Bayside Council
Serving Our Community

A meeting of the
City Planning & Environment Committee
will be held in the Committee Room, Botany Town Hall
Corner of Edward Street and Botany Road, Botany
on Wednesday, 12 June 2024 at 6:30 PM

UNDER SEPARATE COVER ATTACHMENTS PART TWO

7 REPORTS

CPE24.021 Draft Scarborough Park Masterplan

SCARBOROUGH PARK

Masterplan report

Draft issue for exhibition
May 2024

Bayside Council
Serving Our Community

SCARBOROUGH PARK

Masterplan report

Draft issue for exhibition
May 2024

Prepared by GROUPGSA

On behalf of Bayside Council
Serving Our Community


Bayside Council acknowledges the traditional custodians: the Gadigal and Bidjigal people of the Eora Nation, and pays respect to Elders past, present and emerging. The people of the Eora nation, their spirits and ancestors will always remain with our waterways and the land, our Mother Earth.

CONTENTS

01 INTRODUCTION

1.1 Introduction

1.1.1 Executive Summary

Scarborough Park is an expansive open space of approximately 61ha and was one of the earliest parks created by the NSW Government, in 1879. The park was borne out of a 1877 town plan concept linking it with Cook Park along the Botany Bay foreshore.

Scarborough Park hosts a diverse range of active sporting facilities and opportunities for passive recreation, balanced with extensive wetlands and remnant endangered ecological communities. The park plays host to many well-established sporting clubs and offers a significant open space resource for the local community.

1.1.2 Site area

The masterplan area comprises a linear open space running approximately north south from President Avenue in the north to Park Road in the south. The park is located within the suburbs of Kogarah, Monterey and Ramsgate, with Brighton Le Sands and Ramsgate Beach bordering the park in the north and south.

For the purposes of the masterplan, the park has been split into three precincts (shown opposite). The open space corridor is bisected by two roadways, Barton Street and Ramsgate Road.

Scarborough Park is located within the Rockdale Wetlands Corridor. To the north, this broader open space includes Rockdale Bicentennial Park and its ponds, and Barton Park, Riverine Park and Pemulway Park alongside Muddy Creek. The wetland corridor terminates at the Cooks River, in Arncliffe and at the south where Bado-Berong Creek meets the Georges River..

The ponds within Rockdale Bicentennial Park to the north of Scarborough Park have been partly demolished as part of the construction of M6 Stage 1. Following completion of the M6 Stage 1, the park will be reinstated in accordance with the Urban Design and Landscape Plan prepared as part of the road project.

1.1.3 Purpose

The revised masterplan will enable Bayside Council to confidently and effectively manage the future development of Scarborough Park to achieve its long term objectives to:

- Facilitate access,
- Protect natural environments,
- Protect and enhance biodiversity, and
- Provide diversity in recreation.

The masterplan maps current conditions and identifies scope for future investment by council. Any future projects would be subject to detailed investigations and design processes, with community engagement as appropriate.

Meaningful engagement with stakeholders, sporting groups, the local community, and Council members will generate an authentic, appropriate and sustainable direction to guide the park's future.

The northern portion of the park is currently impacted by the construction of M6 Stage 1. The construction of this major infrastructure has resulted in significant impact to the northern precinct of Scarborough Park including the loss of many trees and impacts to the remnant wetland due to modifications to the stormwater and drainage system, widening of the President Avenue carriageway and associated level changes.

A new overhead bridge crossing to President Avenue and linked elevated structures deliver an important link in a wider active transport network that is beyond the scope of this masterplan.

The Scarborough Park masterplan identifies strategies and plans to best integrate the M6 Stage 1 works into the existing park fabric as part of the large park area.

1.2 Vision

1.2.1 Scarborough Park vision

The vision is to create a dynamic and engaging park that enhances the existing assets, building on the rich layers of history and the unique setting to satisfy a wide variety of social and recreational needs whilst protecting and enhancing the ecological integrity of the site and surrounding area.

The park has a strong ecological land and water framework, contributing to local and regional biodiversity and providing habitat for a large variety of flora and fauna, including endangered ecological communities and individual species.

Scarborough Park is both a recreation and ecological asset for the region, contributing to the lives of the local community by providing valuable open space resource for a variety of uses and activities.

1.2.2 Green grid corridors vision

As part of the Rockdale Wetlands Corridor, Scarborough Park is encompassed by the wider vision of the Bayside Priority Green Grid Corridors Spatial Framework (2021). The overall vision states:

'The role of water within the Bayside LGA is intrinsic to its local identity. Identifying and celebrating each corridor's unique waterscapes, flora, fauna and cultural heritage will enable a clear future direction for interventions.'

The vision statement for this specific wetland corridor states:

'Rockdale Wetlands Corridor will be focused on protection and rehabilitation of the wetland and saltmarsh landscapes, protecting and enhancing remnant vegetation and habitat areas, whilst ensuring that it remains a people focused open space corridor that encourages community interaction with landscape and water.'

The green grid document also highlights the specific opportunities for connecting to Country, establishing three key Country narratives to guide the development of the corridor.

- **Living in water landscapes**
  Acknowledging that the wetlands corridors were likely used for camping, fishing, resources, manufacturing and ceremony by Aboriginal people over thousands of years prior to British settlement in the area.
- **Berewalgal (people from far away) arrive (Europeans)**
  Accepting continuing Aboriginal connection to Country and and the differing world views of ownership, kinship, belonging and relationships to the natural world.
- **Preserved Places**
  Identifying the aspects of the wetlands corridor that remain largely unchanged, having been protected from development in modern Sydney.

Community consultation was carried out by the Green Grid Corridors project team with La Perouse Local Aboriginal Land Council in May 2021. Cultural significance, key values, concerns and integrity enhancement components discussed within the session in respect to the Rockdale Wetland Corridor included:

- Re-instating rock oyster reefs.
- Importance of access, particularly within National Reserves that contain places of cultural significance. Promoting better access through incorporating it into National Reserves Management Plans.
- Promoting initiatives to improve water quality to make local food supply such as mullet, rock oyster reefs and blue-summer crab edible and accessible to community.
- Considering local habitats for local species such as sea grass and wetlands for crab.
- Gaining local information such as mapping crab and mullet movement throughout the seasons.
- Wurridjal Festival by Bayside Council, Canterbury Bankstown, Inner West and Strathfield Councils and the Cooks River Alliance. Seen as good community initiative.
- Improvement of water quality by managing run off from industrial areas

1.2.3 Success measures

To implement the vision statements, the following key success measures have been established to guide both the masterplan as well as any future detailed design works for smaller projects within the park.

Scarborough Park must be:

- A distinctive and unique park with quality recreation and sporting destinations.
- A balanced place with strategically located and managed open space settings and facilities.
- An appealing destination with well-designed and accessible open spaces and facilities.
- An activated precinct, with a range of activity and lifestyle opportunities for all ages and cultural groups, extending beyond organised sport to embrace casual community use and engagement.
- Well-connected, with safe and accessible active transport links that support movement and activity within and beyond the park extents. The network should be easily navigated by locals and visitors alike.
- An environmentally sensitive place which celebrates the park's natural assets and protects and enhances biodiversity and ecosystem functions.
- An open space asset which respects and encourages connection to Country, providing learning and connection to community and place through varied interpretation opportunities.
- A park that honours its history and heritage to enhance the unique sense of place.
- A well-managed open space, which facilitates community use and engagement whilst protecting key biodiversity assets.

1.3 Regional context

Scarborough Park is located approximately 14 km south of the Sydney CBD, near the shores of Botany Bay.

It is part of the St George region, comprising the southern suburbs of the city. The park is in the local government area of Bayside Council and is surrounded by residential land in the suburbs of Kogarah, Monterey, Ramsgate and Ramsgate Beach.

The northern edge of the site borders the suburbs of Rockdale and Brighton Le Sands. Rockdale straddles the Princes Highway, the primary north-south vehicular route between Sydney and its southern suburbs, and forms one of the main town centres of the LGA.

To the west of the park is Kogarah, the largest local centre in the area, and the closest train station to the park. Kogarah is home to a number of schools, hospitals and supporting health care services.

The name Kogarah derives from the Aboriginal word meaning 'place of reeds', and its siting on the fertile plain of the Georges River, historically allowed for the provision of fruit, vegetables and oysters for Sydney.

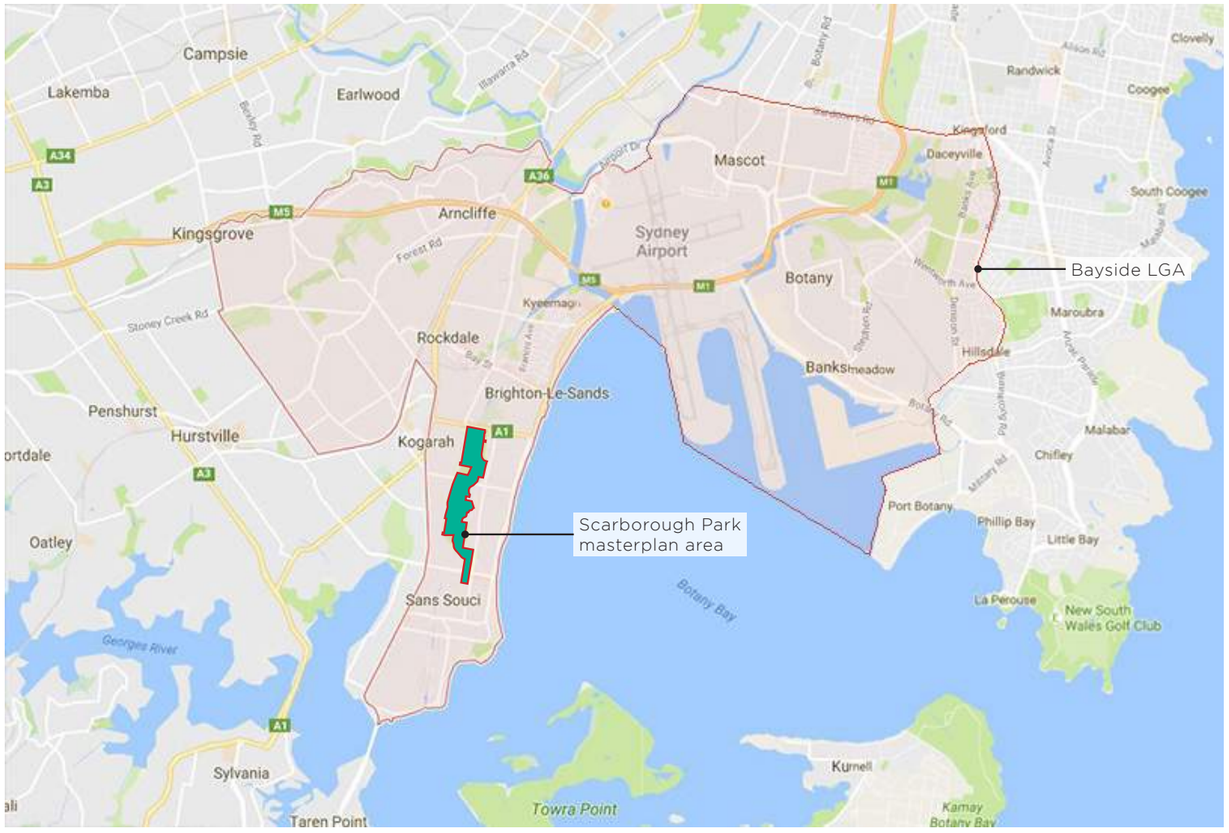
Kogarah's main shopping area is located around Kogarah railway station on Railway Parade, approximately 1 km from the park. Buses service the train station to the surrounding suburbs, running directly past the park.

East of the park, the residential suburbs of Monterey and Ramsgate Beach extend to the Grand Parade and the western shores of Botany Bay, the site of European landings in Australia in 1770. Cook Park runs along the shores of the bay, accomodating a shared path and pedestrian promenade extending from Sans Souci and Dolls Point in the south to Kyeemagh in the north, a key attraction for the local community.

The suburbs of Monterey and Ramsgate Beach have street names bearing a Californian influence, such as Hollywood, Monterey, Pasadena and Culver. In contrast, Scarborough Park was named by the Honourable Thomas Holt after the English coastal town of Scarborough, North Yorkshire.

The route through these suburbs is easily walkable, complemented by bus services running along the surrounding roads of Rocky Point Road, Chuter Avenue and The Grand Parade.

Scarborough Park occupies a significant portion of the Rockdale wetlands corridor which connects south to the Georges River, and north to the Cooks River. The wetlands corridor connects a number of important open spaces and provides an alternate north-south active travel route to Cook Park.



1.4 Local context

To the north, Rockdale Bicentennial Park continues the Rockdale Wetlands Corridor, with linear wetlands and ponds flanked by open space to both sides. Construction of the M6 Stage 1 motorway through Bicentennial Park began in early 2022, with expected completion by 2025. The M6 Stage 1 motorway tunnels terminate at President Avenue, resuming a section of Rockdale Bicentennial Park and reconstructing the wetland ponds over the new roadway tunnels.

The NSW Super League team Rockdale Ilinden Football Club currently play at the Rockdale Bicentennial Park South Football Stadium, built in 2009. There are current plans to create several additional sports pitches to the east of the area in conjunction with the M6 Motorway project.

Whilst there is a direct hydrological link between Rockdale Bicentennial Park and Scarborough Park, President Avenue and the M6 extension create a physical barrier to park users at ground level. A new, elevated bridge crossing over President Avenue will improve connectivity between the two open space areas and allow safe active transport across President Avenue for the first time.

Directly west of the northern region of Scarborough Park, there are four schools which fall within around 700m of the park and easy walking distance. Despite this, safe links between the sites are very limited, with the main route along President Avenue in the north or Marshall Street further south.

Slightly further afield, St George Public Hospital and St George Private Hospital lie within the local catchment, but again, connections are poor for pedestrians and cyclists due to the barriers created by the busy Princes Highway and large landholdings to either side. Kogarah Town Centre beyond has a lively retail centre and provide train connections to the CBD and south to the Sutherland Shire.

The southern portion of the park is made up of several sites - the central sports fields, Phil Austin Baseball Field, Hawthorne Street Natural Area, Leo Smith Reserve, Tonbridge Street Reserve and Pemberton Reserve.

The sports fields, formal recreational assets and natural amenity make up a large swathe running from Barton Street in the north to Ramsgate Road in the south.

Hawthorne Street Natural Area boasts high ecological value, with an integrated nature walk and playground nearby in Leo Smith Reserve. The tennis courts located within the natural area are currently being refurbished, with two of the six courts being converted to a multi-court to accommodate other sporting uses in conjunction with tennis.

The neighbouring Tonbridge Street Reserve is used as a formal sports area with recreational facilities and easy access to Ramsgate Beach Town Centre.

Ramsgate Beach Town Centre is located directly south-east of the park and accommodates several sites which have been.developed to provide higher density housing on mixed-use sites.

Ramsgate Memorial RSL Club, on the edge of the town centre is a large building to the south of Scarborough Park. The RSL site was formerly part of Scarborough Park, with Pemberton Reserve being separated from Scarborough Park when the club was developed.

Pemberton Reserve consists of a central grassed basin with boundary canopy trees and a small playground to its north-east corner.

The Rotary Park area directly north of the club provides additional informal recreation space.

To the east of the park, Cook Park runs parallel to Scarborough Park along the foreshore of Botany Bay and forms part of a comprehensive green network in the local area. It is popular due to its beach side location and lengthy off road cycle route.

Calvary Hospital is within walking distance of the park, although the closest area contains primarily active recreation, so offers little in terms of direct access to high quality passive recreation.

1.5 Historical context

1.5.1 Origins (Pre-European Settlement)

The traditional owners of the area are the Aboriginal people of the Eora nation from the Gamaygal, Gwegal, Bidjigal and Gadigal clans (Rockdale Community Strategic Plan 2013-2025). These tribes were known as “water people” and the traditional owners had an intimate spiritual and cultural connection to the land for many thousands of years. Among the Bidjigal clan was Pemulwuy (1750-1802), an Aboriginal warrior born near Botany Bay and was known for his resistance against the European settlement. During the 1780s, Pemulwuy and other tribe members participated in multiple guerrilla wars against the settlers. It is believed that the densely vegetated Scarborough Swamp was one of the hiding spots of the tribe.

Prior to European settlement Rockdale was comprised of a distinctive combination of coastline, wetland, waterway and bushland environments which over thousands of years supplied the Eora nation with abundant resources to survive and support a rich and spiritual culture. A series of north-south beach sand-ridges interspersed with wetlands extended one kilometre inland from Lady Robinsons Beach (Monterey) in a broad corridor from Cooks River in the north to the Georges River in the south, likely forming the Scarborough Ponds at the back of the sand dunes. ‘Rockdale’ was named after the steeper sandstone country further inland, with Turpentine Ironbark Forests growing on the richer soils at the south western edges of the municipality.

1.5.2 Development (1800 - 1900)

Patrick Moore, a convict with highly valued skills as a blacksmith and wheelwright, was granted 60 acres of land in 1812 - consisting primarily of sandhill and wetland. This area in the north of the site retains its name at ‘Pat Moore Swamp’.

Scarborough Park was formally created in 1879 in the central portion of the site, arguably as a response to impending residential development. A petition was presented to the minister of lands by Samuel Cook, asking for the dedication of a public reserve at Scarborough. It was named by the Hon. Thomas Holt. after the English coastal town of Scarborough, Yorkshire and the First Fleet convict ship which was briefly anchored in Botany Bay in 1788.

The establishment of the surrounding settlement was hastened by the introduction of both Rocky Point Road (1843) and steam tram services from the north in 1887. The flourishing development led to the creation of Moorefield Racecourse (opened 1888) on President Avenue, part of the Moorfield Estate.

By 1888 Scarborough Park was planted with between 1100 and 1200 ornamental shrubs and trees, as well as being extensively landscaped.

1.5.3 Recent Times (1900 - Present Day)

In more recent history, Scarborough Park, once a tidal wetland, was dredged in 1933, as part of a longer term project to provide level playing fields, to resolve frequent flooding issues and proliferation of mosquitoes and improve sanitation in the area. The consequences of these improvements saw the loss of an ornamental lake where Tonbridge Street Reserve is today.

In the 1950’s the estate was subdivided and the Department of Education purchased part of the park, where it built two high schools and college of further education. Moorefield Girls High School was erected on the former site of Moore’s farm. Much of the ornamental planting was removed.

There is very little of the native vegetation remaining, much of the wetlands corridor has been filled and replaced with parks and sports fields, bushland areas replaced with housing and roads, and many natural drainage lines have been channelised. Fortunately however, some of Rockdale’s natural areas remain, many of which have high conservation value because they provide habitat for internationally significant migratory shorebirds birds, threatened plant and animal species, and juvenile fish nursery for Botany Bay.

A section of park to the south of Ramsgate Road historically belonged to Scarborough Park but is now occupied by lease as the Ramsgate RSL Club, with Pemberton Reserve further to the south effectively alienated from the rest of the park.

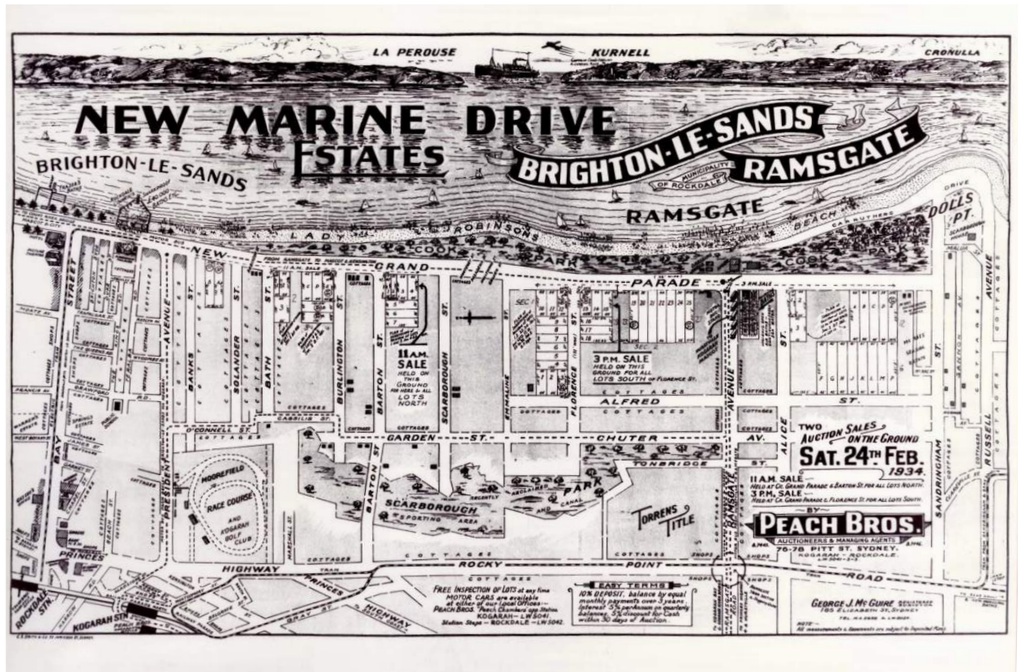
Scarborough Park Historic Context Plan (1942)

Pat Moore Swamp 1961

Walking trail in Scarborough Park 1891

Ramsgate Public School from Scarborough Park 1891

Aerial photo (c.1945) showing extent of landscaping / ornamental planting to the park



New Marine Drive Historical Map (1934), Bayside Council
Source: Bayside historical photos collection archives

1.6 M6 motorway

1.6.1 Stage 1 works

The M6 Motorway (previously F6 Extension) is a proposed multi-lane road link that aims to give better connections to Sydney's south. Three (3) stages are planned, with stage 1 currently under construction. Stage One comprises continuous twin tunnels connecting the New M5 at Arncliffe to President Avenue at the northern edge of Scarborough Park.

A tunnel portal is being constructed on the northern side of President Avenue, triggering road widening on President Ave and an upgrade of the intersection of Princes Highway and President Ave to the west of the park.

As part of the stage 1 works, a new active transport corridor is being established through an open space corridor, linking Kyeemagh in the north to Monterey in the south.

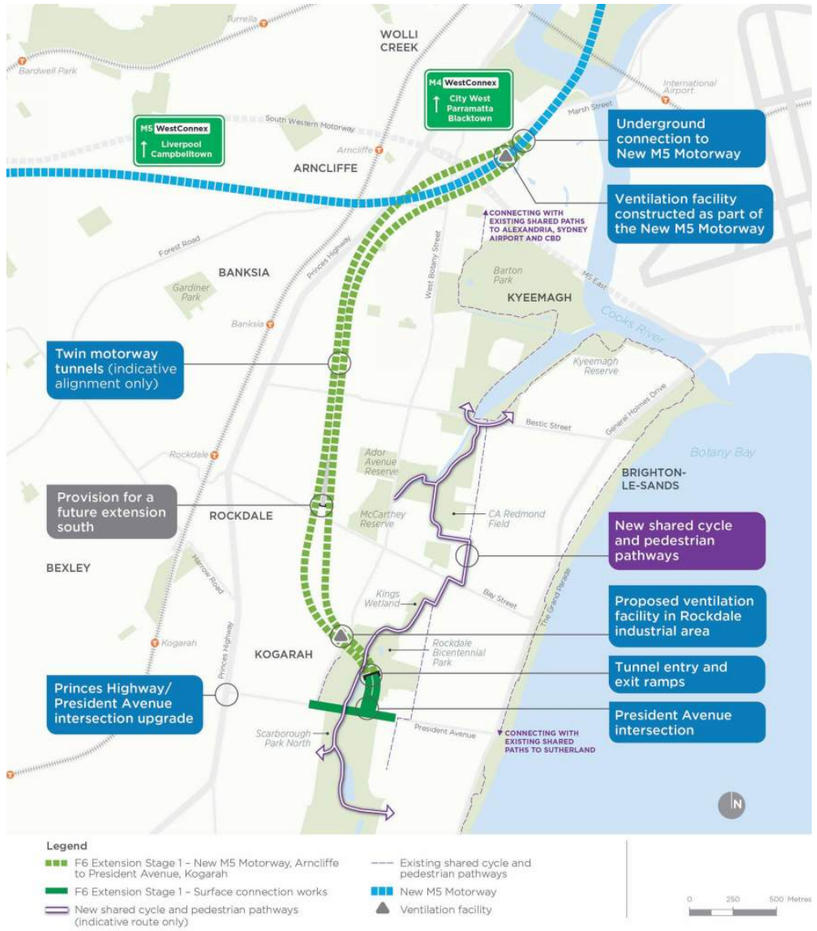
The works undertaken as part of the M6 Stage 1 project have removed a portion of Scarborough Park along its northern edge, at the interface with President Avenue. There has been loss of some coastal wetlands and area of high water table to facilitate road widening, resulting in a loss of some heritage fabric within the park.

1.6.2 Stage 2 & 3 works

Currently two further sections of the M6 motorway are proposed, Section B linking from the stage one tunnels south to Taren Point, and Section C linking from Taren Point to Loftus. Details on tunnel portals for future stages are not publicly available at this stage.

There is currently no timeline, funding commitment or planning approval for Section B or Section C of the Corridor Reserve. However, the road corridor reserved since 1951 for future stages of the M6 remains in place

M6 Project map.
Source: Roads and Maritime Services



M6 Stage 1 Project map.
Source: Roads and Maritime Services

1.6.3 Impacts on Scarborough Park

The stage 1 works of the M6 motorway will be primarily underground, emerging to the north of Scarborough Park within Rockdale Bicentennial Park and exiting on to President Avenue. Road widening and upgrades along President Avenue have impacted on the northern park boundary, with changes to hydrology and earthworks at the northern edge of the wetlands system.

The M6 stage 1 works include an extended network of cycle and shared paths which links north through Rockdale Bicentennial Park, and east-west across Scarborough Park, increasing local connectivity. A new pedestrian & cycle bridge is to be constructed over President Avenue, providing a link between Scarborough Park and Rockdale Bicentennial Park, improving connectivity throughout the regional open space network.

A reservation for future road works still exists within Scarborough Park, occupying a swathe through the centre of the park (illustrated right). Although a future at-grade or elevated road connection is unlikely, the road corridor reserved since 1951 for future sections of the M6 will remain in place until further decisions are made by the NSW state government.

Land reserved for M6 road corridor through Scarborough Park (highlighted yellow).
Mapping by GroupGSA

Artist's impression looking north over Scarborough Park showing new path links
Source: M6 Motorway Stage 1, Urban Design and Landscape Plan

Artist's impression showing bridge over Scarborough Ponds
Source: M6 Motorway Stage 1, Urban Design and Landscape Plan

1.7 Planning & legislative framework

The Scarborough Park Masterplan will take into account existing strategies and guidelines at a National, Regional and Local scale in order to maximise the potential of the park proposals and ensure the park is designed to provide the best possible public open space environment for the area.

Bayside Council's responsibilities under the Local Government Act 1993 are to:

'Properly manage, develop, protect, restore, enhance and conserve the environment of the area for which it is responsible, in a manner that is consistent with and promotes the principles of ecologically sustainable development.'

State legislation	Area of relevance	Refer to section
Biodiversity Conservation Act 2016	Conservation and biodiversity	2.7
Coastal Management Act 2016	Requirements for works within or impacting coastal areas	2.2
Fisheries Management Act 1994	Waterways and marine environments	2.2
Bayside Local Environmental Plan (2021)	Heritage assets	2.9 & 2.10

State policies, strategies & guidelines	Area of relevance	Refer to section
State Environmental Planning Policy (Resilience and Hazards) 2021	Chapter 2 - Hydrology and management of coastal ecological communities and function (mapped within Scarborough Park), coastal wetlands, coastal environment area and coastal use area. Chapter 4 - Remediation of contaminated (and potentially contaminated) land	2.2 & 2.7
Greater Sydney Region Plan: A Metropolis of Three Cities (2018)	Planning framework for Greater Sydney	1.8
Our Greater Sydney 2056: Eastern City District Plan (2018)	Planning framework for Eastern City	1.8
NSW The Green Grid	Green infrastructure network	1.8
Living Cities report (2016)	Five point national green infrastructure plan	1.8
NSW Policy & Guidelines for Fish Habitat Conservation and Management (2013)	Management of estuaries, marine habitats and fish stock	2.2
GRCCC Georges River Estuary Coastal Zone Management Plan (2013)	Hydrology and habitat management (catchment wide)	2.2

Local policies, strategies & guidelines	Area of relevance	Refer to section
Bayside 2032, Community Strategic Plan 2018-2032	Overall vision and strategy for the management of Bayside LGA	1.9
Bayside Local Strategic Planning Statement (2020)	Planning parameters for Bayside LGA	1.9
Bayside Water Management Strategy (2020)	Overall vision for water management within Bayside, including key goals and success measures to imrpove outcomes.	2.3 & 2.8
Bayside West Floodplain Risk Management Study and Plan (2023)	Summary of existing floodplain risks and high level assessment of possible installations to reduce risk and/or improve management outcomes.	2.3
Scarborough Park Conservation Management Plan (2014)	Biodiversity, maintenance and conservation principles and goals (Scarborough Park specific)	2.9 2.11 - 2.14
Bayside Priority Green Grid Corridors Spatial Framework (2021)	Rockdale Wetlands corridor vision and management goals	2.8
Environment and Resilience Strategy 2032 (2024)	Strategy to improve envionmental and social resilience across Bayside LGA	2.8
Rockdale City Council Natural Areas Restoration Plan (2015)	Site specific assessment of park land quality and management needs (district wide)	2.8
Rockdale City Council Biodiversity Strategy (2014)	Biodiversity, maintenance and conservation principles and goals (district wide)	2.8
Rockdale City Council Bio Links Study (2007)	Creation of green links between habitats, biodiversity, threats, management, assets (district wide)	2.8

1.8 NSW Government overarching policies

Greater Sydney Region Plan: A Metropolis of Three Cities (March 2018)

Prepared by the Greater Sydney Commission, *A Metropolis of Three Cities* is built on a vision of three cities where most residents live within 30 minutes of their jobs, education and health facilities, services and great places.

To meet the needs of a growing and changing population the vision seeks to transform Greater Sydney into a metropolis of three cities:

- the Western Parkland City
- the Central River City
- the Eastern Harbour City

Bayside LGA is located with the established Eastern Harbour City. The focus of the plan for the eastern city is to build on its recognised economic strength and addressing liveability and sustainability.

'Green infrastructure such as urban tree canopy, green ground cover, bushland, waterways, parks and open spaces will be valued for its economic, social and environmental benefits and will help to establish the Greater Sydney Green Grid, a network of walking and cycling links that will become increasingly important in daily travel arrangements improving sustainability and the wellbeing of residents.'

Our Greater Sydney 2056: Eastern City District Plan (March 2018)

Prepared by the Greater Sydney Commission, the *Eastern City District Plan* sets out parameters for the evolution and future of the eastern city as identified in *A Metropolis of Three Cities.*

A number of ket principles are established by the plan, with the following most relevant to Scarborough Park

- Sustaining communities through vibrant public places, walking and cycling, and cultural, artistic and tourism assets
- Aligning growth with infrastructure, including transport, social and green infrastructure, and delivering sustainable, smart and adaptable solutions
- Being innovative in providing recreational and open space areas, and increasing urban tree canopy
- Building effective responses to climate change and natural and urban hazards.

'A strategic approach to protecting the biodiversity in the Eastern City District involves investing in connected bushland corridors and protecting larger pockets of remnant vegetation, as large and connected areas of bushland give the District's wildlife the greatest chance of survival... Selected species of trees and understorey plants for parks and street planting in targeted areas support the movement of wildlife and help strengthen connections between areas of habitat.'

NSW Green Grid

The Green Grid sets out national objectives for the improvement of open space throughout the greater Sydney region. The plan takes inspiration from the East London Green Grid which aimed to green the gateway of the Thames estuary into the city. The main principles of the document are to:

- Increase access to open space at a local district and regional scale.
- Conserve the natural environment and heritage landscapes while improving access to nature and enhancing visitor destinations
- Adapt to climate extremes, improve air quality and increase urban greening
- Encourage sustainable transport connections and promote active living
- Promote sustainable food production
- Promote green skills - improve management, maintenance and sustainable greenspace design

'As Sydney grows, the metropolitan strategy sets out a vision for Sydney to remain distinctive and inspiring and one of the most liveable cities in the world'

Living Cities report (2016)

Created in 2016, the alliance is made up of over 50 organisations in urban planning, infrastructure, utilities and greening sectors. Their aim is to develop key policy recommendations to inform the greening of Australian cities and the Governments future cities policies.

A five point national living infrastructure plan was the result of the initial workshop, the most relevant of which to Scarborough Park was the promotion of green infrastructure in urban areas as well as provision of funding for renewal and improvement.

'We must prioritise the health of our parks, open spaces and urban waterways.'

Adam Bandt MP, Member for Melbourne, Living Cities Workshop (2016)

1.9 Overarching Council policies

Bayside 2032, Community Strategic Plan 2018-2032

The Community Strategic Plan sets a vision for the Bayside LGA in relation to the social, environmental and economic future of the area. The document sets out four key themes for the community:

- **Theme 1:** Bayside will be a vibrant place
- **Theme 2:** Our people will be connected in a smart City
- **Theme 3:** Bayside will be green, leafy and sustainable
- **Theme 4:** We will be a prosperous community

Key goals identified in the plan which are relevant to Scarborough Park include:

- Walking and cycling is easy in the City and is located in open space where possible
- Open space is accessible and provides a range of active and passive recreation opportunities to match our growing community
- Assets meet community expectations
- Bayside provides safe and engaging spaces, places and interactions
- We are proud of where we live
- Aboriginal culture and history is recognised and celebrated
- We are a healthy community with access to active recreation and health education
- All segments of our community are catered for – children, families, young people and seniors
- Opportunities for passive and active activities are available to community members, including people with pets
- We understand climate change, and are prepared for the impacts
- The community are involved in the preservation of our natural areas
- We have an enhanced green grid/tree canopy

Bayside Local Strategic Planning Statement, March 2020

The Bayside LSPS has 24 Planning Priorities and 148 Actions. Key planning priorities relevant to the Scarborough Park masterplan include:

- **Planning Priority B19** Protect and improve the health of Bayside's waterways and biodiversity
- **Planning Priority B20** Increase urban tree canopy cover and enhance green grid connections
- **Planning Priority B21** Deliver high quality open space
- **Planning Priority B22** Protect and enhance scenic and cultural landscapes
- **Planning Priority B24** Reduce community risk to urban and natural hazards and improve community's resilience to social, environmental and economic shocks and stressors.

'Public open space enhances our neighbourhoods and supports a healthy and active lifestyle and increases social connectedness through bringing people together. As Bayside grows, the demand for open space and sport infrastructure will increase.... Council will need to place an emphasis on the delivery of high quality spaces that are linked by a network of paths and cycleways and public transport to increase accessibility.'

02 SITE ANALYSIS

2.1 Hydrology

2.1.1 Overview

The Scarborough Park and Bicentennial Ponds act as a chain of retention ponds, providing an important wetland corridor and valuable fish habitat. The ponds are now predominantly artificial, and lie along the natural drainage corridor behind the original dune line of Botany Bay, which is no longer evident.

There are three main ponds or wetlands; from England Street to President Avenue (Bicentennial Ponds), from President Avenue to Barton Street (Northern Scarborough Pond), and downstream of Barton Street (Central and Southern Scarborough Ponds).

The day-to-day water levels of each pond are controlled at the downstream end by a weir at President Avenue, stormwater pipes at Barton Street and outlet structure at Florence Street. The Florence Street outlet structure connects the ponds underground to Botany Bay, allowing the tide to penetrate into the downstream ponds, resulting in a brackish mix of water through much of the watercourse.

2.1.2 Relevant legislation

The following NSW government legislation & policy applies to the Scarborough Park site due to its mapped Coastal Wetlands ecosystem.

- Coastal Management Act 2016 (NSW)
- Fisheries Management Act 1994 (NSW)
- State Environmental Planning Policy (Resilience and Hazards) 2021

The following NSW government policy is also relevant to the masterplan document:

- Policy & Guidelines For Fish Habitat Conservation and Management (2013), NSW Department of Primary Industries

2.1.3 Council policies

The masterplan builds on current council policies and past studies to determine a framework for the management of park hydrology into the future.

Key council policies include:

- Georges River CCC Estuary Coastal Zone Management Plan (2013). This document will be replaced by the Georges River Catchment Coastal Management Plan (GRCCMP) once completed, which is currently scheduled for 2025

2.1.4 Existing studies

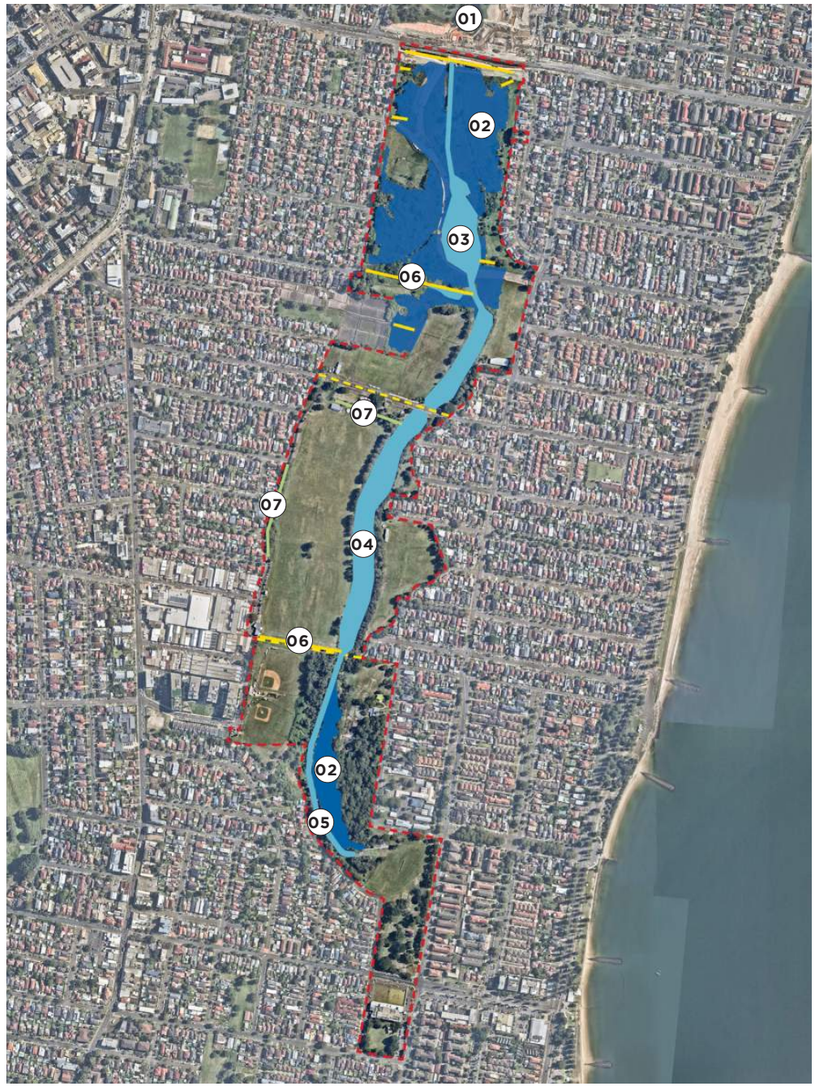
The following completed studies have been reviewed and appropriate recommendations have been incorporated into the masterplan.

- Bayside West Floodplain Risk Management Study and Plan (2023)
- Bayside Water Quality Monitoring and Management Review, Annual Report 2016-17
- Bayside Water Management Strategy (2020)

In addition to the formal studies listed above, Storm Consulting was engaged to review and provide input to the Scarborough Park Masterplan document in 2017. Their knowledge and analysis has been incorporated into the masterplan document. The following information in this section is based on this assessment.

Legend

- 01 ROCKDALE BICENTENNIAL PARK PONDS
- 02 WETLAND AREAS
- 03 NORTHERN SCARBOROUGH POND
- 04 CENTRAL SCARBOROUGH POND
- 05 SOUTHERN SCARBOROUGH POND
- 06 OPEN INLET CHANNELS
- 07 CONCRETE-LINED INLET / DRAIN



2.2 Key state hydrology legislation & policies summary

Coastal Management Act 2016

The Coastal Management Act provides for the integrated management of the coastal environment of New South Wales and is consistent with the principles of ecologically sustainable development. It sets out the objectives for coastal management in NSW including:

- To protect and enhance natural coastal processes and coastal environmental values including natural character, scenic value, biological diversity and ecosystem integrity and resilience, and
- To support the social and cultural values of the coastal zone and maintain public access, amenity, use and safety.

It also outlines the mandatory management objectives for coastal wetlands:

- To promote the rehabilitation and restoration of degraded coastal wetlands,
- To protect and enhance the coastal environmental values and natural processes of coastal waters and estuaries and enhance the natural character, scenic value, biological diversity and ecosystem integrity,
- To maintain and improve water quality and estuary health.

It also sets up the procedure and requirements for Coastal Management Programs (CMPs). Scarborough Park Masterplan Area is covered by the Georges River Catchment Coastal Management Program (GRCCMP).

The Coastal Zone Management Plan and its associated legislation has been superseded. It is will be replaced by the Georges River Catchment Coastal Management Plan (GRCCMP) once completed. This will affect the design of works in the area, what CMP actions are proposed in the area and what works will require development consent.

Fisheries Management Act 1994

This the primary legislative framework governing the management of fish and their habitat in NSW.

The objectives of the Act are 'to conserve, develop and share the fishery resources of the State for the benefit of present and future generations and, in particular to:

- to conserve fish stocks and key fish habitats, and
- to conserve threatened species, populations and ecological communities of fish and marine vegetation, and
- to promote ecologically sustainable development, including the conservation of biological diversity,

and, consistently with those objects—

- to promote viable commercial fishing and aquaculture industries, and
- to promote quality recreational fishing opportunities, and
- to appropriately share fisheries resources between the users of those resources, and
- to provide social and economic benefits for the wider community of New South Wales, and
- to recognise the spiritual, social and customary significance to Aboriginal persons of fisheries resources and to protect, and promote the continuation of, Aboriginal cultural fishing.'

The Act has specific requirements in relation to works on embankments, impacting any proposals for embankment stabilisation, pontoons, jetties, waterway crossings, dredging, or reclamation activities within the park.

Impacts of any works on marine vegetation (including mangroves and salt marsh) must be considered in relation to fisheries and waterways also.

State Environmental Planning Policy (Resilience and Hazards) 2021

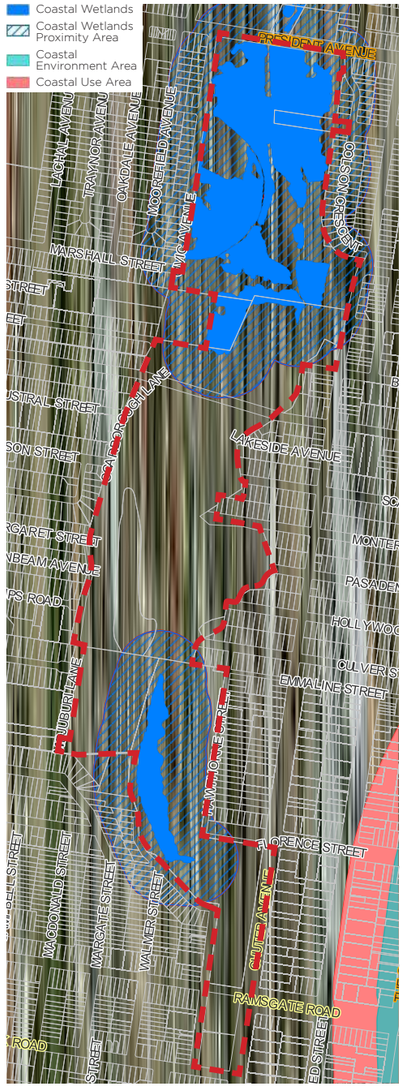
Chapter 2 of the Resilience and Hazards SEPP addresses Coastal Management, replacing the Coastal Management SEPP (2018). The aim of Chapter 2 is to promote an integrated and co-ordinated approach to land use planning in the coastal zone in a manner consistent with the objects of the Coastal Management Act 2016, including the management objectives for each coastal management area.

Coastal Wetlands and Coastal Wetland Proximity Areas are identified for additional development controls. Both of these land uses are mapped within Scarborough Park (refer to mapping adjacent).

Chapter 2 of the Resilience and Hazards SEPP requires that works are consistent with the objects of the Coastal Management Act 2016, including the management objectives for each coastal management area including Coastal Wetlands and their Coastal Wetlands Proximity Area. This requires development consent for clearing native vegetation on land mapped as coastal wetlands, harm of native vegetation, earthworks, constructing a levee, environmental protection works and other development. This applies even if the clearing or works are not associated with any other development. The development controls for land mapped as coastal wetlands apply to all land use zones, including rural and urban zoned land.

In addition, as the clearing of native vegetation on land mapped as a coastal wetland is 'designated development' under the EP&A Act, it will require an environmental impact statement and public consultation before the relevant consent authority can determine the development application.

Any clearing of coastal wetlands would also trigger a requirement for an assessment under the Biodiversity Conservation Act 2016.



NSW Policy & Guidelines For Fish Habitat Conservation and Management (2013)

This document outlines policies and guidelines aimed at maintaining and enhancing fish habitat for the benefit of native fish species, including threatened species, in marine, estuarine and freshwater environments. It includes details on fish habitat conservation, mitigation, compensation, and rehabilitation measures to support the sustainable management of fish in NSW.

Identified issues

Aquatic habitats differ from terrestrial habitats and are more susceptible to degradation and loss. The reasons for this include:

- Disturbances on land can translate to disturbances to aquatic habitats, but the reverse is very rare. For example, sediments and pollutants carried by overland flow can enter aquatic environments, smothering habitats and reducing water quality.
- Aquatic habitats are much more prone to impacts from intense rainfall events or pollution incidents than are terrestrial habitats.
- Direct impacts on aquatic habitats at one site can result in indirect impacts occurring large distances upstream or downstream. For example, a chemical spill can impact aquatic environments both at the spill site and downstream, while a weir can impact on fish passage and recruitment both at the site of the weir and for many kilometres upstream.

The masterplan will ensure that preservation and improvement of existing fish habitat is prioritised. Any proposals that are carried through to detailed design should be assessed for their impact upon these habitats and designed to accommodate and improve them.

2.3 Key local hydrology policies & studies summary

Georges River CCC Estuary Coastal Zone Management Plan (2013)

This plan provides a co-ordinated approach to the management and improvement of the Georges River Estuary waterway and associated waterways (including Scarborough Ponds).

Principles relevant to Scarborough Park:

- Downstream habitat management can impact ponds, for example if mangroves at Botany Bay restrict outfalls to the bay, they may limit the speed at which water can leave the catchment.
- Support the establishment/continuation of local bushcare and groups to assist with revegatation works.

Policy relevant to Scarborough Park:

- A1 Reduce the volume & pollutant load of stormwater runoff through the catchment
- A3 Improve the performance of sewer overflows
- A5 Strive to protect undeveloped areas of the broader catchment that act as a buffer to water quality
- A4 Minimise build-up of gross pollutants and illegal dumping of waste into and along the estuary foreshore and waterways
- B3 Protect and improve the extent and condition of estuarine and riparian vegetation
- B2 Minimise the cause and spread of invasive species in aquatic and terrestrial habitats
- Targeted habitat establishment and enhancement (mangroves, saltmarsh, mudflats)

This document will be replaced by the Georges River Catchment Coastal Management Plan (GRCCMP) once completed, which is currently scheduled for 2025. A list of projects is currently being developed.

Bayside West Floodplain Risk Management Study and Plan (2023)

Prepared by WMA Water.

The Bayside West Floodplain Risk Management Study and Plan (FRMS&P). was study is jointly funded by the NSW Department of Planning and Environment (DPE) and Council and was undertaken in accordance with the NSW Government's Flood Prone Land Policy and the NSW Government document "Floodplain Development Manual: the management of flood liable land".

The primary aim of the FRMS&P is to provide a more informed understanding of flood risks and impacts across the study area and develop a long-term strategy to manage this risk.

Key floodplain risk factors relevant to Scarborough Park:

- Scarborough Ponds form a trapped low point within the larger Muddy Creek catchment area.
- It is notable that the flood conditions of the Scarborough Ponds system are driven by total catchment runoff volume rather than peak flows and as such display a significantly different critical storm duration to the rest of the study area. The critical storm duration for this peak storage volume is typically 30-hours and 48-hours, depending on the adopted design conditions.
- There are numerous properties surrounding Scarborough Ponds that are affected by flooding up to H3 hazard in the 1% AEP event (refer to flood hazard map in section 2.4.9). Due to the long duration storm that would fill the ponds and cause this flooding, it is assumed that evacuation would be possible as floodwaters rise slowly, but that roads would already be inundated and that it would be conducted on foot (overland escape route).

The report considered a number of flood modification options to reduce flood risks. The following options relevant to Scarborough Park were rejected following assessment:

- Drainage improvements in Scarborough Central near Phillips Rd targeted at minor storm events. Determined to have little impact and low cost benefit ratio.
- Outlet modification to install automatic tidal gates to prevent backflow into Scarborough Ponds. Determined to have ecological impacts which required separate assessment, converting the pond system from brackish, estaurine water into fresh water.
- 2m high levee to rear of Colson Crescent properties. Difficult to implement (no high ground nearby to tie into) and having a poor cost benefit ratio in only protecting a small number of houses.

Recommendations identified in the report which are relevant to Scarborough Park include:

- Installation of flood information signage, which may take the form of depth markers of historical floods to indicate potential hazards.

Bayside Water Quality Monitoring and Management Review, Annual Report 2016-17

Prepared by GHD

Council engaged GHD to undertake a comprehensive water quality and sediment testing over 8 months from Bicentennial Ponds to Tonbridge Creek. Recommendations are detailed in the Bayside Water Quality Monitoring and Management Review 2017.

No further water quality testing reports are available at the current time.

Bayside Water Management Strategy (2020)

Bayside's Water Management Strategy builds on a key strategic direction included in the *2018-2030 Community Strategic Plan* that "Waterways and green corridors are regenerated and preserved".

The Water Management Strategy identifies six key challenges as follows:

- Groundwater contamination and restrictions on groundwater extraction.
- Increasing impacts of coastal erosion.
- Ongoing challenges managing flooding in low-lying areas, and drainage systems which are tidally affected.
- Impacts of significant development – sediment loads from construction are a particular concern.
- Increasing pressure on open space, particularly sports fields – and therefore increasing irrigation demands.
- Chronic water quality problems in waterways and the Bay, largely linked to past contamination.

The document also identified six key goals to meet the identified challenges, summarised below.

GOAL 1: The bayside community is actively engaged in water management

Share information with the community, invite consultation, run community events, and explore and develop relationshipd with educational and community groups.

GOAL 2: Bayside is recognised as a water smart city

Establish a strong vision, build leadership and capability with council's team, identify additional funding sources, and integrate IT into water management systems.

GOAL 3: Improve flood risk management and drainage outcomes

Prepare stormwater drainage asset condition assesment and update flood risk assessment across the whole LGA (noting that the flood risk assessment for Bayside West has since been completed).

GOAL 4: Improve the waterways and foreshores of Bayside LGA

Protect existing values, improve public connection and access along waterways, restore degraded sites, improve public and private catchment management, and monitor waterway and ecosystem health.

Specific outcomes relevant to Scarborough Park include:

- Identify and prioritise water quality improvement projects in Bayside's catchments, including SQIDs, constructed wetlands and bioretention systems
- Identify locations for and undertake targeted rehabilitation, creation and enhancement of estuarine wetland communities (saltmarsh, mangrove, seagrass) and adjacent riparian vegetation. Consider impacts of sea level rise – identify areas of estuarine vegetation where there is the potential for retreat
- Complete waterway and wetland restoration works, prioritising works in the Georges River Coastal Zone Management Plan (including Scarborough Park ponds).

GOAL 5: Bayside council to minimise impact on groundwater resources, including the Botany Sands aquifer within the LGA, and advocate for its protection

Increase knowledge, audit existing information and explore opportunities to use ground water for irrigation in suitable locations.

GOAL 6: No net increase in council or total LGA water use in 2030, compared to 2016 baseline levels

Develop benchmarked targets, increase efficiency, and explore alternate water sources such as rainwater harvesting and wastewater reuse.

2.4 Hydrology infrastructure

2.4.1 Inlets

There are multiple inlets which feed into the main watercourse from the surrounding urban areas, many of which are in poor condition. Often stormwater inlets are missing gross pollutant traps (GPTs) which would normally capture larger particles or objects.

Despite often being in clear view, those inlets with GPTs often have poor maintenance access and difficulties carrying out routine maintenance due to requiring applications to be made to DPE Fisheries. Council is currently in the process of developing a Plan of Management for the LGA to assist in carrying out maintenance activities such as clearing channels.

Numerous open drainage channels connect to the ponds from the West, fed by outfalls from underground stormwater pipes. These are typically a straight artificial channel that becomes choked with weeds which often help trap gross pollutants in the case where there is no trap upstream.

There are opportunities for these channels to be naturalised to some degree and made into a pleasant feature rather than an aesthetically undesirable drain. This will be subject to further hydraulic investigation and detailed design. Planting of canopy vegetation adjacent would help manage aquatic weeds in the long term.

In the north, three piped inlets feed stormwater into the wetlands adjacent to President Avenue. The wetland then allows the water to be filtered and slowed before reaching in the main pond.

Two additional stormwater inlets are being constructed as part of stormwater upgrades associated with the M6 works along President Avenue. These inlets will enter constructed swales which then discharge into the main channel immediately south of President Avenue.

Adjacent to Civic Avenue and Marshall Street, piped inlets feed into naturalised channels/swales which connect to the main ponds.

A concrete channel runs west to east parallel to Barton St at the northern end of Scarborough Park Central. The channel is fenced, impacting visual connectivity and restricting pedestrian movement within the park, and there is currently no opportunity for water to be naturally slowed and infiltration encouraged from this inlet.

Within Scarborough Park central, a concrete channel runs from Scarborough Lane to Margaret Street before disappearing beneath the park briefly and joining the Production Avenue inlet channel.

At the southern end of the central precinct, an open swale / channel connects to the ponds from the Production Avenue light industrial area. This inlet is large in capacity but upon review by Storm Consulting appears to be damaged. There are signs of fast flowing water along this channel.

Alongside the main ponds, there are several inlets which are piped under playing fields and feed directly into the water body. These inlets are often visually intrusive and many are damaged and in need of maintenance or renewal.

With approximately 30 stormwater outlets releasing water into the channels and ponds, it is not currently feasible to install pollutant traps to every inlet point, particularly with access requirements making maintenance operations difficult.

Future investigations or studies could complete analysis work to identify outlets with large upstream catchments and those with typically higher gross pollutant loads. These inlet points could then be targeted for strategic upgrades and installation of pollutant traps at sensible locations (such at the park/urban interface) to improve water quality within the ponds.

2.4.2 Outfall

The ponds are an integral part of the urban drainage system for this area and drain to Botany Bay from Tonbridge Reserve through three (3) 1350mm outfall pipes.

The restricted nature of the piped connection to Botany Bay from Scarborough Ponds and periodic tidal influences mean that the Tonbridge Reserve area is prone to flooding.

Typical stormwater inlet on Civic Ave

Naturalised drainage channel near Civic Ave

Damaged concrete inlet pipe empties directly into southern Scarborough Pond

Fenced concrete drainage channel at Scarborough Lane / Wilson Street

Open drainage channel from Production Lane in Scarborough Park Central

Outfall towards Botany Bay in Tonbridge Reserve

2.4.3 Tidal influence

The Scarborough Ponds are brackish and subject to tidal influence. The tidal waters assist in mixing and re-oxygenation of the ponds, although stratification and limited amplitude restrict the effectiveness of this process.

The southern areas receive the greatest benefit from tidal mixing and this reduces towards the north. Downstream flow is periodically restricted by incoming tidal flows moving in the opposite direction to the freshwater that discharges from the catchment.

When combined with the capacity limits of the outfall to Botany Bay, tidal influences in the system trigger slow discharge and causes flood waters to be held in the system for long periods. This may cause elevated water levels and exacerbate flooding at certain times.

2.4.4 Geotechnical influence

The borelog information examined in the Geotechnical reports provided describe the typical profile to be comprising primarily sands and silts with varying degrees of peats and clays. The classification is typicaly silty sand to clayey sands and is overlain by fill in some areas.

Sands generally have a relatively high hydraulic conductivity ideal conditions for infiltration. Council has recognised this and encourages infiltration in new developments in their Stormwater Design Code. Within the park, the infiltration rate is significantly reduced by compaction of the surface through vehicular or pedestrian traffic, including the playing fields. This must be taken into account when developing long term maintenance plans or strategies.

2.4.5 Groundwater table

The ground water table in Scarborough Park is relatively high with the depth typically being in the vicinity of 1m to 2m, depending on the elevation. The groundwater appears to be generally linked to the water levels in Scarborough Ponds.

No evidence of this has been cited to confirm this, however, the sandy soils below the surface typically yield a low groundwater table gradient. The high groundwater table will limit opportunities to improve drainage by piping. Infiltration or overland flows would likely be the most effective drainage solution employed at this site.

2.4.6 Site drainage

Historically, some areas of sporting fields have been poorly drained which limits playability. Improvements have been made to sports field drainage in recent years which appears to have improved conditions.

The high water table challenges traditional drainage solutions however the sandy soils will facilitate infiltration to manage nuisance ponding. Slit drainage remains a feasible option as it also overcomes soil compaction issues. The compaction may also be managed with other field management techniques such as aeration.

Alternative field drainage may include sand grooving of overland flow routes towards pits where it could then filter into groundwater or be piped to the waterway (noting the limitations of the high water table).

2.4.7 Flood Storage

As previously noted, Scarborough Park is a flood storage area due to the low lying nature of the area combined with restricted outlet capacity, and flooding is also observed periodically in neighbouring properties. Therefore, any filling in the park area will reduce flood plain storage and may have adverse impacts on surrounding properties and should be avoided.

Providing additional flood storage within the park may reduce flooding on surrounding properties and should be investigated in any future projects in the open space area.

2.4.8 Flood Conveyance

Increasing urbanisation of the catchment in the past has exceeded the capacity of stormwater infrastructure to drain the rare storm events to Botany Bay without inundating private property. The Bayside West Floodplain Risk Management Study and Plan conducted high level investigations of a number of options to reduce flood risk, but these were rejected after assessment and no proposals other than additional signage and information were recommended within the park.

A key success factor of this masterplan is maintain the current capacity to convey flood flows. Therefore, there must be no restriction to the floodways that may cause in increase in flood levels during flood events. Since Scarborough Ponds acts as a large detention basin, the velocities are expected to be low and therefore increases in flood levels will be more sensitive to a reduction in flood storage.

Generally, landscape installations such as furniture, pathways and planting in the Scarborough Ponds area will be acceptable if they do not reduce the overall flood capacity of the system. Detailed design proposals should ensure that there is no overall loss of floodplain storage throughout the open space area, and no encroachment into floodway areas.

2.4.9 Flood risk

Development within the catchment is predominantly low to medium density residential development with localised commercial and industrial development. The areas adjacent to the ponds have been landscaped into open spaces suitable for passive recreational activities. Some residential development on the eastern side of the ponds comes very close to the ponds with minimal vegetative buffer.

Storm Consulting has provided a thorough analysis and made recommendations after an on-site study.

Current Issues

- The entire open space area within Scarborough Park is subject to flooding during flood events, with flood waters also extending into neighbouring properties. Whilst periodic flooding within open space areas is not a problem itself, the design of the open space should consider safe routes for pedestrians and encourage community awareness of possible risks.
- Slow discharge of floodwaters from the wetland and ponds system exacerbates flooding within the park. Capacity limits of the outfall to Botany Bay and tidal influence causes flood waters to be held in the system for long periods.
- Flooding and water ponding in the west of Tonbridge Reserve is a regular issue due to low lying land and the congested outfall. Several pavilions which fall within the flood zone are not well-used due to disrepair and their location on wet ground. Replacement pavilions should be relocated to improve fenctionality. Any proposals in this area must not reduce capacity of the water channel and surrounding flood zone.
- Water ponding to the western side of the pitches in central Scarborough Park due to compaction and landform preventing water running off into nearby drainage channel.

Recommendations

Improve infiltration

Bayside Council's Stormwater Design Code seeks to limit any increase in runoff due to new development. This is to be achieved by either on-site detention, or infiltration. Much of the Scarborough Ponds catchment is on sandy soils and facilitates efficient infiltration. Future development in Scarborough Park should maximise infiltration and minimise hardscape surfaces that prevent localised infiltration of water.

Channel / Outflow improvements

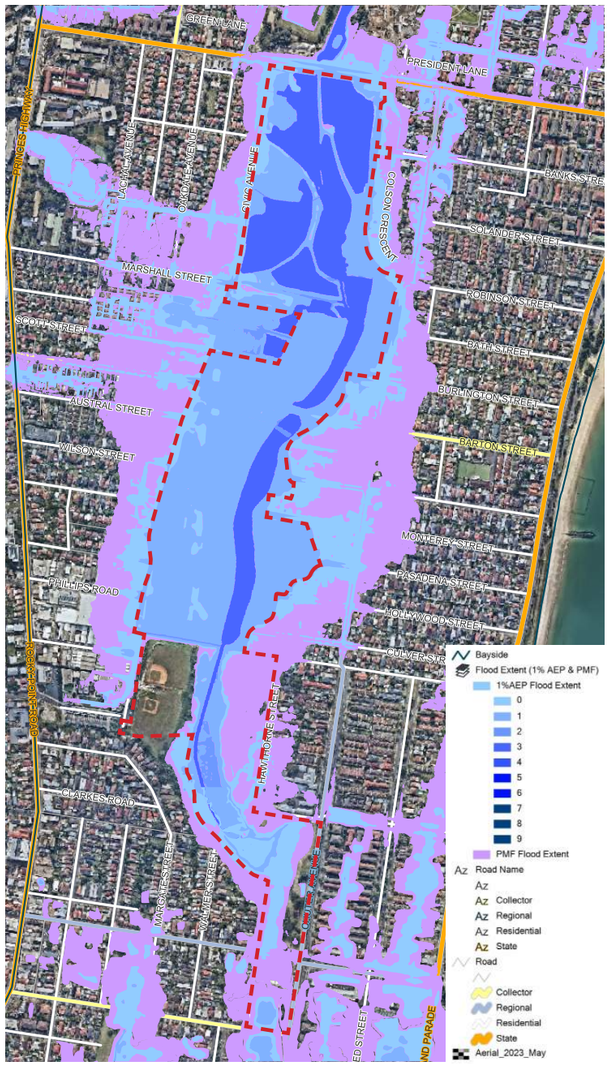
There is little scope for channel improvements in the Scarborough Ponds catchment. Because of the nature of flooding in this catchment, the main flow path has wide overbank areas which provide adequate capacity for excess flows.

Flood Protection Levees

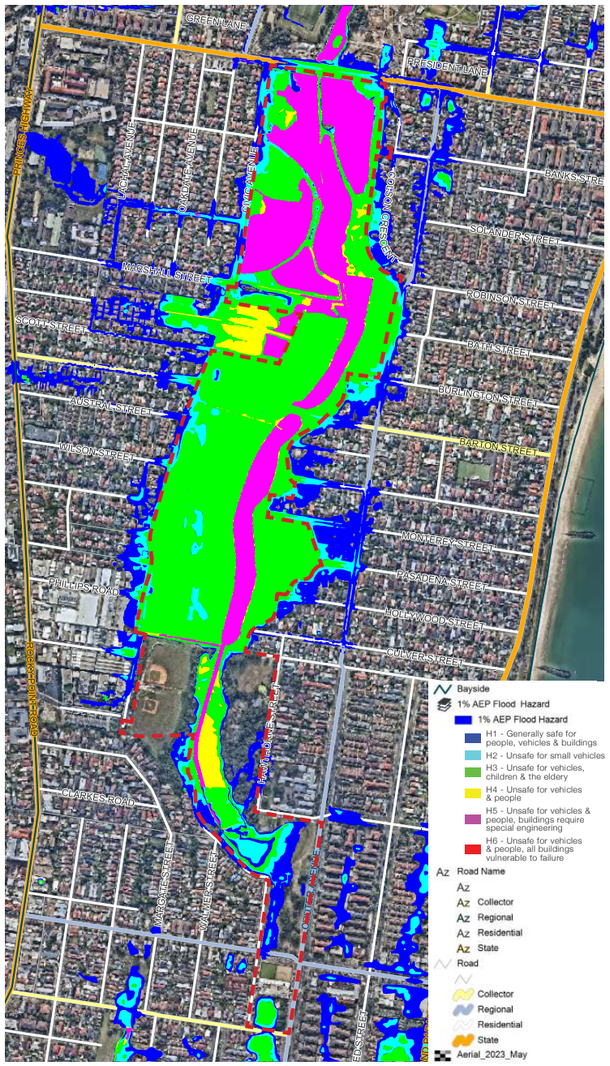
Levee banks are typically constructed to exclude floodwaters up to a pre-determined design level. In built-up areas levees may take the form of floodwalls built of reinforced concrete or other materials.

- Phillip Road Levee - Option 18B (Floodplain Management Study)
  This option would involve constructing a levee at the back of the houses and industrial properties at the eastern end of Production Avenue, Phillips Road, Sunbeam Avenue, Margaret Street and Madrers Avenue.

Flood protection levees can be a high cost solution, made more difficult to implement within Scarborough Park due to the demand for sporting and general open space amenity and the amount of space required to construct a levee. This option is covered in more detail within the Floodplain Management Study, but is not currently considered an appropriate solution for Scarborough Park and has been excluded from the masterplan at this stage. A future study may investigate feasibility for future inclusion.



Bayside flood extent mapping



Bayside flood hazard mapping

2.4.10 Water quality

Previous reports note water quality issues within these ponds including temperate inversions. Temperature inversion is when water low in oxygen located at the bottom of the ponds flip to the surface which typically causes fish kills and noticable odour. Council has installed mechanical aerators within the ponds to try and reduce the risk of temperature inversions. A lack of oxygen is a key issue for the pond water quality which is exacerbated by stratification and stormwater inflows high in nutrients. Stratification is managed to some degree by mechanical aerators and passively with tidal mixing.

Some measures have been undertaken by Council to manage pollutants including installation of nets on stormwater outlets, gross pollutant traps (GPTs) in some areas, floating traps (Bandalong) as well as floating wetlands in Bicentennial Park upstream.

Storm Consulting provided analysis and made recommendations as follows after a 2017 on-site study.

Current issues

- Stormwater inflows from urban catchments bring more organic materials which consume oxygen and bring sediments, nutrients, litter, heavy metals and hydrocarbons.
- Lack of oxygen within the pond waters
- Limited success of installations such as GPTs due to difficulty and/or infrequent maintenance. Bandalong traps have significant visual impact and specific maintenance requirements which impact park surrounds. Opportunities for works within the larger catchment should be explored, utilising recent technological improvements to help manage water quality.

Recommendations

- Review the performance of the existing GPTs and implement a GPT strategy that is palatable to the state government stakeholders as well as Council.
- Restoration and optimisation of the performance of existing deteriorated wetlands. This may be enhanced by constructing semi-natural wetlands upstream of the main ponds (just south of President Avenue) where there are significant stormwater inlets draining to the ponds. This will then afford some protection downstream by delivering better water quality to the existing systems where habitat opportunities could be improved.
- Creation of shallower banks and linear wetlands along some of the pond will provide valuable marginal habitat to the pond edges and may increase flood capacity. Installing this at stormwater outlets before water is directed to the wetland is likely to improve the quality of the inflows and create diversity of habitat.

Further recommendations on water quality must be made in parallel with the requirements in the Coastal Management Act and Resilience and Hazards SEPP.

Scarborough Park is covered by the Georges River Catchment Coastal Management Program (GRCCMP) which is currently being developed by the Georges Riverkeeper councils group.

2.5 Climate change

2.5.1 Overview

Climate change has the potential to impact Scarborough Park in many ways, including:

- Increasing temperatures, including more extreme heat days
- Variable rainfall, including more rain in autumn and less rain in winter and spring, and less rainy days overall, with more extreme rain events
- Rising sea and waterway levels
- Ocean acidification

If not arrested, long term impacts of climate change and increased sea levels may see much of the park become unusable due to its low-lying nature.

2.5.2 Expected climate change impacts

Increasing temperatures

Temperature increases impact the natural environment, putting pressure on established ecosystems. Some tree species will start to see a decline in health and longevity, impacting canopy coverage and maintenance demands.

Increased temperatures in the marine ecosystem impact water quality and can exacerbate problems with oxygen content and chemical availability. This warming may lead to big changes in coastal ecosystems, affecting both flora and fauna species that inhabit these areas, potentially causing extinction of some species.

Variable rainfall

Coastal areas are vulnerable to increases in the intensity of storm surge and heavy precipitation, with climate change likely to bring heavier rainfall events within the Sydney metropolitan area, increasing runoff and flooding.

The increased variability in rainfall will lead to longer wet and longer dry spells and put pressure on established plants and landscapes, particularly when combined with increased temperatures in summer.

Increased chance of more significant drought conditions into the future may change salinity levels within the wetland due to reduction in stormwater flows entering the system. An increase in extreme rain events will put pressure on the estuarine system, flushing additional pollutants into the ponds and risking damage to pollutants control devices.

At a social level, extreme rain events put organised sport on hold and create problems with waterlogged fields remaining unplayable for community sport

Rising sea levels

The Scarborough Park ponds system is a tidal system, and as such, is highly vulnerable to sea level rises and catchment in-flows. The projected increase in sea levels will see additional salt water incursion into the pond system, impacting water quality, potentially creating erosion problems and impacting freshwater ecosystems upstream.

When combined with extreme rainfall events, a high groundwater table will lead to much of the park area being waterlogged and unusable for longer.

Longer term, increasing levels of inundation may eventually require some facilities to be relocated to higher ground outside the park boundaries. Migration of the coastal wetlands ecosystem may need to be considered, particularly in regard to the requirements of the Coastal Management Act

Ocean acidification

The impacts of ocean acidification in Scarborough Park may be minimal, but with increased tidal flows, the system may no longer be able to buffer changes and 'resist' further acidification.

Run-off from large rainfall events traditionally carries a high nutrient load which also contributes to acidification in waterways, further concentrating the problem.

2.5.3 Climate change projections

The following projections data is extracted from the Interactive climate change projections map provided by AdaptNSW. Data is for metropolitan Sydney.

Projected change in rainfall

	Annual	Summer	Autumn	Winter	Spring
Near future 2020-2039	+0.4%	-0.2%	+11.8%	-4.7%	-5.7%
Far future 2060-2079	+6.5%	+10.7%	+13.9%	+1.0%	-4.9%

Projected change in temperature

	Annual mean	Annual max	Annual min	Summer	Autumn	Winter	Spring
Near future 2020-2039	+0.68°C	+0.70°C	+0.66°C	+0.90°C	+0.61°C	+0.42°C	+0.77°C
Far future 2060-2079	+2.08°C	+2.10°C	+2.11°C	+2.41°C	+2.02°C	+1.66°C	+2.24°C

Projected sea level rises

The high scenario is in line with recent global emissions and observations of sea-level rise. This high scenario aligns to RCP 8.5, which has a median sea level rise of 0.84 metres by 2100.

The very high scenario represents a Global mean sea level rise above the likely range – approaching 2 m by 2100 and 5 m by 2150 under a very high Green House Gas emissions scenario (SSP5-8.5) (low confidence) which cannot be ruled out due to deep uncertainty in ice sheet processes.

Scarborough Park is covered by the Georges River Catchment Coastal Management Program (GRCCMP) which is currently being developed and is due for completion in late 2024. The GRCCMP will include a hazard risk assessment for sea level rise and coastal inundation, and coastal flooding, identifying impacts to these areas in more detail.

2.5.4 Adapting to climate change

Open space provides an important asset to adapt to climate change. Scarborough Park can contribute to climate change reduction in the following ways:

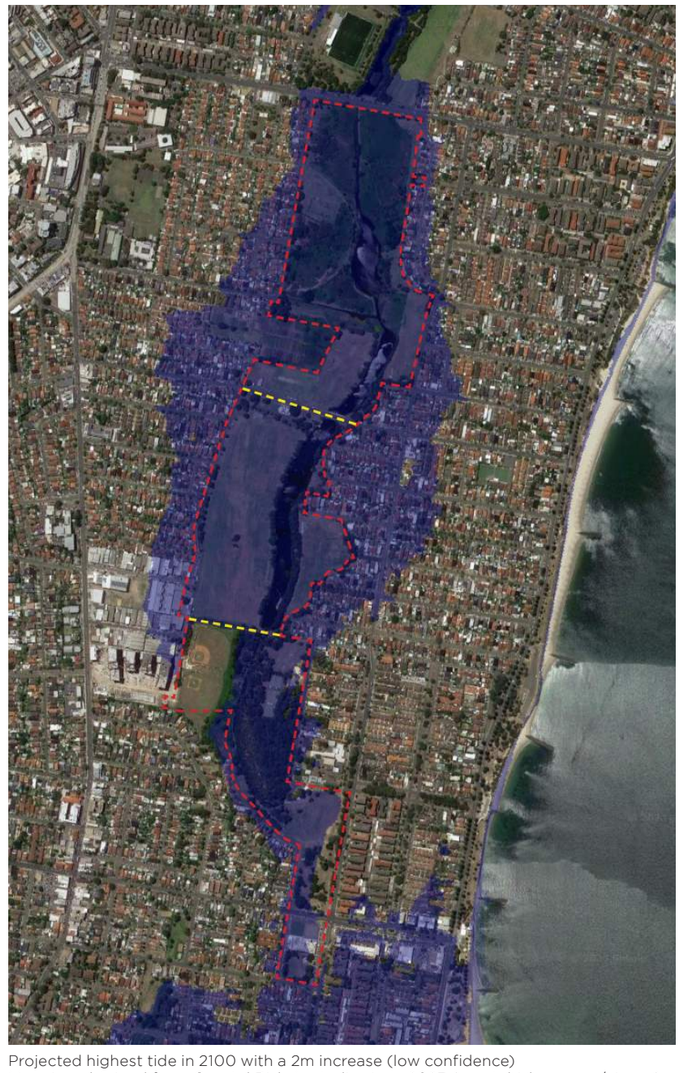
- Encourage active transport by providing safe, comfortable and connected routes for locals and visitors, reducing reliance on cars by local residents.
- Increase tree canopy cover to enhance biodiversity, increase comfort for park users and provide a cooling effect to the surrounding area.
- Preserving the coastal wetland ecosystem and allowing for increased storage of water in the estuarine system where possible.
- Locating new facilities on higher ground to maximise climate resilience.
- Provide diverse facilities which serve the local community, reducing the need for residents to travel to other open space areas for their recreation needs.
- Enabling retreat of coastal wetlands into a planned area (CMAct and Chapter 4 Resilience and Hazards SEPP requirement)

Council will need to consider the ongoing management impacts of climate change on its assets. Considerations may include:

- Emissions created through maintenance regimes e.g. regular mowing of grass surfaces.
- Cost of replacement or repairs required to infrastructure damaged by storm events or tidal surges.
- Increased maintenance needs such as watering during the establishment of landscaped areas.
- Planting pallete with a preference for native plants which allows for future warming and varied rainfall patterns.

Current high tide
Mapping obtained from Coastal Risk Australia, June 2023 (coastalrisk.com.au/viewer)

Projected highest tide in 2100 with a 0.84m increase (medium confidence)
Mapping obtained from Coastal Risk Australia, June 2023 (coastalrisk.com.au/viewer)



Projected highest tide in 2100 with a 2m increase (low confidence)
Mapping obtained from Coastal Risk Australia, June 2023 (coastalrisk.com.au/viewer)

2.6 Environment & biodiversity

2.6.1 Overview

Despite the vast reduction in the original extent of the area's native vegetation due to channelisation of drainage lines and dredging of wetlands, its diverse landscape character has resulted in habitat for a surprising variety of native plants and animals in remaining natural and open space areas.

Traditionally, urban areas have been regarded as locations of low biodiversity. However, there is increasing evidence that urban waterways, native vegetation remnants, and native and exotic trees in parks, streets and gardens provide habitat for a range of fauna species which are resident (eg frogs and possums), migratory (some shorebirds and microbats), and transitory (Grey-headed Flying Fox).

Many of Bayside's open spaces, including Scarborough Park, have high conservation values because they provide habitat for internationally significant migratory shorebirds, threatened plant and animal species, and fish spawning grounds for Botany Bay. Tonbridge Creek is the second-most important fish nursery in Sydney. Local biodiversity also contributes significantly to the quality of life for urban dwellers and the sustainability of the City in many ways.

2.6.2 Relevant legislation & planning policies

The key NSW government legislation and policies which impact the masterplan and ongoing management of the park include:

- Biodiversity Conservation Act 2016
- Coastal Management Act 2016
- Fisheries Management Act 1994
- State Environmental Planning Policy (Resilience and Hazards) 2021

2.6.3 Local policies

The masterplan draws on a number of existing studies and council policies to establish the key ecological values of the park and help determine the direction of the masterplan document.

Key council policies include:

- Bayside Priority Green Grid Corridors Spatial Framework (2021)
- Environment and Resilience Strategy 2032 (2024)
- Rockdale City Council Natural Areas Restoration Plan (2015)
- Rockdale City Council Biodiversity Strategy (2014)
- Scarborough Park Conservation Management Plan (2014)

2.6.4 Endangered Ecological Communities

The following vegetation communities are listed under the NSW Biodiversity Conservation Act as Endangered Ecological Communities (EECs).

- Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions
- Kurnell Dune Forest in the Sutherland Shire and City of Rockdale
- Sydney Freshwater Wetlands in the Sydney Basin Bioregion

2.6.5 Vulnerable fauna

A colony of Southern Myotis (Myotis macropus) roost in the forest of the Hawthorne Street natural area and forage over Scarborough Ponds and Tonbridge Creek at night, typically catching insects and small fish by raking their feet across the water surface.

The bats are listed as a Vulnerable species under the NSW Biodiversity Conservation Act 2016.

Legend

01 TERRESTRIAL BIODIVERSITY AREA (BAYSIDE LEP MAPPING)

02 WETLAND AREA (COASTAL SEPP MAPPING)

03 WETLAND PROXIMITY AREA (COASTAL SEPP MAPPING)

2.7 Key environmental legislation summary

Biodiversity Conservation Act 2016 (NSW)

The purpose of the Act is to 'maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development'.

Key outcomes of the legislation relevant to this masterplan include:

- Maintain diverse ecosystems and quality of those ecosystems
- Support conservation in the context of a changing climate
- Assess the extinction risk of species and ecological communities, and identify key threatening processes
- Support conservation and threat abatement action to slow the rate of biodiversity loss and conserve threatened species and ecological communities in nature
- Establish a framework to avoid, minimise and offset the impacts of proposed development and land use change on biodiversity
- Support public consultation and participation in biodiversity conservation

Three ecological communities present on site are listed as endangered within the Act. *'An ecological community is eligible to be listed as an endangered ecological community if, in the opinion of the Scientific Committee it is facing a very high risk of extinction in Australia in the near future, as determined in accordance with criteria prescribed by the regulations.'*

The masterplan and any detailed design work following the masterplan must consider impacts on the identified ecological communities and design to protect these areas and enhance their health, stability and resilience where possible.

One fauna species present on site is listed as vulnerable within the Act. *'A species is eligible to be listed as a vulnerable species if, in the opinion of the Scientific Committee it is facing a high risk of extinction in Australia in the medium-term future, as determined in accordance with criteria prescribed by the regulations'.*

The masterplan and any detailed design work following the masterplan must consider impacts on identified fauna species and design to protect habitat and/or feeding areas to help ensure the ongoing survival of these native animals.

State Environmental Planning Policy (Resilience and Hazards) 2021

Chapter 2 of the Resilience and Hazards SEPP addresses Coastal Management, replacing the Coastal Management SEPP (2018). The aim of Chapter 2 is to promote an integrated and co-ordinated approach to land use planning in the coastal zone in a manner consistent with the objects of the Coastal Management Act 2016, including the management objectives for each coastal management area.

Coastal Wetlands and Coastal Wetland Proximity Areas are identified for additional development controls. Both of these land uses are mapped within Scarborough Park (refer to mapping adjacent).

Chapter 2 of the Resilience and Hazards SEPP requires that works are consistent with the objects of the Coastal Management Act 2016, including the management objectives for each coastal management area including Coastal Wetlands and their Coastal Wetlands Proximity Area. This requires development consent for clearing native vegetation on land mapped as coastal wetlands, harm of native vegetation, earthworks, constructing a levee, environmental protection works and other development. This applies even if the clearing or works are not associated with any other development. The development controls for land mapped as coastal wetlands apply to all land use zones, including rural and urban zoned land.

In addition, as the clearing of native vegetation on land mapped as a coastal wetland is 'designated development' under the EP&A Act, it will require an environmental impact statement and public consultation before the relevant consent authority can determine the development application.

Any clearing of coastal wetlands would also trigger a requirement for an assessment under the Biodiversity Conservation Act 2016.

Threatened flora mapping

Source: Biodiversity Strategy (2014). Mapping prepared by Ecological Australia.

Legend

- Threatened Flora Locations (ELA 2012 and Smith 2012)

Potential threatened flora habitat

- *Acacia pubescens* and *Dillwynia tenuifolia* habitat

Endangered Ecological Communities

- Sydney Freshwater Wetlands in the Sydney Basin Bioregion
- Swamp oak floodplain forest of the NSW North Coast, Sydney Basin and South East Corner bioregions
- Kurnell dune forest in the Sutherland Shire and the City of Rockdale

Threatened fauna mapping

Source: Biodiversity Strategy (2014). Mapping prepared by Ecological Australia.

Legend

Potential threatened fauna habitat

- Grey-headed Flying Fox, select Microbats and Powerful Owl habitat
- Green and Golden Bell Frog habitat

2.8 Key environmental policies summary

Bayside Priority Green Grid Corridors Spatial Framework (2021)

The Green Grid Corridors Spatial Framework has been undertaken in alignment with the Sydney Green Grid Strategy to strengthen and enhance Bayside's priority ecological corridors, along which open space and significant native vegetation is concentrated.

The Rockdale Wetlands Corridor is one of three key green corridors identified in the document. Scarborough Park

The Spatial Framework focusses on three key green grid corridors, of which the Rockdale Wetlands Corridor is located centrally, linking Georges River north to Cooks River via the Ramsgate and the Rockdale Wetlands.

Key Green Corridors are linked east-west by Green Street Connectors where WSUD initiatives and an increased tree canopy will aid revitalisation of isolated ecological spaces, by strengthening connection to the wider open space network. The Framework is driven by four key overarching corridor objectives.

- Bio-Cultural Objectives
- Movement: all the ways people move through their environment
- Blue Green Networks: all hydrological elements, natural and manmade
- Places for People: comprises of different places within the environment which the community needs to access day-to-day

There is opportunity identified to implement cultural narratives into open space within Green Corridors, integrating significant Aboriginal cultural heritage themes and Country narratives into the wider region.

Environment and Resilience Strategy 2032 (2024)

The Bayside Environment and Resilience Strategy 2024-2032 identifies and addresses the key environmental and resilience issues facing Bayside Council in order to deliver on the Community Strategic Plan theme of a "green, resilient and sustainable" Bayside.

This policy is designed to complement state and greater Sydney policies and vision documents, incorporating community feedback and applying these to the Bayside LGA.

The Environmental and Resilience Strategy:

- Proposes an environmental and resilience vision for Bayside
- Identifies priority environmental and resilience issues for Council to address

Rockdale Wetlands Corridor and Scarborough Park are identified as key open space corridors within the strategy.

The report identifies two categories of resilience risks - acute shocks and chronic stresses.

Acute shocks relevant to Scarborough Park include bush fire, heatwaves, coastal flooding, storms, and drought. Chronic stresses include sea level rise, loss of biodiversity, urban heat islands, and transport diversity.

Appropriate management strategies for Scarborough Park may include

- Increasing tree canopy cover
- Providing active transport infrastructure within the park
- Allow for and manage storms and flooding within the park system while maximising user safety
- Protect habitat and biodiversity, including monitoring and education programs if appropriate
- Consider impacts of sea level rises on wetlands system within the park

RCC Natural Areas Restoration Plan 2015-2020 (2015)

The Rockdale City Council Natural Areas Restoration Plan 2015-2020 (2015), details species which currently inhabit each area of the park as well as a management strategy to support their habitat. The key findings are that:

- The Scarborough Park natural area supports Low-Moderate terrestrial fauna habitats but high quality aquatic habitat and is identified as Key Fish Habitat under the NSW Fisheries Management Act.
- The open water and wetland vegetation also provide hunting, foraging and shelter habitats for the threatened micro-bats including Myotis macropus Fishing Bat (recorded within the Reserve), and aquatic and terrestrial species of birds (listed as a vulnerable species under Schedule 2 Part 1 of the NSW TSC Act, 1995.)
- Dense ground layer vegetation provides shelter and foraging recourses to reptiles. The lack of trees means habitat for arboreal mammals is scarce.
- Flora habitats supported by the park are quite unique within the locality with Melaleuca Scrub vegetation found nowhere else in the LGA, and no other natural areas supports as large an occurrence of Sydney Freshwater Wetland vegetation.
- Flora and fauna habitats supported by Hawthorne Street Natural Area are of moderate to high value to native species.
- Thickets of dense exotic vegetation (e.g. *Lantana camara*) provide perching and foraging habitat for small birds, and blossom produced by eucalypt and banksia species provide birds and bats with food resources. Mature eucalypts bearing, or with the future potential to bear, hollows provide habitat for arboreal mammals and larger birds.
- Open spaces provide skinks and geckos with basking opportunities.
- As with the remainder of the Scarborough Ponds system, the watercourse is identified as a key fish habitat (WetlandCare Australia 2011) and a pipe running between the southern extent of the watercourse and Botany Bay provides for fish passage and exchange of tidal waters.
- The majority of the remnant vegetation within the Hawthorne St Natural Area is considered to be habitat for the threatened flora species Syzygium paniculatum (ELA 2014). The species has previously been recorded in the area, with the most recent confirmed recording in 2013 (Ecological Australia 2013). S. paniculatum is not known to persist as a soil stored seed bank for a significant period of time, therefore if the mature specimens are no longer present, the likelihood of the species occurrence in the Reserve is greatly reduced.
- As a result confirmation of the plants presence is required to ensure appropriate levels of management are undertaken, and resources are not wasted should the plant no longer be present.

Other information collected on site:

- European Honey Bees were evident on site. Although bees are great for biodiversity, non-native bees pose a risk to native flora and fauna. The Tetragonula carbonaria native bee should be promoted through the site.

Recommendations

- Due to the rarity of the communities it is important that resources are allocated to ensure their decline in ecological heath is arrested, and eventually the vegetation is improved.
- Staged weed removal and revegetation within and surrounding the large expanses of Sydney Freshwater wetland vegetation within the northern portion of Scarborough Park, should be undertaken following the consolidation and improvement of the areas of Melaleuca Scrub vegetation.
- Vegetation condition mapping is to be updated yearly as part of monitoring activities

Note

Since completion of the Rockdale City Council Natural Areas Restoration Plan, Bayside Council has implemented a program where stingless *Tetragonula carbonaria* native bees hives are provided to residents. The bees contribute to the local biodiversity by pollinating plants as they feed on pollen and nectar.

Bayside Water Management Strategy (2020)

Refer to section 2.3 for document summary.

Rockdale Biodiversity Strategy (2014)

The Biodiversity Strategy will play a central role in the thinking behind the park masterplan. It will act as a high level guide to how the open spaces should be shaped, with an emphasis being placed upon reducing the vulnerability of Rockdale's biodiversity through restoration of natural areas, improvements to waterway conditions and creation of better ecological linkages. The strategy identifies Central Scarborough Park as an:

"important link in the central section of the Wetlands Corridor with significant potential to improve riparian habitat through revegetation with indigenous species. Consists primarily of filled land comprising of mown open space/parkland and large areas of weeds surrounding open water areas fringed with highly degraded wetland vegetation. Habitat for waterbirds such as ducks and moorhens and identified as an important nursery/breeding area for fish entering the Wetlands Corridor from Botany Bay via large underground pipes at Florence Street."

The goals and targets set out in the strategy will influence the design in an effort to significantly improve biodiversity quality in the park and surrounding area.

The key points identified in the report are that:

- Scarborough Park is an important link in the central section of the larger Wetlands Corridor with significant potential to improve riparian habitat through revegetation with indigenous species, between the Cooks River in the North and Georges River in the South.
- The park consists primarily of filled land comprising of mown open space/parkland and large areas of weeds surrounding open water areas fringed with highly degraded wetland vegetation.
- Scarborough Park provides valuable habitat for waterbirds such as ducks and moorhens and is identified as an important nursery/breeding area for fish entering the Wetlands Corridor from Botany Bay via large underground pipes at Florence Street.
- The north of the park is characterized by Freshwater wetlands, identified as an Endangered Ecological Community of the Sydney Basin Bioregion. Mangroves, interspersed with coastal saltmarsh species line sections of the creek line. It supports a diverse range of fauna habitat, including estuarine habitat for aquatic species such as fish and hollows for mammal and bird species.
- Hawthorne Street Natural Area supports two endangered vegetation communities: Kurnell Dune Forest and Swamp Oak Floodplain Forest in good to very good condition. It is also known habitat for the threatened plant species Syzygium paniculatum.

Rockdale Biolinks Study (2007)

This report builds on information completed by various consultants over the last decade and provides a thorough overview of the characteristics and condition of various remnant areas and potential linkages throughout the city.

"In a tough urban environment, it is envisaged that BIO-LINKS will enhance biodiversity protection directly by providing habitat, food, nesting resources and movement pathways for fauna. The enhanced landscape also has the potential to provide recreational and social benefits for the community."

The study identifies that simple changes to management processes and treatment of watercourses focussing on good ecological output create the broad linkages required between habitat areas for biodiversity to flourish.

Identified threats

- Weed invasion.
- Pest animals, including exotic ducks, black rats, foxes & plague minnows.
- Uncontrolled public access & trampling.
- Polluted stormwater reducing water quality in wetlands.
- Poor water circulation creating anoxic conditions in some ponds.
- Too frequent fires.
- Refuse dumping.
- Mowing & removal of leaf litter.

Recommendations - Barton Street area

- Improvement of fish passage through culvert retrofit on Barton St - wet/dry culvert liaise with Fisheries (DPI), improvement of Water Quality (WQ) with Stormwater Quality Improvement Devices (SQID) on Barton St
- Additional planting in Scarborough Pk north and south of Barton St to improve linkage, (2,500m2 landscape planting)
- Clump plantings intermittently within park
- Enforce no duck-feeding rule to improve water quality

Recommendations - Scarborough Park, central precinct

- Improve lateral connectivity to Botany Bay via Pasadena, Hollywood, Monterey, Scarborough, Chuter Ave
- Street tree planting/retro-fitting, Island planting

Recommendations - Leo Smith Reserve

- Improve edge/interaction with Hawthorn St Natural Area via review of management practices and strategic planting

Recommendations - Hawthorne St natural area

- Review of management regime in adjoining areas
- Weed control
- Engagement of Ramsgate Public School
- Improvement of corridor to south including secondary corridors and street planting
- Review culvert at Ramsgate to improve fish passage and general fauna passage - wet/dry culvert
- Island plantings for bat and possum species present

Recommendations - Tonbridge Reserve

- Extend Hawthorne Street Natural Area
- Clumping plantings
- Secondary corridors with adjoining houses

Habitat and vegetation management strategies

The report identifies that:

"The management of vegetation with both public reserves / open space areas and private lands is a key component of the overall biodiversity issues in the LGA and the establishment of bio-links.

Maintenance of appropriate levels of vegetation structure, functions and species composition is critical for maintaining a diverse range of habitats for fauna and flora species. Generally the more diverse the vegetation structure and habitats are within an area the more diverse the fauna diversity will be.

Vegetation outside of designated bushland reserves, such as areas landscaped with native species, treed roadways and open space areas provides a variety of foraging and shelter features for a large variety of fauna. These areas may provide the only vegetated linkages to bushland reserves and therefore the maintenance or improvement of the vegetation connection might be an important component for fauna species dispersing from or to the bushland area."

The masterplan which follows takes this into account, offering a variety of extension and re-establishment opportunities to create and improve biolinks through the park.

2.9 Heritage and conservation assets

2.9.1 Policy framework

Bayside Local Environmental Plan 2021

The following items are identified in the Heritage Map contained within the LEP document.

Scarborough Park Conservation Management Plan (2014)

All of the key conservation assets, including valuable trees are discussed in depth within the Scarborough Park CMP. Included within the document (and referenced below) is an assessment of each asset's value and tolerance to change. This information will significantly influence the design of the masterplan.

2.9.2 Overview

Scarborough Park is a historic park in Sydney, retaining significant post-settlement heritage assets within the park boundaries. The most notable heritage items are located in the northern and southern precincts, with the central precinct undergoing the most drastic changes over time. Patmore Swamp, Hawthorne St Reserve and various fig tree plantings are all heritage listed at local level.

In addition, state heritage listed Toomevara Lane Chinese Market Gardens are located immediately adjacent to the park in the northern precinct. Although currently visually separated and screened from the park, potential impacts on this item must be considered at both masterplan and future detail design stages.

Legend

01 RAMSGATE FIG TREES
02 HAWTHORNE ST RESERVE
03 PATMORE SWAMP
04 TOOMEVARA LANE CHINESE MARKET GARDEN

2.9.3 LEP heritage table summary

Item	Item name	Address	Property Description	Significance
I334	Patmore Swamp	99 President Avenue (part of North Scarborough Park)	Lot 14, DP 20365; Lot 7072, DP 93145; Lots 199, 473 and 536, DP 752056; Lots 1 and 3, DP 1113262	Local
I256	Toomevara Lane Chinese Market Garden	29A Toomevara Street	Lot 5, DP 568192; Lot 1, DP 723897	State
I339	Hawthorne Street Reserve/ Leo Smith Reserve	99 President Avenue (Scarborough Park, off Hawthorne Street)	Lot 14, DP 20365; Lot 7072, DP 93145; Lots 199, 473 and 536, DP 752056; Lots 1 and 3, DP 1113262	Local
I340	Fig trees	99 President Avenue (South Scarborough Park, immediately north of Ramsgate Road)	Lot 14, DP 20365; Lot 7072, DP 93145; Lots 199, 473 and 536, DP 752056; Lots 1 and 3, DP 1113262	Local

2.10 Listed heritage items

01/

Ramsgate Fig Trees

Many of the Fig trees immediately north of Ramsgate Road are historically and aesthetically significant. The planting of large specimen trees in this park is representative of the Garden City movement which influenced planned public parks and garden suburbs in Australia during the 1920's and 30's. By the late 1930s Rockdale Council had established a nursery in Scarborough Park where they raised trees for planting throughout the municipality.

The Fig trees are identified in the CMP as having high heritage significance, with low tolerance for change, and must be protected as an integral part of the park fabric.

Other early tree plantings including Norfolk Island Pines, Strawberry Trees, and various Pines & Cypress species remain within Rotary Park, likely dating from a similar period as the protected Fig trees.

02/

Hawthorne St Reserve

This natural area contains remnant Kurnell Dune Forest and Swamp Oak Floodplain Forest, both listed as an Endangered Ecological Community in the Biodiversity Conservation Act 2016 (replacing the Threatened Species Conservation Act 1995). It is subsequently considered to be of high conservation value due to the small areas of these vegetation communities left within the Sydney Bioregion. This natural area contains a record of the threatened flora species Syzygium paniculatum (Magenta Lilly Pilly) (National Trust 1988). The reserve is historically significant for providing an example of the type of landscape which pre-dated 19th century European settlement.

The small area of Kurnell Dune Forest at Hawthorne Street, Ramsgate "is the sole remnant of native sand vegetation of the beach ridge system (Outer Barrier) of western Botany Bay." Source: NSW Heritage Register.

The Tonbridge Creek channel carries additional importance for the unusual diversity of indigenous fish species – both freshwater and saltwater – and is recognized by State Government as important habitat for fish breeding.

Urban development along the eastern boundary facilitates the influx of weeds into the area.

03/

Patmore (Pat Moore) Swamp

The northern section of Scarborough Park was once known as Pat Moore's Swamp ('Patmore Swamp'), part of 60 acres (240,000 m2) of land, granted to Patrick Moore in 1812. Converted to a public park in the 1870's. It was a former tidal wetland that was drained, filled and artificial lakes created with the assistance of the government relief programme during the 1930s depression.

The area is historically significant as part of a depression public works programme and technically significant for its contribution to the Central Scarborough wetland area which is an integral part of the wetlands corridor.

The M6 Stage 1 works have impacted the extent and context of Patmore Swamp, by raising levels along President Avenue, removing some portions of wetland and low-lying ground, and creating new structures within the park as part of the active transport corridor. Screen planting has also been removed from the northern boundary, adding to the visual impacts of the new works.

04/

Toomevara Lane Chinese Market Garden

The Toomevara Lane Chinese Market Gardens are of State significance as one of only few surviving 19th century market gardens in the Sydney metropolitan region. They remain largely in their original form and still employ traditional cultivation practices. The site is of significance for its association with the Chinese, German, Irish and Cornish communities and for its demonstration of a continuing pattern of land usage since the mid-19th century. The site is of further significance as containing one of five surviving 19th century market gardener's cottages in the Sydney metropolitan region and one of only four such cottages still attached to operating market gardens.

The garden is located to the North of Barton Street and can be seen from the southern side of the Civic Avenue Reserve.

2.11 Heritage & conservation management (Overall park)

2.11.1 Grading of Significance

The Conservation Management Plan (CMP) for Scarborough Park identifies individual elements of the park and provides gradings to assess cultural significance and contribution to the overall value of the park. A series of significance tables are included whcih have been replicated in this reort to help guide the development of the masterplan for the park.

The CMP provides the following infromation in regards to significance ratings.

Individual elements of the Scarborough Park are considered below where relative values are attached to each component based on their contribution to cultural significance. The five relevant ratings of High, Moderate, Low, Neutral or Intrusive relate directly to management obligations where items of High cultural value mean they should be conserved using best practice and their corresponding tolerance for change would be low. Those items assessed as having Low cultural value have a corresponding higher tolerance for change though always with respect to the overall context of the park setting that is of high significance (and reinforced by Council's relevant listings for the park as heritage items).

An explanation of each ratings is provided below.

- *High significance (item demonstrates an early or key phase in the park's development or closely associated with a key person or event) means that retention of the item is required;*
- *Moderate significance (item is a more recent introduction or is substantially altered but clearly contributes positively to or reinforces the park's landscape character): means that retention is desirable;*
- *Low significance (item is an introduction from the last 20-30 years, contributes little to the park's intrinsic landscape character or is difficult to interpret) means that retention is discretionary;*
- *Neutral means that an item (usually of low significance) has little influence (positive or negative) on an appreciation of the park's intrinsic landscape character and its removal is discretionary; and*
- *Intrusive (item is detrimental to significance) means that the item should be removed or modified so that significance is less affected.*

2.11.2 Obligations arising from Significance

On the basis of a consideration of information mentioned in Sections 3 to 6, Scarborough Park has been found to hold considerable cultural significance for the State of NSW, a regional area as well as contributing to the broader network of community open space within the City of Rockdale (c/- Section 6). A consequence of this significance is that it carries an obligation to properly conserve Scarborough Park, particularly those aspects of the park that have been assessed as having a high cultural value. But what constitutes proper conservation in this case?

Conserving Scarborough Park entails ensuring that all of the tangible and intangible aspects of significance - including its extent, fabric, setting, amenity, uses, associations and meanings - are fully retained as part of its long-term management. In order to retain the recognised cultural significance of the park, sound conservation policies and management processes will need to be established. All future management of Scarborough Park must be based on its assessed significance and all future decisions regarding uses, events, activities, the introduction of structures and services must be with respect to the significance of individual components as well as that of the park as a whole.

2.11.3 Significance table

Overall park significance table (extracted from Scarborough Park Conservation Management Plan).

Site component	Significance	Tolerance for change
High archaeological sensitivity for Aboriginal cultural resources away from areas that have been dredged, drained by channels and levelled – should any such resources be found, their value would be:	Exceptional	Low
Original gazetted 1879 extent	High	Low
Scarborough Park as a community open space and recreational resource	High	Low
Scarborough Park as a wetlands resource	High	Low
Scarborough Park as a biodiversity resource	High	Low
Appropriate park areas as a focus for community festivals	High	Moderate
Car parks generally within Scarborough Park	Low	High
Existing amenities buildings/halls	Low	High
Environmental weeds & self-sown exotic vegetation	Intrusive	Remove

2.11.4 Significant conservation elements

Scarborough Park as a community parkland

The overall value of Scarborough Park as a community resource is highlighted in relation to the provision of general open and space and recreation resources. The park has a long history of community use, dating back to its gazetting in 1879.

Whilst car parking and amenities buildings and halls help facilitate community use of the park, these items have low significance individually and can be modified as required to facilitate community use into the future.

Aboriginal cultural resources

High levels of ground disturbance within the park for dredging, filling and levelling limits the likelihood of finding remnant items of cultural significance within the park. The overall park contains elements of cultural importance, with remnant coastal wetlands and terrestrial ecological communities. The ponds system is also an important fish nursery, with significance related to cultural fishing practices.

Biodiversity and ecology

The park contains remnant ecological communities, including three endangered ecological communities. These are important biodiversity resources which contribute to environmental values on both a site-specific and regional scale.

2.11.5 Impacts on masterplan

Community use

Scarborough Park should continue to provide diverse community appeal, including a variety of uses and recreation offerings to appeal to a wide section of the community. Large areas of the park are currently devoted to organised sports, but it is important that the park provides diverse recreation offerings to facilitate use by a wide cross-section of the community into the future.

Biodiversity

Existing valuable ecological areas are to be protected and enhanced where possible. Expansion of these communities may be considered where suitable areas are available adjacent. Any revegetation or regeneration projects should be undertaken with respect to naturally occuring species mixes and utilise local seed banks wherever possible.

Weed management

Weeds and self-sown exotic vegetation are identified as intrusive elements within the park. An ongoing program of weed removal should be implemented to manage weeds in a responsible manner, noting that in some areas of the park, dense weed cover is currently providing soil stabilisation and habitat for small birds and invertebrates.

New Buildings

The CMP states: *It is also desirable that no new buildings are introduced within the park unless it is strictly for the benefit of the park as a public recreational resource, is to replace an existing structure or structures and has a historical precedent for being in the park.*

Amenities buildings facilitate recreational use of the park and are generally acceptable. Any disused building should be removed from the park.

2.12 Heritage & conservation management (Northern Precinct)

2.12.1 Significance table

Northern precinct significance table (extracted from Scarborough Park Conservation Management Plan). Refer also to mapping adjacent.

Site component	Significance	Tolerance for change
Remnant Toomevara Lane market gardens site	Exceptional	Low
Park area within this precinct	High	Low
Moorefield Racecourse remnants	High	Low
Remaining areas of high watertable	High	Low
Regenerating wetlands vegetation (indigenous)	High	Low
Surviving plantings from interwar period (Barton St)	High	Low
Vistas along east-west streets to Botany Bay	High	Low
Broad and long ponds as a scenic resource	High	Low
Inclusion of playgrounds within precinct	High	Low
Current design of playgrounds	Low	High
Surviving plantings from 1950s/1960s period	Low	High
Surviving plantings from later 20th century period	Low	High
Lateral drainage trenches generally	Low	High
Amenities buildings	Low	High
Current locations of playgrounds within precinct	Neutral	High

2.12.2 Significant conservation elements

Moorefield Racecourse

Whilst most of the original racecourse, located to the south of President Avenue, was subdivided in the 1950s and built over with housing and educational facilities, the original route of the eastern segment of track is still walkable and lies within the park. There are also various low lying remains of buildings which were not completely removed which can be found amongst the overgrown vegetation.

Chinese Market Gardens

The heritage-listed Toomevara Lane Chinese Market Gardens are an important heritage asset located adjacent to Scarborough Park. The gardens are well-screened from the park, with little visual connectivity between the two.

Wetlands & ponds

The existing pond and wetland system has both ecological and heritage value, including both remnant coastal wetlands ecosystems, and dredged ponds created as part of early works in the history of Scarborough Park.

2.12.3 Impacts on masterplan

The line of the Moorfield Racecourse remains visible in the park and the current shared path works being delivered as part of the M6 upgrade works pick up the alignment of a portion of the race track. The southern section of the track is to highlighted with an informal pedestrian pathway to maintain public access along this route.

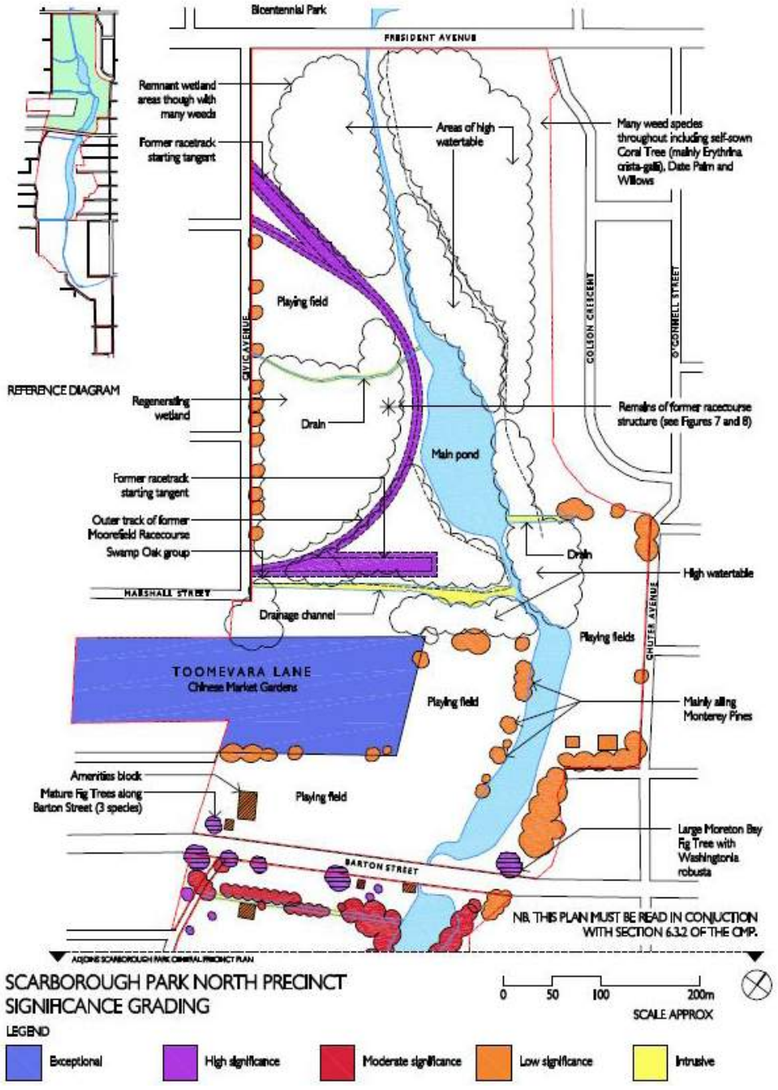
Some remnant exotic tree planting remains within the park which marks this route. Opportunity exists for additional avenue tree planting to reinforce the line of the historic track with vertical markers. Species selection for any tree planting needs to consider the ecological value and sensitivity of the adjacent coastal wetlands to prevent movement of tree species into this zone.

In addition to the racecourse, remnant structures and historic planting have been identified in the precinct. The masterplan proposes minimal changes in these areas.

M6 works

The works undertaken as part of the M6 Stage 1 project have removed a portion of coastal wetlands and area of high water table adjacent to President Avenue to facilitate the road project, resulting in a loss of some heritage fabric. Care needs to be taken into the future to protect what now remains of the park.

Replacement planting in the northern precinct of Scarborough Park included as part of the works should be protected into the future to as a general community resource and to mitigate visual and acoustic impacts on the park.



2.13 Heritage & conservation management (Central Precinct)

2.13.1 Significance table

Central precinct significance table (extracted from Scarborough Park Conservation Management Plan). Refer also to mapping adjacent.

Site component	Significance	Tolerance for change
Park area within this precinct	High	Low
Surviving plantings from interwar period (Barton St)	High	Low
Large Port Jackson fig near end of Scarborough St	High	Low
Vistas along east-west streets to Botany Bay	High	Low
Long ponds as a scenic resource	High	Low
Inclusion of playgrounds within precinct	High	Low
Surviving plantings from 1950s/1960s period	Moderate	Moderate
Melaleuca quinquenervia plantings along pond	Moderate	Moderate
Water Board building	Moderate	Low
Surviving Monterey Pine plantings	Low	High
Surviving plantings from later 20th century period	Low	High
Lateral drainage trenches generally	Low	High
Current design of playgrounds	Low	High
Current locations of playgrounds within precinct	Neutral	High

2.13.2 Significant conservation elements

Tree plantings

The precinct immediately south of Barton St contains several historic tree plantings with identified heritage value in the CMP:

An Oleander-lined drainage ditch, parallel with Barton Street, separates a narrow finger of land from the playing fields and within this space are four old fig trees (one Ficus macrophylla and three F. watkinsiana)... and palm groups including Washingtonia robusta, W. filifera... and Livistona australis. At the northwestern corner there is a mixture of mature and maturing plantings including one of the fig trees with a struggling English Oak (Quercus robur) under it, another English Oak to the south, Brush Box (Lophostemon confertus), Casuarina glauca and a lone Phoenix sylvestris opposite Austral Street

Scarborough Park as a community parkland

There are several conservation values that relate to the function of Scarborough Park as a general community asset. Particular mention is made of the scenic value of the ponds, historic plantings from various periods in the park's history, and the general conservation of the park as an open space resource.

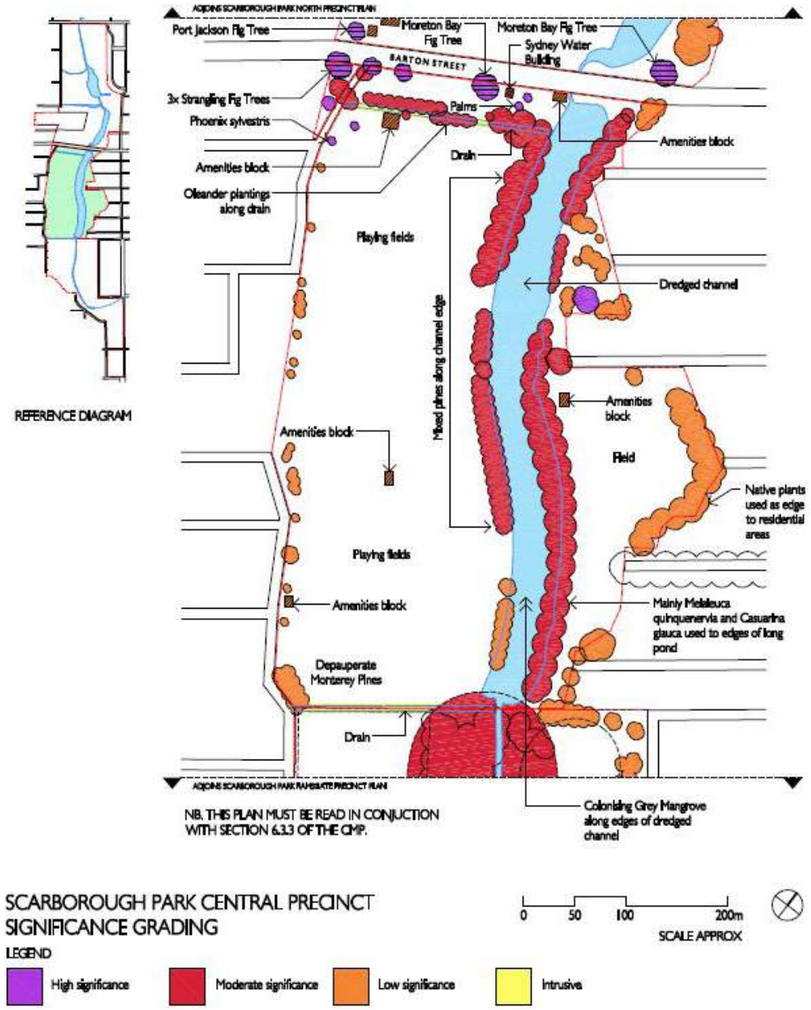
Another item relevant to this precinct is the inclusion of playgrounds within the park. The general inclusion of playgrounds is considered to be of high vaue, but it is noted that the current locations and design of playgrounds are not significant. Therefore, there remains flexibility to ensure playgrounds are upgraded to meet current community requirements, including potentially relocating playgrounds to other areas within the park if the need arises in the future.

Water Board building on Barton St

2.13.3 Impacts on masterplan

The central precinct retains no high significance heritage assets and has little restriction placed on the masterplan design.

Not withstanding the heritage grading, the established tree plantings identified south of Barton Street should be retained where possible for both their historic and visual significance. Any new interventions within this areas should be located outside the impact zone of the established trees.



2.14 Heritage & conservation management (Southern Precinct)

2.14.1 Significance table

Southern precinct significance table (extracted from Scarborough Park Conservation Management Plan). Refer also to mapping on following page.

Site component	Significance	Tolerance for change
Remnant Kurnell Dune Forest	Exceptional	Low
Remnant Coastal Sands Swamp Forest	Exceptional	Low
Resident Mouse-eared Fishing Bat or Large-footed Myotis (*Myotis macropus*) colony	Exceptional	Low
Scarborough Park as a regional fish nursery	Exceptional	Low
Indigenous fish diversity in Tonbridge Creek channel	High	Low
Park area within this precinct	High	Low
Those parts of Scarborough Park (and Pemberton Reserve) that correspond to Thomas Holt's 1877 town plan	High	Low
Surviving 1880s plantings in Tonbridge St Reserve	High	Moderate
Surviving 1880s plantings in Rotary Park	High	Moderate
Surviving 1880s plantings in Pemberton Reserve	High	Moderate
Ficus superba var. *henneana* (rarity within the City of Rockdale as a large, mature tree)	High	Low
Remnant indigenous vegetation within Tonbridge Street Reserve and Rotary Park – includes *Banksia integrifolia, Eucalyptus robusta, E. botryoides, Monotoca elliptica, Glochidion ferdinandi, Casuarina glauca*	High	Low
Three Bunya Pines within natural area (see policy)	High	Moderate
Discrete group of Maritime Pines south of school (including the exceptionally large pine)	High	Moderate
Inclusion of playgrounds within precinct	High	Low
Remnant Monterey and Maritime Pines within the natural area and along the western edge of Hawthorne Street impinging on the natural area	Low	High
Current design of playgrounds	Low	High
Current locations of playgrounds within precinct	Neutral	High
Tennis court group within natural area	Intrusive	High

2.14.2 Significant conservation elements

Hawthorne Street natural area

The Conservation Management Plan (CMP) identifies the remnant ecological communities and the fauna they support as exceptional conservation resources for the park.

The CMP proposes an expanded area for conservation, including the 'core' area usually recognised as the Hawthorne Street natural area and expanding it to include a broader tract of related remnant vegetation, primarily to the west of the main ponds channel. This reflects a larger part of the earlier extensive wetlands complex that would have existed on the site prior to development.

Scarborough Park Tennis Courts

The CMP identifies the Scarborough Park Courts Facility as an intrusive element within the park due to its impact on the Hawthorne Street Natural Area.

Rotary Park

The southern part of this precinct represents a juxtaposition of the former 19th century park and persistent locally indigenous species that indicate the local extent of the former natural areas. Locally indigenous vegetation of importance includes a large old Bang Alley (Eucalyptus botryoides), Coastal Honeysuckle (Banksia integrifolia), a Cheese Tree (Glochidion ferdinandi) and an old Monotoca elliptica, all of which species can also be found in the natural area.

Of the remaining early plantations likely relating to the declaration of Scarborough Park in the 19th century there is a large Camphor Laurel south of the school and, within Rotary Park, various large Moreton Bay and Port Jackson fig trees, two Stone Pines (P. pinea), a Norfolk Island Pine (Araucaria heterophylla), several old Arbutus unedo, two Juniperus virginiana, a Cupressus macrocarpa and a Plum Pine (Podocarpus elatus).

Closely associated with these, though now no longer considered part of Scarborough Park, is Pemberton Reserve with more Ficus rubiginosa and a Deciduous or Cedar fig (Ficus superba var. henneana) (southeastern corner) as well as Bunya (Araucaria bidwillii) and Hoop Pines (A. cunninghamii). It is not known if the Flame Tree (Brachychiton acerifolius) north of the bowling greens also relates to this phase.

Scarborough Park as a community parkland

There are several conservation values that relate to the function of Scarborough Park as a general community asset. Particular mention is made of the scenic value of the ponds, historic plantings from various periods in the park's history, and the general conservation of the park as an open space resource.

Another item relevant to this precinct is the inclusion of playgrounds within the park. The general inclusion of playgrounds is considered to be of high vaue, but it is noted that the current locations and design of playgrounds are not significant. Therefore, there remains flexibility to ensure playgrounds are upgraded to meet current community requirements, including potentially relocating playgrounds to other areas within the park if the need arises in the future.

Ramsgate RSL Memorial Club

The Ramsgate RSL Memorial Club and adjacent council car park running parallel to Chuter Avenue are identified in the CMP as intrusive items as they occupy land which was formerly part of Scarborough Park.

The significant built form of the club blocks views and connections to Pemberton Reserve, cutting this portion of the park off from the remainder of Scarborough Park. This is deemed to be at odds with the conservation of Scarborough Park as a whole.

2.14.3 Impacts on masterplan

Hawthorne Street natural area

The need for a well-connected active transport network within the local area and specifically Scarborough Park, must take into account the importance of the Hawthorne Street natural area and exclude works which would have a detrimental impact on the existing ecological communities.

It is not considered appropriate to provide a hard-paved path connection through this area, or to encourage cyclists through this environment. An alternative route has been proposed utilising the existig road network around the edges of the park.

The additional of the wetland area to the west of the ponds channel as part of an expanded natural area is supported but must be balanced with the need for pedestrian circulation throughout the park. One option for minimising impacts through this area could be a raised wakway, minimising impacts on vegetation and improving flood resilience of the pathway connection.

It is noted that much of the area west of the ponds is subject to weed infestation, and an ongoing program of weed removal and regeneration ahould be implemented to improve the ecological value of this area.

Scarborough Park Tennis Courts

The Scarborough Park Court Facility was renovated and upgraded by Bayside Council in 2024 after falling into disrepair. Whilst it is preferable from a heritage conservation perspective to remove the courts, community consultation prior to the upgrade indicated that there was strong community support for the facility to remain in its current location.

It will be a future generation that needs to reconsider its values when the courts are next up for renewal.

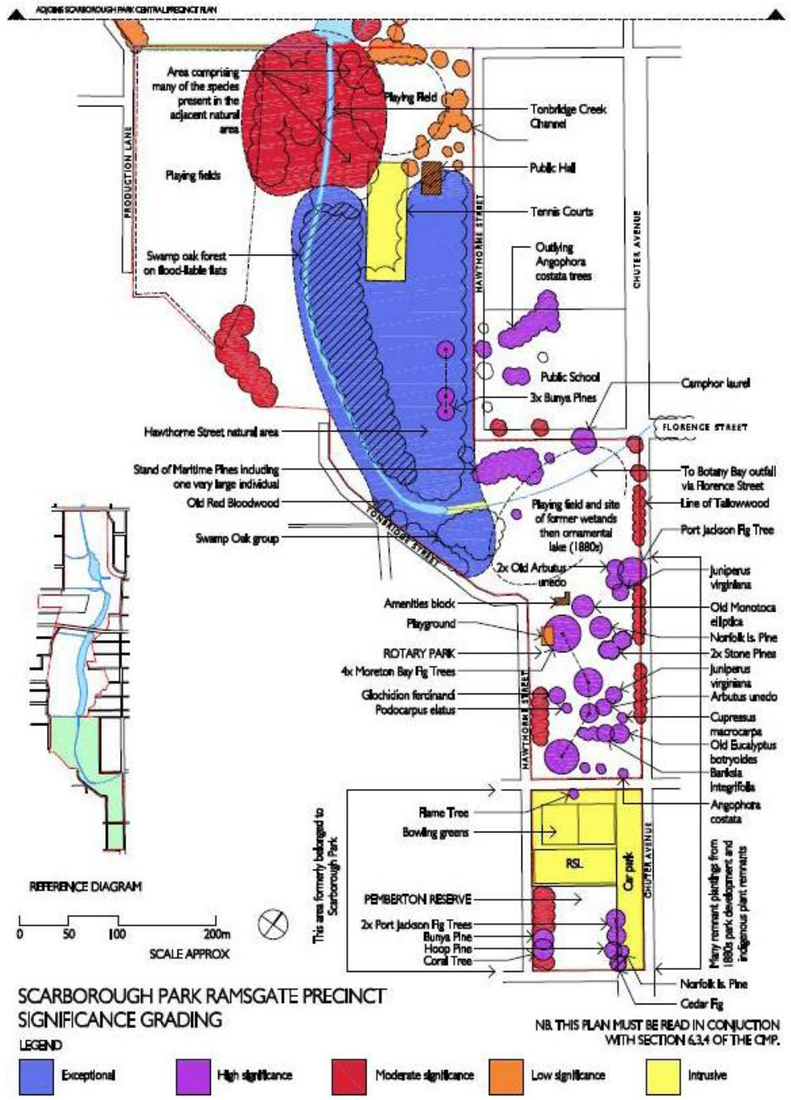
Rotary Park

The masterplan must be sensitive to the heritage significance of historic tree planting within Rotary Park and carefully locate any new installations outside impact zones for trees.

Ramsgate RSL Memorial Club

Whilst it is preferable from a conservation perspective to remove this facility and restore the original Scarborough Park extents, the land on which the club site is currently privately owned which makes the resumption of this land difficult both now and into the future.

The car park running parallel to Chuter Avenue remains within council ownership and could potentially be restored to parkland, however it is expected that there would be strong community support to retain the car parking around the club and the Ramsgate Beach Town Centre due to existing parking demand in the area.



2.15 Heritage & conservation policies for ongoing management

2.15.1 Conservation management plan policies for management

The Conservation Management Plan (CMP) for Scarborough Park has outlined a list of policies to guide future use and conservation of the park. Those application to the preparation of the masterplan include:

Policy 1: Conservation of Scarborough Park

On the basis of the current version of the Australia ICOMOS Burra Charter and this CMP, ensure the proper conservation of Scarborough Park, where components of its pre-historic formation, initial planning and infrastructure and early development, plantings and structures of high cultural significance are maintained and interpreted.

Policy 2: Use

Ensure that Scarborough Park remains as community open space and continues to fulfil the purpose for which it was originally acquired for amenity and the recreational benefit of the whole community.

Policy 3: Wetlands

Ensure those areas within Scarborough Park functioning as wetlands are conserved as such and explore options for potential additional wetlands reconstruction in other areas of the park to enhance the value of the Rockdale Wetlands and Recreation Corridor.

Policy 4: Layout and Fabric

Protect the integrity of Scarborough Park by ensuring there are no further land excisions such as that south of Ramsgate Road.

Policy 9: Cultural Vegetation

Existing plantings that are assessed as being of little cultural significance could be replaced by locally indigenous vegetation on a discretionary basis though where this is undertaken it should be accompanied by appropriate material to inform the local community.

Policy 12: Weeds

Ensure the continued management of weeds within Scarborough Park through an appropriate prioritised management plan.

Policy 14: Scarborough Park as a Scenic Resource

Retain the views of Botany Bay from Scarborough Park and, where appropriate, reinforce the landscape links between the two features by planting more street trees.

Policy 16: Interpretation

A comprehensive and integrated interpretation strategy for Scarborough Park that uses Section 4 (Historical Background of Scarborough Park) and Section 6 (Assessment of cultural significance of Scarborough Park) of this CMP should be considered as its basis.

Policy 9: Management

Ensure appropriate professional expertise in open space management, planning, design, construction and maintenance within Council so that Scarborough Park can be effectively conserved and managed for the long-term benefit of the community.

Policy 23: New Commemorative Structures and Features

Do not introduce any permanent monuments, memorials or artworks within Scarborough Park unless they have a direct and compelling relevance to the place and have received the strong endorsement of a broad community.

Policy 24: New Buildings

No new buildings are to be introduced within Scarborough Park unless they replace existing public recreational structures and have a prior (historical) recreational precedent to be there. Where permitted, new structures must be planned and designed to respect the park landscape and its culturally significant context.

Policy 25: Temporary Structures in the Park

The temporary installation of structures such as marquees should be allowed in Scarborough Park where such use is strictly temporary (an appropriate timeframe determined by Council), does not compromise the ongoing community recreational use of the park and there is no risk of the park's significant fabric being damaged.

Policy 26: Adaptation for Equal Access

Use discretion in the retrofitting of Scarborough Park for equal access and where it is decided to do so this should be planned in conjunction with people with appropriate skills and experience, including a heritage consultant or advisor, to ensure the park context is fully taken into account.

Policy 27: New Services, Infrastructure and Facilities

Ensure all new services, infrastructure and facilities proposed within and adjoining Scarborough Park are planned and designed on the basis of this CMP taking into account the cultural significance of the park and the need to ensure that significance is not compromised. For any new buildings within the park, ensure they are also planned and designed to make a positive contribution to the character of the park while respecting that the site is highly valued by its local community.

Policy 28: Vehicular Access within the Park

Ensure that vehicular access within Scarborough Park remains strictly limited to maintenance, and occasional construction, vehicles only.

Policy 29: Archaeological Finds within the Park

In the event of archaeological material being found during any future construction work at the park, the work in that area should cease and the appropriate senior Council staff and Council's Heritage Advisor should be notified in order to assess the nature of the find before allowing work to recommence.

Source: Conservation Management Plan for Scarborough Park for Rockdale City Council, April 2014, Nicholas Jackson & Geoffrey Britton.

2.16 Existing site conditions (Northern Precinct)

2.16.1 Boundaries & entry points

President Avenue forms the northern boundary of the masterplan area, providing a hard edge to the park, and isolating Scarborough Park from Rockdale Bicentennial Park to the north. The M6 roadway link will resume a portion of Rockdale Bicentennial Park and establish an overhead pedestrian crossing between the two parks. Drainage channels prevent pedestrian access into Scarborough Park directly from President Avenue.

The north-eastern and south-eastern boundaries of the park are bordered by the rear of residential blocks to Colson Cres, or the side of properties to Burlington St and Barton St, limiting access and passive surveillance opportunities. The portion of the site at AS Tanner Reserve is bordered directly by Chuter Ave, opening up views into the park at this location.

The western side of the park is edged by Civic Ave and the Toomevara Lane Market Gardens, visible through chain link fencing.

Barton St marks the transition from the northern precinct to the central precinct in the south.

2.16.2 Community infrastructure

The main formal recreational feature in the north of this precinct consists of a fenced, off leash area for dog exercise of approximately 2,800m², located adjacent to Civic Avenue.

A recently upgraded playground exists on Colson Cres opposite Banks St, featuring a small climbing structure, swing, springer and nature play elements. Other site elements include seating, bollards, a drinking fountain, bin, and small loop path.

There are no formal pathways running through the northern precinct of the park. The routes all consist of mown or well trodden turf, often edged with mounds of deeper grass. On the eastern side of the park, a wide, mown grass expanse abuts the rear boundaries to properties along Colson Crescent. This route leads directly south and connects to AS Tanner Reserve.

The main route through the western section of the park follows the historic line of the Moorefield Racecourse and is a simple mown swathe through stands of dense vegetation of the Swamp Oak Floodplain Forest endangered ecological community and open, maintained grassland.

A shared path is currently under construction from President Ave, looping south-east to link to Chuter Ave near Robinson St. A new elevated crossing over the waterway will be constructed as part of the works.

AS Tanner Hall is located off Burlington St in AS Tanner Reserve and is available for community hire, comprising an open community hall with kitchenette.

In addition to standard street parking, 90° street parking is provided along portions of Burlington St and Barton St.

2.16.3 Organised sports

Two areas of the precinct are currently used for organised sports - AS Tanner Reserve in the east, and Scarborough Park North (adjacent to Barton St) in the south-west.

The Scarborough Park North area near Barton St is currently used for organised sport and comprises mown turf, artificial cricket wickets, flood lighting, fencing and tiered seating to one field. An amenities building, irrigation storage tank and fenced storage area support this use.

AS Tanner Reserve is currently used for organised sports and comprises mown turf and flood lighting. AS Tanner Hall is located off Burlington St and accommodates tiered seating, public toilets and a drinking fountain external to the building.

Legend

01 OFF-LEASH DOG EXERCISE AREA
02 COLSON AVE PLAY AREA
03 FUTURE SHARED PATH
04 NATURAL AREAS
05 AS TANNER RESERVE
06 AS TANNER HALL
07 SCARBOROUGH PARK NORTH
08 SPORTS AMENITIES BUILDING

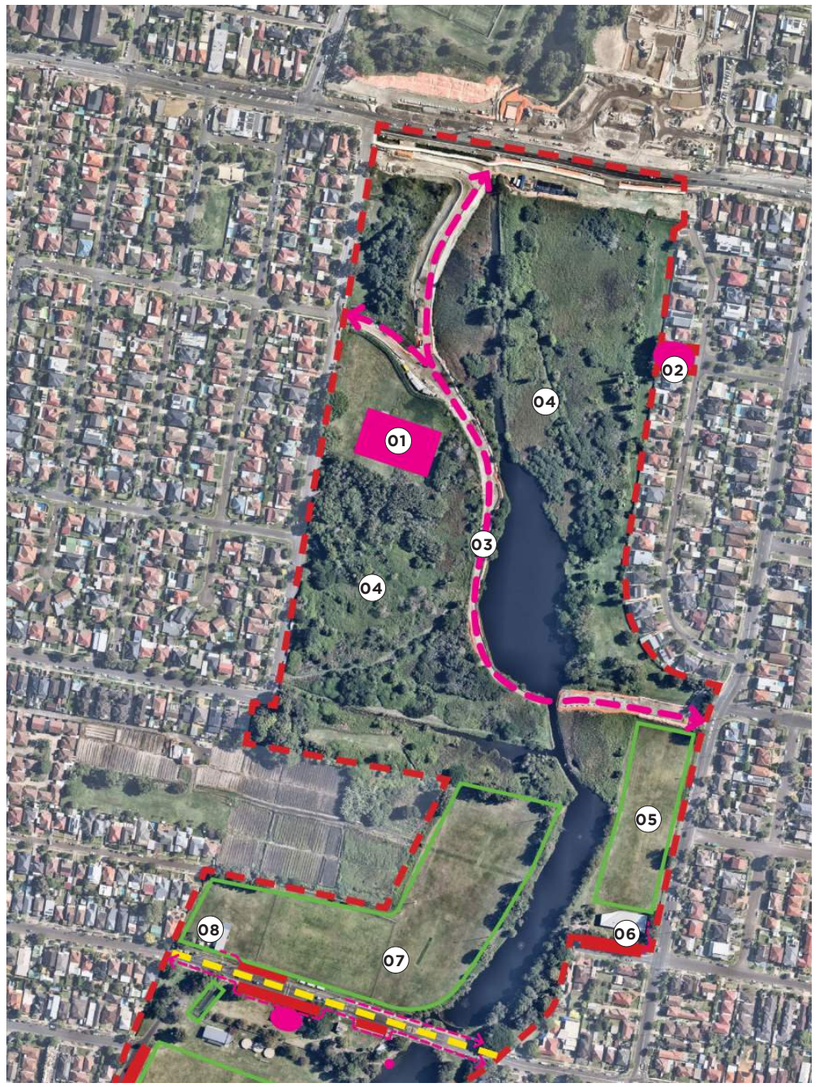
2.15.2 Boundaries & entry points

President Avenue forms the northern boundary of the masterplan area, providing a hard edge to the park, and isolating Scarborough Park from Rockdale Bicentennial Park to the north. The M6 roadway link will resume a portion of Rockdale Bicentennial Park and establish an overhead pedestrian crossing between the two parks. Drainage channels prevent pedestrian access into Scarborough Park directly from President Avenue.

The north-eastern and south-eastern boundaries of the park are bordered by the rear of residential blocks to Colson Cres, or the side of properties to Burlington St and Barton St, limiting access and passive surveillance opportunities. The portion of the site at AS Tanner Reserve is bordered directly by Chuter Ave, opening up views into the park at this location.

The western side of the park is edged by Civic Ave and the Toomevara Lane Market Gardens, visible through chain link fencing.

Barton St marks the transition from the northern precinct to the central precinct in the south.



2.15.3 Community infrastructure

The main formal recreational feature in the north of this precinct consists of a fenced, off leash area for dog exercise of approximately 2,800m², located adjacent to Civic Avenue.

A recently upgraded playground exists on Colson Cres opposite Banks St, featuring a small climbing structure, swing, springer and nature play elements. Other site elements include seating, bollards, a drinking fountain, bin, and small loop path.

There are no formal pathways running through the northern precinct of the park. The routes all consist of mown or well trodden turf, often edged with mounds of deeper grass. On the eastern side of the park, a wide, mown grass expanse abuts the rear boundaries to properties along Colson Crescent. This route leads directly south and connects to AS Tanner Reserve.

The main route through the western section of the park follows the historic line of the Moorefield Racecourse and is a simple mown swathe through stands of dense vegetation of the Swamp Oak Floodplain Forest endangered ecological community and open, maintained grassland.

A shared path is currently under construction from President Ave, looping south-east to link to Chuter Ave near Robinson St. A new elevated crossing over the waterway will be constructed as part of the works.

AS Tanner Hall is located off Burlington St in AS Tanner Reserve and is available for community hire, comprising an open community hall with kitchenette.

In addition to standard street parking, 90° street parking is provided along portions of Burlington St and Barton St.

2.15.4 Organised sports

Two areas of the precinct are currently used for organised sports - AS Tanner Reserve in the east, and Scarborough Park North (adjacent to Barton St) in the south-west.

The Scarborough Park North area near Barton St is currently used for organised sport and comprises mown turf, artificial cricket wickets, flood lighting, fencing and tiered seating to one field. An amenities building, irrigation storage tank and fenced storage area support this use.

AS Tanner Reserve is currently used for organised sports and comprises mown turf and flood lighting. AS Tanner Hall is located off Burlington St and accommodates tiered seating, public toilets and a drinking fountain external to the building.

2.15.5 Arrival and gateways

The main public frontages to the park are along President Ave, Barton St and Chuter Ave. Standard Bayside park identity signage is currently located at:

- Civic Ave, opp. Annette Ave
- Barton St (west)
- Chuter Ave, opp. Bath St
- Colson Cres, opp. Banks St

Locked maintenance access points are provided at:

- Civic Ave, corner Marshall St
- Scott St
- Barton St, immediately west of bridge
- Burlington St

2.15.6 Natural environment

Civic Avenue Reserve, located south of President Avenue consists of a centralised watercourse which runs from President Avenue in the north to a large pond in the south, which subsequently splits into a smaller channel before it enters the central region of the park and main pond. Much of the area in the region south of President Avenue is classified as Coastal Wetlands (a protected community) or forms part of the immediate surrounding catchment for the wetlands and has a high ecological value.

Within the centre of what was once the racecourse, there are mature stands of native trees representing remnant Swamp Oak Floodplain Forest and Swamp Sclerophyll Forest Endangered Ecological Vegetation Communities, protected under state legislation. In addition, there remains some evidence of earlier structures and pavements. Some remnant vegetation may be the progeny of earlier racecourse plantings such as the Cupressus sempervirens, Phoenix canariensis and Erythrina x sykesii.

The site is heavily weed infested and environmental restoration works addressing weed control need to continue. There are encouraging signs of wetland regeneration in some areas, where typical taller wetlands species such as Melaleuca linariifolia dominate.

Contaminated Land

The site has a history of being filled with soil of unknown origin for use as a racecourse and for recreational uses. This fill is potentially contaminated and requires consideration during any detailed design for proposals in this precinct.

2.15.7 Hydrology

A drainage culvert flows into the park from under President Ave in the north, forming an approximately 280m long open channel before opening into the main water body to the south - a large, open pond area fringed with wetland planting.

At the southern end of this pond, the waterway narrows again to a channel in line with Robinson St. This channel flows south-east for approximately 100m before opening into a linear, open pond area. Approximately halfway along the narrow channel, a secondary channel enters from the west, in line with Marshall St.

The linear pond area stretches south into the Scarborough Park central precinct under the Barton St bridge. Water quality is managed in the linear, open pond section by three aeration devices and a floating containment boom immediately north of Barton St.

2.15.8 Furniture & fixtures

Furniture and fixtures throughout this precinct are limited, with much of the area being wetland with limited access to pedestrians due to the informal path network.

Existing seating in a good condition is located around the dog off-leash area off Civic Ave.

A dated picnic setting and separate bench seating is located in a turf area off Barton St, adjacent to Bambino's Kindergarten.

The organised sports zone at Scarborough Park North, off Barton St, features three (3) tiered spectator stands, a double layer of fencing to Barton St, and two (2) dated bench seats which appear to offer limited functionality. The flood lighting columns around this area act as a way marker for the northern precinct due to their height and visibility on the horizon.

Civic Park dog exercise area

Public access to edge of northern pond

Scarborough Park North sports field

2.17 Existing site conditions (Central Precinct)

2.17.1 Boundaries & entry points

Barton St marks the transition from the northern precinct to the central precinct.

The western boundary of the central precinct is bordered by Scarborough Lane in the north and Margaret St in the south. The section in between is defined by rear residential boundaries from houses on Madrers Ave.

The eastern boundary is primarily defined by side boundaries to residential properties, punctuated regularly by streets that terminate in a cul-de-sac at the park edge. A portion of Monterey St forms the only significant street frontage on the eastern side of the central precinct.

The central precinct transitions to the southern precinct in line with Emmaline St, and the pedestrian bridge crossing over the central water body.

2.17.2 Community infrastructure

A large play area on Barton St provides swing set, toddler climbing structure, springers, carousel, larger climbing structure, and loop path, all under a series of shade sails.

A portion of the central pond immediately south of Barton St is dedicated to recreation, with pontoon access to the water from the west.

A newly constructed building with storage and covered picnic shelter adjacent to Barton St and the central pond provides facilities for the general community, serving both the playground and recreation pond.

Pathways through the area are, for the most park, informal routes across the fields and alongside the ponds. Despite being informal, they are well worn and show signs of needing a permanent surface, particularly during wet weather.

A footbridge crosses the Scarborough Ponds at the boundary of the central and southern precinct, providing a valuable east-west connection through the park. The bridge and associated wing walls and abutments are in disrepair, with evidence of undermining and partial collapse evident to edges.

Secondary pedestrian routes around the site are also in need of improvement, with several small links spanning fenced drainage channels offering impractical access due to their narrow width and intermittent locations.

In addition to standard street parking, 90° street parking is provided along portions of Barton St, Scarborough Lane and Margaret St.

An existing building at the end of Phillips Rd appears to be underutilised, creating a negative visual intrusion into the park at a key location. Visually, the building blocks passive surveillance into the park, and the toilets are often left open which can invite anti-social behaviour. Given the proximity to the large amenities building at the southern end of Scarborough Central, it would be desireable to remove this building to consolidate built form in one location and minimise visual impact.

2.17.3 Organised sports

The western side of the precinct is dominated by a large, open area dedicated to organised sports. The area features mown turf, artificial cricket wickets, enclosed cricket nets, goal post infrastructure, irrigation tanks, safety fencing and flood lighting.

Two amenities buildings support the use of this area for organised sports. The northern building is located immediately south of a fenced drainage channel near Scarborough Lane and also accommodates public toilets for the community. The southern building is located off Midjuburi Lane, at the very south-western corner of the central precinct.

Legend

01 PLAY AREA
02 PONTOON
03 ENCLOSED CRICKET NETS
04 PICNIC SHELTER WITH SMALL STORAGE AREA
05 SCARBOROUGH PARK CENTRAL
06 SCARBOROUGH PARK EAST
07 SPORTS AMENITIES BUILDING
08 EXISTING FOOTBRIDGE
08 UNDERUTILISED BUILDING

The eastern side of the precinct provides a large, open space for organised sport featuring mown turf, artificial turf wicket, irrigation tank and flood lighting. An amenities building south of Monterey St supports the use of this area for organised sport.

2.17.4 Arrival and gateways

The main public frontages to the park are along Barton St, Scarborough Lane, and Margaret St. No significant signage or gateways exist in these locations.

Standard Bayside park identity signage is currently located at:

- Barton St (west)
- Scarborough Lane, opp. Wilson St
- Scarborough St
- Monterey St
- Pasadena St
- Hollywood St
- Culver St

Locked maintenance access points are provided at:

- Barton St (central)
- Barton St (east)
- Scarborough Lane, opp. Austral St
- Midjuburi Ln, opp. Sunbeam Ave
- Pasadena St
- Culver St

Barton Street provides the only vehicular route across the park and watercourse. It is flanked by off street parking to either side which gives good access to facilities on either side.

Upon approach to the park along Barton Street there is a poor sense of arrival, with the street lined by formal and informal parking. The edge of the central precinct is dominated by a large Fig Tree which acts as a key visual marker for the park.

In general roads leading to the park end abruptly, particularly in the east, with very little to announce the presence of such a large park or gateway to the facilities within.

2.17.5 Natural environment

The central pond cuts the site in two, with a large, flat area of amenity grassland in the west (Scarborough Central) and smaller area in the east (Scarborough East). Both sides of the watercourse are heavily vegetated and feature informal, but well trodden footpaths, with occasional breaks in vegetation providing picturesque views out over the water. The banks of the water body, although relatively low, are quite steep and make access and maintenance difficult.

The long pond is mainly lined by Melaleuca quinquenervia (some of which have attained impressive dimensions) and Casuarina glauca, along with various weedy species which have potential to become a nuisance. Occasional Grey Mangroves (Avicennia marina) provide evidence of the brackish nature of the ponds. Planting of pine trees are evident along the side of the pond which is likely evident of an attempt at formalisation of the park in years gone by. Full species listings and descriptions can be found in the Scarborough Park CMP (2015).

Due to the lack of notable landscape features, the western playing fields offer little in terms of character. Along the western periphery, occasional, heavy lines of trees form a buffer between adjacent industry or residential properties and along Barton Street, a large Moreton Bay Fig (Ficus macrophylla) is a key feature to the main gathering space, providing shade and character.

In the east, the compact and enclosed nature of the field provides a more intimate environment. Several properties near Barton Street remain fenceless, with doors facing out onto the park. Heavily treed, this area merges well with the adjacent suburbia.

Contaminated Land

The site has a history of being filled with soil of unknown origin for use as a racecourse and for recreational uses. This fill is potentially contaminated and requires consideration during any detailed design for proposals in this precinct.

2.17.6 Hydrology

Several piped stormwater inlets feed into the main water body, typically emerging from pipes at the interface with the main water body. An open, fenced, concrete drainage channel runs parallel to Barton St between the organised sports precinct and community zone abutting Barton St.

A second inlet in the south adjacent to Production Avenue takes the form of a naturalised channel which shows evidence of a varying water level caused by both tidal flows and heavy rain. The banks of the channel are heavily overgrown and very steep, making maintenance difficult.

Elsewhere, stormwater inlet points along the waters edge are in poor condition and often located where there is a break in the vegetation, detracting from the natural aesthetic of the area. Steep banks make them difficult to maintain and their condition varies, with many not functioning to capture pollutants.

Another open, fenced concrete channel runs north-south along the western edge of the park from Wilson St to Sunbeam Ave. It is separated from the residential boundary by a pedestrian footpath linking the nearby streets.

2.17.7 Furniture & fixtures

There is little furniture provided throughout the central precinct, with the offering limited to isolated benches throughout passive use areas. The few benches available are often mismatched and deteriorating in condition.

Additional fixed seating is located at the amenities buildings.

Informal path near Scarborough Park East

Barton St interface

Pontoon for model boat club

Adjacent footpaths typically terminate at the park edge

Scarborough Park East sports fields

Scarborough Park Central sports fields

2.18 Existing site conditions (Southern Precinct)

2.18.1 Boundaries & entry points

The central precinct transitions to the southern precinct in line with Emmaline St, and the pedestrian bridge crossing over the central water body.

The western edge of the park is defined by Midjuburi Lane, Tonbridge St, and the rear of residential lots between the two streets. Informal pedestrian access is provided along the street frontages.

The eastern edge of the park is defined by roadways, Hawthorne St, Florence St, and Chuter Ave, with easy access into the cleared portions of the site. Bushland along Hawthorne Avenue restricts access into the park from much of this egde.

The southern extent of the masterplan area is bound by Park Rd and includes the site occupied by Ramsgate RSL Memorial Club and Pemberton Reserve. The RSL site contains significant built form and visually separates Pemberton Reserve from the remainder of the masterplan area.

A signalised pedestrian crossing is provided at the intersection of Ramsgate Rd and Chuter Ave, providing a safe link across the busy roads and linking to the Ramsgate Beach Town Centre.

2.18.2 Community infrastructure

Three play areas exists within the southern precinct, at Leo Smith Reserve, Tonbridge Reserve and Pemberton Reserve.

The Leo Smith play area offers a swing set, carousel, springers, climbing structure and loop path beneath a large shade sail structure. The play is supported by a drinking fountain and seating.

Tonbridge Reserve play area comprises a swing set, accessible carousel, large climbing structure, nature play elements, and a springer under a large shade sail canopy. The play area is supported by seating and a portion of hardstand area. A low fence running parallel to Chuter Ave is located within the park between the play area and the road edge to provide some protection.

The Pemberton Reserve play area offers swing set,play tower, carousel, springer and see-saw beneath a shade sail. A table setting on hardstand is located adjacent.

Formal path links exist only in two areas - near Hawthorne St, linking the Syd Frost Memorial Hall, Leo Smith play area, and the Scarborough Park Tennis courts, and also in Tonbridge Reserve, linking Florence St to Tonbridge St via the amenities building.

The informal path network links along both sides of the central water body, passing through the Hawthorn St Natural Area in the east. Within the natural area, there is no direct contact with the waters edge, instead the pathway meanders through the trees and is a short but pleasant nature walk until reaching the nearby tennis courts, at which point the formal trail and educational signage disappear. There is no formal entrance to the north.

In addition to the north-south pedestrian path, a partly overgrown path links the Phil Austin Baseball Fields to the waters edge along Tonbridge Creek, providing a sense of tranquillity and escape.

Unprogrammed open space is provided for passive community recreation at Leo Smith Reserve, Rotary Park and Pemberton Reserve. Leo Smith Reserve is sometimes used by picnickers and families utilising the nearby play area, and is also used as a key link into the wider informal path network within the park.

Rotary Park is not well-used other than by dog walkers as it is exposed to traffic and vehicular noise from the surrounding roadways, Pemberton Reserve is regularly used for events run by the adjacent Ramsgate RSL Memorial Club.

Significant stretches of 90° car parking exist on the park edges along Hawthorne St, Midjuburi Lane, Tonbridge St, and Florence St. The Ramsgate RSL site also has significant parking infrastructure located within the site along the Chuter Ave and Ramsgate Rd frontages.

Ramsgate RSL Memorial Club

The site occupied by the RSL club is part of the historic extents of Scarborough Park as established in 1879. The site, including parking off Ramsgate Road, is currently owned by the club. The parking areas of Chuter Ave and Tonbridge St are owned by council.

The built form of the club acts as a significant barrier, separating Pemberton Reserve from Scarborough Park / Rotary park. There is little activation towards Pemberton Reserve, with only a few windows and egress doors facing the park.

Legend

01 LEO SMITH RESERVE PLAY AREA
02 SYD FROST MEMORIAL HALL
03 PHIL AUSTIN BASEBALL GROUND
04 SCARBOROUGH PARK TENNIS COURTS
05 HAWTHORNE ST NATURAL AREA
06 SPORTS AMENITIES BUILDING
07 TONBRIDGE RESERVE
08 TONBRIDGE RES. CRICKET NETS
09 TONBRIDGE RES. PICNIC SHELTERS
10 TONBRIDGE RES. PLAY AREA
11 ROTARY PARK
12 RAMSGATE RSL MEMORIAL CLUB
13 PEMBERTON RESERVE
14 PEMBERTON RESERVE PLAY AREA
15 WAR MEMORIAL
16 RAMSGATE BEACH TOWN CENTRE
17 CONTAMINATED LAND (SUBJECT TO EMP)

2.18.3 Organised sports

The western area is occupied by Phil Austin Baseball Fields, with significant sporting infrastructure including mown grass, baseball diamonds, high fencing, batting cages, shelters, and linking paths. An amenities building off Midjuburi Lane supports the use of this area for organised sport

Nestled within the Hawthorne St Natural Area, the Scarborough Park Tennis Courts are to be upgraded in 2023 to provide a facility which accommodates three (3) multi-courts (or six tennis courts). Upgrade works are limited primarily to replacing fencing, court surfacing and provision of bench seating and shelter. No changes are proposed to existing lighting.

Tonbridge Reserve accommodates an area for organised sport near the corner of Chuter Ave and Florence St. The area comprises mown grass, goal posts, synthetic cricket wicket, crickets nets, and irrigation tanks.

A large amenities building supports the use of this area for organised sports, also accommodating tiered seating and public toilets for the community.

The Ramsgate RSL Memorial Club site includes two natural grass bowling greens with supporting infrastructure to allow for the playing of lawn bowls.

2.18.4 Arrival and gateways

The main public frontages to the park are along Chuter Ave, Ramsgate Rd, and Hawthorne St, with secondary frontages along Park Rd, Tonbridge St, Florence St, and Midjuburi Lane. No significant signage or gateways exist in any of these locations.

Standard Bayside park identity signage is currently located at:

- Hawthorne Ave, near Syd Frost Hall
- Florence St, near Hawthorne Ave
- Ramsgate Rd at Chuter Ave

Locked maintenance access points are provided at:

- Midjuburi Ln, south of Garrigarrang Ave
- Hawthorne St, opp. Emmaline St
- Tonbridge St, opp. 24 Tonbridge St
- Tonbridge St, opp. 28 Tonbridge St
- Tonbridge St, opp. 43 Tonbridge St

In general the southern region of Scarborough Park is well defined but still lacks appropriate connections between the east and west, other than a single pedestrian bridge. North-south connections are also very informal. Gateways into the park are difficult to identify and zone boundaries are blurred.

2.18.5 Natural environment

The most valuable asset within this area is the Hawthorne Street Natural Area, located to the eastern side of the watercourse and consisting of a nature trail through remnant Kurnell Dune Forest and Swamp Oak floodplain forest (listed as an Endangered Ecological Community under Schedule 1 Part 3 of the current version of the NSW Threatened Species Conservation Act, 1995).

This area has inherent scientific and fauna habitat values. Various information signposts describe flora and fauna which could be encountered on the route.

There are historical incursions into the heritage listed natural area with 6 tennis courts within a fenced complex of associated facilities. These courts are identified as an intrusive element from a heritage perspective in the Scarborough Park Conservation Management Plan with an opportunity to remove or reduce them being desirable. However these facilities are well used by the community and were recently upgraded. The option to remove them remains for future generations.

Several pine species planted in the vicinity threaten the integrity of this natural area with prolific self-seeding. Over time a number of these pines have been removed and bush regenerators work in this area.

Around Tonbridge Creek, the ground is often innundated with water due to tidal flows and stormwater levels. The Tonbridge Creek channel itself features the colonising native Grey Mangrove (Avicennia marina), and is of particular interest because it supports a surprising number of indigenous freshwater fish species as well as some saltwater species.

Large Fig trees located within Rotary Park create a leafy character to the southern region and are heritage listed due to their relevance to the Garden City Movement of the early 1900s.

Detailed descriptions of the locally indigenous vegetation of importance in the south can be found within the Scarborough Park CMP (2015).

Contaminated land

Scarborough Park South (Phil Austin Baseball Ground and surrounding area) is an old landfill that is managed under a current Long-Term Environmetnal Management Plan (EMP). Any works other than maintenance require approval and an environmental site investigation for contamination related to the specific works.

Additionally the remainder of the site has a history of being filled with soil of unkkown origin for use as a racecourse and for recreational uses. This fill is potentially contaminated and requires consideration during design.

2.18.6 Hydrology

The creek channel is terminated at the Tonbridge Street Reserve and piped under Florence Street to a substantial outfall structure at Botany Bay, Ramsgate Beach. Several inspection chambers on the reserve limit the extent to which sports can be played safely.

2.18.7 Furniture & fixtures

Tonbridge Reserve features several shelters with seats and table, set amongst the trees, which are often prone to flooding. These shelters are dated and positions should be reconsidered as part of the masterplan.

Pemberton Reserve

Tonbridge Reserve picnic shelters & low lying land

Hawthorne Lagoon

Phil Austin Baseball Ground

Tonbridge Creek

2.19 Furniture & Fixtures

2.19.1 Signage

Signage throughout the park has been updated over the past 5 years. Most park entry points have signage that matches the current Bayside suite. In some locations, there are old signs that should be updated to match.

Key site entries have low signage with large format lettering that can be read by pedestrians and vehicles passing on nearby streets. Secondary park entries have signage posts which include park regulations.

There is limited wayfinding and interpretation material throughout the park to assist visitors navigating the open space areas and highlighting the connectivity of the various park areas.

2.19.2 Fencing

Fencing is used in some areas to improve safety, prevent vehicular access and to create a safe environment for park users. The most commonly used fence types within the park are:

- Low, timber log fencing installed as a vehicular berrier to park edges (e.g Tonbridge Reserve, Scarborough Park Central and Scarborough Park East)
- Low, weld-mesh fencing where sports fields are adjacent to roads (e.g. Tanner Reserve and Scarborough Park North) and to edges of concrete drainage channels (e.g. Scarborough Park Central).
- Tall, chain mesh fencing to sports fields (e.g. Scarborough Park North)

2.19.3 Picnic shelters

The only dedicated picnic shelters within the park are located within Tonbridge Reserve and Pemberton Reserve.

The Tonbridge Reserve shelters have minimal appeal to the community due to their dated condition and location away from other activity hubs.

The Pemberton Reserve shelter acommodates one table setting and is used casually as an extension of the Ramsgate Beach Town Centre. Another two uncovered table settings existing within the reserve.

A new covered seating area has been included in a recently contructed storage building off Barton Street in Scarborough Park Central.

A few isolated picnic tables exist in other locations within the park, but these are not well-used.

Opportunities for new shelter locations should be considered in conjunction with other park attractors such as playgrounds and sporting uses.

2.19.4 Seating

Throughout the site there is a mixture of seating styles used, from aged steel tube frames with painted timber battens, to more modern seats installed around recently updated facilities.

Some consistency in the application of seating styles throughout the park would help to unify the appearance of the public domain and simplify maintenance activities.

The position of benches are often found to be in appropriate places, providing views across the parkland, however, there are very few offering views across the water. Many of those placed near the water are now facing established vegetation which has presumably grown since the seating was installed.

01/

Signage

Park signage now largely conforms to the Bayside standard suite of signs, with large, landscape format signage to key frontages, and signage posts to smaller entries and feature elements such as playgrounds.

Interpretive signage is located in isolated locations such as the Hawthorne Street natural area as is in an aged condition.

02/

Fencing

The most common fencing within the park is low, timber post and rail fencing to park edges, installed primarily to prevent vehicle access into the park.

Regular gaps should be provided in the fencing to facilitate pedestrian access into the park for all users. Permeable park edges allow the local community to make the best use of available open space and encourages active transport and activation of the park.

03/

Shelters

The only dedicated picnic shelters within the park are located in Tonbridge Reserve and Pemberton Reserve. The shelters in Tonbridge Reserve are aged and should be replaced as part of future park upgrades.

The location of new shelters should be considered as part of the overall site masterplan, with an aim to create activity hubs in particular locations.

04/

Seating

Seating styles and condition vary significantly around the park. Examples of the typical syles found around the park have been included below.

1. Single post steel & painted timber seat in Scarborough Park Central
2. Double post steel and painted timber seat in Scarborough Park Central
3. Steel frame seat with composite battens in Leo Smith Reserve
4. Steel frame & timber batten picnic table near Barton St in Scarborough Park North
5. Painted timber bench in Scarborough Park Central
6. Steel frame & timber batten picnic table with shade umbrellas at Phil Austin Baseball Fields
7. Aluminium picnic table in Pemberton Reserve

2.20 Playgrounds

2.20.1 Play provision

The playgrounds currently located throughout the park are in good condition and will continue to serve the community into the medium and long term.

A range of ages is catered for within the park, with Barton St and Tonbridge Reserve offering the widest age range in equipment. The play areas currently serve toddler, preschool and primary age children fairly well, but none of the play areas caters to the upper range of primary school and beyond. Additional recreation opportunities for this age group could be explored in the masterplan.

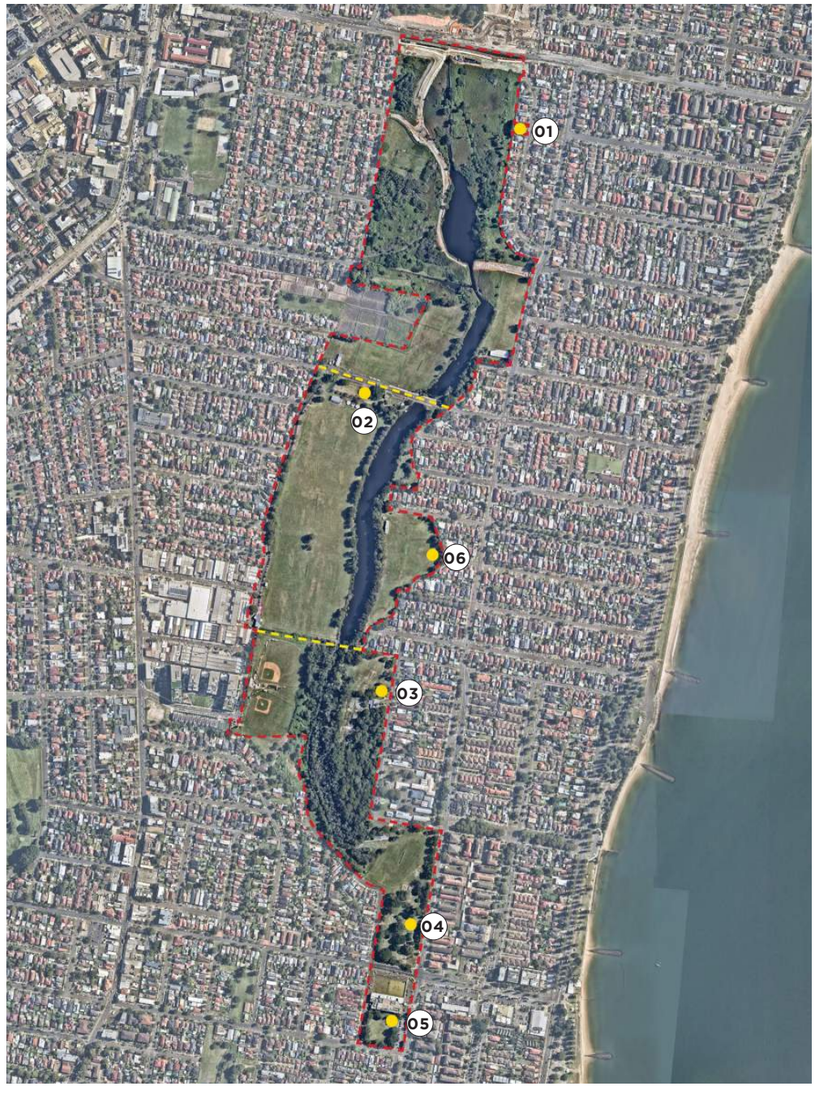
The play areas generally rely heavily on standard play equipment, missing an opprtunity to provide more diversity in play experiences. Opportunities for more creative play such as nature play may be considered for any future upgrade projects.

Dated play area to be removed

Scarborough Park East currently includes some remnant play equipment which is scheduled for removal in 2024. The swing set and two springers have no safety surfacing and have little appeal to visitors.

Legend

01 COLSON CRESCENT RESERVE
02 BARTON ST
03 LEO SMITH RESERVE
04 TONBRIDGE RESERVE
05 PEMBERTON AVE
06 SCARBOROUGH EAST (TO REMOVE)



01/

Colson Crescent Reserve

This play area was installed in 2021 as a local playground. The playground primarily addresses Colson Cres, with a secondary entrance to the wider park behind. The playground design incorporates a concrete loop path enclosing a number of pieces of play equipment including:

- Basket swing
- Play tower (toddler & preschool age)
- Springer
- Spinner
- Balance beams
- Nature play elements

The equipment caters for young children only. The surfacing is primarily play mulch, with a portion of rubber softfall under the swing. Seats are provided for caregivers and a drinking fountain is also included. No shade structure is provided. Significant planting around the play area softens the overall feel of the play space.

02/

Barton St

This play area was installed in 2014 and is popular due to its location along Barton St, the only east-west connection through the park. The playground design incorporates a concrete loop path enclosing a number of pieces of play equipment including:

- Swing set
- Play tower (toddler & preschool age)
- Climbing frame (primary school age)
- Carousel
- Springer

The equipment caters for a range of ages and types of play. The surfacing is sand and shade sails provide shade to the play area. Seats are provided for caregivers.

03/

Leo Smith Reserve

This play area was installed in 2015 and is located adjacent to Syd Frost Memorial Hall on Hawthorne St. The playground design incorporates a concrete loop path enclosing a number of pieces of play equipment including:

- Swing set
- Play tower (preschool & primary school age)
- Carousel
- Springers

The equipment caters best for children from preschool age. The surfacing is sand and shade sails provide shade to the play area. Tree plantings will provide additional future shade. Seats are provided for caregivers and a drinking fountain is located nearby.

04/

Tonbridge Reserve/ Rotary Park

This play area was installed in 2021 and is located within Tonbridge Reserve, in the vicinity of Rotary Park. The playground design incorporates an area of concrete hardstand partially enclosing a number of pieces of play equipment including:

- Swing set, including basket swing
- Play tower (toddler, preschool & primary school age)
- Accessible carousel
- Springer
- Sandstone climbing blocks

The equipment caters for a range of ages and types of play. The surfacing is a mix of rubber softfall and play mulch, and shade sails provide shade to the play area. Tree plantings will provide additional future shade. Seats are provided for caregivers and a low fence offset from the play area provides a bariier to Chuter Ave.

05/

Pemberton Reserve

This play area was installed in 2013 and is located within Pemberton Reserve, immediately south of Ramsgate RSL. The playground design is edged in timber sleepers, enclosing a number of pieces of play equipment including:

- Swing set
- Play tower (toddler & preschool age)
- Carousel
- Springer
- See Saw

The equipment caters for a range of ages and types of play. The surfacing is sand, and shade sails provide shade to the play area. Established trees provide additional shade. A seat and nearby picnic setting are provided for caregivers.

2.21 Community open space

2.21.1 Path network

An extensive informal path network exists throughout the park, allowing the community to move throughout the open space network from north to south. Limited connections exist across the park east to west, with one pedestrian/cycle bridge near Emmaline St in the southern precinct. Barton Street provides the only east-west connection in the northern and central precinct, allowing vehicles and pedestrians to cross the park.

The path network is used for general walking, running, dog walking, and sometimes bike riding.

Path quality

The quality of paths is mixed across the park, presenting opportunities for upgrade in many locations. The upgrade of paths or provision of new paths in strategic locations would assist in improving accessibility and ease of movement within and across the park.

Some areas of erosion are evident within the park, but the main difficulties with maintaining access appear to be boggy ground after periods of rainfall, and trip hazards caused by protruding roots.

Path surfacing

The current path network consists of varying materials, with soft surfacing making up the vast majority of walkways and access routes. Existing path surfaces include the following.

- Soil & mulch
- Gravel and crushed gravel
- Mown grass
- Concrete and asphalt
- Boardwalks and bridges

2.21.2 Passive open space

Throughout the park, there are many areas of passive open space which are available for general community use. These areas are typically the 'leftover' spaces between residential lots and water bodies or wetlands and too small or awkwardly shaped to be utilised for organised sports.

These passive open space areas are generally highly valued by local communities and perceived as shared assets for locals. The use of these spaces vary depending on location and type, however, a consistent use repeated across the site is dog walking, exercise and for active transport. They also see occasional use by locals for picnics or informal recreation such as a kickabout space.

Tennis courts

The existing tennis courts at Hawthorne St Natural Area were upgraded in 2023 and converted into shared tennis & multi-use courts for community use.

2.21.3 Community buildings

Two building are available for community use through Bayside Council's online booking platform. These are available to book by community groups but not for private functions.

AS Tanner Hall

Located at 55 Chuter Ave, Monterey, AS Tanner Hall is a modern, flexible building with kitchenette, adjacent to AS Tanner Reserve. The hall is used by the community and local sporting groups for meetings, seminars and courses.

Syd Frost Hall

Located at 7 Hawthorne St, Ramsgate, within the Central precinct, Syd Frost Hall offers a basic kitchen, floorboards and a small stage. It's also used for meetings, community programs and education programs.

Legend

- PASSIVE OPEN SPACE
- PLAYGROUND
- COMMUNITY BUILDING
- TENNIS COURTS





01/

Soil & mulch paths

Soil and mulch paths are primarily located in areas that are densely vegetated such as Hawthorne St Natural Area, and along the banks of Tonbridge Creek in the southern precinct. Narrow dirt paths are also located within the wetland in the northern precinct.

The paths show signs of high pedestrian activity, being generally well-compacted and firm underfoot outside of boggy areas.

02/

Gravel & crushed gravel

Small sections of gravel or crushed gravel paths are provided in areas where erosion appears to have occurred in the past, or access routes have been stabilised for vehicular access or on well-worn pedestrian access routes.

There is little consistency in the application of this surfacing and no formal edges, meaning that the paths are difficult to maintain and tend to peter out into the grass adjacent.

03/

Mown grass paths

Many of the key north-south paths are maintained as mown grass, often with a focussed area of high wear, where turf is patchy or missing.

04/

Concrete & asphalt paths

Hardstand paths are generally limited to areas of high activity or where facilities such as playgrounds and buildings have been recently upgraded.

Additional paths at Barton St provide footpath linkages along the road network, with only limited connections into the park.

Tonbridge Reserve has a section of hard surfaced footpath linking Tonbridge St (opp. Walmer St) with Florence St and the Tonbridge Reserve amenities building.

05/

Boardwalks & bridges

A bridge crossing exists over Tonbridge Creek, approximately in line with Emmaline St, forming the transition between the central and northern precincts.

A short section of raised boardwalk exists in the northern precinct, linking Scarborough Park North with a pedestrian connection to the corner of Marshall St and Civic Ave.

2.22 Organised Sport

2.22.1 Current User Groups

The park is heavily utilised by formally organised sport and community groups. Scarborough Park currently caters to the following organised sports through community clubs and/or local sports associations:

- Football (soccer)
- Rugby League
- Touch Football (Oz Tag)
- Australian Rules Football (AFL)
- Cricket
- Baseball
- Tennis
- Archery
- Athletics
- Lawn Bowls

The sports facilities are utilised less frequently by local schools for school sports or carnivals, and also by the community for outdoor fitness training, typically individually or in small groups.

The Tennis courts on Hawthorne St are currently undergoing an upgrade and will be available for community use in the near future.

2.22.2 Key locations

Different user groups associated with the site identify with specific areas of the park that have traditionally been utilised by their club/association. Each of these areas has a specific name and has been identified on the mapping adjacent.

2.22.3 Run Club Race Routes

Scarborough Park is currently well used for both formal and informal running, with races regularly held by St George District Athletic Club. The club shares the path network with the community and does not have exclusive use of the park paths.

There are various length races and routes including 1 km, 2 km, 4 km, 7 km, 10 km, 1 mile, 2 miles, 3 miles, 5 miles and 7 miles. Whilst the length of the routes vary they are all contained within the central and southern precincts of Scarborough Park. Syd Frost Memorial Hall is currently used as a start and finish point for most formal running events.

Opportunities

By extending formal routes into the northern precinct of the site, it would be possible to create a varied circuit without the need to repeat laps as often. Safety at the Barton St road crossing would need to be managed.

Formalised pathways would make for safer and well-delineated routes, with decomposed granite a good option for surfacing in more sensitive ecological areas due to its porus nature and reduced excavation and compaction requirements.

New pathways around Scarborough Park Central would mean that circuits could also be extended to use formal paths on the outside of the sports fields, extending lengths without requiring road crossing.

Legend

01 TANNER RESERVE
02 SCARBOROUGH PARK NORTH
03 SCARBOROUGH PARK CENTRAL
04 SCARBOROUGH PARK EAST
05 PHIL AUSTIN BASEBALL GROUND
06 SCARBOROUGH PARK TENNIS COURTS
07 TONBRIDGE RESERVE
08 RAMSGATE RSL MEMORIAL CLUB
09 RUN CLUB ROUTES





01/

Lighting

In the past, some investment has been made in sports lighting infrastructure. Without undertaking a detailed lighting asset review and measuring each of the lighting systems for their current lux levels, it is assumed that most (if not all) of the existing sports lighting schemes are below the necessary standards (for both lux levels and uniformity) for both training and competition use. At detail design stages further work will need to determine the appropriate standard of lighting for each sport and appropriate locations, keeping all above ground infrastructure clear of playing areas and runoff zones.

Site specific planning requirements will need to be considered, and adherence to AS 4282-1997 – Control of the obtrusive effects of outdoor lighting, needs to be addressed during the preparation of detailed drawings / concepts.

02/

Buildings

Over the last 8 years, council has completed a program of amenity building replacement throughout Scarborough Park, replacing buildings at Tanner Reserve, Scarborough Park Central (Barton St), Scarborough Park Central (Production Ave), Scarborough Park East, and Tonbridge Reserve.

An additional amenities building was also constructed at Leo Smith Reserve, adjacent to the renovated Syd Frost Memorial Hall. A storage shed with covered seating area was also constructed adjacent to the Scarborough Pond at Barton St.

Amenities upgrades appear to have made the building at the end of Phillips Road (in Scarborough Central) surplus to organised sporting needs, with toilets that are no longer functional. This building should be considered for removal as it is poorly located, interferes with good north/south movement, is visually intrusive and encourages anti-social behaviour.

Opportunities exist to construct additional shade structures with picnic/BBQ facilities at key locations to facilitate community gathering and casual recreation use.

03/

Parking

Many of the car parking facilities around the park are inadequate and would struggle to cater for heavy demand days during intense competition events. Staggered programming of use and alternate starting times can relieve some of the pressure in this area, but for the purpose of building club inclusiveness, and catering for families that are club members with siblings spread across a number of teams, most clubs would prefer to tighten their window of activities as opposed to stretching it out over more of the day or the weekend.

Opportunities exist to formalise car parking at key sporting precincts. In some locations, boundary fencing may need to be shfted to accommodate 90 degree angle parking along the park edge. Formalising car parking with hard surfacing and linemarking maxmises efficiency and can also enable protected tree planting for shade.

04/

Sports fields

The ability to sustain good turf health and for the turf to recover adequately after periods of high use and wear is hindered without good drainage and irrigation. Over recent years, council has implemented a program of sports field renovation to improve turf quality and drainage for improved playability.

Irrigation systems have been installed in key locations such as Scarborough Park Central (whole area), Scarborough Park East (main field), and Tonbridge Reserve to maintain turf in dry periods.

05/

Supporting infrastructure

Many of the sports fields within Scarborough Park have supporting infrastructure such as fencing and seating which is aged or in poor condition.

Fencing is generally not encouraged to sportfields within Scarborough Park. Exceptions can be made for the following:

- Fields where the level of play requires access control (low, 1m fence)
- Areas where ball control is required due to limited access to surrounding areas
- Areas where fencing is required for safety due to proximity of hazards such as roadways

Other than tiered grandstand seating in Scarborough Park North, little seating is provided to sportfields within the park. Opportunities exist to offer increased spectator seating in conjunction with seat upgrads/replacement throughout the park.

Consistency in materials and design is desired to maintain the overall character of Scarborough Park.

2.23 Land ownership

2.23.1 Missing links

The following areas have been identified as 'missing links' in the Scarborough Park masterplan, being lots which are not ownder by or under management of council.

1. Land owned by Department of Planning
2. Land owned by RMS
3. Land owned by Ramsgate Memorial RSL Club

2.23.2 'Borrowed' land

The masterplan has also identified the following locations of 'borrowed land' within the masterplan area.

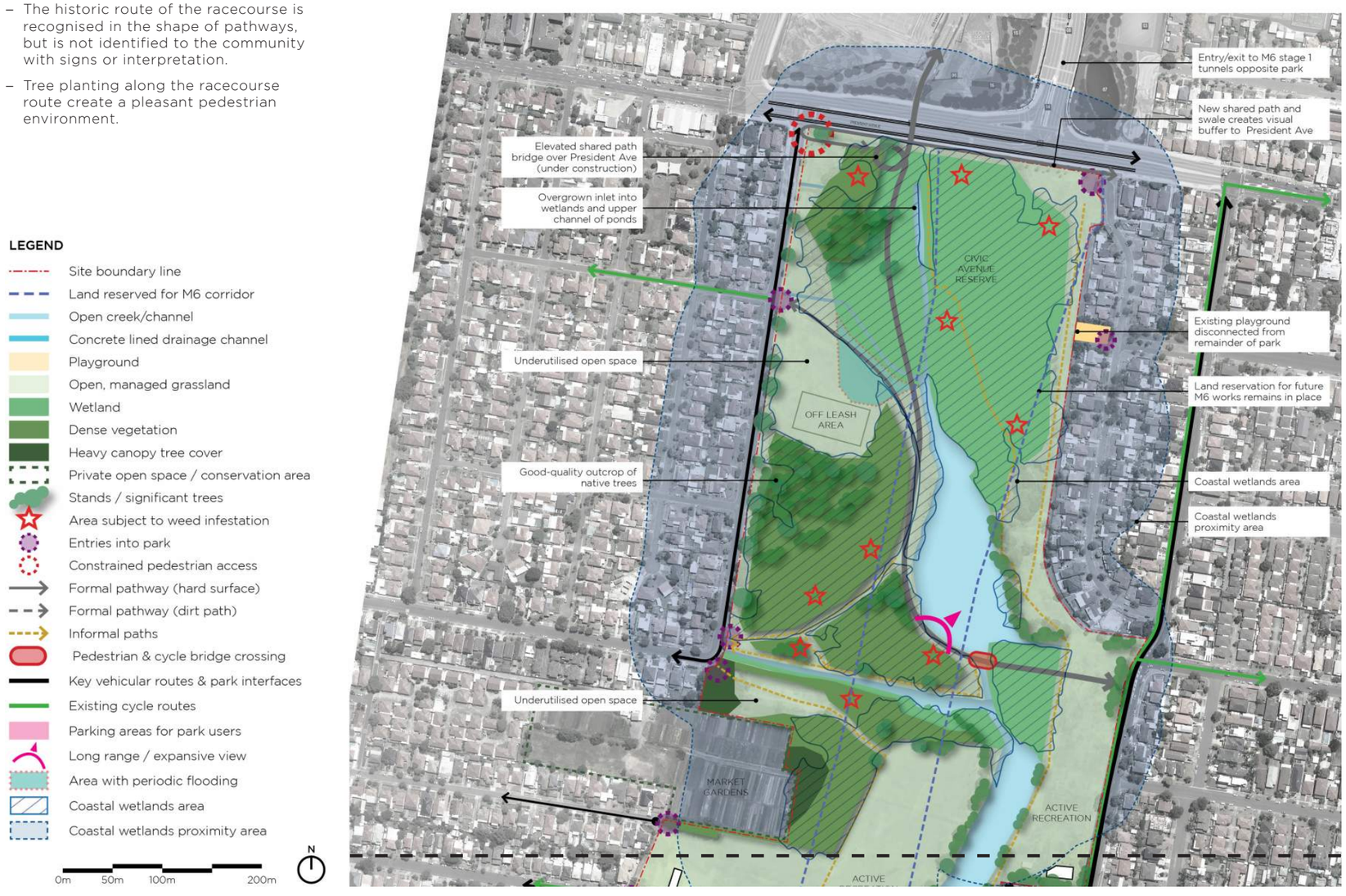
4. Ramsgate RSL Memorial Club - built form extends into council-owned car park, creating a sense of private ownership over the council asset.
5. Northern section of council car park is a one-way system which forces cars to exit through the Ramsgate RSL Club car park area.
6. Tonbridge Reserve extends into the Chuter Avenue road reserve. Currently this land is unused for road infrastructure, but it could possibly be resumed for road widening in the future.

2.24 Site analysis mapping

2.24.1 Northern precinct

The key items and site issues identified during the site analysis phase were as follows:

- Coastal Wetlands and Coastal Wetland Proximity Areas cover the majority of the northern precinct. All works are required to protect, and where possible enhance, the biophysical, hydrological and ecological integrity of the wetland and numerous works will require a development application.
- Sense of arrival from key entrance points into the park does not befit the scale and significance of the park.
- Missing path connections, with no hard-surfaced paths in the northern precinct. Informal path links are vague and do not encourage exploration.
- The new shared path under construction will provide an important east-west pedestrian and cycle link and open up views over the northern pond.
- President Avenue forms a major visual and physical buffer to north, separating the park from Rockdale Bicentennial Park. The future overhead bridge link will improve connectivity throughout this important open space link.
- Stands of mature, native trees are often isolated by a blanket of weeds alongside the informal pathways.
- Lack of established recreational routes means the area is under utilised. The new active transport link will improve access and connectivity.
- The main pond is a natural asset which is under utilised, with little opportunity for interaction or recreation.
- Wetland biodiversity is flourishing in some areas.
- Management of weeds is difficult due to size, numerous stormwater inlet pipes, and extensive urban encroachment.
- The historic route of the racecourse is recognised in the shape of pathways, but is not identified to the community with signs or interpretation.
- Tree planting along the racecourse route create a pleasant pedestrian environment.



2.24.2 Central precinct

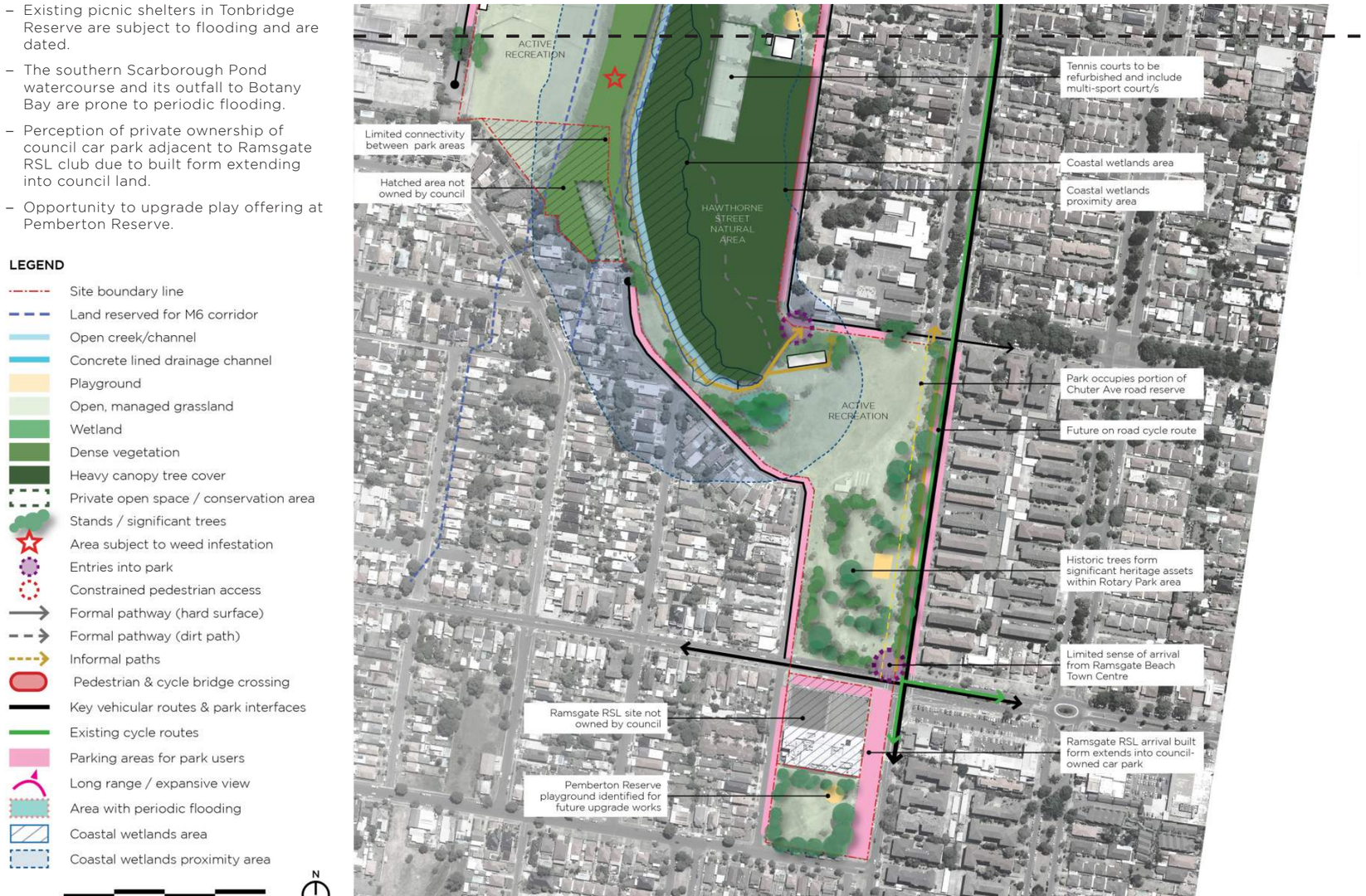
The key items and site issues identified during the site analysis phase were as follows:

- Sense of arrival from key entrance points into the park does not befit the scale and significance of the park.
- Missing path connections, with few hard-surfaced paths in the central precinct. Informal path routes limit use by some park users, e.g. those with mobility difficulties or prams/wheelchairs.
- Formal pedestrian crossing to be investigated for any future path connections across Barton St to improve safety and connectivity throughout the park spaces.
- Lack of casual sports / community recreation facilities due to dominance by organised sports.
- Playground and model boating facility form a community recreation node at Barton Street. Adjacent water board building is an identified conservation asset.
- Concrete lined stormwater channel and fencing form a physical barrier and visual impact the park green space. Opportunity for improved fencing and landscape treatments.
- The space is framed by stormwater channels but these are not taken advantage of and offer little to the existing environment.
- Vegetation is generally limited to the periphery of the park or areas where steep grades preclude other uses.
- The water course is a natural asset which is under utilised, with little opportunity for interaction or views over water.
- Existing cycle routes are all on road and do not utilise the park. Opportunity exists for paths within the park to be utilised for slower cycling / family groups.
- Scarborough Park South (including the Phil Austin Baseball Ground) is an old landfill that is managed under a current Long-Term Environmental Management Plan (EMP). Any works other than maintenance require approval and an environmental site investigation for contamination related to the specific works

2.24.3 Southern precinct

The key items and site issues identified during the site analysis phase were as follows:

- Coastal Wetlands and Coastal Wetland Proximity Areas cover a large area within the southern precinct. All works are required to protect, and where possible enhance, the biophysical, hydrological and ecological integrity of the wetland and numerous works will require a development application.
- Scarborough Park South (including the Phil Austin Baseball Ground) is an old landfill that is managed under a current Long-Term Environmental Management Plan (EMP). Any works other than maintenance require approval and an environmental site investigation for contamination related to the specific works
- Sense of arrival from key entrance point at Ramsgate Road does not befit the scale and significance of the park.
- Missing path connections, with few hard-surfaced paths in the southern precinct. Informal path routes limit use by some park users, e.g. those with mobility difficulties or prams/wheelchairs.
- Rotary Park features many heritage trees and provides a good opportunity to create a community recreation node, building on the existing playground and linking to the town centre zone.
- Hawthorne Street Natural Area and the southern Scarborough Pond provide important habitat and biodiversity areas.
- Existing degraded tennis courts recently upgraded and multi-court added.
- Poor east-west connectivity across southern pond and to Phil Austin Baseball Fields. A portion of the park owned by others limits pedestrian connection options.
- The western watercourse bank provides a tranquil walking route but can be impacted by flooding.
- Existing picnic shelters in Tonbridge Reserve are subject to flooding and are dated.
- The southern Scarborough Pond watercourse and its outfall to Botany Bay are prone to periodic flooding.
- Perception of private ownership of council car park adjacent to Ramsgate RSL club due to built form extending into council land.
- Opportunity to upgrade play offering at Pemberton Reserve.



03 OPPORTUNITIES

3.1 Key opportunities

Habitat

- While retaining a reasonable complement of open space for playing fields and general community recreation, reconstruct more of Scarborough Park as a wetlands environment to enhance the extent and quality of the park as a wetlands corridor.
- Extension of the existing wetland area in the Civic Avenue Reserve to incorporate existing flood prone areas (subject to compliance with legislative requirements for coastal wetlands).
- Promotion of the park as a wetlands park and nature reserve.
- Improvement of biodiversity around activity hubs through appropriate planting, which will also provide screening and create more pleasant social environments.
- Protect and retain existing valuable habitat in Hawthorne Street Natural Area by minimising impacts on existing ecosystems.
- New planting to favour re-establishment of local vegetation communities to strengthen existing natural features.
- Other than along the Barton St corridor, replace exotic plantings (including those considered as high significance in the CMP) with native species when planting succumb to natural attrition.

Connectivity

- Creation of a clear path hierarchy to provide new, durable routes around the park through various environments and habitat year round. The path network will encourage park users to explore other areas of the path and facilitate safe active transport for all park users. Some informal, low volume path connections will be retained.
- Establishment of an additional east-west pedestrian connection linking Phil Austin baseball fields with Scarborough Pond south and Tonbridge Street.
- Consideration of an additional north-south link from Scarborough Park North across the drainage channel to link to the new shared path connecting Chuter Ave with Civic Ave.
- Creation of formal routes and wayfinding signage at key locations to improve navigation throughout the park and encourage users to explore more widely within the open space corridor.
- Creation of a hierarchy of gateways into the park, with feature entrances creating a recognisable identity.
- Use of boardwalks across wetland areas to allow access to and movement through currently unused areas.

Sports & Activity

- Rationalisation of sports fields where necessary to increase efficiency, reduce wasted space and reduce conflicts between varied sports.
- Provision of additional activities for casual use such as basketball and play spaces along key routes to provide additional general community activation. Consider school access routes in particular.
- Promotion of fitness for the wider community through introduction of fitness stations and cycle or running routes around the park.
- Provision of lighting strategically at key locations to create safe, usable routes and facilities.
- Upgrade the existing pontoon to a formal pier and activity hub along Barton Street to facilitate wider use.
- Provide additional facilities for groups around the perimeter of sporting pitches.
- Consider provision of decks to the watercourse and wetlands in order to improve access to the water and create pleasant seating opportunities.

Sustainable drainage

- Promotion of reed planting around stormwater outlets to provide natural cleaning and improvement of water quality.
- Explore options for de-channelisation of watercourses and inlets to re-establish wetlands in appropriate locations throughout the park.
- Investigate creation of rocky wetlands within selected swale areas to allow for exploration and activation of otherwise inaccessible locations.
- All stormwater and drainage modifications to be subject to detail design and modelling to ensure there are no reductions in drainage discharge into the park system, and no loss of overall flood storage.

Management

- Reduction in mown grassland in areas which are not currently used for either formal or informal sports, replaced with native planting and trees.
- Protection of the park through creation of formal pedestrian/cycle routes in order to prevent damage to grass and conservation areas.
- Creation of elevated pathways through wetlands and/or flood-prone areas to increase usability for park users after inclement weather. Some existing routes have poor drainage and create maintenance problems in wet weather.
- Weed management to be carried out in accordance with a prioritised management plan to maintain the scenic qualities of Scarborough Park.
- Strategically reduce invasive species throughout the site. Council to collaborate with community bushcare groups to manage invasive species.
- Improvement of water quality through introduction of wetland areas at suitable outlets without impacting overall drainage and system capacity.
- Create strategic nodes of activity throughout the park to group facilities with higher management requirements together to streamline maintenance activities.

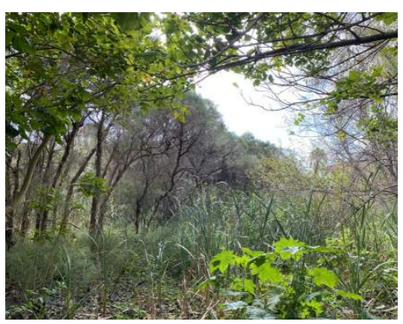


Image: Jane Irwin Landscape Architecture

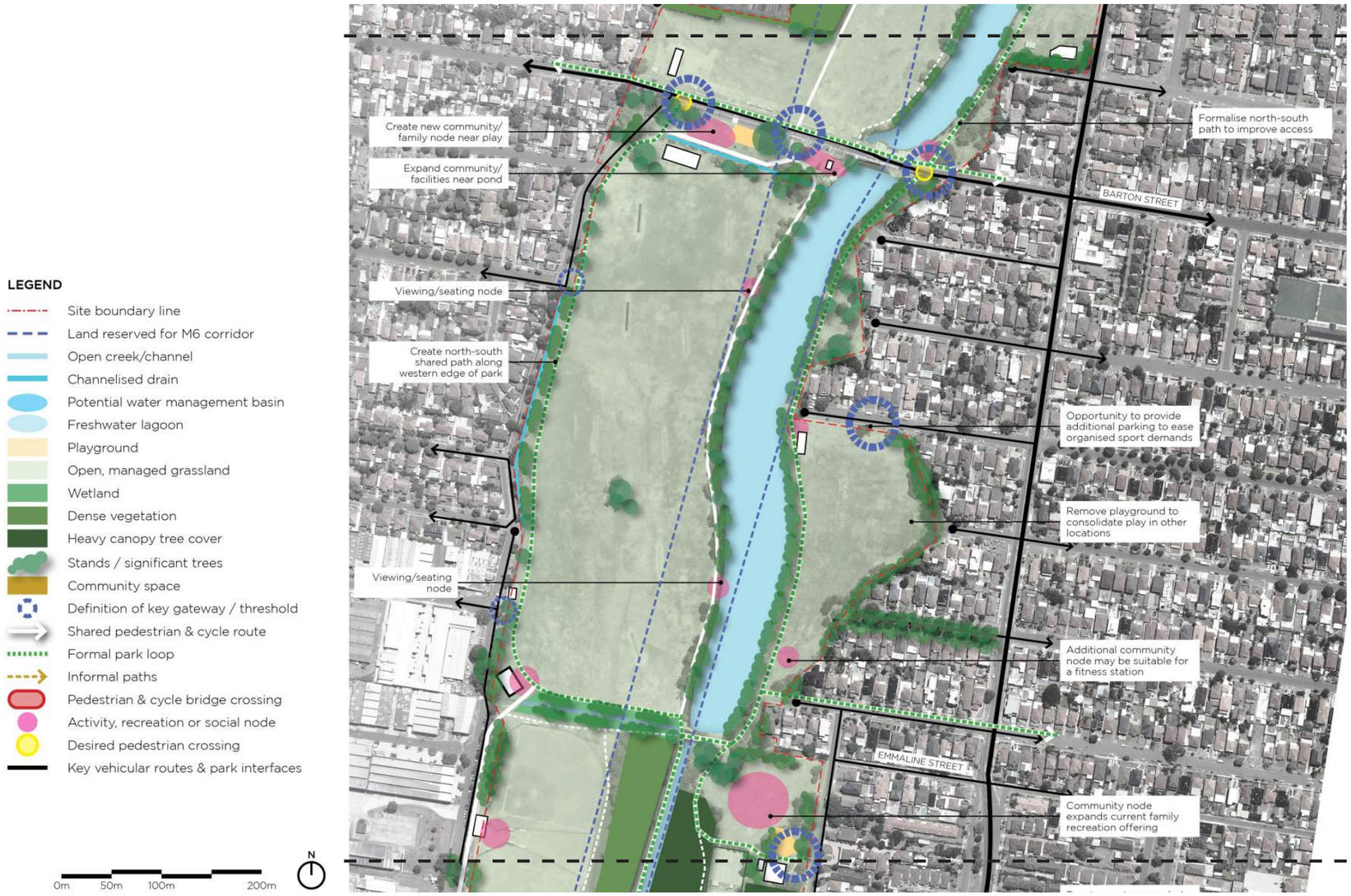
3.2 Opportunities mapping

3.2.1 Northern precinct

Key opportunities have been mapped adjacent.

3.2.2 Central precinct

Key opportunities have been mapped adjacent.



3.2.3 Southern precinct

Key opportunities have been mapped adjacent.

04 CONCEPT DESIGN

4.1 Design objectives

4.1.1 Overview

The following design objectives have been established to guide the masterplan and the future detailed design of all projects within the park boundaries.

These objectives are based on key outcomes and opportunities identified in the analysis stage, drawn from our studies of site conditions and relevant council and governmental policies.

4.1.2 Promote access and connectivity

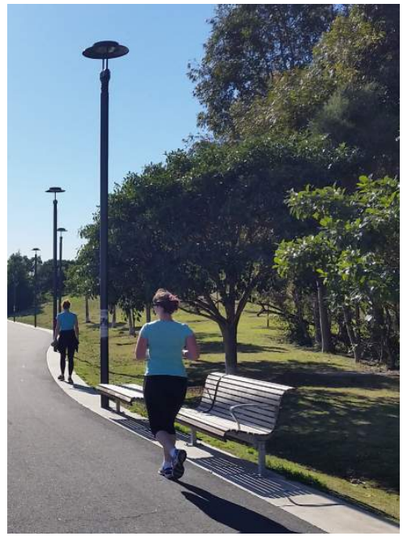
The masterplan identifies new and improved connections through the park and between local centres for pedestrians and cyclists. Portions of Scarborough Park are activated by varied users, but there is limited activation and movement throughout the whole parkland corridor. Improving access and circulation routes will make the park more accessible to the local community, encouraging visitors to use different facilities within the park and explore areas beyond their usual visiting nodes.

With improved accessibility, Scarborough Park can become a hub of recreation activity throughout the year, offering opportunities for both formal and informal play, recreation and relaxation to all genders, ages and abilities.

Limited east/west connections across the park, and informal paths running north/south within the park have historically stymied community access into and across the park. New connections identified within the masterplan, and a new active transport link being constructed as part of the M6 works will significantly improve the permeability of the park and encourage additional visitors to explore the open space network to better interact with the natural environment.

Key outcomes

- Establishing formal pedestrian routes throughout the park will help to improve accessibility for the community.
- Improved path networks create a perception of a safe and welcoming open space network.
- Encouraging visitors to explore other areas within the park encourages a greater recognition of the open space network and available facilities.
- Opportunities for all ages and abilities to interact and socialise improves mental health outcomes for the community.
- Provide recognisable thresholds into the park to encourage use of the park and provide a sense of arrival to visitors.
- To address the flood-prone nature of the park, safety for park users and neighbouring residents should be enhanced by ensure that the access and circulation network provides logical wayfinding, clear messaging regarding flood hazards, and promotes safe park use.

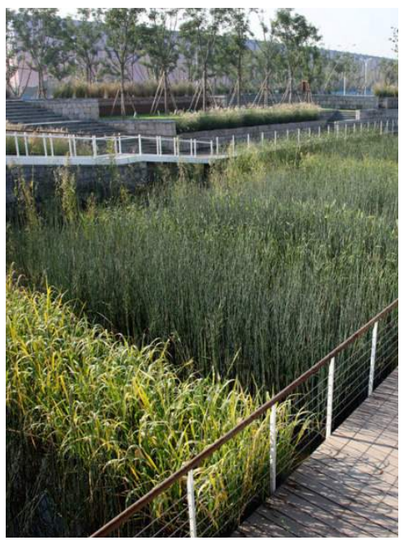


4.1.3 Protect natural environments

In order to protect both the existing and re-established natural environments, along with the flora and fauna inhabiting them, measures will be taken to restrict further development or encroachment on these areas.

Key outcomes

- Community awareness and support is vital to ensure protection of vulnerable systems. Promotion of existing and new community initiatives such as bush care and educational forums increases awareness and promotes a sense of ownership within the community.
- Physical interaction with nature and passive recreation such as walking is important but needs to be effectively managed. Creation of activity hubs which contain or reduce the amount of damage caused by pedestrians by restricting pedestrian movement along designated footpaths in ecologically sensitive areas.
- Creation of habitat which would have originally existed in this area eg fallen logs for insects to improve natural and native biodiversity of the park.
- Limit and police the areas in which off leash dog walking is allowed to protect the natural assets of the park from damage and protect the fauna and habitats that share the space.



4.1.4 Protect and enhance biodiversity

Scarborough Park is one of the most environmentally significant areas within Bayside Council. To protect and enhance its environmental significance, one focus will be on the re-establishment of key areas of the park as ecological zones.

The ongoing viability and protection of these areas is dependent on maintaining a balance with the formal and informal recreation needs of the local community, ensuring no net loss of recreation and community assets. Maintaining and improving facilities for the community encourages the protection of ecological areas by reducing pressures on these spaces and allowing them to retain maximum footprint and critical mass.

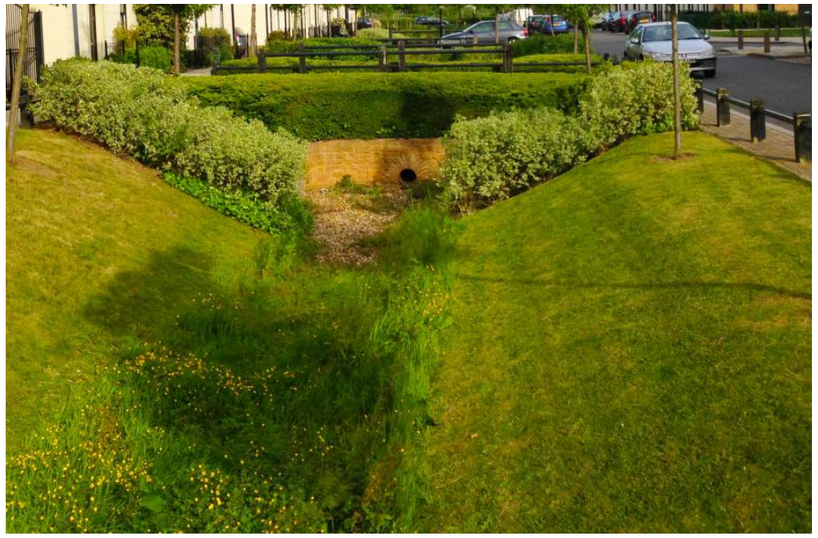
The ecological zones within the park are assets for the community at a local and district level, maintaining important ecological communities and reducing the risk of losing habitat types forever. Opportunities exist for these areas to provide casual and/or formal education by partnering with relevant community groups or educational institutions.

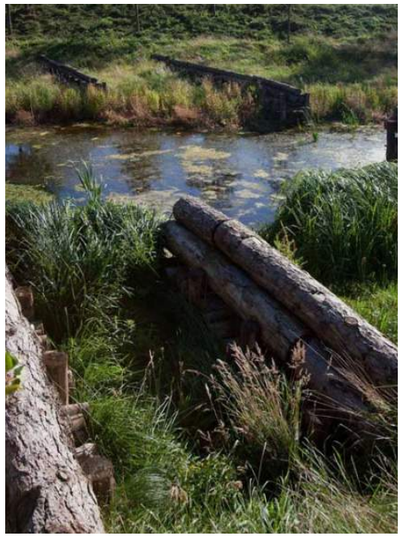
Natural areas also act as spaces to encourage connection to Country, allowing the community an opportunity to build links to local Indigenous history and culture.

The upgraded park will reassert itself as a major asset to the community, providing them with improved passive recreational opportunities to complement the established active recreation, as was desired by the parks creator.

Key outcomes

- Implementation of water quality improvement and habitat restoration projects will enhance the ecological value of the wetlands, increasing habitat and biodiversity, and providing a valuable resource and source of pride for the local community.
- Extend predominately native freshwater wetland community outcrops around the periphery of the northern pond with a view to self seeding in the future.
- Maintain ecological value with regular weed removal programs for biodiversity areas.
- Re-establish an identity for the park and embed it within the community to give local residents a sense of ownership and make Scarborough Park a recognised asset within the wider region.
- Provide opportunities for expansion of endangered ecological communities to improve their resilience and ongoing viability.
- Educate the local community on the importance and value of the ecological areas within the park.
- Limit the expansion of off leash areas within the park.
- Ensure that lighting does not impact ecologically sensitive areas.





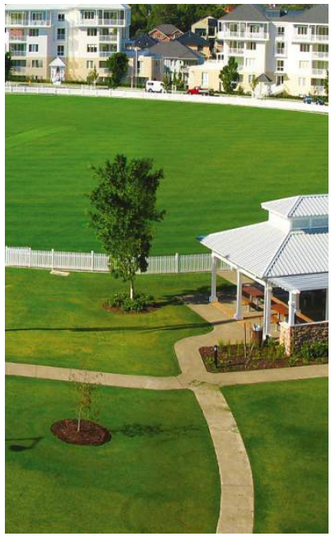
4.1.5 Promote active lifestyle and recreation

Whilst the park provides excellent amenity at an active recreation level, there are still gaps in the provision of fundamental infrastructure such as footpaths. This tends to preclude users with limited mobility or parents/carers with strollers, and groups who wish to use the park for informal recreation.

Objectives for the park should aim to cater to the wider community in terms of provision of passive, active and specialised recreational activities as well as ensuring the legacy of the park as a valuable ecological asset.

Key outcomes

- To complement active recreation, passive recreation that promotes relaxation, contemplation and socialisation will provide opportunities for a more diverse cross-section of the community.
- Provision of high quality facilities for public use will encourage daytime activation of the space, fostering passive surveillance and increased sense of safety within the community.
- Improving sports facilities to mitigate the impacts of adverse weather will aid in facilities being able to be utilised more frequently.
- Provide points of interest which are appropriately placed for ease of community access.
- Diversify the recreation offering within the park by providing additional activities such as
  + basketball court/s
  + a small learn to ride facility
  + bouldering rocks
  + outdoor fitness equipment station/s
  + opportunity to participate in community garden space.
- Investigate opportunities to improve quality and functionality of existing car parking without unnecessary incursions into parkland.
- Aim to ease congestion, and increase safety for pedestrians around Scarborough Park.
- Consider increased enforcement of illegal parking.



4.2 Zoning strategy

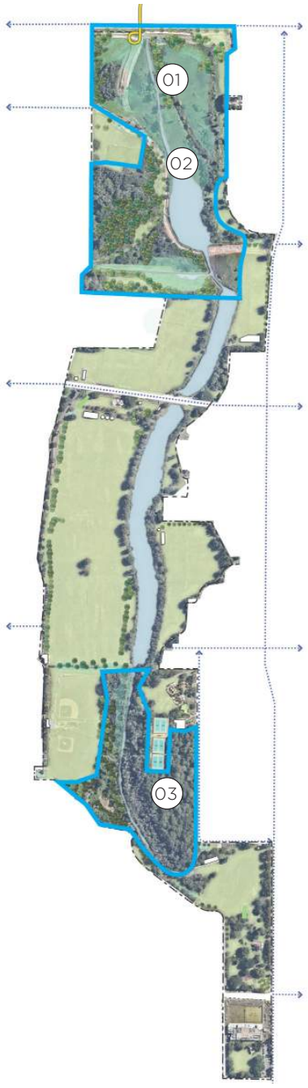
4.2.1 Conservation and biodiversity

Scarborough Park North and Hawthorne Street Natural Area will be designated as areas of conservation and biodiversity. Protection and improvement of ecological communities will be their primary purpose, although footpaths will allow these areas to be enjoy by the public.

The location of these areas corresponds with existing endangered ecological communities. Formalising these as conservation and re-establishment zones defines their boundaries and helps to ensure their ongoing protection.

MAIN FEATURES

01. Scarborough Park North is recommended for expansion of the existing Coastal Wetlands ecosystem, with an improved management plan to achieve a high quality ecological environment.
02. Explore the permissability and feasibility of the creation of a weir within the Coastal Wetland areas of northern Scarborough Park to allow control of water levels in the area - allowing better management and establishment of wetlands (subject to flood modelling to ensure no adverse impacts to surrounding areas, and permissability under Chapter 2 of the Hazard and Resilience SEPP).
03. Hawthorne Street Natural Area to have ongoing care and management of Kurnell Dune Forest and Swamp Oak Floodplain Forest endangered ecological communities. Access paths and other facilities will be maintained to allow community access and appreciation.



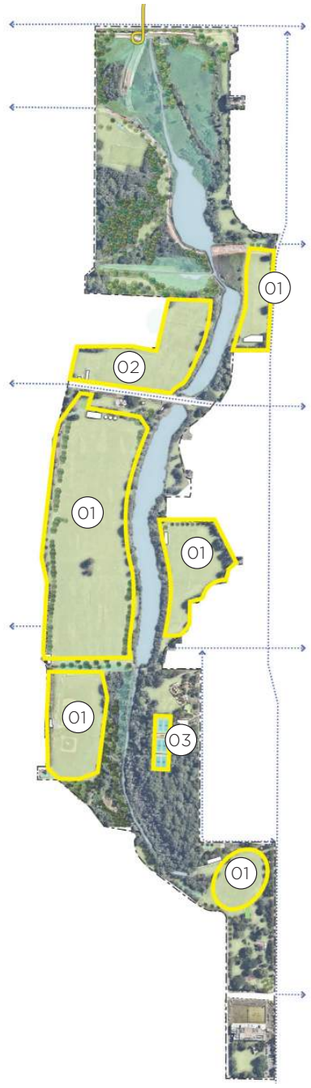
4.2.2 Organised sport

Scarborough Park provides significant open space for organised sports activities. A variety of sporting codes are accommodated within the precinct, including football (soccer), rugby league, cricket, AFL, baseball, tennis and archery.

Existing areas of formal sports use are retained in the masterplan. No expansion of facilities is proposed due to the constrained nature of the site and competing demands for other uses.

MAIN FEATURES

01. Existing sports fields to be retained for use by organised sport and passive community use. Ongoing management and maintenance of grass surfaces and drainage / irrigation systems.
02. Existing spectator facilities to be upgraded at Scarborough Park North, with consideration of a new pedestrian and cycle link along the northern side of Barton Street.
03. Courts upgraded in 2024 including provision on one multi-court within tennis court facility.

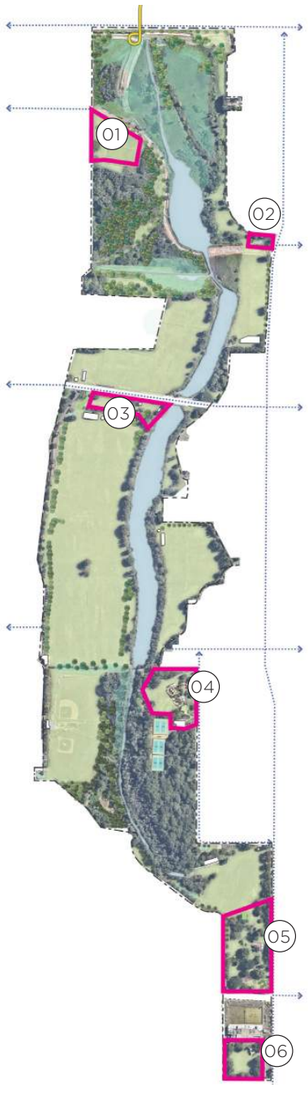


4.2.3 Passive recreation

Scarborough Park will ensure that additional community faciltiies are provided for passive recreation and relaxation.

MAIN FEATURES

01. The Civic Avenue area provides users of Scarborough Park North with some amenity space including a fenced off-leash dog area. Providing outdoor fitness equipment or 3 point basketball hoop would complement the existing open grass areas to enhance the passive recreation opprtunities and attract new park users.
02. The new shared path link creates an opportunity for a new community node at the northern end of Tanner reserve. Outdoor fitness could beprovided to link into a wider fitness trail.
03. Scarborough Park Central, will become a hub for family activity, with upgraded amenities, good play area, waterside access and junior sports pitches nearby. Minimal improvements are required to maximise community use/ enjoyment.
04. Leo Smith Reserve provides an excellent opportunity to create a family recreation hub, building on the existing hall, tennis courts, amenities, kick-about space and play area. Facilties such as learn to ride, and picnic/BBQ shelters would improve the offering for the community.
05. Tonbridge Reserve becomes the key open space in the south, with improved facilities for the community such as shelters and possible multi-court increasing activation and links to Ramsgate Beach Town Centre.
06. Pemberton Reserve remains as a community park, with imroved play space and picnic facilities linking to Ramsgate Beach Town Centre.

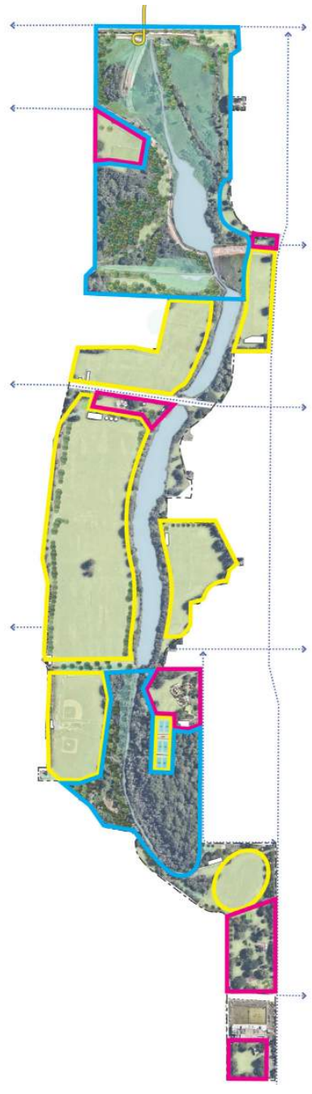


4.2.4 Combined Zoning

Conservation & biodiversity

Organised sport

Passive recreation



4.3 Circulation

4.3.1 Key routes

The primary route through the site consists of a shared path running north to south, with connections to on-road cycle routes at park edges. The paths within the park provide a pleasant off-road connection between suburbs and link into the existing surrounding network.

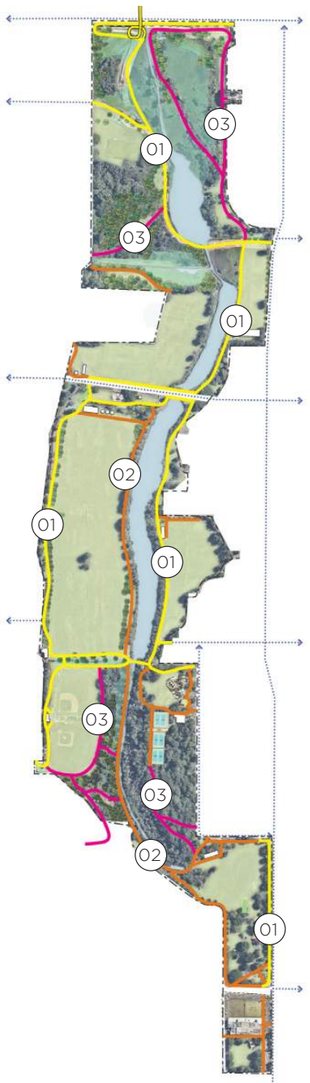
The path upgrades also improve circulation within the park and encourage the community to explore more of the open space network within the park.

Main features

01. Primary paths allows better access north-south and east-west, also continuing further north into Rockdale Bicentennial Park and beyond.
02. Secondary routes throughout the park allow for informal recreation and manage impacts in sensitive areas where primary paths may not be suitable.
03. Informal routes for maintenance and passive recreation. Soft surface path type minimises impacts within conservation areas and sensitive habitat zones.

Legend

- Primary path (hard surface)
- Secondary path (hard surface)
- Informal path (grass, soil, mulch or gravel surface)



4.3.2 Exercise routes

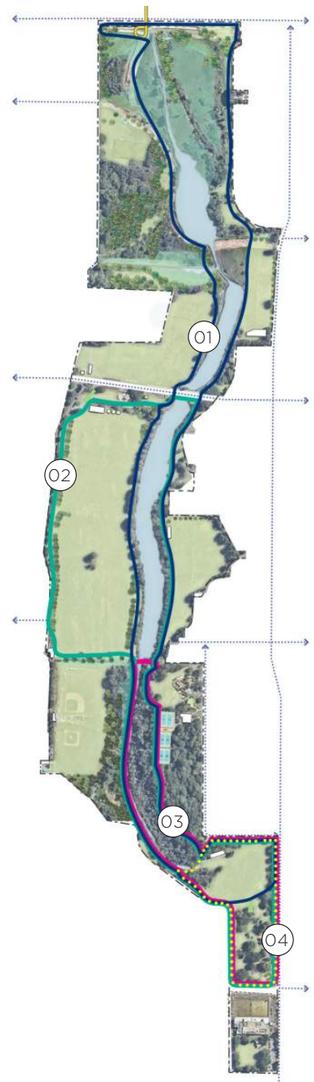
To promote fitness and health within the local area, routes around the park can be arranged to create circuits of varying lengths which can be incorporated into both formal and informal walking and running routes.

Main features

01. 5km route around the Scarborough Ponds waterbody, from Tonbridge Reserve oval to President Avenue. Requires crossing of Barton St.
02. 3.5km route around Scarborough Park Central, and south around Rotary Park. Fully off-road route.
03. 2km exercise route through Hawthorne Street Natural Area and around Tonbridge Reserve and Rotary Park. Fully off-road route.
04. 1km route running around Tonbridge Reserve and Rotary Park, located within close proximity of Ramsgate Beach Town Centre to encourage use. Fully off-road route.

Legend

- 5km route
- 3.5km route
- 2km route
- 1km route

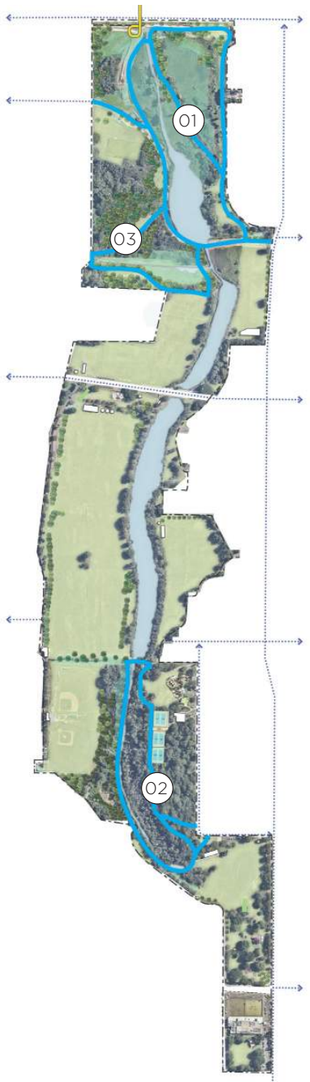


4.3.3 Education trails

As an area of high ecological value, it is important that people are able to learn what Scarborough Park adds to the local environment and understand the value of the ecosystems present on site. The educational routes offer trails through coastal wetlands, Kurnell Dune Forest and Swamp Oak Floodplain Forest.

The northern precinct of Scarborough Park retains remnant tree planting and a path connection along the alignment of the old Moorefield Racecourse, presenting an opportunity to highlight one aspect of history within the park.

Appropriate interpretive signage may be installed along routes to facilitate casual education opportunities.



Main features

01. Wetland and forest trail. Allows study of stormwater water management, flood control and wetland ecology within Patmore Swamp, along with exploration and discovery of woodland adjacent to Civic Avenue.
02. Hawthorne Street Natural Area Trail. Exploration of established high value Kurnell Dune Forest and Swamp Oak Floodplain Forest on allocated trails. Opportunity for wildlife spotting, particularly along the water's edge.
03. Additional pathway / extension to educational route provides a historically relevant route through the park, picking up on the original alignment of the racetrack.

4.4 New circulation links

4.4.1 Northern precinct

Scarborough Ponds are currently a significant physical barrier to connectivity between Monterey in the east and Kogarah in the west.

Currently, the only east-west crossing opportunities are via the footpath along the Barton St roadway or the verge alongside President Ave. As such, options have been considered to improve access between the two suburbs via a bridge crossing over the ponds.

As part of the M6 Stage 1 works, a new shared path crossing is to be constructed from Chuter Ave (near Robinson St), to Rockdale Bicentennial Park, utilising a new bridge over President Avenue. A connecting path is to link this path to Civic Ave near Annette Ave.

The masterplan identifies an additional secondary path connection to link the shared path to Civic Ave near Marshall St in the south.

A possible additional path link has been identified on the western side of the pond, linking Barton St via an additional bridge crossing to the new shared path and providing a direct north-south link.

4.4.2 Central precinct

This pedestrian link would cut across the middle of Scarborough Park Central linking Monterey Street to the north-south pedestrian link running along the west of the park.

A proposed bridge crossing would need to be subject to detailed investigations and potentially flood modelling to ensure no impacts on upstream or downstream flood storage capacity or flows.

Further feasibility investigation would need to be carried out prior to any detailed works being completed.

Benefits

- Better access for pedestrians living in Monterey to Scarborough Park Central, the key active recreation space in Scarborough Park.
- Scarborough Park East becomes more connected to the wider park, allowing sporting events to extend more seamlessly between areas.

Issues

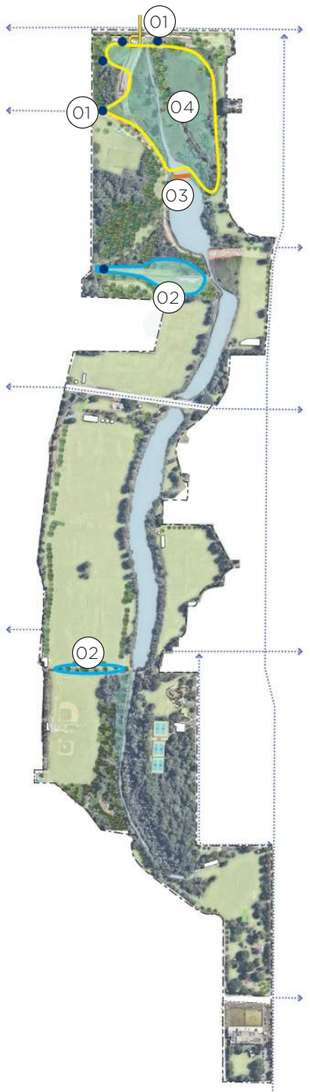
- A formal pathway across the pitches would result in less flexibility of pitch layouts. Note: By providing a bridge only, the link could be established without the need for full connecting pathway (shown dashed on plan).
- Bridge connection does not align with connecting pedestrian and cycle routes outside the park boundaries, reducing the cost benefit ratio.
- The bridge would be subject to flood modelling and may need to be elevated significantly above adjacent park levels, with abutments intruding into the open space.

4.5 WSUD & Ecology

4.5.1 Wetland Improvement

The wetlands in Scarborough Park north are home to some significant endangered ecological vegetation but are currently compromised by invasive weeds species and polluted stromwater inflows, testing the resilience of the system. Any improvements that can be made to the health and quality of the wetland system will also improve the amenity value of the area and encourage community support for the area. Any proposals would need to test permissability under Chapter 2 of the Hazard and Resilience SEPP.

Storm Consulting provided a number of recommendations for further, detailed investigation which may allow water levels to be managed, improving maintenance ability and enabling reed beds to filter incoming stormwater before hitting the main watercourse. All options would be subject to flood modelling and detailed investigations to determine feasibility.



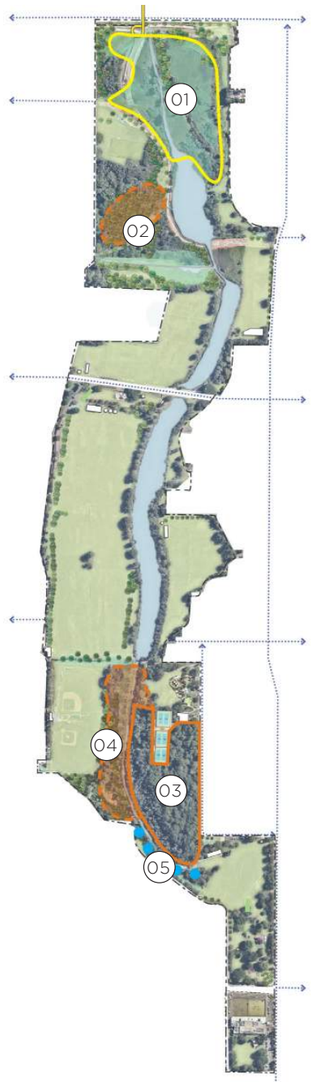
MAIN FEATURES

01. Potential opportunity for filtration pools created at stormwater outlets to clean incoming water before slowly passing through the wetland and into the main watercourse.
02. Potential opportunity for widening of channel to create wetlands area to improve water quality before stormwater reaches the main ponds system.
03. Potential opportunity for a new weir which could allow upstream water levels to be controlled and hold water for longer to allow additional treatment in wetland system and provide opportunity for levels within the main wetland to be modified to create a manageable wetland habitat system.
04. Management of wetland ecology to reduce weed invasion and improve system function.

4.5.2 Endangered Ecological Communities

The areas of endangered ecological communities within Scarborough Park are contained and the masterplan suggests that these areas are expanded as larger zones.

Circulation paths are maintained throughout these areas in order to facilitate community engagement and foster a sense of ownership. Pathways will be managed to limit their impacts and consolidate routes where possible.

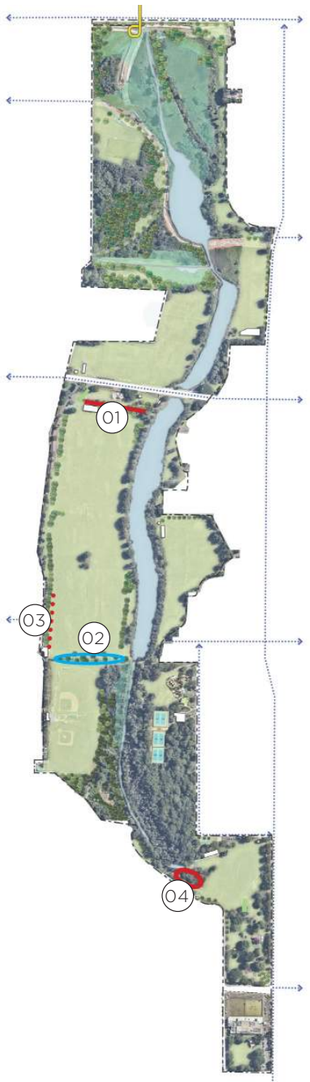


MAIN FEATURES

01. Management of coastal wetland ecology to reduce weed invasion and improve system function.
02. Existing Swamp Oak Forest group extended adjacent to Civic Avenue to improve ecological community health.
03. Hawthorne Street natural area.
04. Extension to Hawthorne Street Natural Area to provide extended Kurnell Dune Forest & Swamp Oak Floodplain Forest habitat along Tonbridge Creek, with defined activity / routes managed within the area.
05. Additional Swamp Oak Floodplain Forest planting adjacent to Tonbridge Creek to reinforce endangered ecological community.

4.5.3 Additional habitat & naturalisation

Several stormwater inlets from the surrounding area are currently channelised or in poor condition, for example those running from Scarborough Lane to the main waterbody and Production Avenue to Tonbridge Creek. The direct channelised nature of these drains does not allow for filtration or habitat to be created around them and leaves them subject to erosion. The masterplan explores options to naturalise these areas.



MAIN FEATURES

01. Opportunity to improve the visual, aesthetic and habitat value of the Scarborough Lane channel and improve (possibly widen) pedestrian connections across the channel with new fencing and planting.
02. Potential opportunity for Production Avenue drain to become a creek with meandering course around sporting fields to slow water and allow filtration. Tree planting along the course stabilises banks, reduces opportunity for invasive species and encourages establishment of marginals.
03. Opportunity to consider detailed grading works to ensure overland flow is directed towards the Production Ave drain and alleviate waterlogged ground to the western edge of the playing fields. Detailed design would need to coordinate with new shared path and field layouts.
04. Waterlogged ground within Tonbridge Street Reserve is used to introduce an intermittent wetland adjacent to Tonbridge Street. Picnic facilities will be moved to less flood-prone ground.

4.5.4 WSUD options: Sports pitches

Slit Drains

Due to the need to retain as much sporting amenity space as possible in Scarborough Park, provisions of sand-filled slit drains is a possible solution to alleviate ponding. Slit drains allow infiltration of water into the subsurface and reduce the impacts of compacted ground which limits how quickly water is able to soak away.

Complete re-turf

The existing site conditions and poor quality of turf could be alleviated through the reconstruction and re-turfing of all pitches, including the insertion of a substantial depth of good quality sandy loam beneath the surface to encourage free drainage.

More detailed work would need to be undertaken by a specialist to ensure a sufficient depth of soil is replaced to ensure a suitable outcome is achieved.

Levels

The reconstruction and returfing of the pitches also provides opportunity to adjust their levels slightly to push water off the pitch via a gentle slope and ensure water runs towards the ponds, correcting the existing uneven surface which encourages ponding.

Sand Grooving

20mm wide x 100mm deep grooves are created within the pitch surface in order to alleviate drainage issues. This method could be combined with slit drains.

Contamination & landfill

Note that all proposals for sports fields are to be considered in relation to known contamination and previous landfill sites. Any works would need to be contained within the topsoil layer, leaving landfill capping intact.

4.5.5 WSUD options: Parking areas

Any new areas of parking proposed at park edges could incorporate swales and/or rain gardens to collect surface water and allow filtering and infiltration before excess water enters the stormwater system.

Swales

Swale design can vary to suit specific locations, from gently-graded open, turf swales, to more steeply graded and planted swales. Swales can be a low-maintenance option for collecting water, but can become boggy in periods of extended wet weather. Due to their linear nature, periodic bridge crossings may be required to facilitate pedestrian access in wet weather.

Rain gardens

Rain gardens are typically located adjacent to roadways and collect surface water via flush kerbs or raised, castellated kerbs. The finished surface of the rain gardens is set down from the adjacent road surface and planted out to maximise filtering and removal of excess nutrients from water.

Rain gardens can accommodate both tree and understorey planting (typically reeds and native grasses).

4.5.6 WSUD options: Water quality

Soakage Pits

Innovations in stormwater system design has allowed the development of many proprietary devices which can be used in either in isolation or in conjunction with street tree planting to provide passive watering to trees, filter stormwater and remove certain pollutants from the water before discharge into the downstream system.

It is recommended that these type of units are investigated further during any future detailed design projects in the local area to possibly aid in removing pollutants from incoming water sources and imrpove water quality within the coastal wetlands and ponds system.

Gross pollutant traps (GPTs)

With approximately 30 stormwater outlets releasing water into the channels and ponds, it is not currently feasible to install pollutant traps to every inlet point, particularly with access requirements making maintenance operations difficult.

Future investigations or studies could complete analysis work to identify outlets with large upstream catchments and those with typically higher gross pollutant loads. These inlet points could then be targeted for strategic upgrades and installation of pollutant traps at sensible locations (such at the park/urban interface) to improve water quality within the ponds.

To improve aesthetics of stormwater outlets, rock headwalls could be built to any pipe in a prominent position (refer to image bottom right).

Where possible, deck structures should be positioned over stormwater outlets to disguise GPTs (ensuring proper maintenance access is maintained).

Wetlands at inlets

The widening of narrow channels and the creation of addtional wetlands at inlets into the park system may provide opportunity to remove excess nutrients from the water before it enters the main pond system. Planted wetlands at park edges work well in conjunction with GPTs, catching any additional suspended solids at an easily accessible location for monitoring and maintenance.

Suitable locations should be identified in conjunction with an overall stormwater system analysis to ensure that wetlands do not impact drainage from surrounding areas, and there is no reduction is overall flood storage capacity within the park system.

05 MASTERPLAN

5.1 Northern precinct: Wetlands zone

The masterplan focus for this area is to become an area of wetland conservation, with controlled recreational use. Stormwater storage may be increased and released to the main watercourse will be slowed through introduction of additional wetland pools. A management focus will be on weed control and removal to ensure a healthy and biodiverse habitat is maintained.

As part of the M6 Stage 1 works, rehabilitation works will be undertaken within Patmore Swamp following completion of the project.

Main features

01. New shared path link through Patmore Swamp (delivered as part of M6 Stage 1 works).
02. New elevated pedestrian and cycle bridge over President Avenue, linking to Rockdale Bicentennial Park and north to Brighton Le Sands and Kyeemagh.
03. Weed management within existing estuarine wetland ecosystem.
04. Protect existing Swamp Oak Floodplain Forest and undertake weed control.
05. Extension of Swamp Oak Floodplain Forest endangered ecological community to areas within the wetland periphery.
06. Possible extension of Coastal Swamp Forest to wetland periphery.
07. Investigate opportunity to reshape and replant wetland areas to improve water treatment and strengthen Coastal Wetlands ecosystem, ensuring no adverse flood impacts to surrounding area..
08. Opportunities for viewing decks off surrounding pathways for education, contact with nature and relaxation with minimal incursion into wetlands.
09. Shared path links to Chuter Ave on-road cycle links.
10. New shared path connects south into remainder of Scarborough Park, opening up the park with improved accessibility.
11. Informal pathway connects along the route of the historic Moorefield racecourse, connecting Civic Ave with the new shared path link.
12. New footpath to be installed at the interface of Civic Avenue to improve pedestrian connectivity.
13. Fenced off-leash dog area retained as existing within informal recreation area.
14. New fitness facility and/or opportunity for 3 point basketball court.
15. Improve connectivity between Colson Avenue play space and Scarborough Park trails and recreation nodes.
16. Existing walking trail retained. Overgrown sections to be managed with weed removal to reinstate access.
17. New informal walking trail connection to provide loop at end of existing path.
18. Possible widening of the existing creek / channel to take advantage of the high water table and create a structured wetland, filtering water before it enters the main ponds.

Rehabilitation strategy for Patmore Swamp
Source: M6 Motorway Stage 1, Urban Design and Landscape Plan

5.2 Northern precinct: Active zone

As the northern precinct nears Barton Street, the area transitions from conservation and educational uses into formal sports and recreation. It is primarily made up of grassed sporting pitches, with increased opportunity for contact with the ponds.

Main features

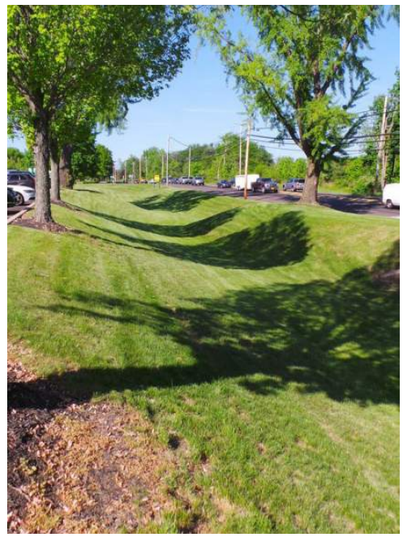
01. Scarborough Park North retained for organised sport.
02. Tanner Reserve retained for organised sport.
03. Scarborough Park Central retained for organised sport.
04. New shared path connects to Barton Street and south into remainder of Scarborough Park, opening up the park with improved accessibility.
05. New shared path alongside Barton St to improved pedestrian and cycle connectivity. To be installed in conjunction with reconfigured and improved spectator viewing area to Scarborough Park North. Existing car parking retained.
06. Desire to install pedestrian crossing at key linkages to replace existing islands and improve pedestrian safety when travelling within the park.
07. Investigate opportunity to modify banks to create shallower gradients, increasing water storage capacity, and varied habitat and ecology.
08. Opportunity for new bioretention basin to remove excess nutrients from runoff from the Market Gardens before entering the pond.
09. Extension of Swamp Oak Floodplain Forest endangered ecological community to areas within the wetland periphery.
10. Possible replacement of existing pontoon with large timber deck for recreational use (including model boating).
11. Play area retained. Opportunity for expanded family recreation offering in grassed area adjacent.
12. Landscape works such as replacement fencing and new planting around concrete channel to improve visual amenity and increase habitat. Investigate options to improve pedestrian crossings with increased path widths.
13. New fitness facility.

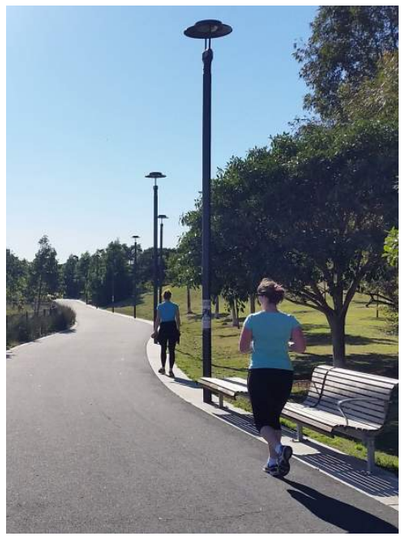
5.3 Central precinct: Scarborough Park Central & Scarborough Park East

This is the central hub of active recreation, offering opportunities for a diverse range of sports across seasons, as well as a family recreation area at the Barton Street interface.

Main features

01. Scarborough Park Central retained for organised sport.
02. Scarborough Park East retained for organised sport.
03. Shared paths form primary north-south circulation routes within the precinct.
04. Secondary pathway facilitates pedestrian circulation alongside the waterway.
05. Tree planting along circulation routes and around the periphery of the pitches provides shade to spectators and casual users. To be coordinated with detailed sporting layouts.
06. Opportunity to modify banks to create shallower gradients, increasing water storage capacity, and varied habitat and ecology.
07. Investigate options to regrade turf to fall south towards Production Avenue drainage channel to reduce waterlogging at the western edges of playing fields.
08. New fitness facility.
09. Formalised 90 degree parking off Monterey Street to provide additional parking for sporting users and reduce demand on street parking for residents.
10. Investigate opportunity to widen drainage channel with wetland planting to improve water quality of stormwater inlet.
11. New elevated crossing over inlet (or reconstructed inlet) to provide improved connection to Phil Austin Baseball Fields.
12. Install pedestrian crossing facility at key link to improve pedestrian safety when travelling within the park.





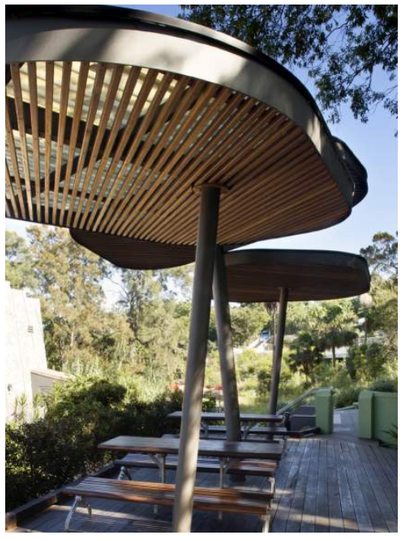
Sydney Park fitness area by Jane Irwin Landscape Architecture

5.4 Southern precinct: Hawthorne Street Natural Area & Phil Austin Baseball Fields

Opportunities for this area to include upgrade of existing sports facilities, improved east-west connectivity, enhanced passive recreation and protection of Hawthorne Street natural area.

Main features

01. Phil Austin Baseball Fields retained for organised sport.
02. Tonbridge Reserve retained for organised sport (as existing).
03. Existing tennis courts recently upgraded, including incorporation of multi-court.
04. Secondary path forms primary north-south circulation route within the precinct. Opportunity to replace existing informal pathway alongside pond with an elevated walkway to improve weather durability and reduce construction impacts on sensitive riparian and wetland ecosystems.
05. Primary pathways facilitates pedestrian and cyclist circulation throughout the precinct.
06. Existing soil & mulch paths retained in Hawthorne Street Natural Area and on western side of pond.
07. Desired new pedestrian pathway connection to improve accessibility. May require land acquisition to proceed.
08. Existing pedestrian bridge spanning the ponds replaced (investigate realignment and widening) to accommodate shared route.
09. Informal turf walking routes retained.
10. New cycle path link established along Florence Street and Hawthorne Street to facilitate safe cyclist movement from Tonbridge Reserve to the park primary path link joing Hawthorne Street near Emmaline Street.
11. New family recreation zone with learn to ride / bike loop, basketball half court/3 point, table tennis, shade structures, picnic tables, and BBQs. Design to cater for multiple groups of different sizes, with shelters in different locations of varying sizes and facilities for diversity.
12. Existing passive recreation area to be retained without addition of sports, contributing to the recreation value of the family zone adjacent.
13. New fitness facility.



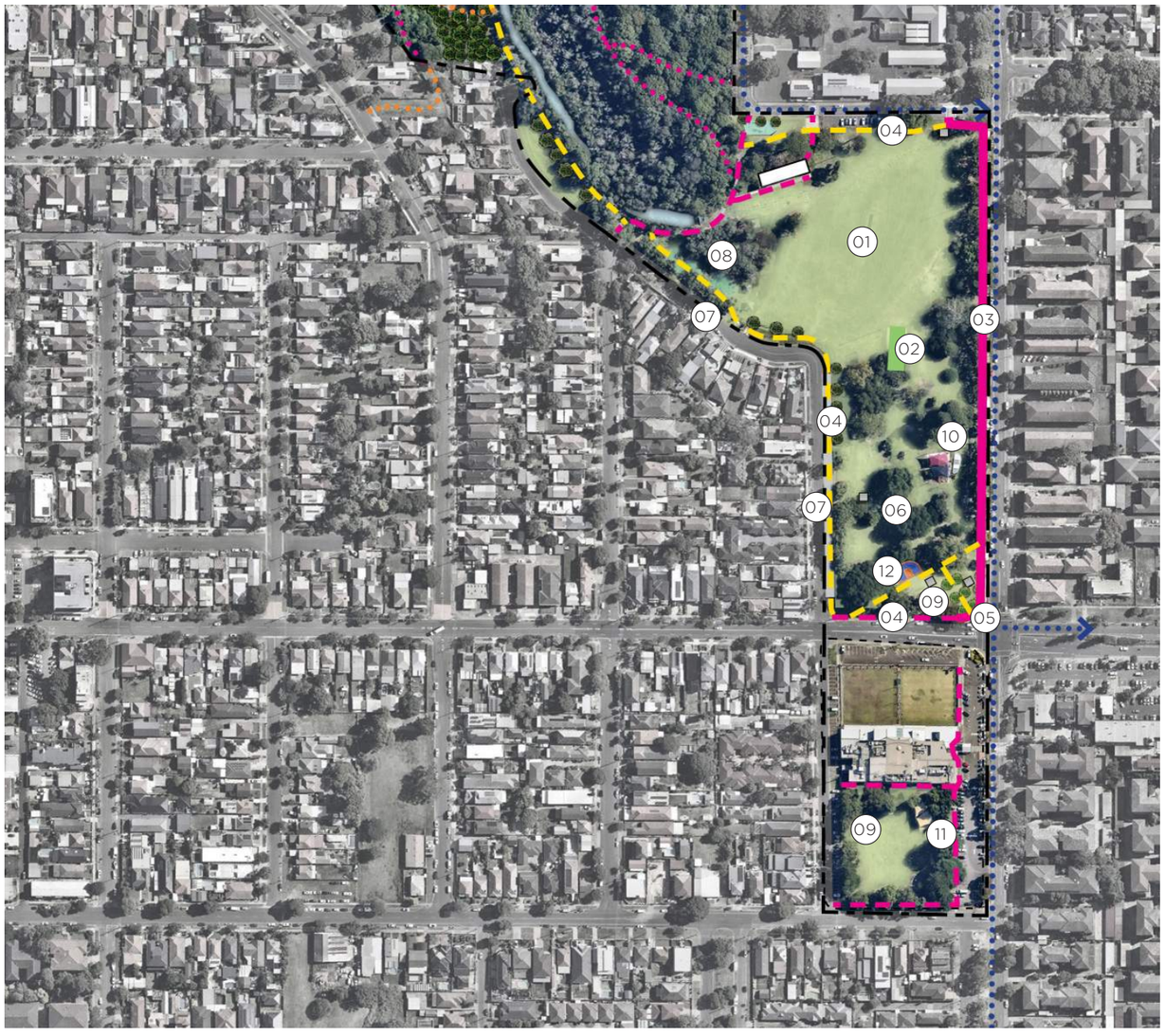
Sydney Park bike track by Turf Design Studio

5.5 Southern precinct: Tonbridge Reserve, Rotary Park & Pemberton Reserve

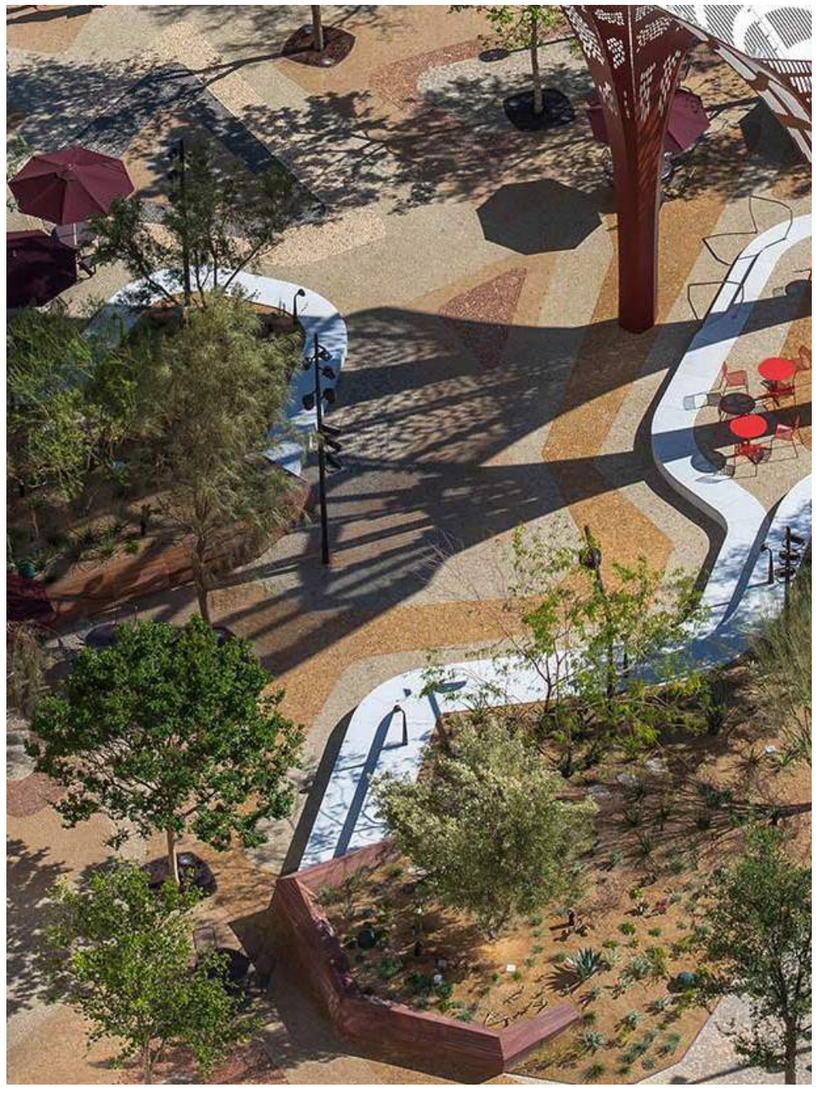
This area is to become a key entrance into the park. Its close proximity to Ramsgate Beach Town Centre and medium density residential properties means that it will be highly used by a wide variety of residents.

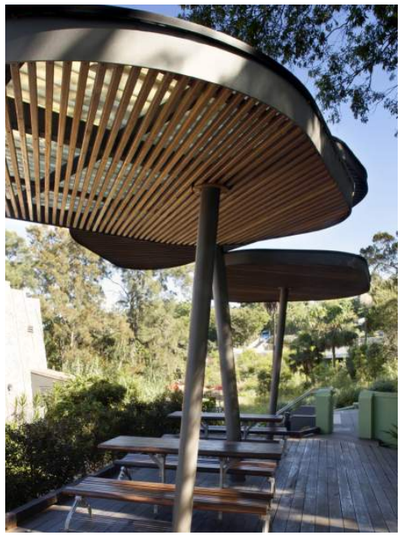
Main features

01. Tonbridge Reserve retained for organised sport (all current uses retained).
02. Cricket nets recently upgraded.
03. Existing shared path to Chuter Ave interface.
04. New secondary loop path to the perimeter of Tonbridge Reserve and Rotary Park and extending along Florence Street, linking with existing paths. Path utilises existing footpath along Ramsgate Road frontage.
05. Opportunity for an enhanced and enlivened entrance to the park to connect to Ramsgate Beach Town Centre and encourage visitors to spill into the park from the local retail centre.
06. Protect and retain heritage trees within Rotary Park as a defining character item and important shade provision.
07. Opportunity to formalise 90 degree parking along Tonbridge Street.
08. Investigate planting intermittent wetland/swale in flood-prone area.
09. New picnic shelters with Rotary Park and Pemberton Reserve for general community use.
10. New shelter to Tonbridge Reserve/ Rotary Park play space.
11. Upgrade play offering in Pemberton Reserve, including associated facilities such as shade structure and seating.
12. New casual recreation facility - half court at interface with Ramsgate Beach Town Centre




HIDDEN
UNKNOWN
SEEK
FEEL
OPEN
BLIND
ASK





5.6 Overall masterplan

Legend

Master plan boundary

Paths

- Active transport link path (M6 works)
- Existing primary path (hard surface)
- New primary path (hard surface)
- Existing secondary path (hard surface)
- New secondary path (hard surface)
- Existing walking trail (soft surface)
- New walking trail (soft surface)
- Desired walking trail (soft surface)
- Cycle routes on surrounding roadways

Circulation routes

- 01 Pedestrian & cycle bridge over President Ave (M6 works)
- 02 New east-west bridge across Scarborough Pond (M6 works)
- 03 Existing soft surface pedestrian paths
- 04 New soft surface pedestrian paths
- 05 Desirable future path link (land not currently owned by council)
- 06 New on-road cycle link

Site features

- A Existing open space area retained for organised sport and casual recreation
- B Existing open space area retained for casual recreation
- C New family recreation zone with learn to ride features, path loop, basketball half or 3 point court, table tennis, shade structures, picnic tables, and BBQs. Design to cater for multiple groups of different sizes, with shelters in different locations with varying size & capacity.
- D Existing tennis courts (recently upgraded) with multi-court
- E New fitness equipment area
- F Supplement existing playground with shelter and additional facilities
- G Provide new picnic tables and shelters within Rotary Park
- H Possible additional multi-court or informal active recreation facility
- I Create entry statement/ arrival landscape at Ramsgate Beach Town Centre address
- J Opportunity to formalise angle car parking for park users
- K Playground renewal at Pemberton Reserve
- L Remove dated play equipment near Pasadena St (Scarborough Park East). Do not replace in this location
- M New pedestrian crossing facility to improve safety
- N Opportunity to increase biodiversity and improve water quality
- O Possible widening of the channel to create a structured wetland, filtering water before it enters the main ponds
- P Existing fenced dog park retained in current form (no expansion, no lighting)
- Q Opportunity for 3 point basketball hoop

06 STAGING AND FUNDING STRATEGY

6.1 Staging and funding strategy

There are a range of funding sources that could be considered to deliver this significant project. The list below provides an indication of how the project could be funded.

An Infrastructure Levy is currently collected for the area covering Scarborough Park. This funding is available to fund replacement of existing infrastructure.

Council collects contributions from developments that generate additional demand and growth of infrastructure such as recreational facilities. These funds are collected under Section 7.11 and S7.12 of Environmental Planning & Assessment Act, 1979 (EP&A Act).

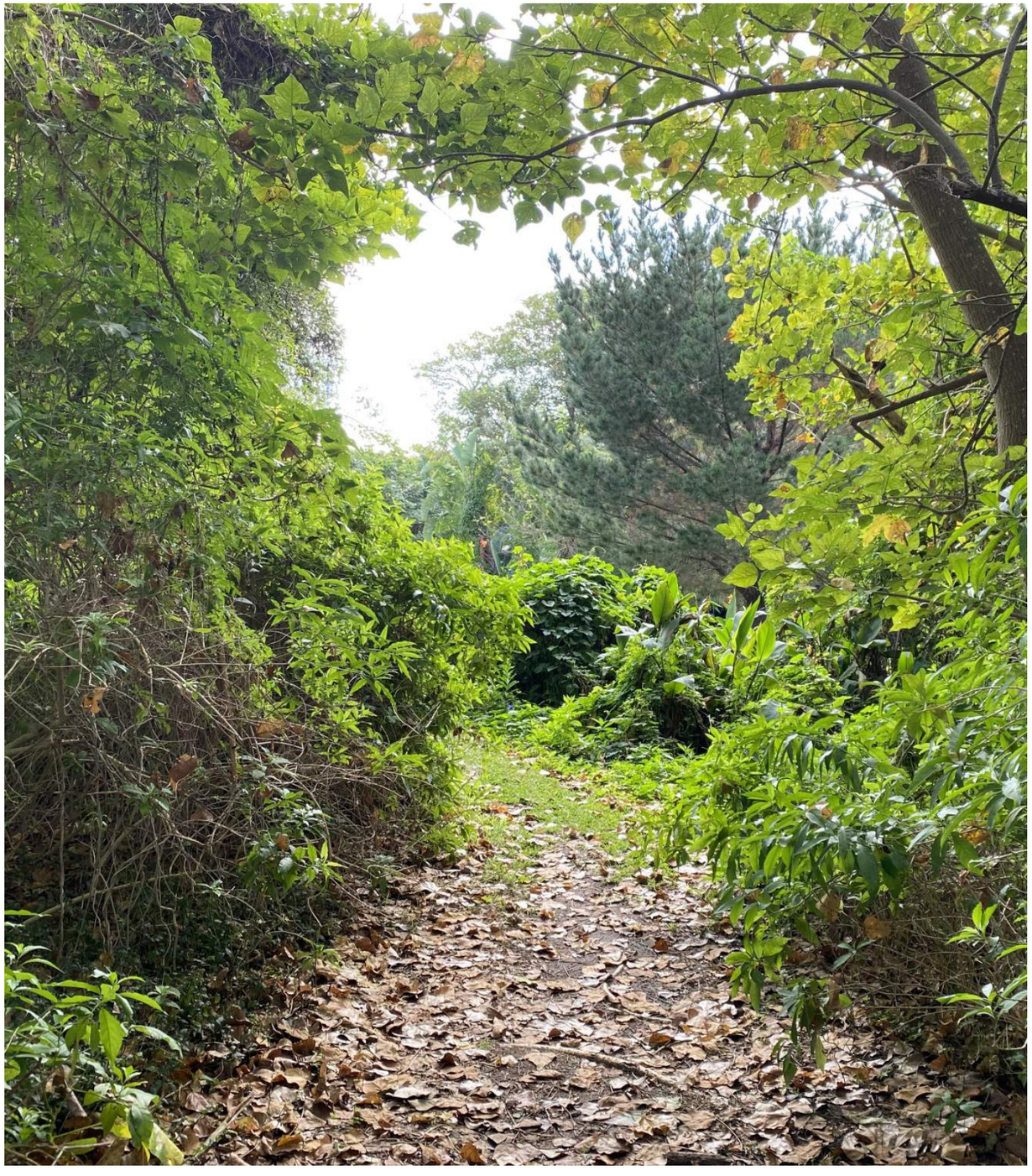
Council collects a Community Safety Levy specifically for enhancing community safety.

Council charges a Stormwater Levy to undertake significant improvements to the stormwater system to provide a cleaner and safer environment for the benefit of owners, residents and visitors.

Council will pro-actively seek grants from other government agencies to help achieve the vision for Scarborough Park. This may include:

- Metropolitan Green Space Grants
- Environmental Grants for interface with Environmental and wetland areas eg. Lookouts, interpretation, bush regeneration
- Sport and Recreation Grants
- Water quality Grants
- Coastal Grants
- Active Transport Grants
- Vegetation Management Grants
- Art and Education Grants

Works description	QS valuation	Potential funding source
Short term (0-3 years)		
New Primary and secondary walking & cycling path (linemarking, signage)	$4,787,598	Contributions / VPA or Grant
Elevated boardwalk and bridge	$2,158,930	SRV / Contributions / VPA or Grant
2 x outdoor fitness areas	$200,000	Contributions / VPA or Grant
1 x 3-point basketball court	$250,000	Contributions / VPA or Grant
Picnic shelter and table	$300,000	SRV / Contributions / VPA or Grant
Contractor's preliminaries and margin (13%)	$100,055	SRV / Contributions / VPA or Grant
Subtotal	**$7,796,583**	
Medium term (3-6 years)		
Walking trail / mulched path	$104,448	SRV / Contributions / VPA or Grant
Improvement to parking	$930,040	SRV / Contributions / VPA or Grant
Earthworks to improve drainage, provide turf and mass planting	$648,491	SRV / Contributions / Stormwater Levy / VPA or Grant
Park entry enhancement	$200,000	Contributions / VPA or Grant
Family recreation space (new play facilities, shade structure, park furniture, BBQ, picnic sets, drinking bubblers)	$3,425,640	SRV / Contributions / VPA or Grant
3 x outdoor fitness areas	$300,000	Contributions / VPA or Grant
Contractor's preliminaries and margin (13%)	$690,120	SRV / Contributions / Stormwater Levy / VPA or Grant
Subtotal	**$6,298,739**	
Long term (6-10 years)		
WSUD (wetlands, increase biodinersity and improve water quality)	$1,300,000	SRV / Contributions / Stormwater Levy / VPA or Grant
1 x playground renewal	$500,000	SRV / VPA or Grant
Contractor's preliminaries and margin (13%)	$169,000	SRV / Contributions / Stormwater Levy / VPA or Grant
Subtotal	**$1,969,000**	
Works subtotal	**$16,064,322**	
Design and Professional Fees (10%)	$1,606,432	SRV / Contributions / VPA or Grant
Contingency (10%)	$1,606,432	SRV / Contributions / VPA or Grant
Professional fees+authority fees (9.5%)	$1,526,111	SRV / Contributions / VPA or Grant
Escalation 3% p.a. for 3 years	$1,489,596	SRV / Contributions / VPA or Grant
	$22,292,894	



07 NEXT STEPS

7.1 Next steps

The draft Scarborough Park Masterplan will be exhibited for 4 weeks in June 2024.

Display boards will be located in several locations on the site. Letters will be sent to adjacent residents and stakeholders including sporting groups and associations, Government land owners, TfNSW, Sydney Water. operators of the Market Gardens. Information sessions will also be arranged where staff can answer questions from the interested members of the public at a time to be confirmed.

Investigations such as detail survey and geotechnical will commence soon specifically in the areas identified for areas that will impact the former landfill areas and where change will likely occur.

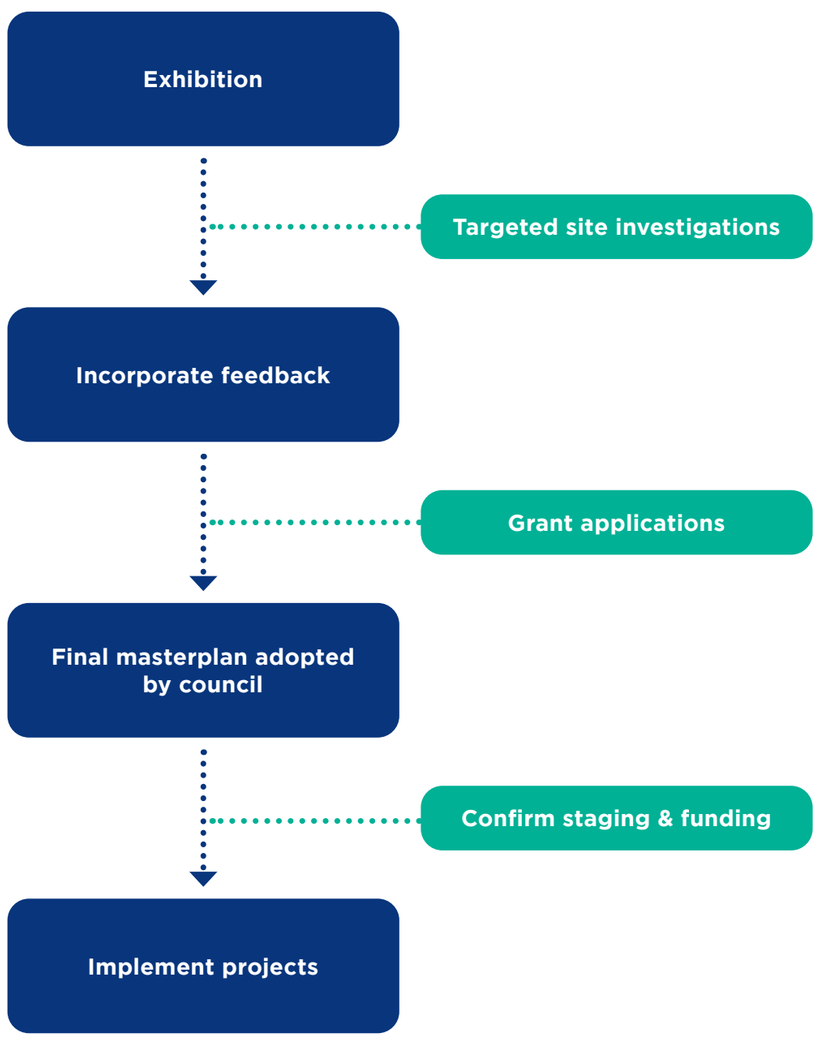
Council will submit grant applications for suitable programs as they become available.

The results of the Have Your Say process and feedback received will be reported to Council at the first available opportunity after the 2024 Local Government Elections.

Feedback will be considered and incorporated in the the final Scarborough Park Masterplan for Council endorsement.

A staging plan and funding strategy for the long term implementation of approximately 10 years will be further developed.

Priorities as determined by Council will proceed to detail design stage and implementation as identified in future capital programs to be included in the Bayside Council City Projects Program exhibited annually.



08 APPENDIX A: CONSERVATION MANAGEMENT PLAN

Bayside Council
Serving Our Community

Bayside Customer Service Centre
Rockdale Library, 444-446 Princes Highway, Rockdale
Westfield Eastgardens, 152 Bunnerong Road, Eastgardens
Monday to Friday 8:30am - 4:30pm, Saturday 9am - 1pm

Phone **1300 581 299**
Email **council@bayside.nsw.gov.au**
Web **www.bayside.nsw.gov.au**