees: The western part of Kendrick Park is dominated by She-Oak, *Casuarina spp.* trees. The northern edge of the park has several advanced *ficus* trees, with some growing on a rock retaining wall. Two very advanced *ficus hillii* fig trees are present towards the east of the park. Elsewhere there is a mix of species including *Calistemon*, *Eucalypt spp.* and *Melaleuca spp.* Fatima Island has several mangrove *Avicinea marina* and *Casuaia glaua* trees growing on the island.

Plantings: Kendrick Park has extensive areas of groundcover plantings. The western portion and the northern interface has a forest cover of grasses including *dianella caerulea* and *Lomandra longifolia*. The area around the children's playground has mature stands of *Lomandra longifolia* integrated with the play elements. Mixed salt marsh species are present on Fatima Island.



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Figure 19_ Mackey Park Elements: 01 Pedestrian connection to the Princes Highway. 02 Pedestrian connection across Kendrick Park. 03 Pedestrian pathway along the Princes Highway. 04 Kendrick park car park and green painted cycle way. 05 Saltwater marsh terraces along the river interface. 06 Rock riprap river interface. 07 Fatima Island 08 Concrete steps and canoe launch area. 09 Picnic shelter, tables and barbecues. 10 Children's playground. 11 Seating and forest vegetation. 12 interpretive art elements along the foreshore.

02_ Existing Site Appraisal + Site Analysis

Kendrick Park + Fatima Island

Playground: The playground includes two sets of swings, a slide and climbing structure, monkey bars and two toddler rockers. The playground is divided into two sections, one with fake turf as softfall, the other has pine mulch. Both have concrete edging to define the space. There are no play elements on Fatima Island.

Lighting: Pole top lighting is provided along the pedestrian pathways in Kendrick Park. No lighting is present on Fatima Island.

Signage: Regulatory signage is provided through the park, there is no wayfinding, identification or interpretive signage present. Fatima Island has no signage.

Tempe train station and car park: The pedestrian and cycle link between Kendrick Park and Mackey Park, passes through the Tempe Station car park. The carpark is a RailCorp asset, is not maintained by Council and is not part of the park. The pathway stops at the start of the carpark with pedestrian and cycle movements needing to use the car park travel lane as a thoroughfare. There is an obvious conflict of uses within the car park.

Toilet and amenity building: The toilet is located at the eastern edge of the park adjacent the highway. The toilet is very visible from the highway, but has more limited views from the rest of the park due to distance and tree plantings. There are concrete pathways that connect the toilet facility with the rest of the park. There are extensive tree plantings nearby to the toilets but no ground cover or shrub plantings. The building itself is constructed of brick cladding and a suspended colourbond roof. The toilet is configured as two equal access toilets, however one is marked as female and the other male.

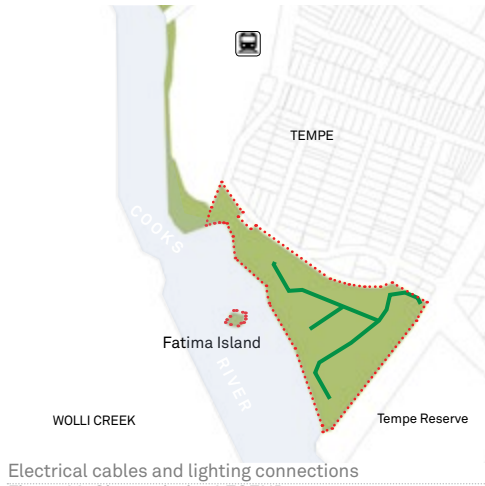
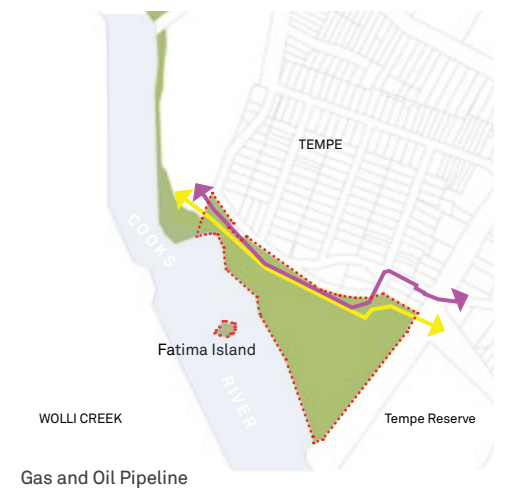
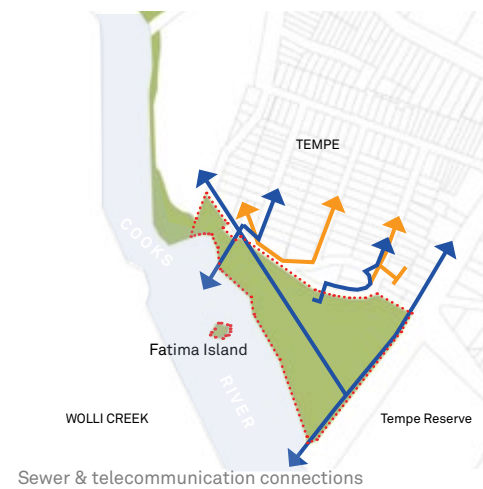
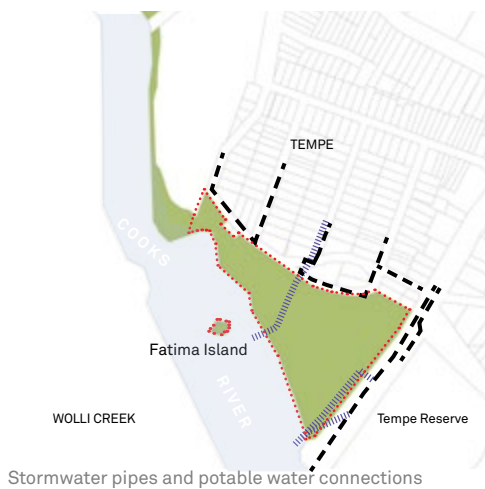
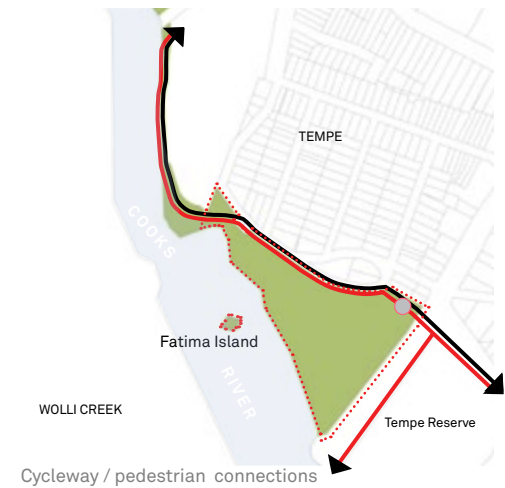
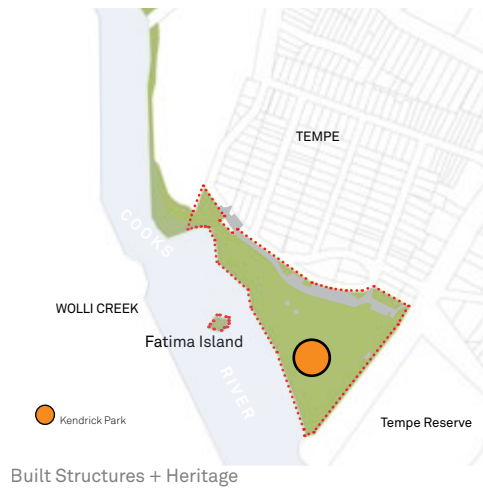
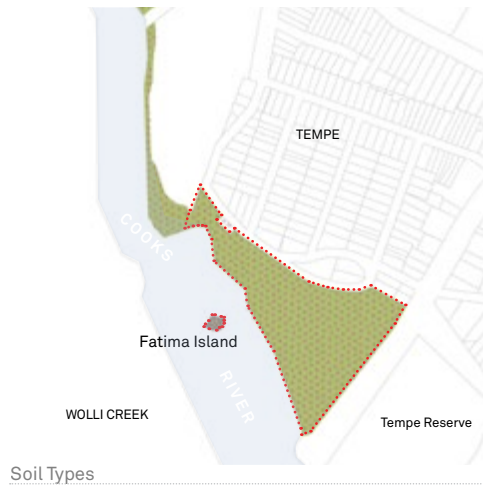


Figure 20: Site analysis_ LEGEND

Fauna linkages	Road ownership - RMS	Regional pedestrian routes	Stormwater pipes	Potable water connections
Acid Sulphate Soil - Class 02	Built Structures	Gas pipes	Sewer connections	Existing contours
Acid Sulphate Soil - Class 05	Regional cycle routes	Oil Pipeline	EA Transmission	Existing trees
	Crown land (parkland)	Telecommunications connections		Public bus stop
				Train Station

02_ Existing Site Appraisal + Site Analysis

Kendrick Park + Fatima Island - Constraints

Fauna linkage: Kendrick Park and Fatima Island is designated as a fauna habitat link. Fauna links act to connect remnant bushland and facilitate fauna movement.

Soils: Kendrick Park and Fatima Island has two types of acid sulphate soil: type 02 and type 05. Excavation of soil within the park should proceed with caution not to disturb the acid sulphate soil. Class 02 soils may be exposed from any excavation works. Class 05 soils may be exposed when excavation is deeper than 5.0m. Construction work within Kendrick Park and Fatima Island will require appropriate construction methods and approvals to deal with Acid Sulphate Soil.

Cooks river foreshore development offset: The foreshore offset zone in Kendrick Park and Fatima Island limits construction within 10.0 m of the river edge. Full details of construction implications need to be discussed with the NSW Department of Primary Industries: Water.

Built structures: Built structures in Kendrick Park include the car park and vehicle access along the northern interface with the residential properties. At the eastern edge of the park there is an amenities building with male and female toilets. The parks also has a playground and picnic shelters. The only built structure on Fatima Island is a collapsing retaining wall of considerable age.

Road ownership: The roads around Kendrick Park are mostly local roads, the exception is the state owned and controlled Princes Highway that exists along the eastern park boundary.

Pedestrian and cycleway connections: The riverside shared pathway passes through the park with connections to Mackey Park and Tempe Reserve. There are also pedestrian pathways along the Princes Highway and the river edge. The share path link under the train line floods on each high tide limiting access. The link further west connecting Mackey Park is hard to way-find and is dangerous as it passes through the travel lanes of the train station car park.

Underground services: Kendrick Park has a number of underground services including electrical, telecommunications, sewer, potable water and stormwater. Oil and gas pipelines also pass through Steel Park, which have 6.0m easements.

Contours and landform: Kendrick Park is located on the Cooks River Floodplain. The northern edge of the park has a rock escarpment that rises approximately 7.0m to residential properties above. Fatima Island is an ephemeral river island that rises slightly above the high tide level.

History: Kendrick Park is a heritage item of local significance. It was one of the earliest parks in the nearby suburbs and was designated as a reserve in 1912. It was named Kendrick Park in 1958 after William Edgar Kendrick, mayor of St Peters.

The park is significant for the preserved Aboriginal middens within the park, the remnants of the convict dam on the river and is a key part of the Tempe House (Wolli Creek site) curtilage. Much of the park has been altered since 1970, with the additional of a children's playground, tree plantings and picnic facilities.

Field layout: Kendrick Park has open space areas that allow for informal recreation and general kick-a-bout.

Maintenance: Marrickville Council currently undertakes the majority of regular maintenance of the park including:

- > Tree pruning.
- > Grass maintenance - (mowing, edge trimming etc.).
- > Inspection and repair of buildings.
- > Maintenance of park furniture.
- > Maintenance and repair of sports fields.
- > Repairs to signage.
- > Mulching of planting areas.



View along the Cooks River from HJ Mahoney Reserve, Marrickville. Photography by Marrickville Council.

03_ Engagement Overview + Common Themes





View looking west along the Cooks River from near the River Canoe Club. Photography by Marrickville Council

03_ Engagement Overview + Common Themes

Engagement Overview

The community engagement methodology aimed to be as inclusive as possible with a variety of forums on different days and nights in a number of locations.

Information was disseminated to the community via a number of means including social media, business cards, information flyers, the Council website and letter box mail outs. There were three mail outs distributed on three separate dates. The first mail out was aimed at the whole catchment around the parks and included 6000 flyer to residents in Marrickville, Tempe, Dulwich Hill in the Marrickville Local Government Area (LGA) and Earlwood in the Canterbury LGA. The second letter was distributed to residents within a 300m catchment of Mackey Park. The third letter was distributed to residents within 300m of Kendrick Park.

Social media, specifically Facebook and Twitter included several tweets and Facebook posts on different days and at different times. The Council website posted information at two locations; one on the homepage, the other via the key dates page. The homepage included an image on the banner with a quick link to the a survey and project information.

Advertising of the engagement was also present in the parks. Business Cards were printed and distributed by Council Officers and Rangers in the parks. A3 posters were printed and placed in parks highlighting both the engagement dates and the Council website.

Council Officers directly emailed relevant stakeholder groups and met with key personnel to increase awareness and participation.

All advertising information provided the website details for the Your Say Marrickville website. The site contained information outlining key dates, overview of the project and a link to a web survey.

The list of engagement sessions included:

Type of engagement	Date	Focus of engagement
Marrickville Festival	Sunday 19 October 2014	All parks
Engagement evening	Thursday 23 October 2014	HJ Mahoney Reserve
Engagement evening	Tuesday 28 October 2014	Steel Park
Day in the park	Saturday 01 November 2014	HJ Mahoney Reserve
Engagement evening	Wednesday 05 November 2014	Warren Park, Richardson's Lookout and Cooks River Foreshore Park
Day in the park	Saturday 08 November 2014	Steel Park
Engagement evening	Thursday 13 November 2014	Mackey Park
Day in the park	Saturday 15 November 2014	Warren Park, Richardson's Lookout and Cooks River Foreshore Park
Engagement Evening	Wednesday 19 November 2014	Kendrick Park
Day in the Park	Saturday 22 November 2014	Mackey Park
Day in the Park	Saturday 29 November 2014	Kendrick Park

An exhaustive list of stakeholders were also contacted with input sought to form the brief for the Master Plan design.

A full detailed description of the community engagement sessions and stakeholder input is available in the 'Community Engagement_ Summary Report – Cooks River Parklands _ Plan of Management + Master Plan' (Appendix A)

The following pages provide a summary of the feedback received as well as a list of recommendations for the development of the Master Plan strategies. The recommendations were therefore completed to prepare this document.

03_ Engagement Overview + Common Themes

Mahoney Reserve

Lifelong Recreation

Character:

The informal character of HJ Mahoney Reserve is much loved by park users. The open, green, undeveloped nature, with many canopy trees is what park user's love and want retained.

To be resolved in this report:

> Design proposals are to retain and enhance the parks existing informal character.

Pathways:

There are no pedestrian pathways through HJ Mahoney Reserve. Although walking (including walking dogs) was the most popular past-time in the park, only a very small proportion of people want new pathways in HJ Mahoney Reserve, however many requested better pedestrian and cycle connections to the park.

To be reviewed in this report:

> Review existing wear pathways and design lines to understand where pedestrian pathways may be required.
> Review pedestrian pathway connections to the park and evaluate where and what treatments can be used to better address park connections.

Street art wall:

The existing street art wall is a well-used area of the park. Users like the art wall and some users want the extent of the wall expanded.

To be reviewed in this report:

> Retain the existing art wall.
> Review opportunities to increase the wall size as well as integrate the wall into the park with other youth orientated sporting infrastructure.

Fencing:

AFL stakeholders request white picket fencing to demarcate the playing field, otherwise fencing was not raised as a priority except by dog owners for a dog off leash area.

To be reviewed in this report:

> Investigate fence design options, including a no fence option.

Active in Marrickville

Foreshore edge interface:

Park users request a natural edge treatment with additional tree plantings, groundcovers and grasses with salt marsh species along the river's edge. Some users also wanted to see the ability to launch canoes from HJ Mahoney Reserve.

To be reviewed in this report:

> Investigate options for the edge interface including naturalisation.
> Liaise with stakeholders on options for edge naturalisation.
> Investigate funding strategies for shared funding arrangements to deliver a naturalised river edge.

Trees:

Many users of HJ Mahoney Reserve appreciate the large existing trees. There were mixed comments in regards to the tree species. Some people do not like the Poplar trees along the river edge and would like to see them replaced. A large number of responses noted the need for additional tree planting and shade. Feedback also highlighted users wanted additional mulch to tree surrounds.

To be reviewed in this report:

> Investigate existing habitat trees with the aim to retain these specimens.
> Review existing tree species for tree health.
> Investigate potential species options and locations for new tree plantings.
> Review cost implications for increasing the extent of mulch around new and existing tree specimens.

Planting:

Some park users wish to establish revegetation areas in HJ Mahoney Reserve. Users disliked the use of coir matting as mulch. The introduction of native meadow plantings was also liked by the community.

To be reviewed in this report:

> Review the extent of potential revegetation along the river.
> Investigate whether staged revegetation is possible at locations.
> Develop options for coir matting replacements.
> Investigate options for native meadow planting areas.

Car parking & water sensitive urban design (WSUD):

Users wish to see increased water treatment in HJ Mahoney Reserve including the introduction of car park rain gardens.

To be reviewed in this report:

> Investigate options to implement WSUD initiatives.
> Review shade tree planting opportunities.

Play facilities:

The provision of children's play facilities was requested by users. The request has been for younger children's play equipment rather than an older children's age group. Stakeholders would like the field be available for multiple sports.

To be reviewed in this report:

> Review options for playground locations in HJ Mahoney Reserve.
> Review the proximity of other play facilities.

03_ Engagement Overview + Common Themes

Mahoney Reserve

Playing field:

Feedback from users specifically requested the removal of bindi weed from the turf. Stakeholders would like the field used for multiple sports and uses, including cricket in summer and AFL in winter.

To be reviewed in this report:

- > Discuss with turf maintenance team options to remove bindi weed from the turf.
- > Ensure the playing field design is flexible for different sports.

Furniture and picnic facilities:

More shade and weather protection is to be provided in HJ Mahoney Reserve. Additional picnic tables and seating was requested. Shaded seating was selected as an important element required in the park.

To be reviewed in this report:

- > Review the quality of existing furniture items.
- > Review the locations that do not have furniture, but would be ideal seating and picnic opportunities. Review shade options with the review.

Dogs:

The second most common activity undertaken by park users is dog walking. There were many requests for a dog off leash area and the provision of dog poo bags. Some requests included fencing to the dog off leash area.

To be reviewed in this report:

- > Review Pets in Parks strategic document to ascertain the nearby dog park network.
- > Investigate options for using Mahoney Reserve as a dog off leash park. Review opportunities, constraints and safety in design issues.

The Recreation Economy**Public toilets + amenities:**

The community and sporting groups appreciate having the public toilets. The quality of the public toilets was noted as needing improvement. AFL stakeholders specifically request additional club facilities including showers, change rooms, umpire facilities and all items listed under 'local' amenities within the facilities guidelines for AFL.

To be reviewed in this report:

- > Retain toilet and amenity facilities.
- > Implement the draft Marrickville Public Toilet Strategy recommendations around best practice and design process for public amenities.
- > Investigate funding opportunities for more specific requests with AFL stakeholder.

03_ Engagement Overview + Common Themes

Steel Park

Steel Park

Lifelong Recreation

Character

The green, well connected, family friendly nature of Steel Park is what its users appreciate. Users enjoy the ability to walk or drive to the park, use the picnic and seating facilities, under large shade trees next to the Cooks River. Many people used the words 'sanctuary', 'relaxed' or 'calming' in their description of the park, which highlights the value this green space has within the community.

To be reviewed in this report:

- > Maintain the green connected family focus of the park.
- > Review and aim to increase park amenity items such as seats, picnic facilities and barbecues.
- > Balance recreation activities with the ability to retain and improve native vegetation and the 'relaxed', 'calming', 'sanctuary' appearance of the park.

Pathways:

The Cooks River foreshore path is highly valued and used heavily by both pedestrians and cyclists. Many pedestrians noted a conflict with bike users. It was noted by some that bike users appear to travel fast and startle pedestrians. Parents were also worried about children using the pathway and the potential danger of bicycle riders. Users requested a solution that will make the pathway safer for pedestrians and cyclists. No additional pathways were requested.

To be reviewed in this report:

- > Investigate options to provide a safe environment for both pedestrian and bicycle users on the shared pathway.
- > Collaborate with traffic planners to develop best practice solutions.
- > Review wear paths and desire lines within the park that may require additional pathways.

Fencing:

Parents are concerned about children entering the Cooks River from the grassed bank near the children's playground. There were a number of requests for the installation of a fence or barrier either around the playground or between the playground and the water edge.

To be reviewed in this report:

- > Review the appropriateness of existing fencing within Steel Park.
- > Review whether additional fencing is required at any locations within Steel Park.

Active in Marrickville

Foreshore edge interface:

The existing vegetation along the river edge is important to the community that use Steel Park. Both further naturalisation and the development of an interactive river edge at Steel Park have been requested by users.

To be reviewed in this report:

- > Investigate opportunities to improve the natural characteristics of the river edge in Steel Park.
- > Investigate options to increase resilience of the foreshore interface from climate change impacts.
- > Review CPTED guidelines to ensure proposals ensure a safe park experience.

Trees:

The trees in Steel Park are highly valued. Many enjoy the deciduous nature of the trees allowing shade in summer and sun in winter. Some though would prefer the trees to be native (non-deciduous). More tree plantings were also requested.

To be reviewed in this report:

- > Investigate existing habitat trees with the aim to retain these specimens.
- > Review existing tree species for tree health and good form.
- > Investigate potential species options and locations for new tree plantings.

Planting:

Feedback has outlined the communities desire to increase river edge planting along the Cooks River in Steel Park. The vegetation should also help with animal habitat opportunities, as this is another key element seen as important to the community. The community has requested the condition of the existing park vegetation be improved. This needs to be balanced with other user desires to maintain views out to the river as well.

To be reviewed in this report:

- > Review opportunities for increasing river edge vegetation.
- > Ensure CPTED principles are being adhered to for new and existing plantings.

Car parking:

Car parking is limited within Steel Park. Users want the number of car parking spaces increased.

To be reviewed in this report:

- > Review options for increasing parking opportunities within Steel Park.
- > Review current on street parking opportunities along with the pedestrian connections to the park.

Water Sensitive Urban Design (WSUD):

Increasing WSUD elements within Steel Park (including the DAB car park) were requested by users. This included wanting storm water treatment, native meadows and car park rain gardens.

03_ Engagement Overview + Common Themes

Steel Park

To be reviewed in this report:

- > Ensure the Master Plan considers the Sub catchment Management Plan covering Steel Park - integrating the WSUD items as multifunctional infrastructure.
- > Review existing use patterns and maintenance options for reducing mowing regimes to promote areas of native meadow grass.
- > Collaborate with environmental services to provide sustainable outcomes regarding WSUD and native meadows.

Play facilities incl. water play:

The existing play facilities and water park are loved by the community. Users request additional play equipment. Additional shade was also requested over particular items including the flying fox and some water play elements. A swimming beach and swimming pool was also requested by some along with expansion of the existing water play facilities.

To be reviewed in this report:

- > Review shade options to the existing playground/water play facilities.
- > Investigate cost implications and benefit analysis for expanding the water play elements.
- > Investigate staged replacement requirements for any existing elements.
- > Investigate opportunities for playground expansion.

Park pedestrian lighting:

Respondents noted the pedestrian lighting in Steel Park is poor. There was a request to upgrade the existing lighting.

To be reviewed in this report:

- > Review lighting standards and requirements in Steel Park - both pedestrian and sporting.

Exercise equipment:

Users enjoy using the exercise equipment. People noted that shade over the equipment would be useful for exercising at times other than late afternoon / morning and mid-winter. Users also suggested the installation of additional pieces of equipment along the foreshore, to be developed as a series of stations and not just one area.

To be reviewed in this report:

- > Review exercise equipment in regards to the potential for a series of stations along the river walkway.

Playing field:

The playing surface including the outer field still has an uneven surface. The addition of extra cricket wicket was requested by stakeholder groups.

To be reviewed in this report:

- > Investigate the implications of adding an additional cricket pitch to Steel Park.
- > Discuss opportunities with maintenance team to produce an even playing surface on the outer field.
- > Investigate opportunities to upgrade Steel Park field drainage.
- > Investigate opportunities to reconfigure field layout.

Furniture and picnic facilities:

The existing facilities at Steel Park are very well used and highly valued. Additional bins were requested as well as improvements to the existing bin amenities (cleanliness, visual appearance etc.) were requested. BBQ, picnic tables, seating and weather protection were requested as well as the provision of seating for spectator viewing over the playing fields (specifically near Illawarra Road).

To be reviewed in this report:

- > Review existing furniture for quality and use.
- > Investigate options for replacing and adding more furniture items within the park.

Dogs:

People enjoy walking their dogs on a leash through and around Steel Park.

To be reviewed in this report:

- > Retain opportunities for dog walking on leash within Steel Park.

Signage:

Some park users requested additional signage for wayfinding and interpretation.

To be reviewed in this report:

- > Investigate opportunities to update and consolidate park signage.

The Recreation Economy

Café:

Many users request the ability to buy coffee from within the park; either from a coffee shop or coffee cart.

To be reviewed in this report:

- > Review the appropriateness of allowing commercial ventures within public open space.

Public toilets + amenities building:

The toilets were highlighted for an overhaul by the community as many of the respondents believed the condition of the toilets needs improvement. Stakeholders noted flooding issues with the change rooms and canteen during major rain events. Stakeholders wish for an upgraded amenities building.

To be reviewed in this report:

- > Retain toilet and amenity facilities.
- > Implement the draft Marrickville Public Toilet Strategy recommendations around best practice and design process for public amenities.
- > Review the drainage situation that is causing flooding and review options for stopping / reducing impacts to the building.

Lifelong Recreation

03_ Engagement Overview + Common Themes

Richardson's Lookout, Warren Park + the Cooks River Foreshore

Character:

The generally flat open space surrounded by planted escarpments with trees, shrubs and groundcovers with scattered heritage elements is the character that users love the most in Warren Park, Richardson's Lookout and the Cooks River Foreshore. The plantings specifically provide a natural setting and quiet retreat for visitors which is appreciated by the community.

To be reviewed in this report:

- > Upgrades the parks while retaining the existing park character.

Art:

Park users wish to see the addition of art elements within the parks. It is requested that art elements should provide insight into the history of the area. There is the opportunity to integrate art and signage. Some users also wish to have a practice street art wall erected for community use.

To be reviewed in this report:

- > Investigate and collaborate with different sections of Council to review art and interpretation opportunities within the parks within the context of a heritage park.

Pathways:

The pedestrian and cycle pathway along the Cooks River is a highly valued park connection by many park visitors. The majority of visitors access the parks via the foreshore share pathway. Better connectivity between each of the parks (Warren Park, Richardson's Lookout and the Foreshore) was requested by the community.

To be reviewed in this report:

- > Review pathway connections between parks. Ensure ease of pedestrian access and increase connectivity.
- > Ensure the shared pathway along the river maintains safe pedestrian and cycle movements.

Active in Marrickville

Trees:

The community highly value the tree plantings and additional tree plantings were requested.

To be reviewed in this report:

- > Review opportunities for additional tree plantings throughout the parks. Collaborate on tree species requirements.

Planting:

Plantings of shrubs and groundcovers to aid in habitat protection of animals have been requested.

To be reviewed in this report:

- > Liaise with Environmental Services and maintenance teams for potential improvements to habitat understory vegetation.
- > Investigate opportunities for increasing habitat areas.

Turf:

Users dislike the bindi weed in the grass. Users enjoy the open turf kick-about spaces.

To be reviewed in this report:

- > Retain the open kick-about spaces within the parks.
- > Discuss with turf maintenance team options to remove bindi weed from the turf.

Foreshore edge interface:

The vegetated edge to the river environment is valued and so are water views. A balance of each of these priorities was highlighted by the community.

To be reviewed in this report:

- > Maintain river side vegetation. Investigate opportunities to establish new revegetation areas where possible.
- > Investigate opportunities to maintain views where possible and provide a river viewing platform.

Signage:

Park users wish to have way finding and interpretive signage provided within the parks. Interpretive signage should be considered as part of a greater interpretive trail. Park identification signage will also help with park wayfinding.

To be reviewed in this report:

- > Investigate opportunities to update and consolidate park signage.

Peace and reconciliation park co-naming:

The community has strong support for the designation of Richardson's Lookout as a peace and reconciliation park.

To be reviewed in this report:

- > Review obstacles prohibiting the Richardson's Lookout co-naming from proceeding.

Lighting:

Users requested park lighting along pedestrian routes for night use of the parklands.

To be reviewed in this report:

- > Review existing lighting within the parks. Investigate opportunities for improved pedestrian lighting.

Car parking:

As most visitors to Warren Park, Richardson's Lookout and the Cooks River Foreshore travel by foot, provision of car parking facilities is not a high priority for the community.

To be reviewed in this report:

- > No action required.

Water Sensitive Urban Design (WSUD):

Provision of stormwater treatment and other WSUD measures are a high priority for park users in each of the parks.

03_ Engagement Overview + Common Themes

Richardson's Lookout, Warren Park + the Cooks River Foreshore

To be reviewed in this report:

- > Review WSUD opportunities and constraints within the parks.
- > Investigate limitations from implementing WSUD strategies.
- > Ensure Subcatchment management plans are incorporated into park designs.

Play facilities:

The provision of both younger and older age play facilities were noted by the community as good outcomes, though were generally noted as low priorities for the parks.

To be reviewed in this report:

- > Review opportunities for play facilities, specifically review park character and appropriateness.
- > Review nearby facilities to understand distance between facilities as well as park type and hierarchy with adjacent facilities.

Furniture and picnic facilities:

More seating opportunities along the river were requested by the community.

To be reviewed in this report:

- > Review existing furniture for quality and use.
- > Investigate options for replacing and adding more furniture items within the parks.

Dogs:

Provision for a dog off leash area in Warren Park was highly requested by users.

To be reviewed in this report:

- > Investigate the opportunity to provide a dog off leash area in Warren Park.
- > Review and understand if there are any limiting factors, such as wildlife protection areas.

Fencing:

Fencing along the road edge at Thornley Street (Warren Park) is not liked by many surveyed. A permeable edge with easy access into the park is preferred.

To be reviewed in this report:

- > Review the appropriateness of existing fencing.
- > Review whether additional fencing is required at any locations.

Recreation Economy**Public toilets:**

No toilets are currently located in Warren Park, Richardson's

Lookout or the Cooks River Foreshore. Users wish to have easy access to quality toilet facilities along the Cooks River. The park location is less than 400m from facilities in Steel and Mackey Park.

To be reviewed in this report:

Implement recommendations of the Marrickville Public Toilet Strategy Plan.

03_ Engagement Overview + Common Themes

Mackey Park

Lifelong Recreation

Character:

The character of Mackey Park is quite open. Users wish to increase the tree plantings around Mackey Park to reduce this open appearance. The area of Mackey Park adjacent the river was noted as being quite picturesque though under utilised. The peacefulness of Mackey Park was highly valued. Sports users appreciate the open fields that are valued for their quality and size.

To be reviewed in this report:

- > Investigate opportunities to increase tree planting around Mackey Park.
- > Review opportunities to increase use along the river edge – review locations for pedestrian amenity items.
- > Retain the peaceful nature of Mackey Park.
- > Ensure the quality of the fields are maintained through the excellent maintenance regime.

Pathways:

The foreshore cycle link is highly valued and heavily used by commuters. Pathways within the park were noted as being in good condition.

To be reviewed in this report:

- > Investigate options to provide a safe environment for both pedestrian and bicycle users on the shared pathway.
- > Collaborate with traffic planners to develop best practice solutions.
- > Review wear paths and desire lines within the park that may require additional pathways.

Fencing:

- > Fencing was not noted as a critical item by the community at Mackey Park.

To be reviewed in this report:

- > Review the existing fencing to ensure it is best located to fulfil function.

Active in Marrickville

Trees + planting:

The informal scattering of trees while appreciated, rating as being too few in number. An overwhelming proportion of responses requested additional tree, shrubs, grass and groundcovers to be planting in the park. Users wish to increase the extent of native vegetation and habitat values. Users also noted that seating under trees is desirable.

To be reviewed in this report:

- > Investigate opportunities to increase tree planting within Mackey Park.
- > Investigate opportunities to increase vegetation along the drainage channel.
- > Investigate options for habitat planting.
- > Investigate options to integrate planting areas and passive recreation opportunities.

Foreshore edge interface:

The community wishes to naturalise the river edge of Mackey Park. Saltwater reeds, trees, grasses and groundcovers are to be incorporated in park designs and upgrades.

To be reviewed in this report:

- > Investigate river edge naturalisation.
- > Maximise opportunities to provide recreation and habitat values along the river edge.

Playing field:

The playing field was highlighted as being in excellent condition with good maintenance practices. Some trees are shading / damaging the playing surface at the far southern edge of the field.

To be reviewed in this report:

- > Recommend current maintenances are maintained.
- > Review damage induced by tree shading and investigate mitigation strategies with Council officers.

Drainage line / creek:

The drainage line along the western edge of the park was noted as being 'ugly' and under-utilised.

To be reviewed in this report:

- > Investigate options to provide passive recreation and naturalise the drainage line.
- > Liaise with Sydney Water to ensure stakeholders endorse proposed design changes.

Car parking:

Park users often drive to the park and require additional car parking opportunities, particularly on weekends and during sporting events.

To be reviewed in this report:

- > Investigate parking options within and around Mackey Park.

Water Sensitive Urban Design (WSUD):

The gross-pollution traps (GPTs) at the western park edge, at the interface with the Cooks River was highlighted by the community as an 'ugly' and 'smelly' part of the park that needs to be cleaned up.

To be reviewed in this report:

- > Liaise with Sydney Water with options for improving the visual appearance of WSUD elements in Mackey Park including options of drainage channel naturalisation and options of relocating the GPT upstream.

Play facilities:

Additional play facilities have been requested, along with further shade over the playground and additional illumination during the evening. Conflict between cricket balls and the play facility was highlighted.

03_ Engagement Overview + Common Themes

Mackey Park

To be reviewed in this report:

- > Review upgrade options to the play facilities.
- > Investigate additional planting opportunities around the play facilities.
- > Review options for providing a safe environment for children, including evening illumination, ease of access, shade and conflicts with playing field use.

Furniture and picnic facilities:

A large number of users wish to see additional seating and picnic tables in Mackey Park. It was noted the river edge was particularly picturesque place to picnic. Seating for spectator viewing was also requested.

To be reviewed in this report:

- > Investigate potential locations for furniture and picnic facilities in Mackey Park. Specifically review locations along the river foreshore and for spectator viewing of sporting events.

Dogs:

Many community members wish to see a dog off leash area incorporated into Mackey Park.

To be reviewed in this report:

- > Review the Pets in Parks strategy document for the network of dog off leash areas nearby to Mackey Park.
- > Investigate opportunities to provide dog off leash area within Mackey Park.

The Recreation Economy**Public toilets:**

There was strong feedback to upgrade or provide new public toilet facilities.

To be reviewed in this report:

- > Retain toilet and amenity facilities.
- > Implement the draft Marrickville Public Toilet Strategy recommendations around best practice and design process for public amenities.

Concordia Club:

A large number of park users wish to see the Concordia Club better integrated into the park, including fence removal and better connectivity for pedestrians.

To be reviewed in this report:

- > Investigate opportunities to better integrate the Concordia Club into Mackey Park. Ensure pedestrians connections, both visual and physical are considered.

River Canoe Club:

The Canoe Club want to maintain river access and investigate options to improve the building including the provision of a mural.

To be reviewed in this report:

- > Ensure designs retain river access for the Canoe Club.
- > Review building improvement options, including the installation of a mural.

03_ Engagement Overview + Common Themes

Kendrick Park + Fatima Island

Lifelong recreation

Character:

The views and visual connections with the Cooks River and Fatima Island are very important to Kendrick Park users. The high levels of vegetation and natural appearance of much of the park is also a defining feature of the western half of the park.

To be reviewed in this report:

- > Retain views to the Cooks River and Fatima Island.
- > Retain existing vegetation within the Kendrick Park and maintain Fatima island as a natural system.
- > Ensure the character of both parks and their visual connections are retained.

Pathways + connections:

Users wish to have the pedestrian connection and flooding issues under Tempe rail bridge fixed with an all-weather solution. Users also raised concerns about pedestrian and cyclist safety travelling through the Tempe train station car park as a connection between Mackey Park and Kendrick Park. The bridge crossing (to Rockdale LGA) and the pedestrian crossing to the train station were also noted as dangerous elements needing safe design solutions.

To be reviewed in this report:

- > Ensure proposed improved all-weather pedestrian connections under the Illawarra train line are resolved and implemented.
- > Review and provide options for a safe pedestrian connection through the Tempe station car park.
- > Ensure safe travel for both pedestrians and cyclists.
- > Liaise with traffic planners around pedestrian safety for the bridge crossing to Rockdale.

Active in Marrickville

Trees and planting:

Park users request additional tree planting within the park. Users also wish to ensure the bushland areas are protected and expanded.

To be reviewed in this report:

- > Maintain existing vegetation.
- > Investigate opportunities for new tree and ground cover planting.

Foreshore edge interface:

Park users like the salt water wetland terraces. Further works to naturalise the river edge have been requested by users. Users wish to ensure the park river edge is stabilised to minimise erosion. The erosion of Fatima Island was raised by the some in the community as a concern. The community raised interest in the ability to swim in the river at Kendrick Park in the future.

To be reviewed in this report:

- > Investigate opportunities to increase edge naturalisation of the Cooks River.
- > Implement best practice advice as adopted by Council regarding Fatima Island.
- > Investigate limiting factors for swimming in the Cooks River and investigate opportunities within Kendrick Park to facilitate this opportunity in the future.

Car parking:

No additional car parking has been requested. The existing car park can accommodate park use requirements.

To be reviewed in this report:

- > No action required.

Water sensitive urban design (WSUD):

Some park users have requested additional, more formal storm water treatment to occur in Kendrick Park.

To be reviewed in this report:

- > Investigate opportunities for implementing WSUD initiatives within Kendrick Park.

Pedestrian lighting:

Park users request additional illumination during the evening via park pathway lighting.

To be reviewed in this report:

- > Review existing pedestrian and vehicle lighting within Kendrick Park.
- > If lighting is less than standard investigate pedestrian and vehicle lighting options.
- > Review whether shade structures are currently illuminated.
- > Liaise with stakeholders including police, prior to finalisation of strategies.

Play facilities:

The play facilities are noted as being well used, though aging. Users request an upgrade to the facility and better integration with the natural appearance of much of the park.

To be reviewed in this report:

- > Review existing play facilities.
- > Investigate replacement and addition of new children's play facilities.
- > Investigate options for integration with existing and new planting.

Furniture and picnic facilities:

Park disposal of barbecue coals is an ongoing issue that needs resolution. Provision of additional bins and the design of bin enclosures / fixing elements that prohibit bin vandalism was required. Additional water points for drinking and hand washing have been requested along with more picnic tables, seating and barbecue facilities.

To be reviewed in this report:

- > Review options for new seating and picnic facilities.
- > Review opportunities for water points within the park for drinking.
- > Investigate possible new barbecue facilities.

03_ Engagement Overview + Common Themes

Kendrick Park + Fatima Island

Dogs:

There were no significant requests for the provision of dog off leash areas in Kendrick Park. Dog owners tend to walk through the park rather than use it as a destination. The adjacent Tempe Recreation Reserve has dog facilities that currently accommodate the off leash function.

To be reviewed in this report:

No action required.

Signage:

Improved interpretative and way finding signage was requested by both the community and stakeholder groups. Interpretive signage should be considered as part of a great interpretive trail.

To be reviewed in this report:

- > Investigate opportunities for way finding and interpretive signage within Kendrick Park.
- > Review signage within context of a great signage strategy.

The Recreation Economy**Public toilets:**

The existing public toilets are requested to be upgraded by park users.

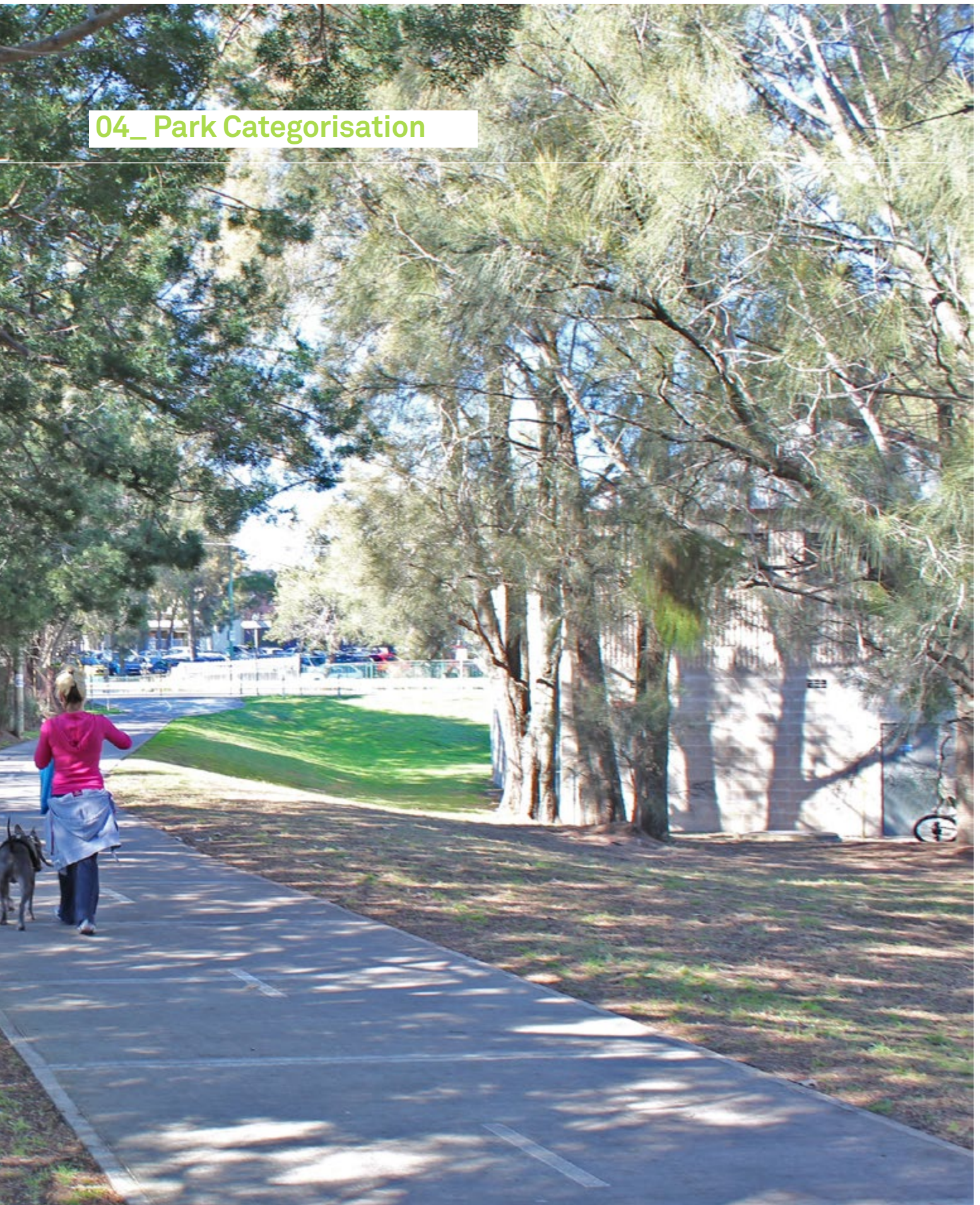
To be reviewed in this report:

- > Retain toilet facilities and implement the Marrickville Public Toilet Strategy Plan proposals around best practice and design process for public amenities.



View along the shared pathway near the Concordia Club, Mackey Park, Marrickville. Photography by Marrickville Council.




04_ Park Categorisation



04_ Park Categorisation

HJ Mahoney Reserve

LEGEND - Land Categorisation

-  Community land: General community use
-  Community land: Sportsfield
-  Community land: Natural area - Foreshore

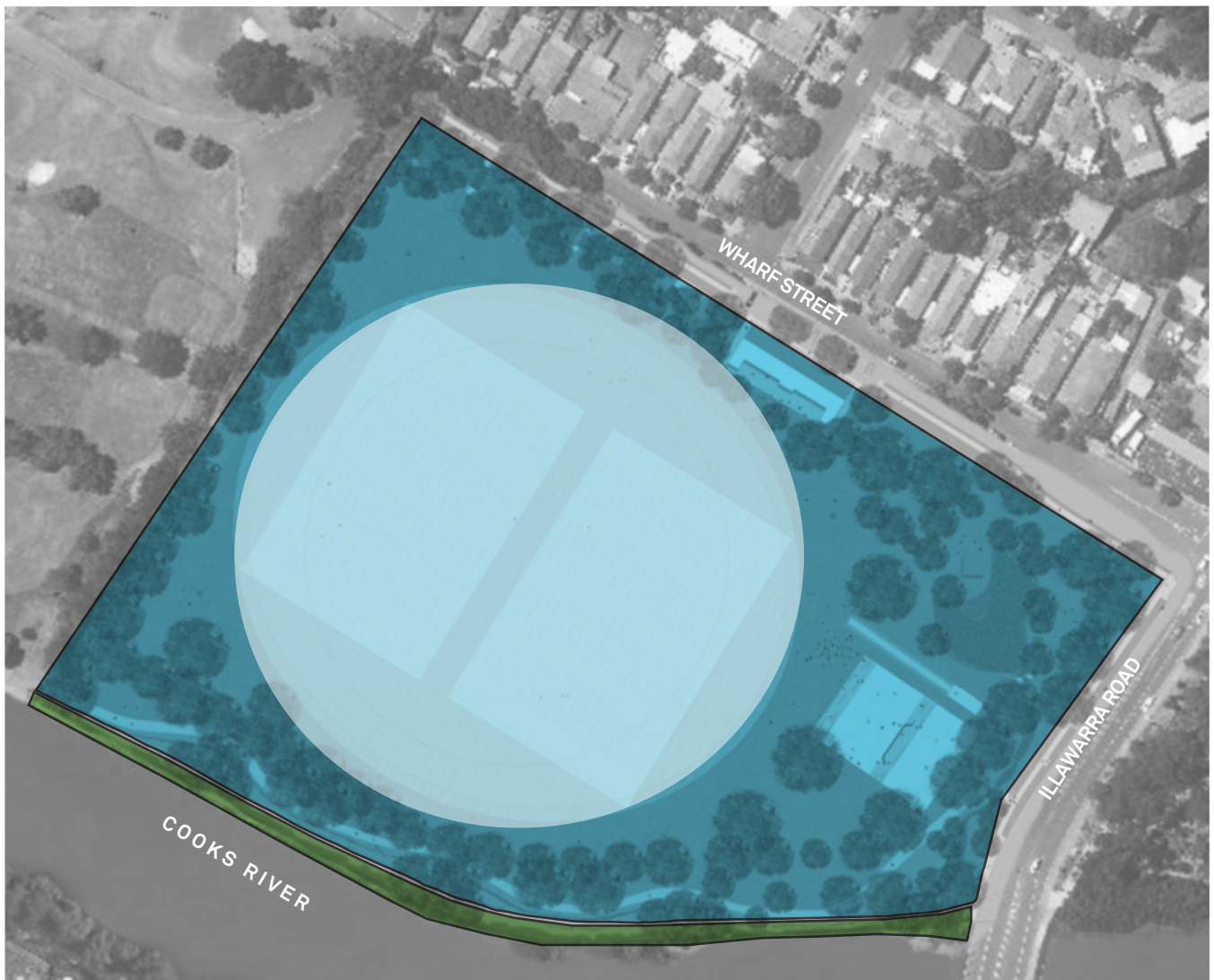
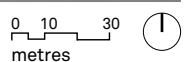


Figure 21: Land categorisation plan_ HJ Mahoney Reserve.



04_ Park Categorisation

HJ Mahoney Reserve

This plan of management categorises the community land in HJ Mahoney Reserve as follows:

Land Category	Core objective
Community land	<p>To encourage, promote and facilitate recreational pursuits in the community involving organised and informal sporting activities and games; and</p> <p>To ensure that such activities are managed having regard to any adverse impact on nearby residences.</p>
Sportsground	
Community land	<p>The core objectives for management of community land categorised as general community use are to promote, encourage and provide for the use of the land and to provide facilities on the land to meet the current and future needs of the local community and the wider public:</p> <p>(a) in relation to public recreation and the physical, cultural and social and intellectual welfare or development of individual members of the public; and</p> <p>(b) in relation to purposes for which a lease, licence of other estate may be granted in respect of the land (other than the provision of public utilities and works associated with or ancillary to public utilities)</p>
General community use	

Land Category	Core objective
Community land	<p>The core objective for management of community land categorised as a natural area are:</p> <p>(a) to conserve biodiversity and maintain ecosystem function in respect of the land, or the feature or habitat in respect of which land is categorised as a natural area, and</p> <p>(b) to maintain the land, or that feature or habitat, in its natural state and setting, and</p> <p>(c) to provide for the restoration and regeneration of the land, and</p> <p>(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, and</p> <p>(e) to assist in and facilitate the implementation of any provisions restricting the 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.</p>
Natural area - Foreshore	<p>The core objective for management of the community land (natural) categorised as foreshore are:</p> <p>(a) to maintain the foreshore as a transition area between the aquatic and the terrestrial environment, and to protect and enhance all functions associated with the foreshore's role as a transition area, and</p> <p>(b) to facilitate the ecological sustainable use of the foreshore and to mitigate impact on the foreshore by community use.</p>

04_ Park Categorisation

Steel Park

LEGEND - Land Categorisation




-  Community land: General community use
-  Community land: Sportsfield
-  Community land: Natural area - Foreshore



Figure 22: Land categorisation plan_ Steel Park.

0 10 30
metres



04_ Park Categorisation

Steel Park

This plan of Management categorises the community land in Steel Park as follows:

Land Category	Core objective
Community land	To encourage, promote and facilitate recreational pursuits in the community involving organised and informal sporting activities and games; and To ensure that such activities are managed having regard to any adverse impact on nearby residences.
Sportsground	
Community land	The core objectives for management of community land categorised as general community use are to promote, encourage and provide for the use of the land and to provide facilities on the land to meet the current and future needs of the local community and the wider public: (a) in relation to public recreation and the physical, cultural and social and intellectual welfare or development of individual members of the public; and (b) in relation to purposes for which a lease, licence of other estate may be granted in respect of the land (other than the provision of public utilities and works associated with or ancillary to public utilities)
General community use	

Land Category	Core objective
Community land	The core objective for management of community land categorised as a natural area are:
Natural area - Foreshore	(a) to conserve biodiversity and maintain ecosystem function in respect of the land, or the feature or habitat in respect of which 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, and (e) to assist in and facilitate the implementation of any provisions restricting the 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. The core objective for management of the community land (natural) categorised as foreshore are: (a) to maintain the foreshore as a transition area between the aquatic and the terrestrial environment, and to protect and enhance all functions associated with the foreshore's role as a transition area, and (b) to facilitate the ecological sustainable use of the foreshore and to mitigate impact on the foreshore by community use.

04_ Park Categorisation

Richardson's Lookout, Warren Park and Cooks River Foreshore

LEGEND - Land Categorisation

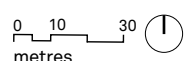
- Community land: General community use
- Community land: Natural area - Foreshore
- Crown Land: Purpose of public recreation

This plan of Management categorises the community land in Richardson's Lookout, Warren Park and Cooks River Foreshore as follows:

Land Category	Core objective
Community land	
General community use	<p>The core objectives for management of community land categorised as general community use are to promote, encourage and provide for the use of the land and to provide facilities on the land to meet the current and future needs of the local community and the wider public:</p> <p>(a) in relation to public recreation and the physical, cultural and social and intellectual welfare or development of individual members of the public; and</p> <p>(b) in relation to purposes for which a lease, licence of other estate may be granted in respect of the land (other than the provision of public utilities and works associated with or ancillary to public utilities)</p>



Figure 23: Land categorisation plan_ Richardson's Lookout, Warren Park and the Cooks River Foreshore.



04_ Park Categorisation

Richardson's Lookout, Warren Park and Cooks River Foreshore

Land Category	Core objective
Community land	The core objective for management of community land categorised as a natural area are:
Natural area - Foreshore	<p>(a) to conserve biodiversity and maintain ecosystem function in respect of the land, or the feature or habitat in respect of which land is categorised as a natural area, and</p> <p>(b) to maintain the land, or that feature or habitat, in its natural state and setting, and</p> <p>(c) to provide for the restoration and regeneration of the land, and</p> <p>(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, and</p> <p>(e) to assist in and facilitate the implementation of any provisions restricting the 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.</p> <p>The core objective for management of the community land (natural) categorised as foreshore are:</p> <p>(a) to maintain the foreshore as a transition area between the aquatic and the terrestrial environment, and to protect and enhance all functions associated with the foreshore's role as a transition area, and</p> <p>(b) to facilitate the ecological sustainable use of the foreshore and to mitigate impact on the foreshore by community use.</p>

Land category	Management principle
Crown land	(a) that environmental protection principles be observed in relation to the management and administration of Crown land,
Recreation	<p>(b) that the natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible,</p> <p>(c) that public use and enjoyment of appropriate Crown land be encouraged,</p> <p>(d) that, where appropriate, multiple use of Crown land be encouraged,</p> <p>(e) 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</p> <p>(f) 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.</p> <p>This plan of management allows use of the reserve for the purposes of public recreation.</p>

04_ Park Categorisation

Mackey Park

LEGEND - Land Categorisation




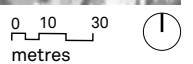
-  Crown land
-  Concordia Club
-  Community land: General community use



Figure 24: Land categorisation plan_ Mackey Park.



04_ Park Categorisation

Mackey Park

Mackey Park is comprised of crown land and community land. The crown land section does not require the categorisation as community land, instead the principles for crown land management from the Act as outlined as follows:




Land category	Management principle
Crown land	(a) that environmental protection principles be observed in relation to the management and administration of Crown land, (b) that the natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible, (c) that public use and enjoyment of appropriate Crown land be encouraged, (d) that, where appropriate, multiple use of Crown land be encouraged, (e) 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 (f) 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. This plan of management allows use of the reserve for the purposes of public recreation.
Recreation	
Concordia Club	Excised from Council responsibility.

Land Category	Core objective
Community land	The core objectives for management of community land categorised as general community use are to promote, encourage and provide for the use of the land and to provide facilities on the land to meet the current and future needs of the local community and the wider public: (a) in relation to public recreation and the physical, cultural and social and intellectual welfare or development of individual members of the public; and (b) in relation to purposes for which a lease, licence of other estate may be granted in respect of the land (other than the provision of public utilities and works associated with or ancillary to public utilities)
General community use	

04_ Park Categorisation

Kendrick Park

LEGEND - Land Categorisation

-  Community land: Crown land
-  Community land: General community use
-  Community land: Natural area - Foreshore

Land category	Core objective
Crown land	(a) that environmental protection principles be observed in relation to the management and administration of Crown land,
Recreation	(b) that the natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible,
	(c) that public use and enjoyment of appropriate Crown land be encouraged,

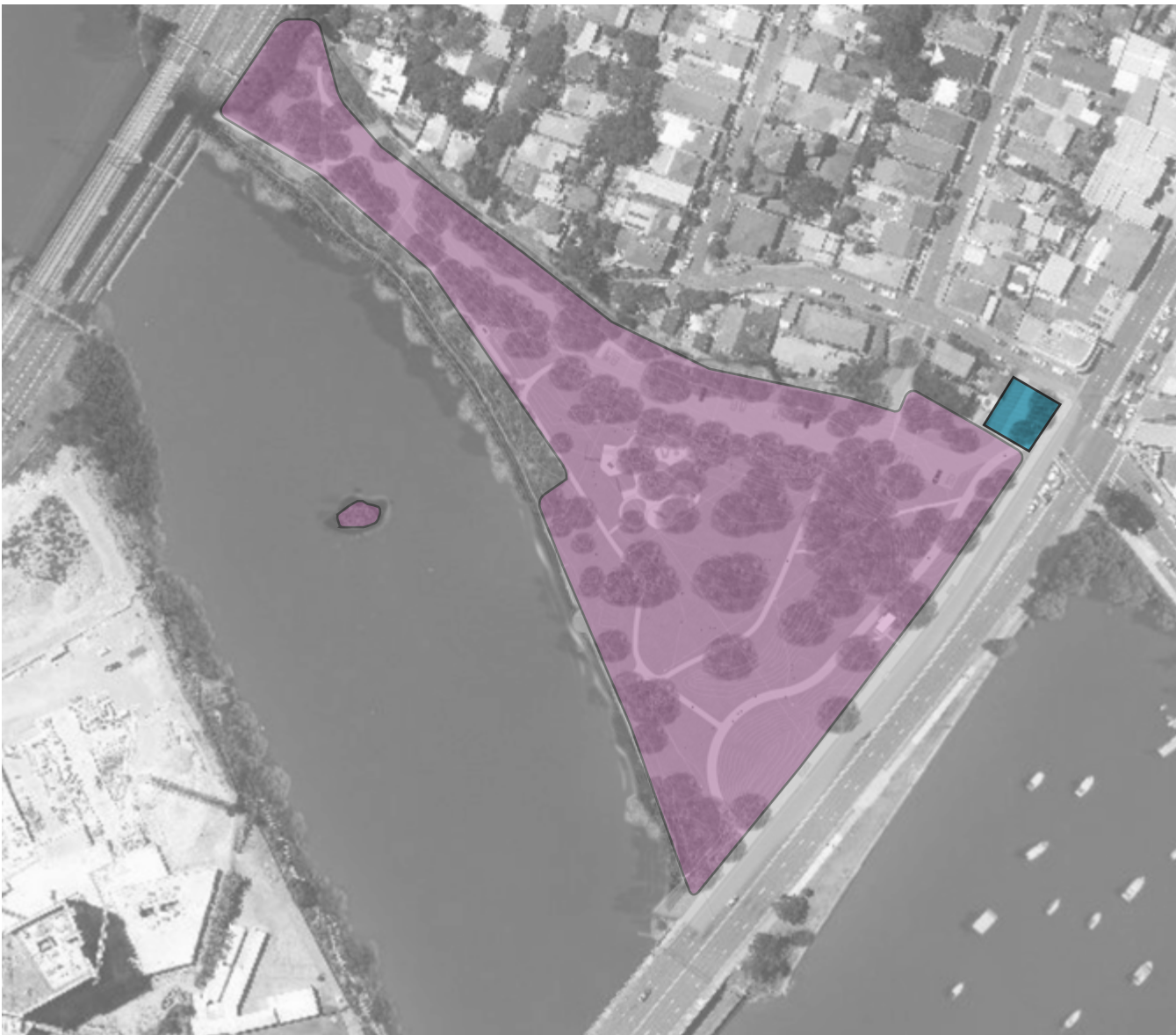
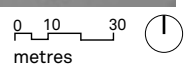


Figure 25: Land categorisation plan_ Kendrick Park.



04_ Park Categorisation

Kendrick Park

This plan of Management categorises the community land in Kendrick Park and Fatima Island as follows:

Land category	Core objective
Crown land	(d) that, where appropriate, multiple use of Crown land be encouraged,
Recreation	(e) 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 f) 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. This plan of management allows use of the reserve for the purposes of public recreation.

Land category	Core objective
Community land	The core objectives for management of community land categorised as general community use are to promote, encourage and provide for the use of the land and to provide facilities on the land to meet the current and future needs of the local community and the wider public:
General community use	(a) in relation to public recreation and the physical, cultural and social and intellectual welfare or development of individual members of the public; and (b) in relation to purposes for which a lease, licence of other estate may be granted in respect of the land (other than the provision of public utilities and works associated with or ancillary to public utilities)

Land category	Core objective
Community land	The core objective for management of community land categorised as a natural area are:
Natural area - Foreshore	(a) to conserve biodiversity and maintain ecosystem function in respect of the land, or the feature or habitat in respect of which 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, and (e) to assist in and facilitate the implementation of any provisions restricting the 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. The core objective for management of the community land (natural) categorised as foreshore are: (a) to maintain the foreshore as a transition area between the aquatic and the terrestrial environment, and to protect and enhance all functions associated with the foreshore's role as a transition area, and (b) to facilitate the ecological sustainable use of the foreshore and to mitigate impact on the foreshore by community use.



Fatima Island as seen from Kendrick Park, Tempe. Photography by Marrickville Council.

05_ Leases and Licences





Kendrick Park, Tempe. Photography by Marrickville Council.



05_ Leases and Licences

HJ Mahoney Reserve

Existing leases and licences

There are no long-term (12 month or longer) leases and licences in place over Mahoney Reserve at the time of developing this plan.

Future leases and licences

Future lease and licences will be allowable for any part of the park for uses consistent with this Plan of Management, the Marrickville Local Environment Plan and any other applicable legislation.



05_ Leases and Licences

Steel Park

Existing leases and licences

There are several long-term (12 month or longer) leases and licences in place over Steel Park at the time of developing this plan. The leases and licences include:

- > Debbie and Abbey Borgia Community Recreation Centre
- > Café Lease
- > Social Enterprise Licence

Future leases and licences

Future lease and licences will be allowable for any part of the park for uses consistent with this Plan of Management, the Marrickville Local Environment Plan and any other applicable legislation.



05_ Leases and Licences

Richardson's Lookout, Warren Park and Cooks River Foreshore

Existing leases and licences

There are no long-term (12 month or longer) leases and licences in place over Richardson's Lookout, Warren Park and Cooks River Foreshore at the time of developing this plan.

Future leases and licences

Future lease and licences will be allowable for any part of the park for uses consistent with this Plan of Management, the Marrickville Local Environment Plan and any other applicable legislation.



05_ Leases and Licences

Mackey Park

Existing leases and licences

There are several long-term (12 month or longer) leases and licences in place over Mackey Park at the time of developing this plan. The leases and licences include:

- > River Canoe Club
- > Concordia Club

Future leases and licences

Future lease and licences will be allowable for any part of the park for uses consistent with this Plan of Management, the Marrickville Local Environment Plan and any other applicable legislation.



05_ Leases and Licences

Kendrick Park

Existing leases and licences

There are no long-term (12 month or longer) leases and licences in place over Kendrick Park at the time of developing this plan.

Future leases and licences

Future lease and licences will be allowable for any part of the park for uses consistent with this Plan of Management, the Marrickville Local Environment Plan and any other applicable legislation.



Warren Park, Marrickville. Photography by Marrickville Council.



06_ Design

Parkland Design Principles

Overview: The parkland design principles outline the lens for which all decisions should be made for each of the parks. By considering the design principles in the decision making process, it will ensure the project objectives for each park are met.

01



Develop the river as a natural system

[Naturalise riverbanks, establish tributaries – not drainage]

02



Provide a string of parklands

[Each park is to be a green urban park with natural river connections]

03



Ensure pedestrian and cyclist safety

[Design parklands with CPTED principles. Reduce user conflicts. Provide a safe environment for all users]

04



Maintain existing character and maintain diversity

[each park is unique and expresses a sense of its place – retain and celebrate these elements]

05



Provide solutions that are innovative

[cost effective, low maintenance, sustainable]

06_ Design

Parkland Design Principles

06



Provide park user amenity items

[Seating, exercise stations, BBQ facilities, shade trees, children's playground, green infrastructure]

07



Maximise existing river connections and views

[Connectivity of the river is unique and vital; ensure future users have the ability to enjoy the river and its scenic qualities]

08



Provide for multiple users

[Provide flexible spaces fit for a range of users and experiences]

09



Education is key

[Celebrate stories, interpret history and inform about natural processes and systems]

10



Facilitate connections with surrounding suburbs

[River, fauna, flora, bicycle, pedestrians]

06_Design

Master Plan

LEGEND

..... Site Boundary



Figure 26: Cooks River Parklands Master Plan.

06_ Design

Master Plan

LEGEND

..... Site Boundary

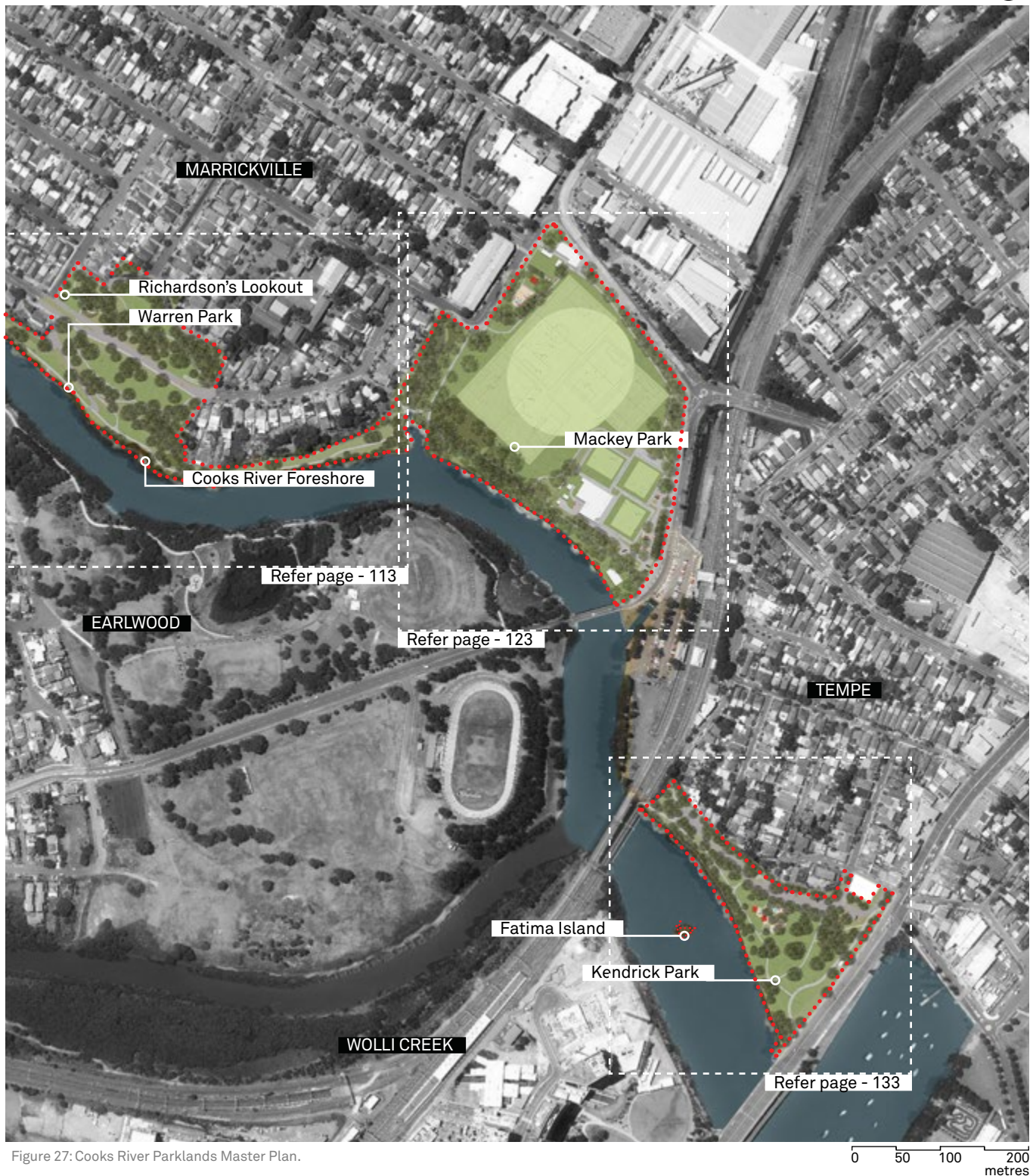


Figure 27: Cooks River Parklands Master Plan.

06_ Design

HJ Mahoney Reserve_ Master Plan



Figure 28: Master Plan_ HJ Mahon Reserve
Cooks River Parklands

06_ Design

HJ Mahoney Reserve_ Master Plan



01 WSUD swale_ Install a vegetated swale to treat water from Wharf Street. Swale design to be integrated around trees, new rocks and habitat logs. Provide passive recreation opportunities and pedestrian crossings at regular intervals.

02 Car park_ Provide shade tree planting and rain garden within the car parking area.

03 Amenities building_ Reconfigure toilets as per the Marrickville Public Toilet Strategy 2015 document and investigate upgrades to change rooms meeting sporting club requirements.

04 Picnic and shade structures_ Install seating, with views over sporting field. Provide new picnic tables shade structures and BBQ facilities.

05 Ephemeral wetland_ Construct an ephemeral wetland around existing trees. Install rock lined overflow vegetated swale along the interface with Illawarra Road. Existing Poplar Trees shall be retained.

06 Athletics areas_ Renovate long jump pit to meet school requirements and provide a safe athletics area.

07 Multi-use facility_ Retain the street art wall. Expand the concrete surrounds to provide at least 2 multiuse courts. Provide concrete bench seating at the multi-court edges that can double as skate facilities.

08 Naturalise the Cooks River interface_ Remove river edge steel sheet piling. Construct a new river edge with either mangrove or sedges and saltmarshplanting.

09 New tree plantings_ Plant new local native shade trees along river edge area.

10 River pathway_ Option to provide pathway along the river edge with a long term goal of connecting with the pedestrian bridge over the Cooks River.

11 Playing field_ Retain the playing field with existing configuration and trial dog off leash use.

12 Golf course interface_ Retain existing tree species along the interface with the golf course. Plant new native ground cover and grasses to understory.

13 River poplars_ Establish a staged removal and replacement of the Poplar trees along the river edge. Replace trees with appropriate local native species.

Figure 29: Master Plan_ HJ Mahoney Reserve

06_ Design

HJ Mahoney Reserve_ Master Plan Strategies - Pathways

LEGEND

- Wharf Street pathway
- Illawarra Road
- Cooks River edge share pathway
- Illawarra Road pedestrian crossing
- Pedestrian WSUD crossing_ Stepping stones
- Pedestrian WSUD crossing_ Timber walkways
- Property Boundary

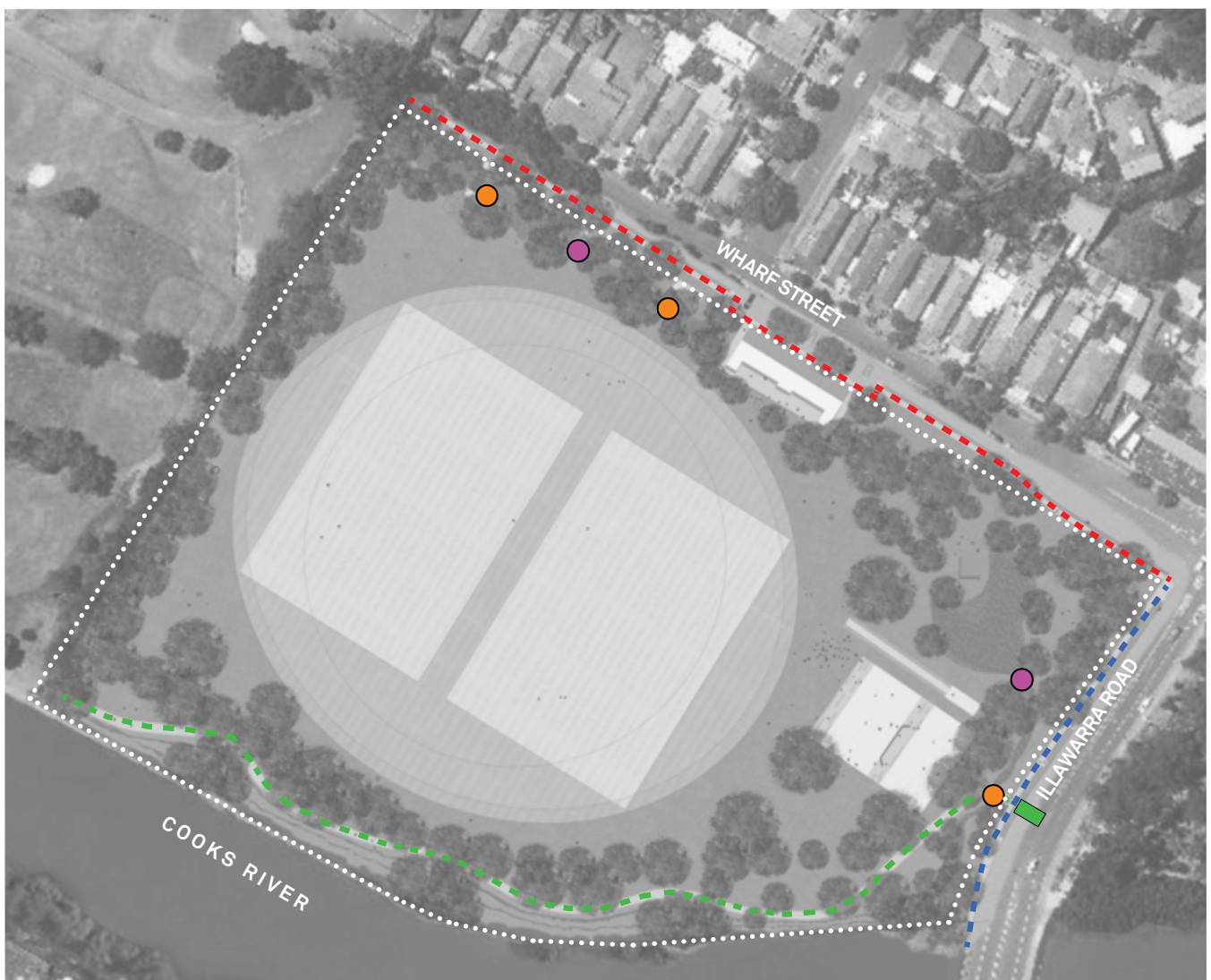
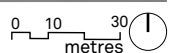


Figure 30: Master Plan Strategies_ Pathway connections HJ Mahoney Reserve



06_ Design

HJ Mahoney Reserve_ Master Plan Strategies - Pathways

Pedestrian pathways overview

Pathway design is rationalised around two roadside pathway connections, a proposed future share pathway link and some minor pedestrian connections around the park to maintain permeability.

Wharf Street pathway_ Provide a new 2.0m wide pedestrian pathway along Wharf Street. The pathway is to be constructed from concrete with structural thickenings at vehicle access points.

Illawarra Road_ Maintain the concrete footpath along Illawarra Road.

Cooks River edge share pathway_ Construct a new concrete 3.0m share pathway along the Cooks River edge post river edge naturalisation. The share pathway to have a future connection through the Golf Course to the pedestrian bridge across the river to Canterbury Council. Future connections and design will need to consider golf ball injury protection.

Illawarra Road pedestrian crossing_ Liaise with RMS to install a new pedestrian crossing on Illawarra Road. New crossing to access from the existing Steel Park shared pathway and a new share pathway along the Cooks River Edge that will have a future connection along the Golf Course.

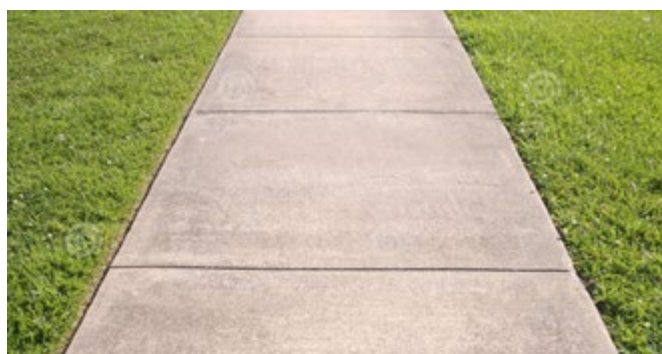
Pedestrian WSUD crossings_ Provide pedestrian crossings over WSUD infrastructure. Crossing to include:

- > Stepping stones; or
- > Timber walkways.

Provide decomposed granite landings at each side of the crossing points at the interface with turf areas to reduce erosion.



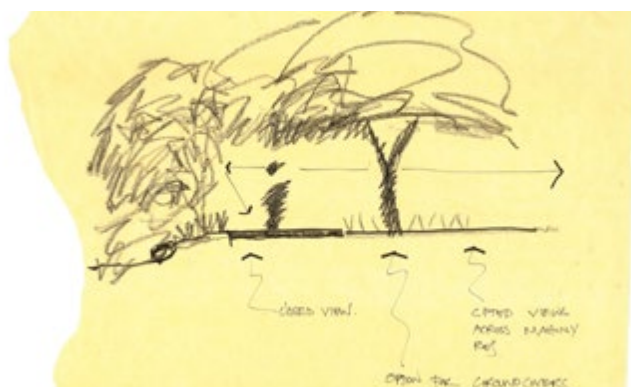
Shared riverside 2.5m wide concrete pathway



Concrete pedestrian footpath - Wharf Street



Timber swale crossing with decomposed granite landings



Cooks River edge pathway - closed views



Cooks River edge pathway - open views



Rock steppers across swale

06_ Design

HJ Mahoney Reserve_ Master Plan Strategies - Environment

LEGEND

- Wharf Street swale and water treatment
- Ephemeral wetland
- Cooks River edge naturalisation
- Trees to be removed
- Understory planting area
- Poplars retained
- Existing habitat trees retained
- Habitat 'boxes' retained
- Property Boundary

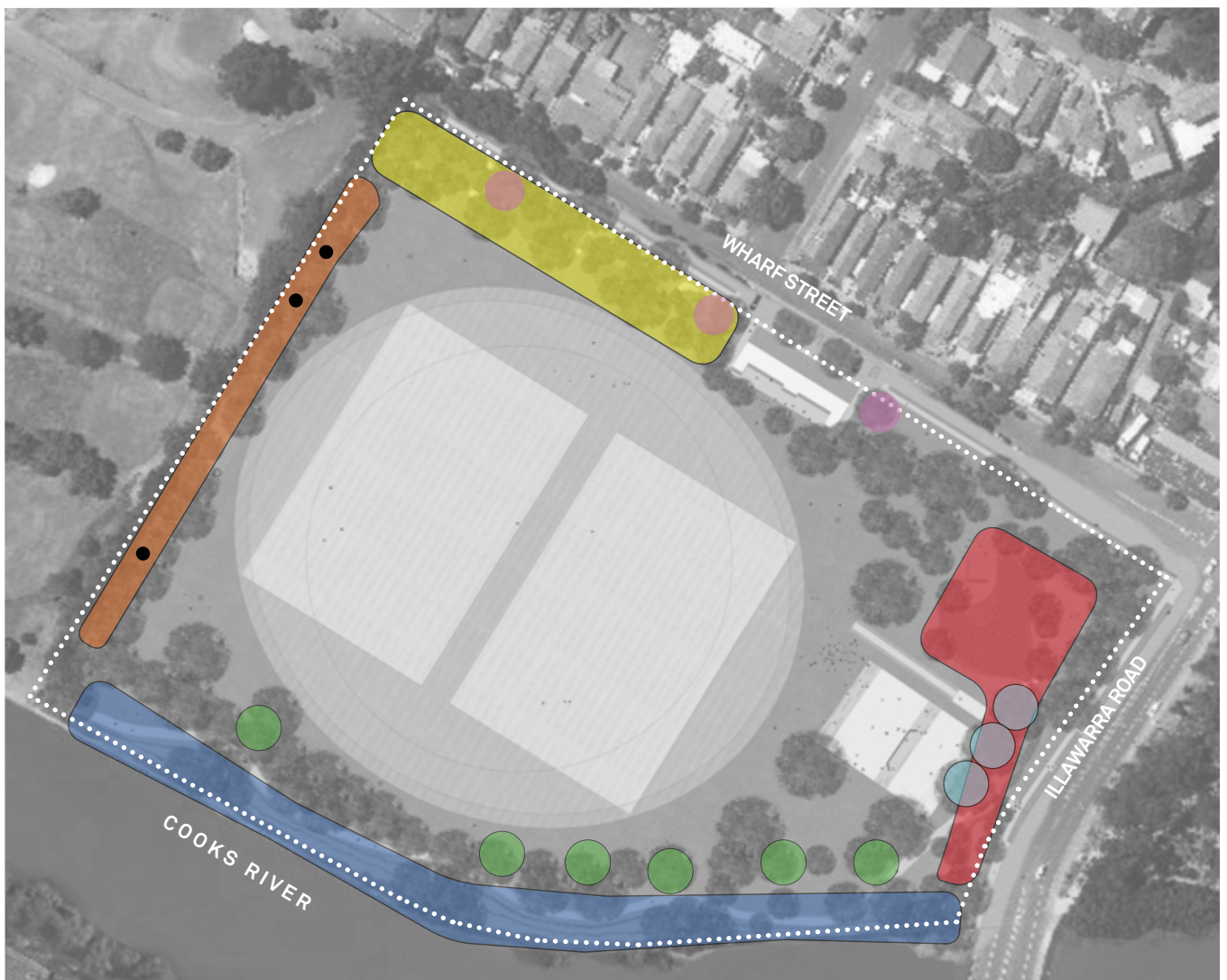


Figure 31: Master Plan Strategies_ Environment HJ Mahoney Reserve



06_ Design

HJ Mahoney Reserve_ Master Plan Strategies - Environment

Environment overview:

The Master Plan proposes to naturalise the river edge as much as possible and return the river to a state that can sustain natural processes for both flora and fauna. Other environmental strategies are proposed to increase biodiversity and water treatment opportunities.

STRATEGIES:

Wharf Street swale and water treatment_ Install a swale for the purpose of diverted water from Wharf Street. The swale is to be designed around the existing shade trees. To minimise disruption to tree roots and underground services, the swale is to be designed with bunding and the natural ground level to be the swale base. The swale width should vary but generally be 5.0m wide with 2.0m wide invert. The swale is to be vegetated with a diverse range of local wetland plantings including sedges and grasses and rock lined to minimise scour. The vegetated swale shall include rocks and logs for habitat opportunities. The swale and associated plantings will be designed with seating, picnic facilities and access points to provide for pedestrian and park users.

Ephemeral wetland_ An ephemeral wetland is proposed towards the north-eastern corner of HJ Mahoney Reserve. The wetland is proposed not to infiltrate water, but rather temporarily hold water following heavy rainfall events, slowly releasing the water into the storm water system, reducing peak downstream flows. The wetland shall be vegetated with a diverse range of wetland species that shall provide habitat potential. An overflow swale should connect the wetland with the Cooks River for heavy storm events. The swale should be planted with local native grass and sedge species. The ephemeral wetland will be designed with seating, picnic facilities and access points for pedestrian and park users.

Cooks River edge naturalisation_ The Cooks River edge shall be naturalised in conjunction with stakeholders. The river edge naturalisation shall include alternate types of edge treatment; one that allows views to the river with low growing saltmarsh and wetland species and another that encourages mangrove species to colonise the intertidal zone. The existing sheet piling will be used as the starting point to lay back the river banks for the naturalisation process. This ensures no compromise to the river capacity to hold existing volumes of water and no impact on the playing field configurations.

Poplar trees_ The poplar trees along river edge (only) should be removed in stages while replacement vegetation establishes in order to provide appropriate riparian vegetation and increased biodiversity. Each tree should be checked for existing animals and either retained or animals if found, relocated. Replacement trees representative of floodplain forest species should include: Paperbark, *Melaleuca quinquenervia*, Swamp Oak, *Casuarina glauca*, Swamp Mahogany, *Eucalyptus robusta* and Port Jackson Fig, *Ficus rubiginosa*. Existing Poplars elsewhere within the park including along Illawarra Road and specifically near the street art wall are to be retained.

Existing park trees_ Implement recommendations for existing trees as per the Marrickville Open Space Tree Inventory 2015.

Golf course interface understory_ There are existing established tree plantings along the boundary interface with the Marrickville Golf Course. A diverse range of local native groundcover, sedges, shrubs and grasses representative of the floodplain forest ecosystem should be introduced to the understory. Weed species should be removed during the planting process. Where space is available in the canopy, new tree plantings should be introduced to maximise canopy cover and increase species diversity. Consider other habitat features including rocks, logs and nest boxes.

Car park_ Reconfigure car park line marking and provide rainwater collection gardens with sedges, grasses and canopy trees for shade.

Turf_ Review maintenance regime to minimise bindi weed within the turf and playing field. Investigate options for playing surface upgrades and the installation of alternate source irrigation via Discovery Point.

Habitat trees_ Plant out with diverse local native species representative of floodplain forest around existing habitat trees. Explore opportunities to retain proposed tree removal for habitat purposes.



Understory plantings of grasses and groundcovers along the Golf Course interface.



Vegetated, rock lined swale shall be designed and integrated with recreation facilities along Wharf Street.

06_ Design

HJ Mahoney Reserve_ Master Plan Strategies - Furniture + Amenities

LEGEND

- | | |
|--|--|
| ■ Shade shelter (with BBQ and picnic table) | ● Wheeled bin enclosure |
| ● Picnic table | ● Bike racks |
| ● Seat | ● Drink fountains |
| ■ Flexible skate seating | ● BBQ |
| ■ Amenities and change rooms | |
| --- Property boundary | |

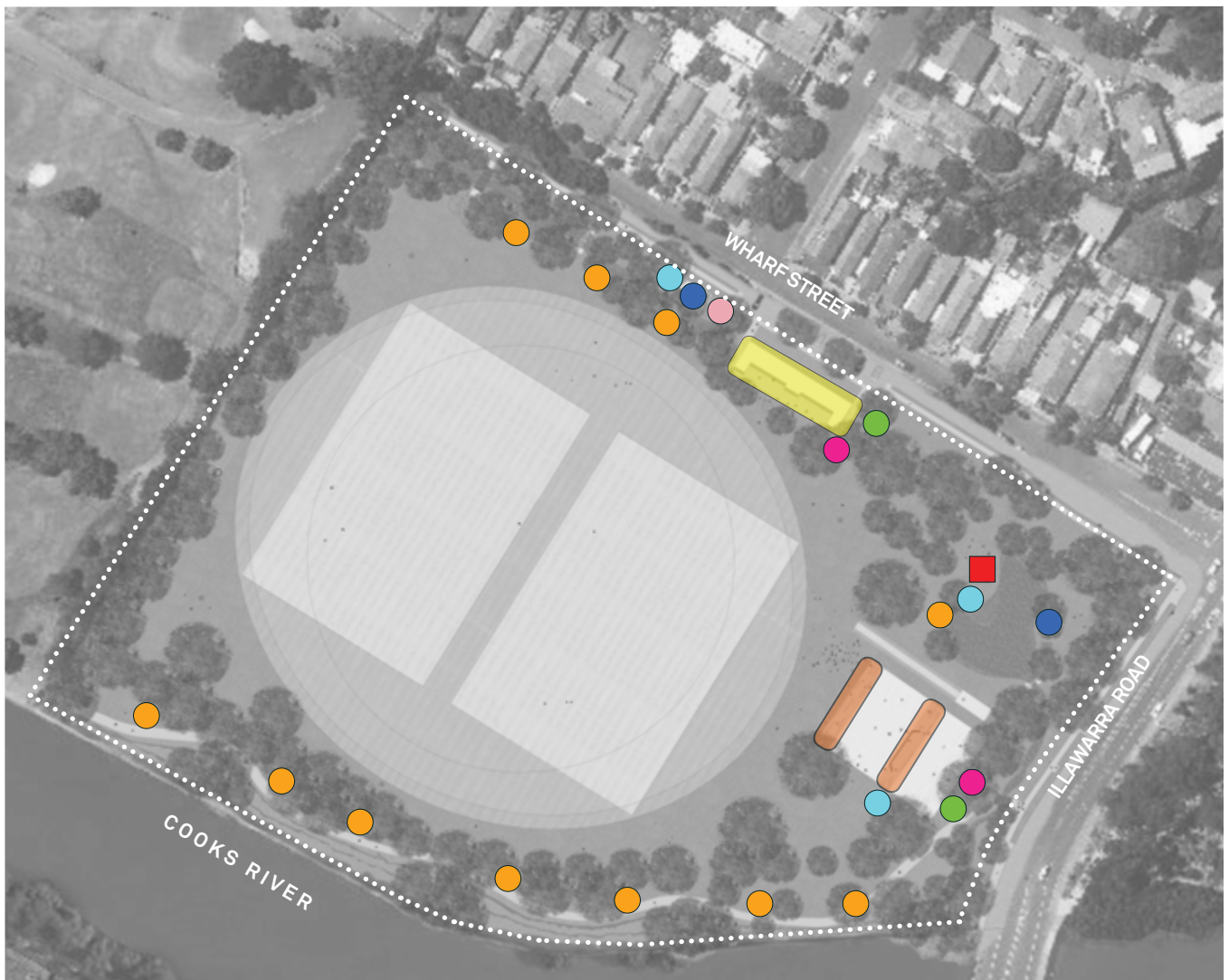


Figure 32: Master Plan Strategies_ Furniture and amenities HJ Mahoney Reserve



06_ Design

HJ Mahoney Reserve_ Master Plan Strategies - Furniture + Amenities

Furniture and Amenities overview

The Master Plan proposed to relocate some facilities, while upgrading the suite of furniture items currently in the park. New facilities are also proposed to increase the amenity options available to park users. All park elements shall be robust for flexible use and be low maintenance.

STRATEGIES:

Wharf Street swale and water treatment area_ The new swale and water treatment area will provide a shaded aesthetically pleasing place for quiet contemplation and recreation. Provide at least one picnic facility adjacent the swale and planting. The picnic facility is to be placed in decomposed granite or similar permeable surface. Provide at least one bin in close proximity to this area. New seating is to be provided on the oval side of the planting areas. The seating is to face the oval for spectator viewing. Seating is to have an adequate wear area at the front of the seat constructed of decomposed granite, crushed sandstone or similar to reduce foot traffic erosion.

Ephemeral wetland_ The ephemeral wetland will provide a shaded pleasant environment for picnics and passive recreation. A new shade structure will accommodate relocated BBQ facilities, picnic table and seating. Siting of the facility shall ensure adequate surveillance from Illawarra Road and Wharf Street, while also providing a pleasant experience adjacent the wetland. Additional picnic facilities shall be provided as well as seating with views over the playing field.

Cooks River edge naturalisation_ Provide seating at regular intervals along the foreshore pathway. Position seating to maximise views to the river between the mangrove plant communities.

Amenities building_ Upgrade the amenities building and public toilets as per the recommendations within the Marrickville Public Toilet Strategy 2015. Consult with users groups, specifically AFL to investigate options for user funding and requirements for upgrades to the change room facilities. Ensure drainage issues near the canteen are addressed during upgrades of the facilities.

Multi- use courts and youth facility_ Provide two multi- use court facilities configured around the existing art wall. Install concrete blade wall flexible seating at either end of the playing surface. Seating to be at different heights (adult and child), different lengths and with space between seating that is greater than normal to accommodate skate use and fall zones. Seating to be configured for use of watching playing fields and or multi-court facility. Detail seating to include metal edges to allow skate board use without damaging concrete edging. Upgrade the athletics long jump facilities adjacent the youth facility.

Bike racks_ install bike racks near the amenities building and with the mult use courts and youth facility.

Lighting_ Minimise pedestrian lighting within the park. Provide pedestrian lighting along the foreshore share path when constructed.

Drinking water_ Provide drinking water near the BBQ facility, shade structures, the multi- use courts and amenities building.

Bins_ Provide bins with bin enclosures. Ensure locations are adequately sited for maintenance access. A bin shall be provided at the youth facility near the street art wall.

Seating and picnic facilities_ Seats, picnic tables and shade structures are to be selected to be in keeping with facilities recently used elsewhere in the LGA that meet triple bottom line selection criteria.

Dogs_ Trial Mahoney Reserve as a dog off leash area for particular times that do not interfere with sports use. Liaise with sports users when determining times.



Multi-use courts and art wall



Flexible seating as skate facilities



Shade structure

06_ Design

HJ Mahoney Reserve_ Master Plan Strategies - Signage

LEGEND

● Integrated signage locations

▬ Property boundary



Figure 33: Master Plan Strategies_ Signage HJ Mahoney Reserve



06_ Design

HJ Mahoney Reserve_ Master Plan Strategies - Signage

Signage overview

Existing signage does not articulate clear messages for park users. New signage should be simple with clear information and graphics articulating information about location, wayfinding, interpretation and identification in one signage element. Signage shall be consistent across council parks with the same information display method and graphics.

Identification signage_ Identification signage should clearly identify the park and be vertical in nature.

Interpretive signage_ Combined with both identification and wayfinding signage, interpretive signage should be integrated and concise in nature. Choose site stories that are relevant about local history, environment or have an education theme.

Wayfinding signage_ Wayfinding signage should highlight the location of the signage in context of other major elements including toilet, the river, major pedestrian and cycle pathways and nearby roads and transport options.

Pets in Parks_ Integrate pets in Parks signage into the one signage element.



Combined signage, Redfern Park, City of Sydney



Combined signage, Richardson's Lookout, Marrickville Council

06_ Design

Steel Park_ Master Plan



06_ Design

Steel Park_ Master Plan



01 Children's river safety barrier and access_ Revegetate the river edge at high density with a diverse range of local native grasses, groundcovers and sedges. Vegetation will act as a barrier for children gaining access to the river water. Use only low growing species and maintain views from the playground to the river.

02 New tree plantings_ Prune and maintain tree plantings to maximise growth for quick establishment. Provide new plantings between the water play park and the playing field. Consider use requirements from by the Magic Yellow Bus when planting new trees. Ensure access and set up space allowed for in the tree planting design.

03 Maximise views_ Prune vegetation at eye level to maximise views to pedestrians walking along the river foreshore share path and increase safety. Increased light provides the opportunity for additional grass and ground cover plantings to increase plant species diversity.

04 Playground_ Expand playground with new play opportunities. Ensure a diversity of ages is catered for with the opportunity for inter generational play. Adjacent the playground provide an additional shade structure with picnic facilities.

05 Poplar trees_ Implement a staged removal of the Poplar trees along the river interface. Replace with appropriate floodplain forest species. Retain all structurally sound Poplar Trees around the children's playground.

06 Informal pathway_ Provide a secondary pathway through the foreshore planting as an exploratory pathway with information and signage and increase nearby plantings.

07 Pathways_ Retain the existing share pathway along the river edge. Provide a new pedestrian connection with Thornley Street. Locate the pathway adjacent a swale and wetland design. Provide seating to the pathway edge.

08 Car park rain gardens_ Puncture existing DAB car park kerb to allow stormwater to flow into a new rain garden planting adjacent the car park. Connect overflow to the stormwater system and proposed wetland and swale design. Ensure all new car parking areas are designed with water sensitive urban design (WSUD) initiatives.

09 Shade and seating_ Provide additional shade tree plantings to the playing field surrounds. Include seating opportunities under the trees for spectators viewing. Consider the DAB master plan for tree and seating locations.

10 Amenities and toilet building_ Upgrade the amenities building as per the Marrickville Public Toilet Strategy Plan 2015.

11 Debbie and Abbey Borgia Centre_ Implement the DAB Master Plan for DAB expansion and child care facility.

12 BBQ facilities_ Upgrade and replace damaged or broken barbecue facilities. Retain existing number of hotplates provided.

13 Seating and new trees_ Install concrete bench seating terraced into the existing slope. Configure around existing and new tree plantings and maximum view exposure.

14 Land ownership_ Confirm boundary locations with adjacent properties and liaise further to negotiate ownership issues with proposed park uses.

15_Expand Water Play Area_ Upgrade the water play park. Refer Major Projects for detailed designs.

Figure 35: Master Plan_ Steel Park

06_ Design

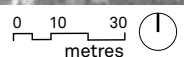
Steel Park_ Master Plan Strategies - Pathways

LEGEND

- Primary pathway
- Secondary pathway
- Tertiary pathway
- Property boundary
- DAB master plan expansion zone



Figure 36: Master Plan Strategies_ Pathways Steel Park



06_ Design

Steel Park_ Master Plan Strategies - Pathways

Pedestrian pathways overview

Existing pathways in Steel Park are adequate for their use. A few additional pathways will help with existing desire lines and increasing recreation opportunities.

Primary pathway - Share pathway_ Retain the existing riverside share pathway. Provide pedestrian lighting along the share pathway for night use. Design lighting to minimise impacts on native fauna. Provide a connection with HJ Mahoney Reserve across Illawarra Road. The new crossing location and design will require detailed discussions with the Roads and Maritime Service (RMS).

Secondary pathway - Connection with Thornley Street_ Provide a pedestrian pathway connection from the share pathway to Thornley Street. Pathway to be 1.8m with constructed from broom finished concrete. Pathway to follow the base of the contoured landscape near Thornley street and provide equal access connection along the slope. Pathway to deviate around the proposed storm water treatment wetland.

Tertiary pathways - Exploratory walks_ Provide an additional informal pathways constructed of decomposed granite, crushed sandstone or similar. Provide the pathway along the foreshore in the north east corner of the park.



Primary pathway - Shared riverside 2.5m wide concrete pathway



Secondary pathway - Proposed new 1.8m wide concrete pedestrian footpath



Tertiary pathway - Exploratory walks

06_ Design

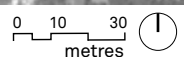
Steel Park_ Master Plan Strategies - Environment

LEGEND

- | | |
|---|--|
|  Poplar trees |  New trees to the playing field |
|  New trees |  New terrace trees |
|  Riparian vegetation |  WSUD car park trees |
|  WSUD car park |  New groundcover planting |
|  WSUD wetland |  DAB master plan expansion zone |
|  Buffer planting |  Property boundary |



Figure 37: Master Plan Strategies_ Environment Steel Park



06_ Design

Steel Park_ Master Plan Strategies - Environment

Environmental strategies overview

Located along the Cooks River with habitat and existing canopy trees, Steel Park has excellent environmental qualities including mangrove communities, car park swales, saltmarsh wetland and eucalypt forest communities. The Master Plan proposes to retain existing features and increase environmental qualities.

New trees_ Plant new tree plantings around the existing flying fox and water play park. Ensure ongoing maintenance is performed to ensure quick establishment and maximisation of shade provision. Additional trees are to be planted between the play facilities and the ball net. A new shaded area can be considered by the Magic Yellow Bus as a potential play area for children. New trees are also proposed around the existing exercise equipment and the proposed water treatment wetland.

New Trees to the playing field_ Provide new fig tree (*Ficus hillii*) plantings around the edge of the playing area. Continue the existing tree spacing arrangement around new seating. Ensure lower branches are removed as trees grow to maximise cross park views and ensure upper branches do not over shade playing surface resulting in poor turf performance.

New terrace trees_ Infill new tree plantings on the existing batter slope. Increase shade provision and arrange to allow views out over the playing fields from Thornley Street.

Poplar Trees_ Retain the existing mature Poplar trees located in the children's playground. Ensure the trees are assessed by an arborist and proposed tree maintenance is undertaken to ensure good form and safe use of the space below the trees. Poplar trees in the north-east corner of the park (adjacent the river) shall be removed in a staged process and replaced with appropriate native tree species as they are damaging water quality and adjacent plant communities. Trees shall be checked for habitat animals prior to removal.

Existing park trees_ Implement recommendations for existing trees as per the Marrickville Open Space Tree Inventory 2015.

Riparian vegetation_ Existing *Casuarina glauca* trees along the foreshore share pathway requires removal of lower branches to provide adequate CPTED sight lines and casual surveillance to maintain a safe environment. New groundcover planting of grasses and groundcovers are proposed to increase species diversity.

Buffer planting_ Install a vegetative buffer along residential properties with grasses, groundcovers and shrubs <1.5m high.

New groundcover planting_ Install new grass and groundcover plantings adjacent the existing car park to increase species diversity adjacent Illawarra Road.

Water Sensitive Urban Design (WSUD) car park_ Provide openings within the existing kerb in the car park to allow stormwater to drain into new rain gardens and plantings along the car park edge. New rain gardens to be minimum 2.0m wide with local native sedges, grasses and tree plantings. Ensure all new car parking facilities associated with DAB upgrades have shade trees and rain gardens provided.

Water Sensitive Urban Design (WSUD) wetland_ Integrate a new wetland within the north-east corner of the park. The wetland is to treat stormwater from Illawarra Road and Thornley Street. Ensure design adequately considers safety with dense planting to the waters edge. There is to be NO FENCING around the facility. Integrate with planting associated with the rock escarpment.

Turf_ Review maintenance regime to minimise bindi weed within the turf and playing field. Top-dress or through other maintenance regimes improve surface levels to provide a level finish to the playing fields. Resolve options with maintenance staff. In the longer term upgrade field drainage and playing surface with new a slot drainage system, new sportsfield turf and the installation of alternate source irrigation via Discovery Point.



Terrace seating integrated with shade trees.



Remove lower branches on existing *Casuarina* planting (pictured) to increase casual surveillance along the foreshore share pathway.



Provide recreation facilities including pathways and seating associated with water treatment elements including swales and wetlands.

06_ Design

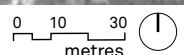
Steel Park_ Master Plan Strategies - Furniture + amenities

LEGEND

- | | | |
|--|--|--|
| ■ New shade shelter (with BBQ and picnic table) | ■ New bin enclosure (slatted) | ● Retained drink fountain |
| ● New block style seating | ■ Barbecue facilities (upgrade existing) | ● Wheeled bin enclosure |
| ● New seat | ■ Expand exercise equipment | ● Bike racks |
| ■ Playground expansion | --- Fence removal | --- DAB master plan expansion zone |
| ■ Amenities and change rooms upgrade | --- Property boundary | ■ Upgraded water play |



Figure 38: Master Plan Strategies_ Furniture and amenities Steel Park



06_ Design

Steel Park_ Master Plan Strategies - Furniture + Amenities

Furniture + amenities strategies overview

Steel Park is much loved and heavily used. Providing a staged renewal of existing facilities will provide for a long-lived low maintenance parkland.

Playground expansion_ Expand the existing play facility with new equipment that has a nature based theme. Consider maintenance and vandalism issues when selecting equipment. New equipment needs to be positioned around existing trees and their roots. Undertake a review of existing elements and replace any tired or dangerous elements. Use a mixture of rubber and bark mulch for softfall. Include native grass and low shrub plantings within the play facility.

Block style seating_ Provide new seating adjacent the share pathway near the children's playground with views to the Cooks River. Seating shall be concrete block style without backs. Block seating is to be integrated into the slope near Thornley Street to formalise hill seating that captures views across the playing field and park. Configure seating and tree plantings to provide summer shade.

Seats with backs_ Provide proprietary seating to the edges of the playing field near Illawarra Road and near the DAB. Configure seating around existing and new tree plantings.

New shade structure_ Provide a new shade structure with barbecue and picnic facilities. Detail design will require a further review of tree roots and construction impacts on existing trees. Shade structure to be a propriety item that is simple in design form and meets maintenance requirements.

Bin enclosures_ Provide slatted bin enclosure for multiple wheel bin storage near the park entry (playground). Provide additional wheeled bin enclosures for single bins in other locations within the park.

Barbecue facilities_ Upgrade barbecue facilities to ensure existing facilities are in working condition. Provide an additional facility as part of the new shade structure. Ensure the new barbecue has preparation bench included with its design.

Exercise equipment_ Retain existing exercise equipment. Replace any damaged equipment. Provide shade tree plantings to increase shade over equipment.

Amenities building_ Upgrade the toilet and amenities building as per the Marrickville Public Toilet Strategy 2015. Liaise with sporting groups for upgrades to the change rooms and investigate funding options and shared delivery methods.

Fencing_ Remove fencing from around the northern playing field.

Bike racks_ Install bike racks near the existing exercise equipment and ensure there are adequate numbers associated with the DAB.

Wetland_ Install seating associated with the new wetland for recreation purposes.

Upgraded water play_ Implement design for the updated water play park. Refer detail design drawings from Council for layout.



Expand the existing playground, while retaining existing trees.



Concrete block style seating to be used near the playground and on the batter slope from Thornley Street.



Retain the existing exercise equipment. Plan additional shade trees.

06_ Design

Steel Park_ Master Plan Strategies - Signage

LEGEND




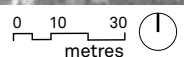
-  Integrated signage locations
-  Property boundary
-  DAB master plan expansion zone



Figure 39: Master Plan Strategies_ Signage Steel Park



06_ Design

Steel Park_ Master Plan Strategies - Signage

Signage overview

Existing signage does not articulate clear messages for park users. New signage should be simple with clear information and graphics articulating information about location, wayfinding, interpretation and identification in one signage element. Signage shall be consistent across council parks with the same information display method and graphics.

Identification signage_ Identification signage should clearly identify the park and be vertical in nature.

Interpretive signage_ Combined with both identification and wayfinding signage, interpretive signage should be integrated and concise in nature. Choose site stories that are relevant about local history, environment or have an education element.

Wayfinding signage_ Wayfinding signage should highlight the location of the signage in context of other major elements including toilet, the river, major pedestrian and cycle pathways and nearby roads and transport options.

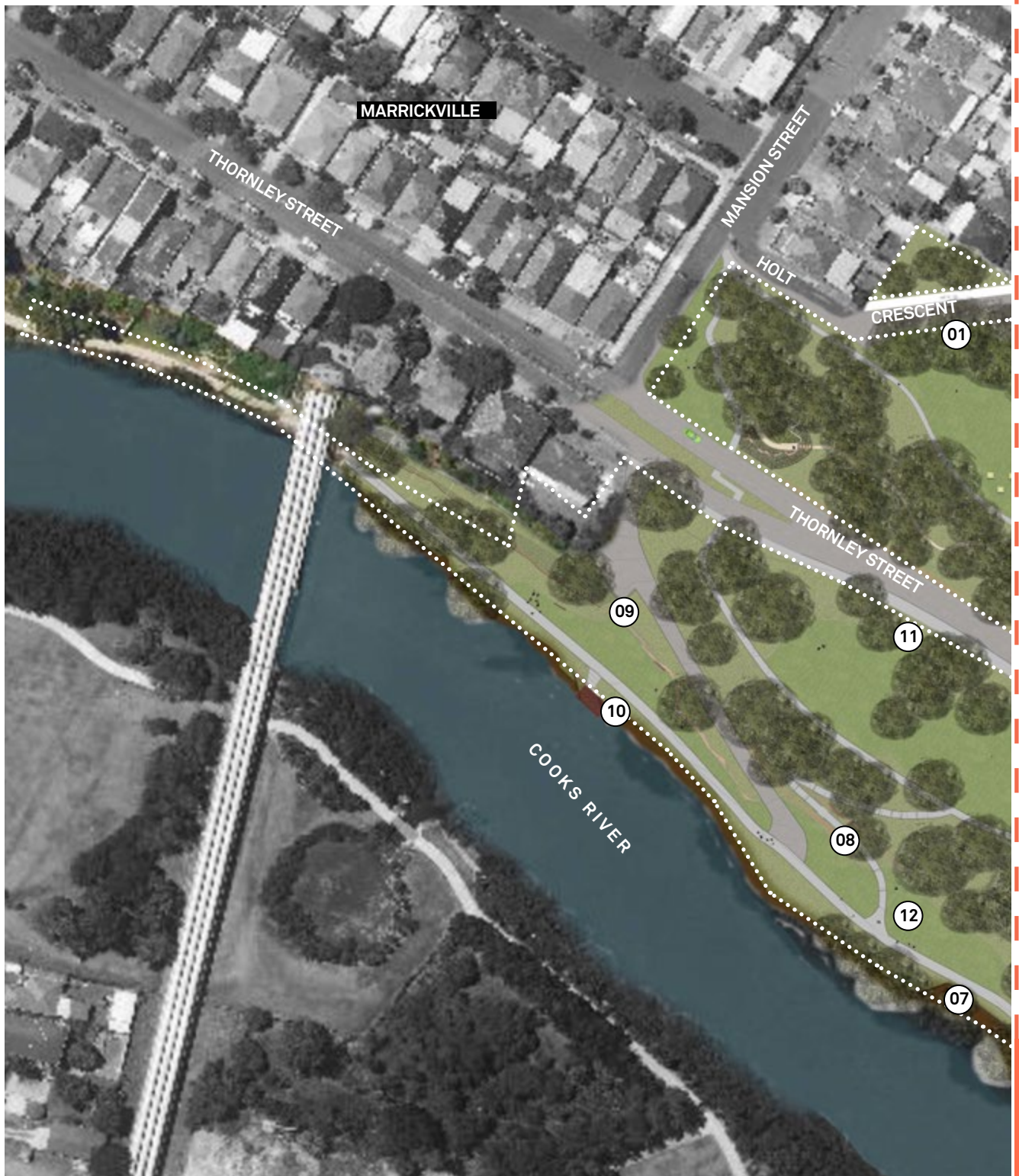


Install integrated identification, interpretation and wayfinding signage.

06_ Design

Richardson's Lookout, Warren Park and Cooks River Foreshore_ Master Plan

1



ADJOINS FIGURE 41

Figure 40: Master Plan_ Steel Park

0 10 30
metres

06_ Design

Richardson's Lookout, Warren Park and Cooks River Foreshore_ Master Plan

1



01 Richardson's Lookout fig trees_ Provide mulch to base of fig trees to remedy lawn mower and foot traffic impacts on tree roots.

02 Heritage pine_ Retain existing Cooks Pine.

03 Batter slope_ Provide a diverse range of local native plantings to the batter slope adjacent the road. Provide planting to all areas that are excessively steep and hard to maintain by mowing.

04 Fig tree plantings_ Extend the batter slope planting to areas under the existing fig trees. Provide local native rainforest species including palms, ferns and vines. Maintain desire lines with informal pathways.

05 Equal access_ Provide equal access connection from Thornley Street to Richardson's lookout instead of stair configuration.

06 Warren Park swale and wetland_ Provide rock lined local, native vegetated swale to the existing low point at the eastern end of Warren Park. Provide bank stabilisation and ant-scour on steeper slopes. Provide a vegetated detention basin prior to the Cooks River.

07 River retaining_ Replace failing retaining wall with stone or similar permanent solution. Protect existing vegetation during construction. Integrate biodiversity opportunities into wall design.

08 Signage_ Provide appropriate park signage at key locations for wayfinding, identification and interpretation.

09 River edge planting_ Provide additional revegetation along the river foreshore including batters, rock terraces and other difficult areas to maintain. Ensure turf is maintained at pathway intersections and sightlines are maintained.

10 River viewing_ Provide river viewing location with pontoon or jetty constructed from steel mesh or similar for a low maintenance outcome.

11 Fencing on Thornley Street_ Remove mesh fencing to the Warren Park / Thornley Street interface. Increase *Lomandara spp.* *Gahnia spp* and other local native plantings at high density to act as a barrier between the park and the road.

12 Exercise station_ Install an exercise station within the Foreshore Park. Equipment to be fixed style with low maintenance requirements.

Figure 41: Master Plan_ Steel Park

06_ Design

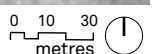
Richardson's Lookout, Warren Park and Cooks River Foreshore Master Plan Strategies - Pathways

LEGEND

- Primary pathways
- Secondary pathways
- Tertiary pathways
- New pathway connection
- Pathway upgrade
- Retain Thornley Street footpath
- Equal access connection
- Maintain vehicle access
- Property boundary



Figure 42: Master Plan Strategies_ Pathways Richardson's Lookout, Warren Park and Cooks River Foreshore



06_ Design

Richardson's Lookout, Warren Park and Cooks River Foreshore_ Master Plan Strategies - Pathways

Pedestrian pathways overview

Existing pathways in Richardson's Lookout, Warren Park and along the Cooks River Foreshore are adequate for their use. Additional pathway connections and upgrades will help with desire lines and providing safe movements.

Primary pathway - Share pathway_ Retain the existing share pathway along the Cooks River. Provide pedestrian lighting along the share pathway for night use. Design lighting to minimise impacts on native fauna.

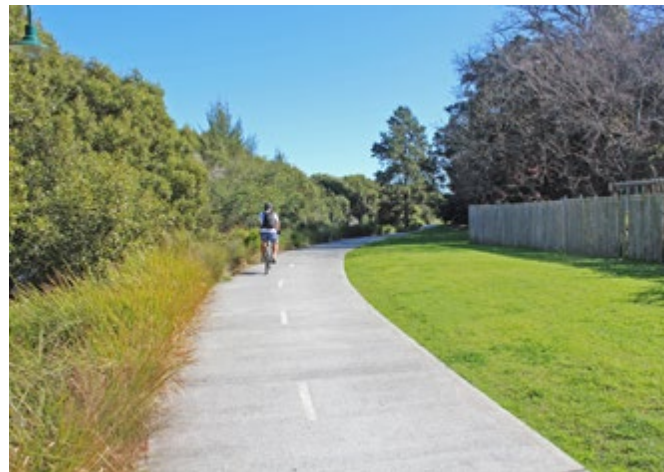
Secondary Pathway - Connection with Thornley Street_ Retain existing secondary pathway connections through Warren Park. Provide a new connection from the existing park pathway and the roadside footpath. Retain existing pathway width and construct from broom finished concrete.

Secondary pathway - Pedestrian dominant connection_ Install new pedestrian pathway along Thornley Street. Ensure the pathway provides for vehicle access, however is detailed with the pedestrian function being dominant over other uses. Construct from broom finished concrete and width to match pathway connection further east. Ensure connections to the Thornley Street pedestrian crossing facilitate safe movements.

Tertiary pathways - Exploratory walks_ Retain the exploratory walks. Provide additional exploratory walks beneath the existing fig trees and new rainforest understory plantings. Construct new tertiary pathways from decomposed granite, crashed sandstone or similar stabilised earth construction.

Equal Access_ Provide an equal access connection from Thornley Street into Richardson's Lookout. Integrate walkways with planting. Ensure design outcome provides minimal disturbance to the park character and biodiversity. Explore recessive pathway materials in dark colours such as asphalt.

Vehicle access_ Maintain vehicle access from Thornley street to the Cooks River foreshore. Vehicle access pathway to be asphalt.



Retain the foreshore share pathway.



Connect the pathway in Warren Park with the footpath along Thornley Street.



Retain existing tertiary pathways and provide additional pathways beneath the fig trees.

06_ Design

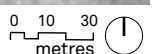
Richardson's Lookout, Warren Park and Cooks River Foreshore_ Master Plan Strategies - Environment

LEGEND

-  New Batter Slope Vegetation
-  Existing Fig Trees (Richardson's Lookout)
-  Existing Cooks Pine
-  Swale and wetland
-  Revegetation
-  Warren Park Vegetation
-  Thornley Street rain garden
-  Cook Island Pine revegetation
-  Property boundary



Figure 43: Master Plan Strategies_ Environment Richardson's Lookout, Warren Park and Cooks River Foreshore



06_ Design

Richardson's Lookout, Warren Park and Cooks River Foreshore_ Master Plan Strategies - Environment

Environment overview

The three parks have different environmental qualities. The master planning strategies aim to reinforce the existing environmental assets and expand the ability for the parks to improve environmental outcomes along the Cooks River.

Existing fig trees (Richardson's Lookout)_ Install mulch to the tree bases in Richardson's Lookout adjacent Holt Crescent to reduce mower impacts and damage from pedestrian foot traffic. Mulch and plant the understory area under the existing figs adjacent the residential properties with mixed local native understory rainforest species.

Cooks Island Pine + revegetation_ Retain existing Cook Island Pine. Revegetate the unusable area surrounding the pine. Retain a 1.5m min. verge strip along the roadside. Engage with neighbouring properties with species selection.

Existing park trees_ Implement recommendations for existing trees as per the Marrickville Open Space Tree Inventory 2015.

Batter slope vegetation_ The steep slope between Holt Crescent and the concrete pedestrian footpath is to be planted with grasses and groundcovers where there is a sunny aspect and understory rainforest species in the shade beneath the fig trees. Ensure planting areas are mulched and planting density is at least 6/m² to minimise weed invasion. Planting is proposed to reduce the existing difficult maintenance regime.

Swale and wetland_ Vegetate with local, native species and rock line the existing gully to formalise water treatment in Warren Park. Install anti scour techniques to the steeper sections and provide a vegetated wetland area for water detention that is a minimum of 120m² on the lower level prior to the Cooks River. Investigate weed tree removals to reduce over shading to the proposed wetland.

Revegetation_ Revegetate the northern side of the riverside share pathway along the Cooks River Foreshore between Steel Park and Mackey Park. Remove weed species and install occasional shrub species, grasses, sedges and groundcovers. Negotiate with land owners to revegetate and maintain the riparian space. Progressively remove the Poplar Trees between Mackey Park and Warren Park. Implement a staged removal and revegetation process that allows continual vegetation on the riverbank. Retain felled logs in situ for habitat opportunities. At the intersection of the riverside share pathway and vehicle access from Thornley Street ensure turf is retained to maintain sightlines and the ability for pedestrians to stop, view the river, enjoy heritage elements and river edge environment. Revegetate with low growing local native plant species along existing rock walls as well as other hard to maintain areas. Ensure weed species are removed or managed to reduce environmental impacts throughout the riparian corridor.

Warren Park vegetation_ Increase species diversity with local, native groundcover and grass plantings within existing planting areas through bush revegetation contracts. Increase vegetation along Thornley Street to act as a low level barrier to stop incidental pedestrian access from the park.

Thornley Street rain garden_ Remove weed species, specifically *Washingtonia* spp. from existing vegetation adjacent to the rain garden.

Turf_ Update maintenance regime to remove bindi weed from the turf within the open space areas



Retain an existing heritage Cooks Pine.



Establish understory rainforest species beneath existing fig trees.



Plant batter slope (pictured) to reduce maintenance and prove a safe solution.

06_ Design

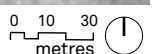
Richardson's Lookout, Warren Park and Cooks River Foreshore_ Master Plan Strategies - Furniture + Amenities

LEGEND

- Viewing platform
- New Seating
- New exercise station
- Bin enclosure
- Bike racks
- Fence removal
- Fence replacement
- Property boundary



Figure 44: Master Plan Strategies_ Furniture and amenities Richardson's Lookout, Warren Park and Cooks River Foreshore



06_ Design

Richardson's Lookout, Warren Park and Cooks River Foreshore_ Master Plan Strategies -Furniture + Amenities

Furniture + Amenities overview

Proposed furniture and amenities shall improve pedestrian amenity and facilitate environmental education, while minimising maintenance and impacts on the river.

Viewing platform_ Formalise the existing viewing area over the stormwater outfall infrastructure. Provide seating integrated with the viewing area. Detail hand rail to provide a leading rail and integrate interpretive signage with the experience.

New seating_ Provide new proprietary seating to the Cooks River foreshore. Set back from the share pathway and orientate to view the river. Install seating in Warren Park facing the open space and in Richardson's Lookout under the fig trees and near new revegetation facing the street and park.

Fencing_ Remove fencing along Thornley Street in Warren Park. Plant additional *Lomandra spp.* to ensure vegetation acts as a barrier between the park and the road. Replace aged and poor fencing along Thornley Street within Richardson's Lookout.

Heritage and ancillary items_ Retain existing heritage elements and other park furniture items including stones and pillars. Ensure listed heritage items are included with interpretive signage opportunities.

Exercise station_ Install a new exercise station near the driveway intersection with the shared pathway along the Cooks River Foreshore Park. Select static exercise equipment to minimise vandalism and maintenance requirements. The equipment is to be part of three stations along the Cooks River to be developed as a circuit.

Bike racks_ Install bike rack along the foreshore. install bike racks near the exercise equipment station.



Viewing platform over the river to include rest rails for leaning and viewing.



Use vegetation as a barrier between Thornley Street and the park. Remove existing fencing at the location.



Install simple exercise equipment with minimal moving parts. Equipment selection needs to be considered as part of a greater circuit including stations in Mackey and Steel Parks.

06_ Design

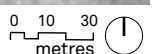
Richardson's Lookout, Warren Park and Cooks River Foreshore_ Master Plan Strategies -Signage

LEGEND

- Integrated signage locations
- ▬ Property boundary



Figure 45: Master Plan Strategies_ Signage Richardson's Lookout, Warren Park and Cooks River Foreshore



06_ Design

Richardson's Lookout, Warren Park and Cooks River Foreshore_ Master Plan Strategies -Signage

Signage overview

Excluding Richardson's Lookout, the existing signage does not articulate clear messages for park users. New signage should be simple with clear information and graphics articulating information about location, wayfinding, interpretation and identification in one signage element. Signage shall be consistent across council parks with the same information display method and graphics.

The signage in Richardson's Lookout is an example of what signage throughout Council should be aiming for. It has been implemented as a trial of graphics and styling, the evaluation of which should inform the Marrickville Council signage strategy.

Ensure all new signage is contemporary and borrows principles from the burra charter regarding heritage

Identification signage_ Identification signage should clearly identify the park and be vertical in nature. New signage must be contemporary and not be a reinstallation of a period signage style.

Interpretive signage_ Combined with both identification and wayfinding signage, interpretive signage should be integrated and concise in nature. Choose site stories that are relevant, about history, the environment or have an education element

Wayfinding signage_ Wayfinding signage should highlight the location of the signage in context of other major elements including toilet, the river, major pedestrian and cycle pathways and nearby roads and transport options.



Integrated signage with identification, interpretation and wayfinding combined.

Mackey Park_ Master Plan

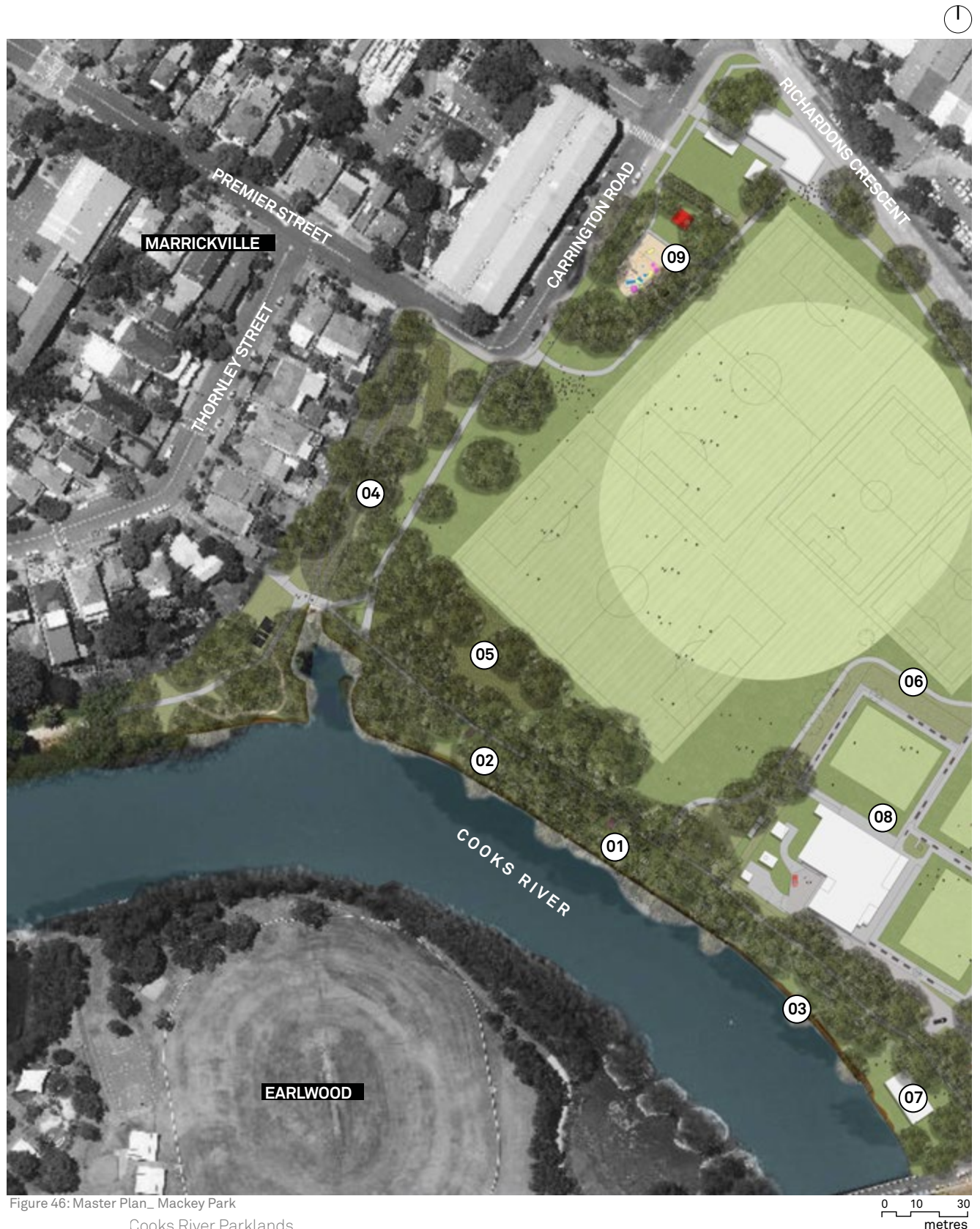


Figure 46: Master Plan_ Mackey Park

Cooks River Parklands

06_ Design

Mackey Park_ Master Plan



01 Foreshore recreation_ Install seating and picnic tables along the foreshore edge between the share pathway and Cooks River.

02 Foreshore vegetation_ Trim lower branches from foreshore vegetation to maximise views from the share path and new seating.

03 River edge_ Plant salt marsh and local, native riparian species and sedges along the edge of the river from approximately 1.5m - 2.5m from the existing retaining wall.

04 Creek naturalisation_ Naturalise the drainage channel from Carrington Avenue to the Cooks River. Design with pathway opportunities and seating.

05 WSUD treatment wetland_ Remove the fences around the existing wetland and expand the area of vegetation.

06 Pedestrian connection_ Provide additional pedestrian connection from the share pathway to Richardson's Crescent.

07 River Canoe Club_ Provide vehicle access to the River Canoe Club for boat launch purposes. Investigate art options to the building facade. Liaise with River Canoe Club for art themes.

08 Concordia Club_ Remove fencing to the Concordia Club, except for back of house areas. Remove existing vegetation and replace with local, native trees and groundcovers to increase casual surveillance. Reconfigure car park to formal parking with shade trees and rain gardens. Introduce timed parking to reduce car park use by commuters.

09 Play ground_ Install additional play ground facilities that complement existing facilities. Install new planting areas in areas already demarcated by concrete mowing areas. Select native species that are appropriate to the wet situation.

Figure 47 Master Plan_ Mackey Park

06_ Design

Mackey Park Master Plan Strategies - Pathways

LEGEND

- ■ Primary pathway - Share pathway
- ■ Secondary pathway
- ■ Tertiary pathway
- Improved pedestrian connection

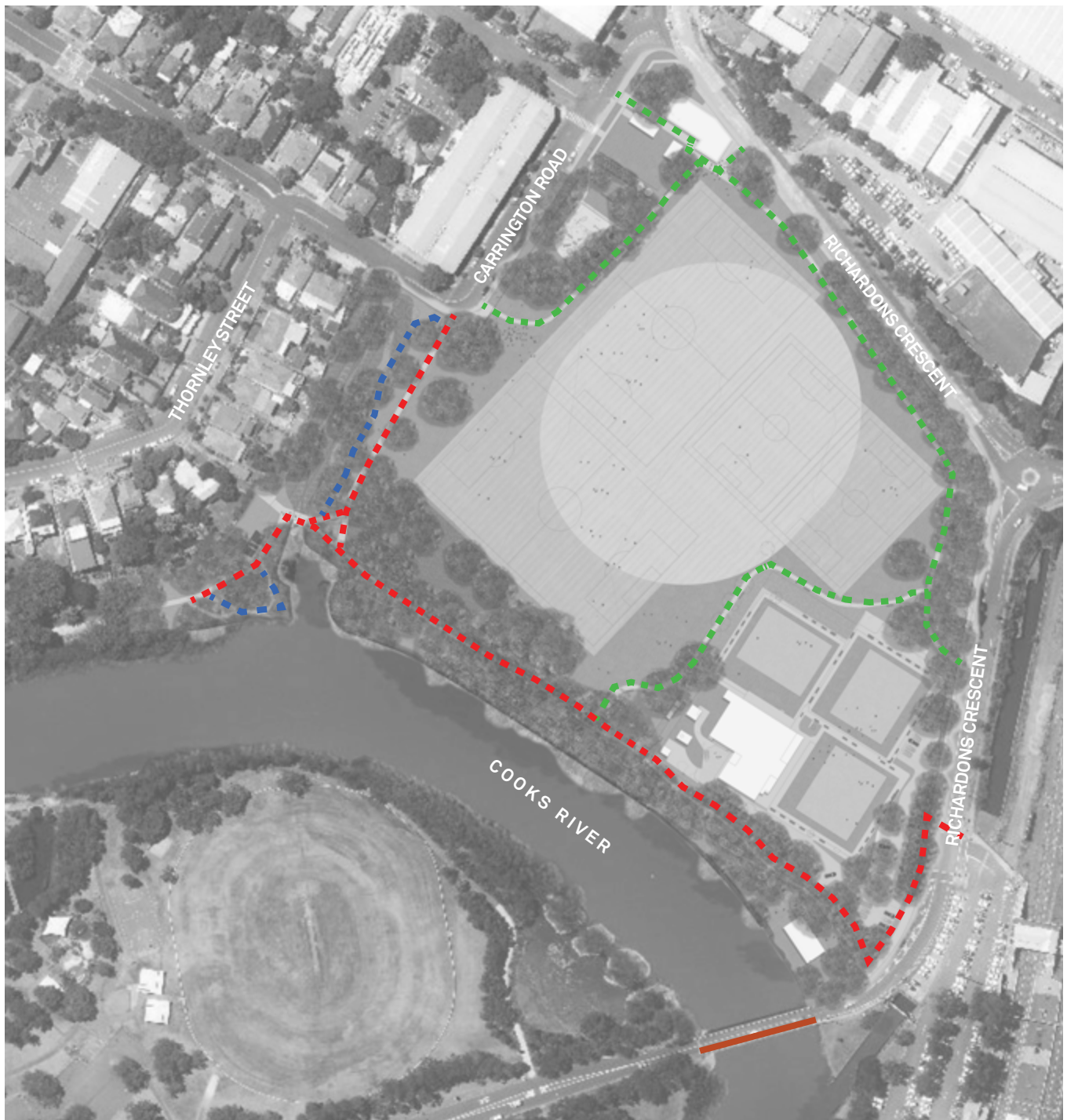
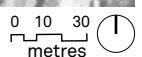


Figure 48: Master Plan Strategies_ Pathways Mackey Park



06_ Design

Mackey Park Master Plan Strategies - Pathways

Pedestrian pathways overview

The existing pathways in Mackey Park provide excellent pedestrian and cycle connections. New pathway proposals build on these connection and close the park circuit around the playing fields.

Primary pathway - Share pathway_ Retain the existing share pathway along the Cooks River. Provide pedestrian lighting along the share pathway for night use. Design lighting to minimise impacts on native fauna.

Secondary pathway_ Retain existing secondary pathway connections around Mackey Park. Provide an additional connection around the south-eastern corner of the park with a connection between the share pathway and Richardson's Crescent. The pathway shall be designed to not interfere with gas infrastructure, the Concordia Club and the playing field. The pathway shall be constructed of concrete and be 1.8m wide.

Tertiary pathways - Exploratory walks_ Provide a tertiary pathway link to the flood marker near the point where the existing drainage channel exists into the Cooks River. Investigate options for access into the reconfigured and naturalised creek channel. Tertiary pathways shall be constructed of decomposed granite, crushed sandstone or similar stabilised earth construction.

Improved pedestrian connections_ Liaise with RMS to deliver an improved pedestrian crossing over the Cooks River. Investigate options with RailCorp for the development of a pedestrian bridge to be design off the rail link to Wolli Creek.



Maintain the primary pathway - share pathway along the Cooks River



Secondary pathway through low vegetation near the Concordia Club interface.










Tertiary pathway through revegetation along the naturalised drainage channel.

06_ Design

Mackey Park Master Plan Strategies - Environment

LEGEND

- | | |
|---|---|
|  Creek naturalisation |  WSUD treatment wetland |
|  Playground planting |  Concordia / Croquet Club vegetation |
|  Existing foreshore vegetation |  Peninsula vegetation |
|  River edge planting |  Trim Fig Tree branches |

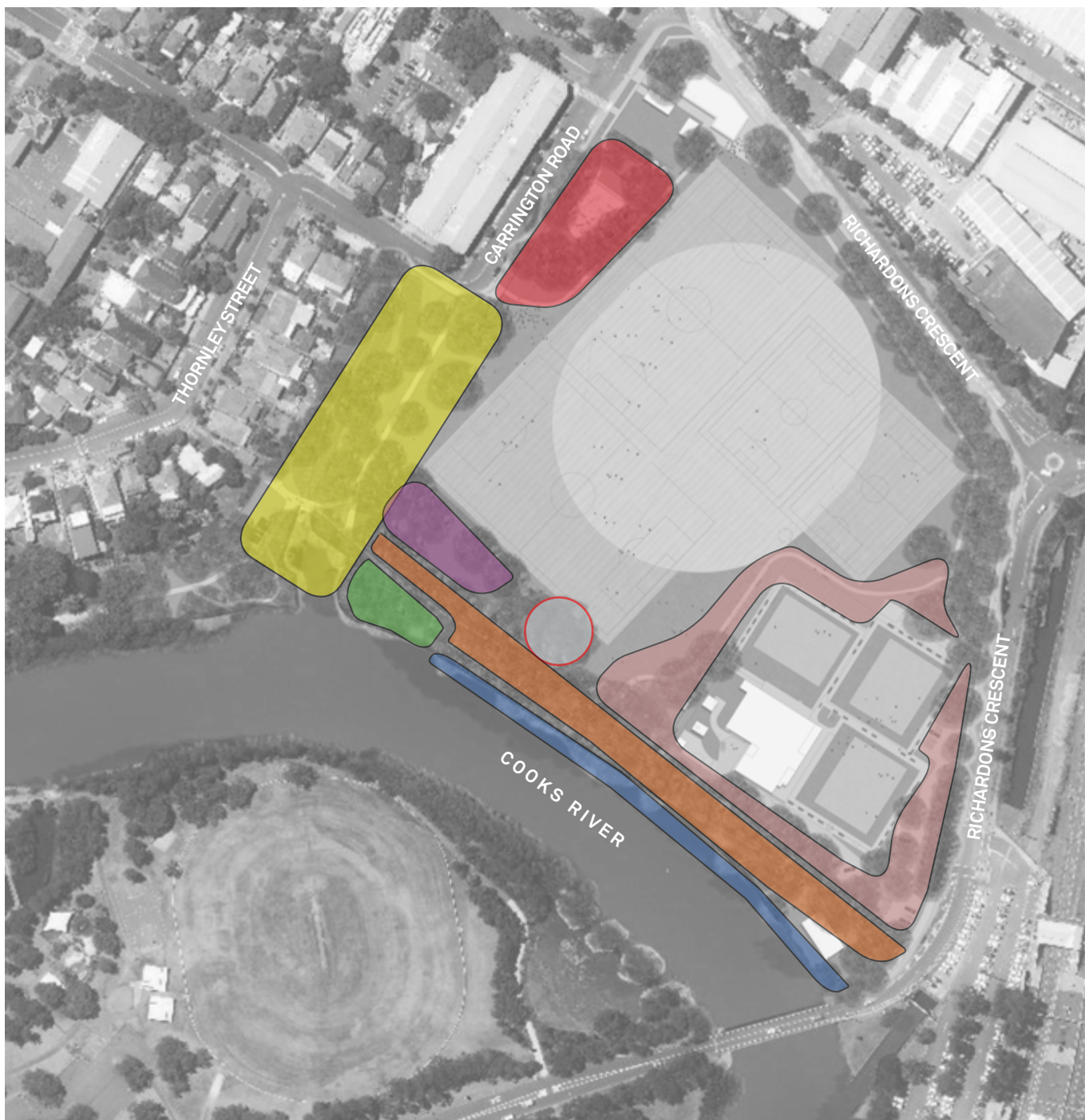
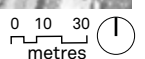


Figure 49: Master Plan Strategies_ Environment Mackey Park



06_ Design

Mackey Park Master Plan Strategies - Environment

Environment overview

Improving the Cooks River environmental qualities is the key objective of the environment design strategies.

Creek naturalisation_ Naturalise the drainage channel from Carrington Avenue to the Cooks River. Follow engineering design requirements as set out by the Mackey WSUD concept design by Aluvium. Integrate creek design with new local native plantings with seating opportunities for views across the playing field. Investigate options for tertiary pathways into the planting and creek environment. Consider views from neighbouring properties when designing planting plans and seating locations. Remove exotic species from the area west of the existing pedestrian pathway and replace with appropriate local native tree species as advanced stock. Engage with Sydney Water for a shared delivery method for both the design and construction of the facility.

Playground_ Provide new local native planting around the existing playground. Install shrub vegetation as a screen to the Sydney Water infrastructure. Plant new advanced fig trees to the north of the playground to increase canopy cover. Plant low local native grasses and groundcovers with species that respond to the poor drainage qualities of the park in the area already outlined with concrete mowing edges. Increase planting density in existing planting areas.

Existing foreshore vegetation_ Trim lower branches from foreshore vegetation to maximise views from the share path and new seating. Where grouped planting are in close proximity mulch tree bases as a group and plant local native grasses and groundcovers.

River edge planting_ Plant salt marsh riparian species along the edge of the river from approximately 1.5m - 2.0m from the existing retaining wall. Vegetation will help stabilise the river edge and retaining wall. Select species that are salt tolerant, low (less than 0.8m) growing, with fine or spiky leaves preferred and maintain the open views to the river.

WSUD treatment wetland_ Remove the fences around the existing wetland and expand the area of vegetation to provide for a more naturalistic appearance. Provide seating associated with the new planting areas.

Concordia / Croquet Club and pathway vegetation_ Remove exotic vegetation to the Concordia Club and Croquet Club perimeter. A new pathway is proposed to link existing pathways near the Concordia Club. Provide low growing local, native revegetation between the Club boundary and the pedestrian pathway. Planting shall be dense to act as a pedestrian barrier, however the low height of the vegetation shall retain visual connections and casual surveillance. Reconfigure car parking to provide planting, rain gardens and regulated parking.

Peninsula revegetation_ Remove weed species from the existing vegetation areas. Plant new local native grasses, groundcovers, salt marsh and shrub species to out-compete weed species. Connect plantings on the western peninsula with the Cooks River Foreshore Parkland plantings and the other side to the foreshore salt marsh species along the Mackey Park river edge.

Tree maintenance_ Trim fig tree branches away from playing field surface to ensure shading does not compromise the playing surface.

Existing park trees_ Implement recommendations for existing trees as per the Marrickville Open Space Tree Inventory 2015.

Turf_ Reconfigure playing field so that the cricket wicket is away from the children's play ground to reduce impacts of ball strike. Reconfigure soccer fields and install additional sleeves to allow the playing field to be shifted enough to reduce wear impacts near the goal nets. Review maintenance regime to minimise bindi weed within the turf and playing field.



Naturalised river edge with plantings and recreation opportunities.



Replace the planting around the Concordia Club that maintain visual connectivity with the park.

06_ Design

Mackey Park Master Plan Strategies - Furniture + amenities

LEGEND

- | | |
|---|--|
| ■ Shade structure (with BBQ and seating) | ■ Exercise equipment |
| ● Picnic table | ● Bin enclosure |
| ● New seats | ● Retain drink fountain |
| ■ BBQ | ● Bike racks |

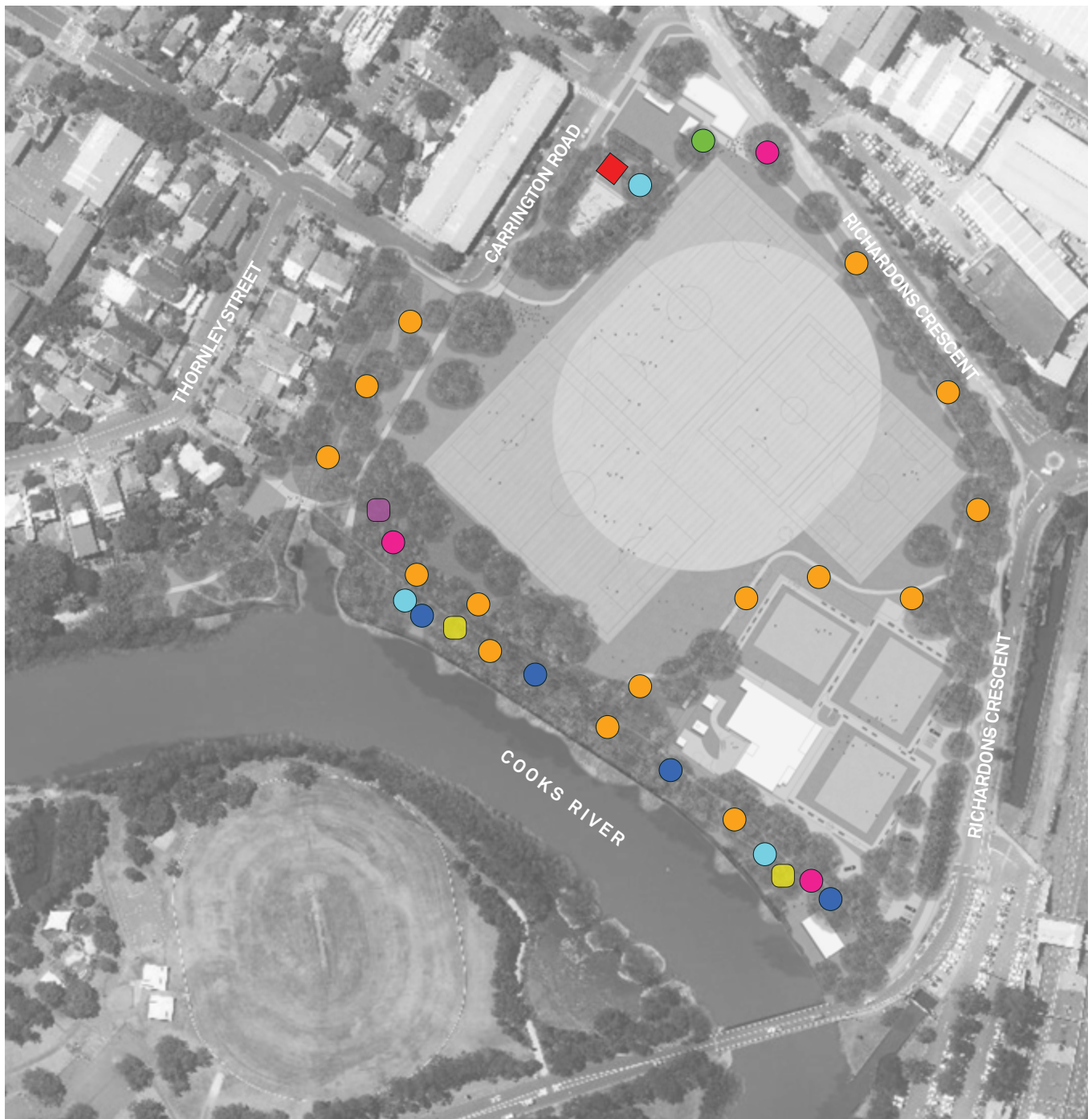
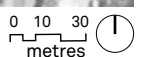


Figure 50: Master Plan Strategies_ Furniture and amenities Mackey Park



06_ Design

Mackey Park Master Plan Strategies - Furniture + amenities

Furniture + amenities overview

Furniture items in Mackey Park meet their function. The Master Plan proposes to increase recreation opportunities and upgrade existing elements

Creek naturalisation_ Install seating on the eastern edge of the creek along the planting edge with the turf. Seating shall be orientated to look east towards the playing fields.

Playground_ Install a new shade structure adjacent the playground. Provide barbecue facilities with associated preparation bench, bins and water tap. Provide additional seating associated with the playground. Install new playground equipment and integrate with new plantings.

River interface_ Provide seating and picnic tables along the river interface. Site facilities under shade trees with views to the river. Install barbecue facilities with preparation benches along the foreshore. Install one within proximity and use by the River Canoe Club.

Staged replacement_ Implement a staged upgrade of existing furniture facilities within Mackey Park.

Exercise equipment_ Install a new exercise station along the Cooks River foreshore. Select equipment to minimise vandalism and maintenance requirements.

New seating_ As well as along the river interface new seating is proposed along pathways through the eastern and northern section of Mackey Park. These seats are to be configured to view the park and playing field. Locate the seating near Richardson's Crescent with the opportunity for sitting in the shade.

Bike racks_ Install bike racks along the river foreshore associated with picnic facilities. Engage with the River Canoe Club for positioning the bike racks near the building.

Mural / street art_ Repaint the River Canoe Club with a mural / street art. Design to be developed with the River Canoe Club and a local public artist.



Barbecue and picnic facilities to be provide adjacent the playground.



Install planting within existing depressions within the play ground and integrate seating and other items in the play area,



Maintain the river views. Position furniture and picnic facilities to maximise river views.

06_ Design

Mackey Park Master Plan Strategies - Signage

LEGEND

- Integrated signage locations

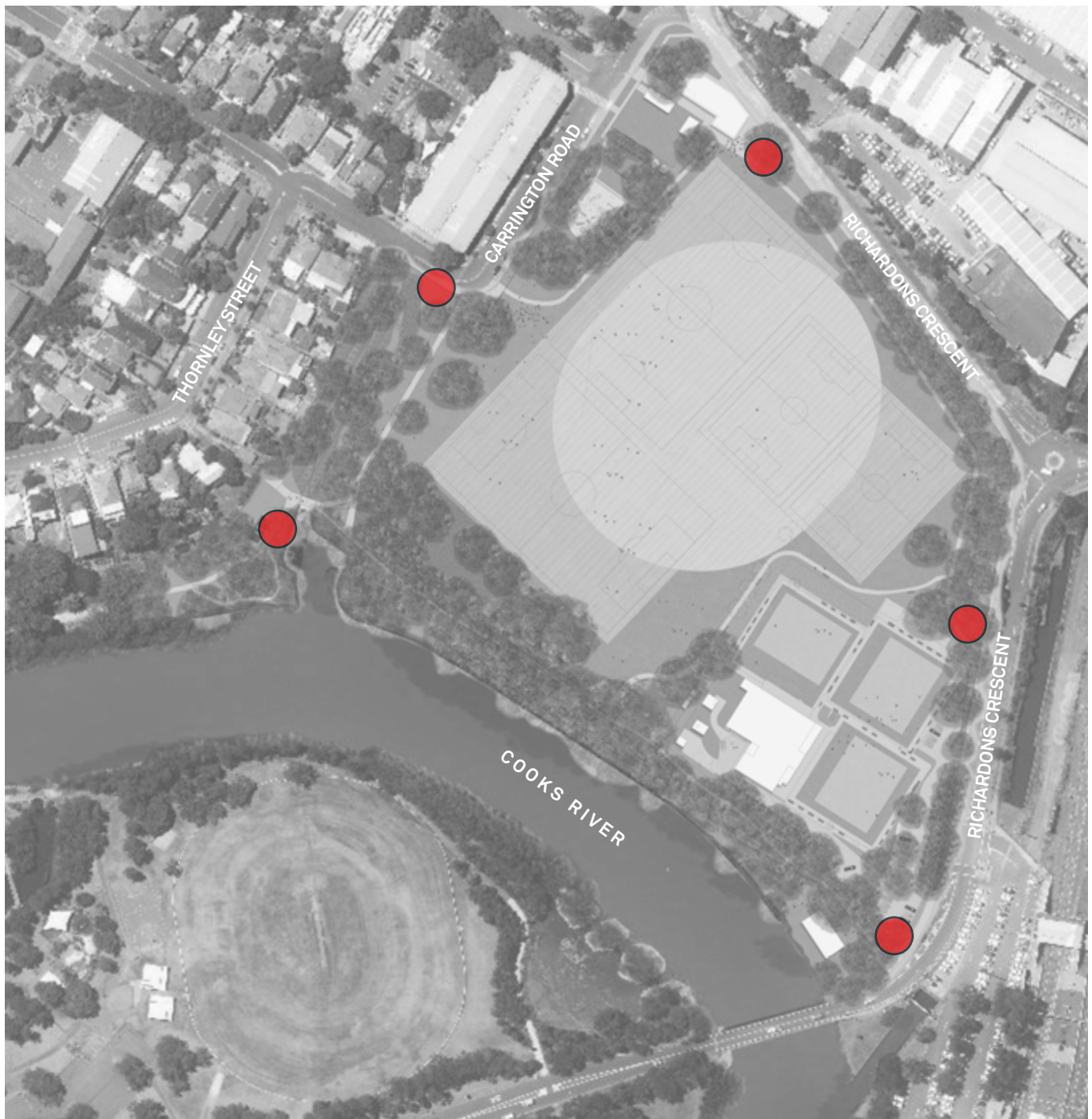
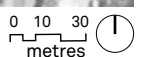


Figure 51: Master Plan Strategies_ Signage Mackey Park



06_ Design

Mackey Park Master Plan Strategies - Signage

Signage overview

Existing signage does not articulate clear messages for park users. New signage should be simple with clear information and graphics articulating information about location, wayfinding, interpretation and identification in one signage element. Signage shall be consistent across council parks with the same information display method and graphics.

Identification signage_ Identification signage should clearly identify the park and be vertical in nature.

Interpretive signage_ Combined with both identification and wayfinding signage, interpretive signage should be integrated and concise in nature. Choose site stories that are relevant about local history, environment or have an education element.

Wayfinding signage_ Wayfinding signage should highlight the location of the signage in context of other major elements including toilet, the river, major pedestrian and cycle pathways and nearby roads and transport options.



Integrated multi-functional signage providing identification, wayfinding and interpretation on a single post.

Kendrick Park_ Master Plan



Figure 52: Master Plan_ Kendrick Park
Cooks River Parklands

06_ Design

Kendrick Park_ Master Plan



01 Princes Highway native meadow_ Install diverse local native meadow plantings reflective of local microclimate along the interface with the Princes Highway. Maintain turf on the western side of the landscape mounding.

02 Bridge planting_ Plant local and native trees, shrubs grasses and groundcovers at the intersection of the pedestrian pathways and the Cooks River bridge. Set back shrub plantings away from pathways.

03 Toilet access_ Install tertiary pathway access on the diagonal to the existing public toilets. Review access as part of the toilets upgrades noted in the Marrickville Public Toilet Strategy 2015 document.

04 Rainforest planting_ Provide local and native planting to the area around the existing fig trees and extend this north to the car parking area. Species selection should reflect aspect including - understory rainforest species (beneath the figs) and new trees and grasses (open areas near car park).

05 Bikeway planting_ Plant new groundcover and grass plantings along the bike pathway and between the car park and the existing properties.

06 Playground_ Upgrade playground with new equipment, replace softfall with chip mulch and integrate play design with new low planting logs and rocks.

07 Shade Structures_ Replace shade structures as structures fail. Install decomposed granite around barbecue area, taps and connections to the playground to reduce foot traffic erosion.

08 Car Park_ Install additional planting to the understory around the car park. Works to be undertaken as part of bush regeneration contracts.

09 Forest areas_ Maintain maintenance and planting regimes within the floodplain forest areas to limit weed establishment and maintain species diversity via ongoing regeneration contracts.

10 Fatima Island_ Maintain Fatima Island as part of a natural river system.

11 Future swimming_ Maintain open turf area to fulfil the access function for future swimming in the Cooks River once water quality issues are resolved.

Figure 53: Master Plan_ Kendrick Park

06_ Design

Kendrick Park + Fatima Island_ Master Plan Strategies - Pathways

LEGEND

- Primary pathway - Share pathway
- Secondary pathway
- Tertiary pathway
- Princes Highway pathway

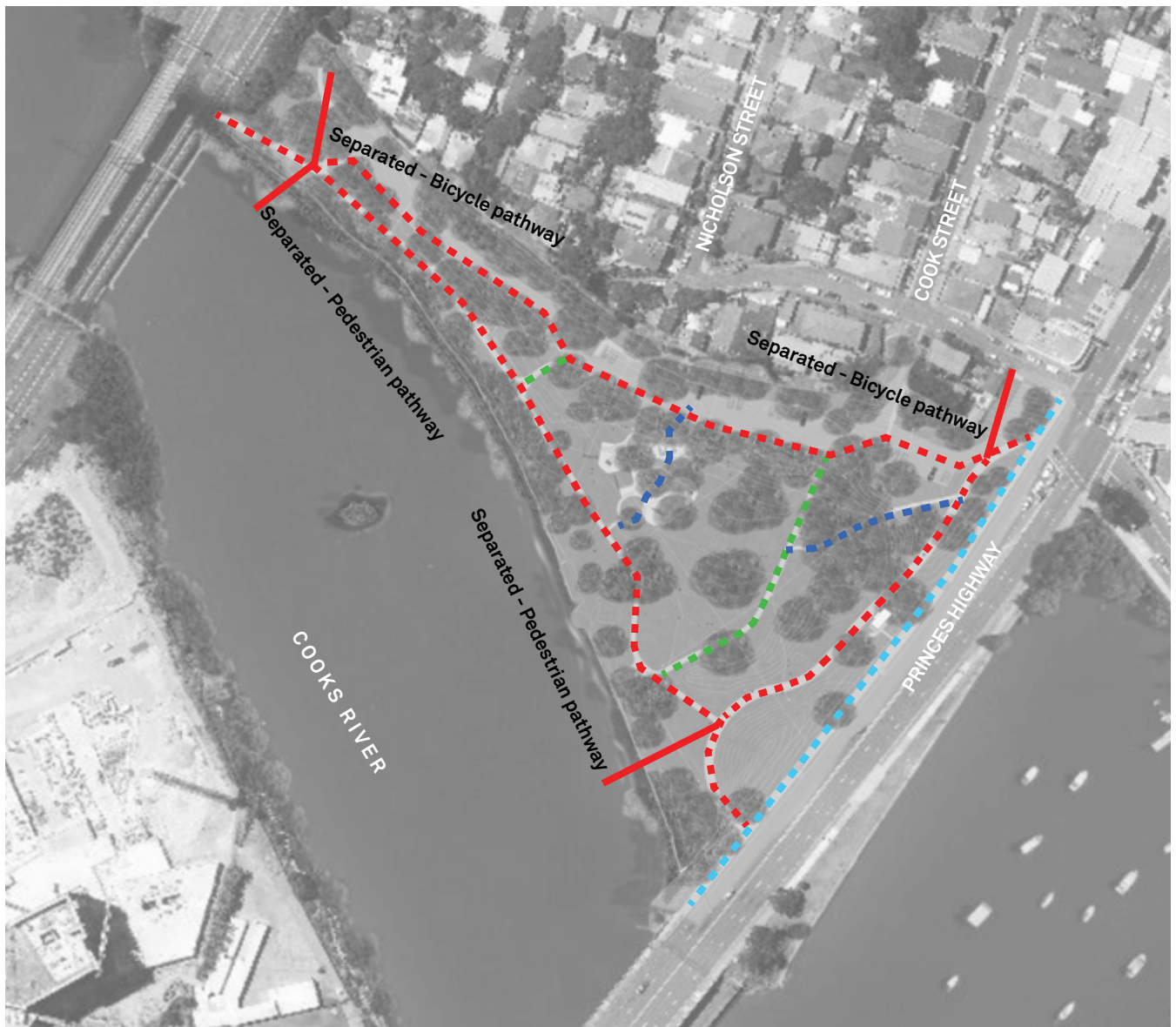
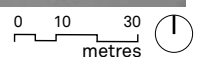


Figure 54: Master Plan Strategies_ Pathways Kendrick Park



06_ Design

Kendrick Park + Fatima Island_ Master Plan Strategies - Pathways

Pedestrian pathways overview

The existing pathways in Kendrick Park provide excellent pedestrian and cycle connections. Only a minor amendment is proposed near the public toilets.

Primary pathway - Share pathway_ Retain the existing share and separated pathways.

Secondary pathway_ Retain existing secondary pathways.

Tertiary pathways_ Provide an additional connection from the public toilets to the existing pathways. Install an additional connection from the car park near the Princes Highway between the existing figs to the existing secondary pathway. New tertiary pathways are to be constructed of decomposed granite or similar stabilised earth construction.

Princes Highway pathway_ Retain the princess Highway pathway



Maintain existing separated cycleway / pedestrian pathway.



Maintain existing share pathway



Tertiary pathway through planting

06_ Design

Kendrick Park + Fatima Island_ Master Plan Strategies - Environment

LEGEND

- Princes Highway native meadow
- Bridge planting
- Rainforest planting
- Bikeway planting
- Playground
- Car park
- Forest areas
- Fatima Island

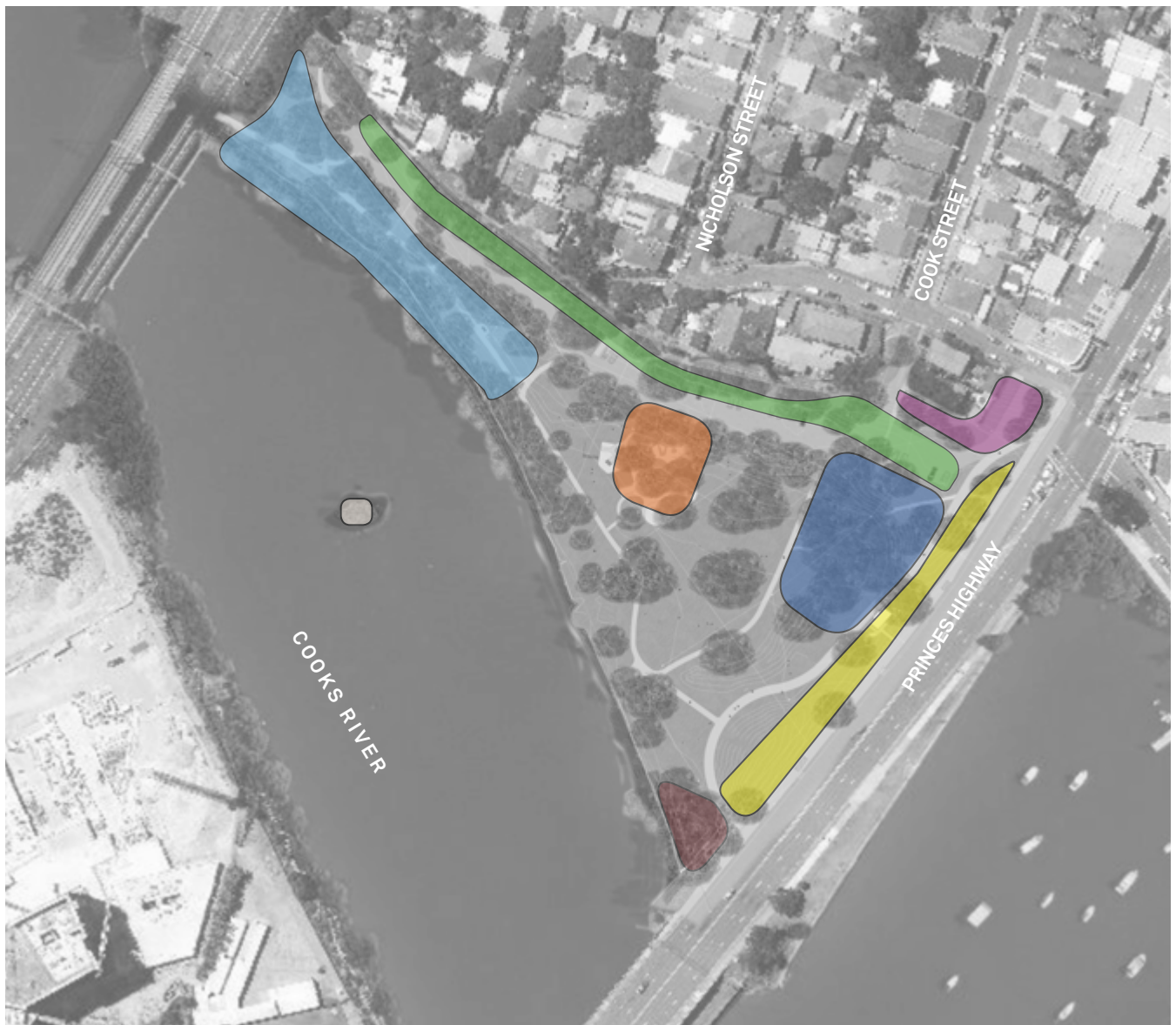
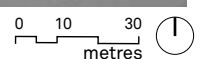


Figure 55: Master Plan Strategies_ Environment Kendrick Park



06_ Design

Kendrick Park + Fatima Island_ Master Plan Strategies - Environment

Environment overview

The environmental qualities of Kendrick Park are excellent. The Plan of Management and Master Plan aims to improve these qualities and improve the experience of being in Kendrick Park.

Princes Highway native meadow_ Install native meadow planting along the interface with the Princes Highway. Species to be reflective of context with river and riparian corridor and grow to a maximum height of no more 0.8m high. Maintain turf on the western side of the landscape mounding to allow for informal sitting with afternoon solar access.

Bridge planting_ Plant local native trees, shrubs, grasses and groundcovers at the intersection of the pedestrian pathways and the Cooks River bridge. Species selected should be reflective of riparian forest community. Set shrub planting away from pathways to allow casual surveillance.

Rainforest planting_ Provide local native planting to the area around the existing fig trees and extend this north to the car parking area. Species selection should reflect aspect including - understory rainforest species (beneath the figs) and new trees and grasses (open areas near car park).

Bikeway planting_ Plant new groundcover and grass plantings along the bike pathway and between the car park and the existing properties. Choose species that allow open views and casual surveillance.

Forest areas_ Maintain maintenance and planting regimes within the forest areas to limit weed establishment and maintain species diversity.

Rain gardens_ Ensure storm water from the car park can adequately access plantings areas to water vegetation and infiltrate ground water. Existing kerb perforations have leaf litter and vegetation hindering drainage system and need maintenance to maximise WSUD potential.

Existing park trees_ Implement recommendations for existing trees as per the Marrickville Open Space Tree Inventory 2015.

Playground_ Playground upgrades shall incorporate low planting, logs and rocks for education and exploration. Upgrade shall replace rubberised softfall with mulch.

Car park_ Install additional grasses and groundcovers within car park planting blisters.

Fatima Island_ Retain Fatima island as a natural system within the river environment. Refer Biodiversity Action Plan 2016-2021 for specific environmental strategies for the island. Do not encourage access to the island.



Prince's Highway native meadow



Plant rainforest understory species beneath the existing fig trees.



Maintain Fatima Island as a natural system within the Cooks River.

06_ Design

Kendrick Park + Fatima Island Master Plan Strategies - Furniture + Amenities

LEGEND

- | | |
|---|---|
|  New shade structure |  Wheeled bin enclosure |
|  New picnic facilities |  Bike racks |
|  New seating |  Drink fountains |
|  Playground upgrade | |

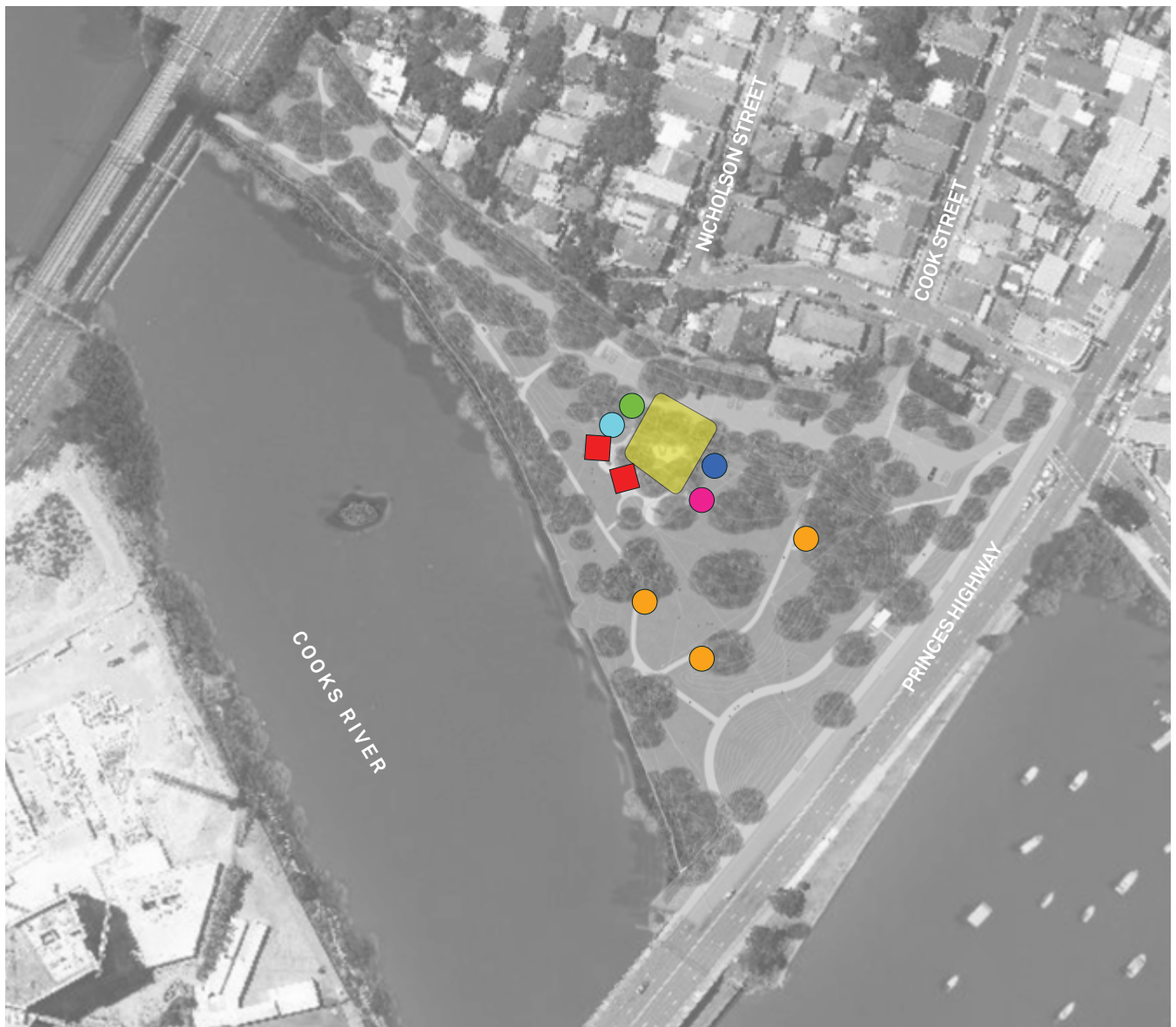
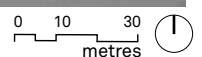


Figure 56: Master Plan Strategies_ Furniture and amenities Kendrick Park



06_ Design

Kendrick Park + Fatima Island Master Plan Strategies -Furniture + Amenities

Furniture and amenities overview

The furniture and amenities in Kendrick Park meet basic user requirements but are however in need of updating. The Plan of Management and Master Plan aims to fulfil this requirement.

Shade structure_ Replace shade structures as existing timber structures fail. Replace with simple propriety facilities that are proven facilities elsewhere in the local government area.

New picnic facilities_ Install new picnic tables and chairs within the shade structures and adjacent the play ground. Select facilities that are propriety items and are known to be low maintenance and easily replaced. Install decomposed granite or crushed sandstone in the area between the shade structures, playground and barbecue facilities to reduce erosion. Design into the facilities a coal dispenser bin that allows for disposal and rinsing of coal BBQ's without water runoff damaging the environment or picnic facilities.

New seating_ Provide additional seating as part of the new play ground upgrades.

Playground upgrade_ Upgrade playground with new equipment, replace soft fall with chip mulch and integrate design with new low planting and rocks.

Amenities building_ Implement the recommendations as outlined in the Marrickville Public Toilet Strategy Plan 2015.

Bike racks_ Install bike racks adjacent to the playground and picnic facilities.



Replaced shade structures



Progressively upgrade the play facilities while maintaining a natural setting.



Additional play elements should include simple setting stones (rubberised) and log balance logs.

06_ Design

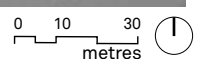
Kendrick Park + Fatima Island Master Plan Strategies -Signage

LEGEND

- Integrated signage locations



Figure 57: Master Plan Strategies_ Signage Kendrick Park



06_ Design

Kendrick Park + Fatima Island Master Plan Strategies -Signage

Signage overview

Existing signage is limited and does not articulate clear messages for park users. New signage should be simple with clear information and graphics articulating information about location, wayfinding, interpretation and identification in one signage element. Signage shall be consistent across council parks with the same information display method and graphics.

Identification signage_ Identification signage should clearly identify the park and be vertical in nature.

Interpretive signage_ Combined with both identification and wayfinding signage, interpretive signage should be integrated and concise in nature. Choose site stories that are relevant, about history or have an education element, specific stories may include historic dam, pre-european settlement and Fatima Island.

Wayfinding signage_ Wayfinding signage should highlight the location of the signage in context of other major elements including toilet, the river, major pedestrian pathways and nearby roads and transport options.



integrate signage element.

06_ Design

Tempe Train Station_ Master Plan

Overview

The Tempe Train Station car park is not Council or Crown LLnd and as such is outside the scope of work within the Plan of Management. A Master Plan has been developed however as the car park is a key link between Mackey and Kendrick Parks.

Recommendations

The following design recommendations have been proposed within the Tempe Train Station Car Park:

- > Reconfigure car parking to shorten isles widths and move parking bays towards the train station. The reconfigured parking will provide for a safe bicycle / pedestrian shareway connection between the car park and the existing stormwater infrastructure.
- > Design planting within car park to function as rain gardens where possible.
- > Maintain existing car park numbers.

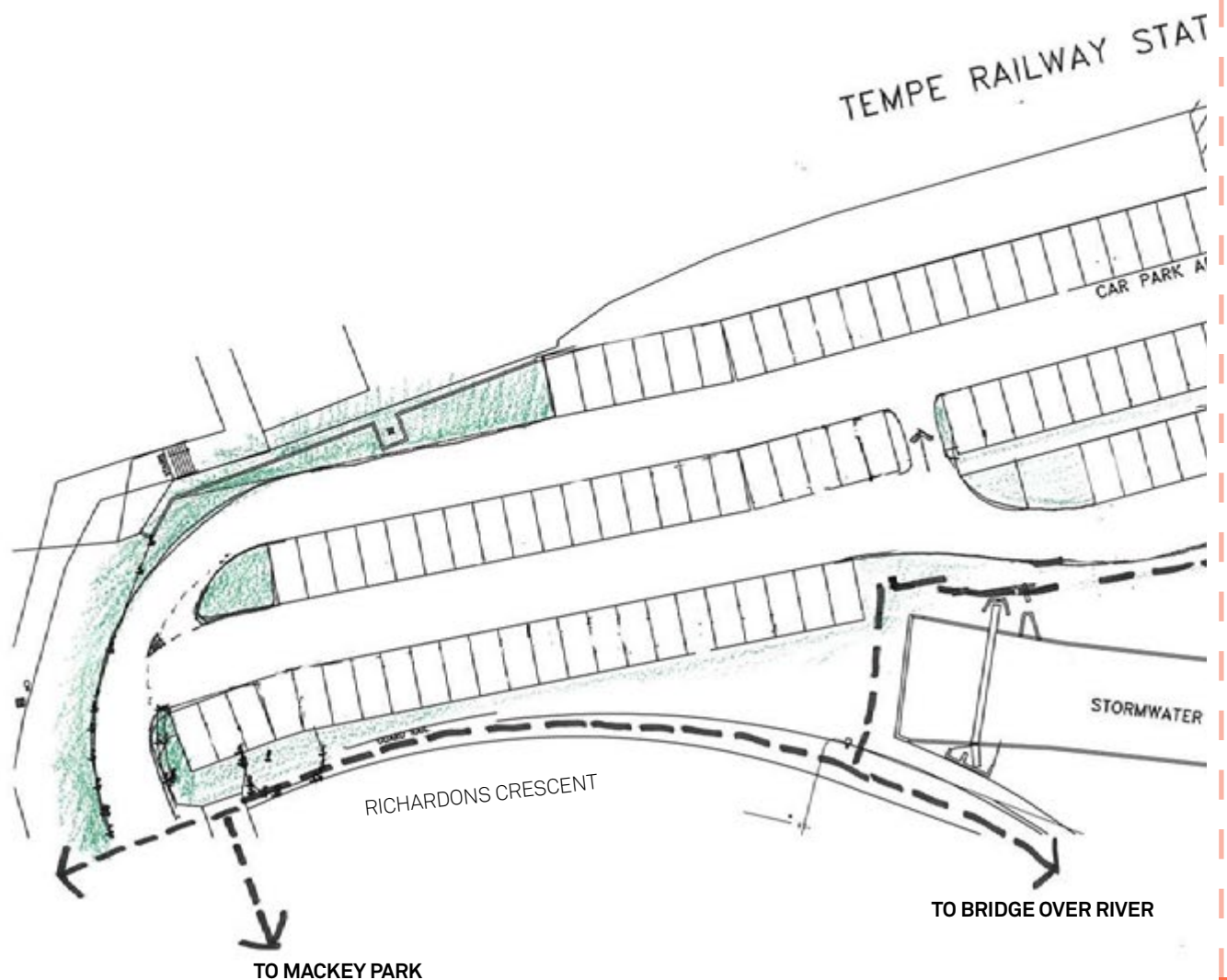


Figure 58: Master Plan Tempe Train Station

06_ Design

Tempe Train Station_ Master Plan

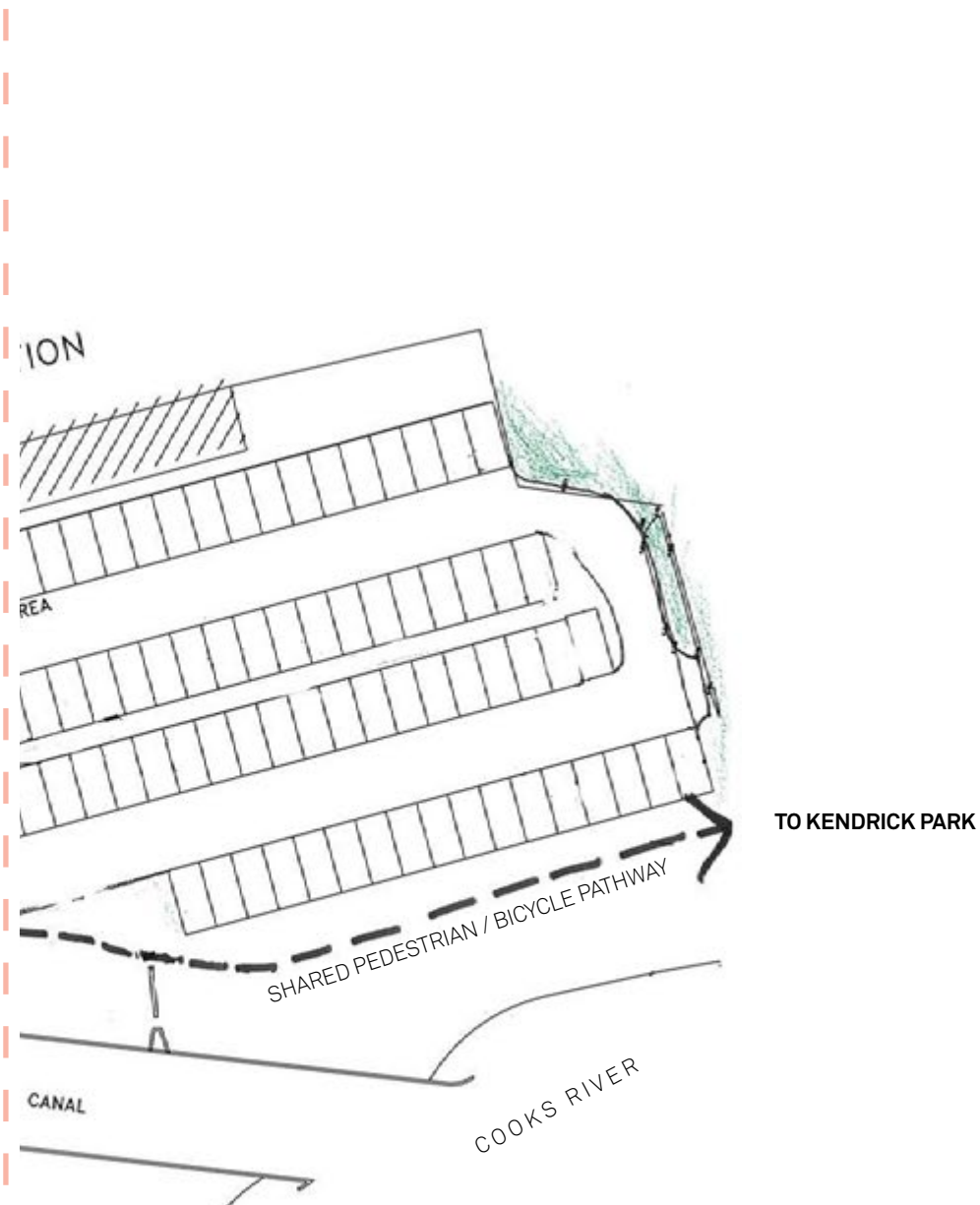


Figure 59: Master Plan Tempe Train Station



Thornley Street rain garden, Marrickville. Photography by Marrickville Council.

05_ Implementation Plan



07_ Implementation Plan

Overview

Introduction

The implementation plan is to guide the preferred implementation and staging of upgrades for the Cooks River Parklands. The implementation plan has been used to influence the Long term Financial Plan.

How to use the implementation plan

Each Park is highlighted as a heading. Below which, each project item is listed with all the elements that require costing e.g. pathways, trees or fencing. Each listed item has a quantity provides, a unit rate, a cost rate and total costs. At the end of each subsection, a project subtotal is provided.

The implementation of each project has been prioritised according to community engagement and funding available. Each project has been given a rating of 1 – 3, with a 1 being implemented within 3 years; 2 being implemented 4 to 6 years and a 3 being implemented in >7 years.

Evaluation criteria are provided as a cross reference for the Plan of Management to ensure we are delivering what we aimed to achieve under project objectives.

Exclusions

Some items have been excluded from project costs. These include:

- > Works within road corridors.
- > Tempe Train Station carpark works.
- > Major services connections.
- > Works described and costed in the Marrickville Public Toilet Strategy Plan.
- > Debbie & Abbey Borgia Recreation Centre expansion Master Plan works.
- > Steel Park water play upgrades

External and or grant funding

Several projects will require external or grant funding from alternate sources and strong collaboration with stakeholders. These include:

- > Bank naturalisation of the foreshore edge in HJ Mahoney Reserve. This expensive project will require collaboration and funding from other sources including Sydney Water; and
- > Naturalisation of the Sydney Water drainage channel in Mackey Park with a new rock lined creek, habitat logs, vegetation, shade trees and passive recreation items including seating.

Financial Summary

A summary of the cost implications include:

TOTAL Project costs (excl. external / grant funding)	\$9,045,406
TOTAL priority 1 (excl. external / grant funding)	\$3,986,750
TOTAL priority 2 (excl. external / grant funding)	\$1,661,375
TOTAL priority 3 (excl. external / grant funding)	\$3,397,281
TOTAL External / grant funding costs	\$6,249,750
TOTAL Project costs (incl. external / grant funding)	\$15,295,156
TOTAL priority 1 (incl. external / grant funding)	\$6,430,500
TOTAL priority 2 (incl. external / grant funding)	\$5,467,375
TOTAL priority 3 (incl. external / grant funding)	\$3,397,281

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