

Newport Lakes Conservation and Improvement Plan

Prepared for Hobsons Bay City Council

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1. INTRODUCTION

1.1 Project scope

The Newport Lakes Open Space Conservation and Improvement Plan has been prepared to identify, protect, and enhance the environmental, cultural heritage and community open space values associated with the lake and surrounding open space area. The plan seeks to balance the role of the reserve as a primary biodiversity Conservation Area whilst meeting the increasing needs of the local community for open space and recreational access. The plan has been developed by Hobsons Bay City Council in consultation with key stakeholders. Following discussion and refinement of priorities and actions in consultation with the local and broader community, it will be used to guide strategic planning and management actions, capital works and implementation priorities for the lake and open space over the next ten years.

1.2 Study Area

Newport Lakes Reserve is a 33 hectare urban bushland park located between Mason Street and Blackshaws Road in central Newport. Formerly a bluestone quarry and partial landfill site, the land parcel was reclaimed by Council and turned into public open space featuring a number of different precincts including a bushland lakes Conservation Area, dog off-leash area, play and picnic area and Arboretum.

1.3 What is an open space conservation and improvement plan?

An open space conservation and improvement plan provides a vision for an open space area, identifying environmental and cultural values and articulating what it should look like and how it should function into the future. It seeks to establish a strong and consistent direction by providing a framework for protection of key values and identification and prioritisation of opportunities for ongoing improvement. It considers the interrelationship between:






















- current character and functionality of the landscape
- public expectations and needs
- emerging issues and trends
- the realities of the economic, social, environmental, and legislative context of the time

The result is a plan that balances needs across a range of often conflicting interests. The Open Space Conservation and Improvement Plan does not necessarily suggest that all elements of the plan should proceed immediately, or that Hobsons Bay City Council or the user groups should be responsible for all capital costs, in respect of those items that are progressed.

It is important to note that the intent of an Open Space Conservation and Improvement Plan is to provide a framework for future development of the park over an extended period so that ad-hoc improvements are avoided, and community use and long-term viability are maximised. To ensure this intent is achieved, the plan will be regularly monitored to ensure the outcomes continue to meet community needs in the best possible way.



DRAWING KEY

- | | | | |
|--|---|---|--|
|  | EXISTING OPEN SPACE (PPRZ) |  | MIXED USE (MUZ) |
|  | EXISTING OPEN SPACE (PCRZ) |  | EDUCATION USE (PUBLIC) |
|  | EXISTING OPEN SPACE (NOT PPRZ & PCRZ) |  | EDUCATION USE (PRIVATE) |
|  | EXISTING OPEN SPACE RESTRICTED (ZONED PPRZ) |  | PUBLIC ACQUISITION OVERLAY (PAO) |
|  | ADJOINING OPEN SPACE |  | ENVIRONMENTAL SIGNIFICANCE OVERLAY (ESO) |
|  | PORT OF MELBOURNE ONGOING USE * |  | MELBOURNE WATER LAND (OPEN SPACE) |
|  | AREAS OF MUNICIPALITY INCLUDED IN PORT OF MELBOURNE PLANNING SCHEME |  | TRAIN STATIONS & RAILWAYS |
|  | COMMERCIAL USE (BUSINESS ZONE 1 & 3) |  | NEIGHBOURHOOD BOUNDARY AND NAMES |
|  | INDUSTRIAL USE (INDUSTRIAL ZONE 1 & 3) |  | ROAD BRIDGES |
|  | PETROCHEMICAL/MARINE ENGINEERING/SPECIAL INDUSTRIAL USE ** |  | FOOTBRIDGES |
| | |  | PEDESTRIAN RAIL CROSSING |

0 0.25 0.5 0.75 1.0km



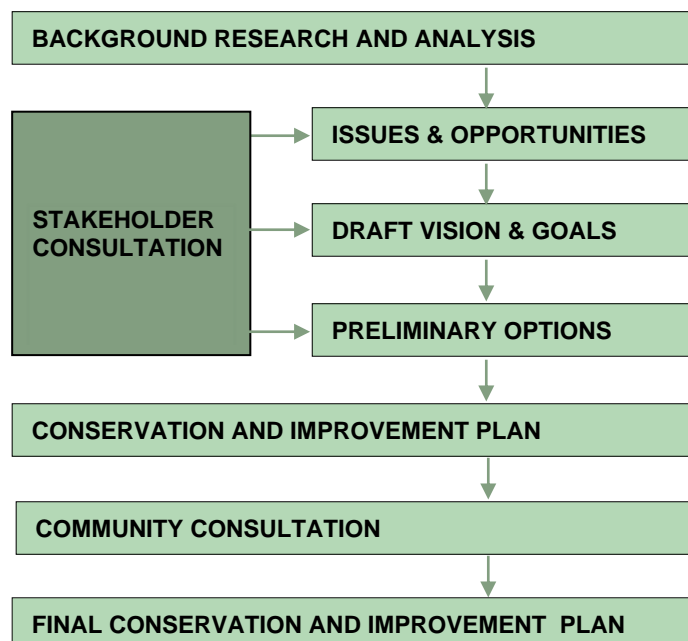
Figure 1
OPEN SPACE CONTEXT

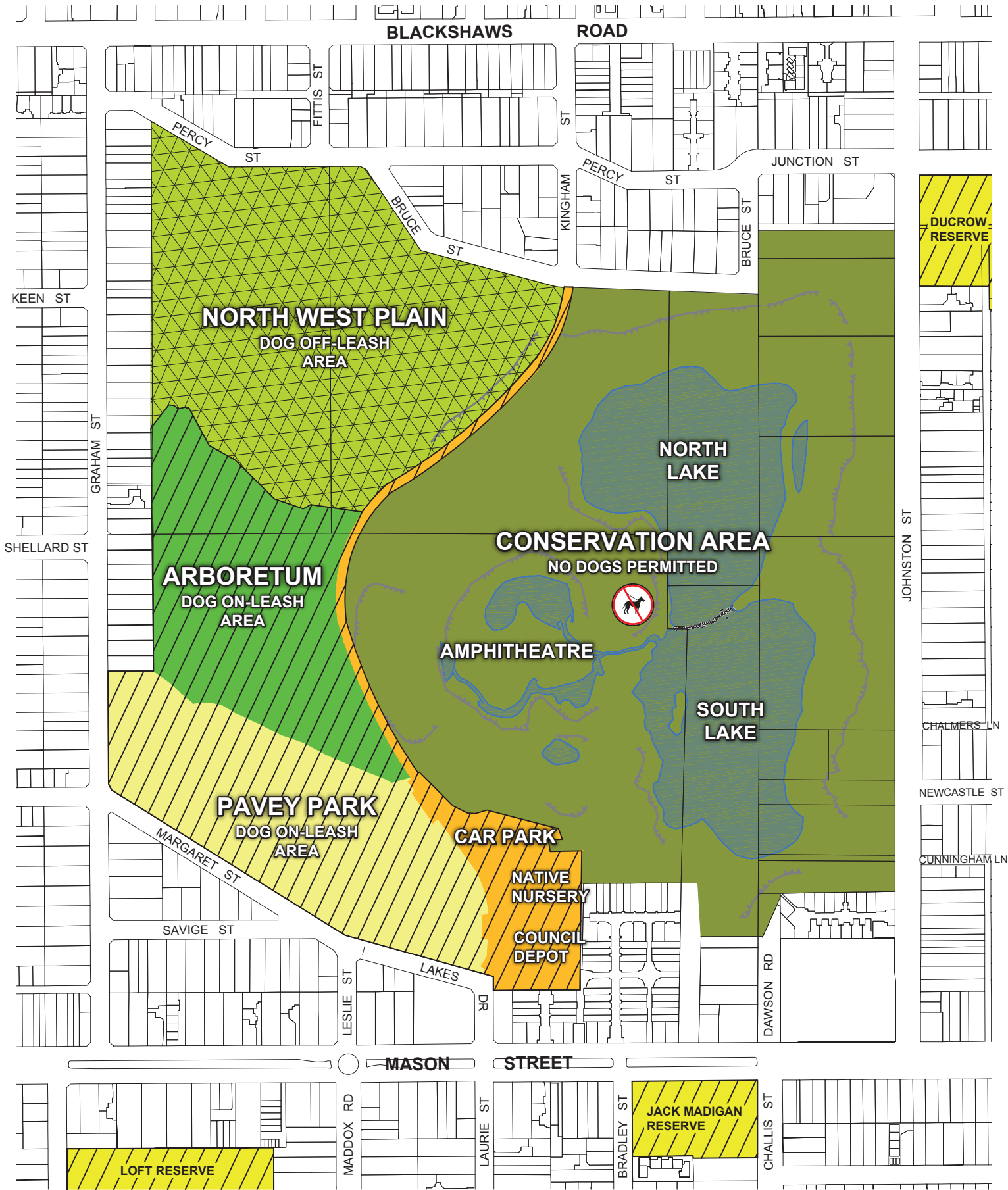
1.4 Key Project Objectives

As outlined in the brief key project objectives include:

- prepare a new Open Space Conservation and Improvement Plan that accurately reflects all assets and infrastructure in the reserve, identifies the distinct zones, and outlines future development of the precinct
- develop a comprehensive concept design for a new destination nature play space at Pavey Park worthy of a regional park
- in collaboration with the Conservation team and Open Space and City Design team, identify infrastructure within the Conservation Area and other parts of the reserve in need of replacement or upgrade including fencing, furniture, tracks, lookout decks, foot bridges, bird hide etc
- investigating improvements required to the dog off leash area such as fencing, signage, locations of bins and bag dispensers
- develop a comprehensive concept design that includes all necessary infrastructure (fencing, signage, bin, and dog bag dispensers, drinking water, shade (built and/or natural), and furniture; and must include locations of existing infrastructure
- determine locations of wayfinding signage based on Council's existing suite of hierarchical wayfinding signage
- Investigate opportunities to improve drainage within the park and utilise stormwater inflows, possible creation of instream wetlands and habitat diversity.
- improve entrance from Mason Street as gateway to the park
- provide a cost estimate of all proposed future works together with a staged priority implementation plan to facilitate the delivery and completion of the Open Space Conservation and Improvement Plan recommendations
- assist Council officers with the community engagement and consultation process

1.5 Project Process





DRAWING KEY

- | | | | |
|--|----------------------|--|---------------------|
| | ADJOINING OPEN SPACE | | OPERATIONAL ZONE |
| | ARBORETUM | | DOGS ON-LEASH AREA |
| | CONSERVATION AREA | | DOGS OFF-LEASH AREA |
| | NORTH WEST PLAIN | | NO DOGS PERMITTED |
| | PAVEY PARK | | |



Figure 2
EXISTING LAND MANAGEMENT

2. STRATEGIC CONTEXT

2.1 Land Management

Newport Lakes Reserve is owned and managed by Hobsons Bay City Council. The reserve is primarily managed by the Hobsons Bay City Council Conservation Team with assistance from Friends of Newport Lakes (FoNL). The nursery located off Lakes Drive is privately owned and operated. It is open to the public and sells local indigenous plants as well as growing plants for use in revegetation projects within the reserve.

2.2 Key Strategic Documents

The following documents have been reviewed, as part of developing the Draft Plan recommendations.

- *Biodiversity Strategy 2017-2022*
- *Bridge Asset Management Plan 2019*
- *Climate Change Policy 2013*
- *Climate Change Adaption Plan 2013-2018*
- *Dogs in Public Places Policy V2 2018*
- *Events and Festivals Plan 2016-2021*
- *Hobsons Bay Open Space Strategy Report 2018-2028*
- *Living in Hobsons Bay: an Integrated Water Management Plan 2014-2019*
- *Open Space Asset Management Plan 2020*
- *Open Space Strategy 2018 - 2028*
- *Play Space Strategy Report 2013-2023 Executive Summary May 2013*
- *Public Art Strategy 2016-2020*
- *Public Toilet Strategy August 2013*
- *Universal Design Policy Statement 2017*
- *Urban Forest Strategy 2020*

The following is a summary of the key outcomes and recommendations from existing background documents that inform the development of the plan. For more detailed descriptions please refer to the original reports.

2.3 Hobsons Bay Planning Scheme

2.3.1 Zoning

The entire reserve is zoned as Public Parks and Recreation Zone (PPRZ) in the Hobsons Bay Planning Scheme. This zone's purpose is to implement the municipal planning strategy and planning policy framework, to recognise areas for public recreation and open space, to protect and conserve areas of significance, where appropriate, and to provide commercial uses, where appropriate.

2.3.2 Heritage Overlay

A Heritage Overlay (HO173) covers the site of the former Newport Quarry and entire study area. This overlay identified the local historic and social significance of quarrying activities at the site which were the source for much of the bluestone used

in local construction. It requires protection of the remaining elements of this activity including the exposed bluestone quarry faces.

2.3.3 Public Acquisition Overlay

There is a Public Acquisition Overlay (PAO) which covers the small linear reserve running along Lakes Drive between Mason Street and park entry. This reserve remains privately owned but is leased back to Hobsons Bay City Council and is managed as public open space. It contains a path, tree and garden beds, feature paving and *the Diver* sculpture. Ultimately when the private landowner decides to sell Hobsons Bay City Council should formalise acquisition of this land as public open space.

2.3.4 Design Development Overlay

Land adjoining the site predominantly residential. Industrial and higher density residential development precincts located along the southern boundary are covered by Design Development Overlays (DD05 and DD09).

The design objectives for these overlays are summarised as follows:

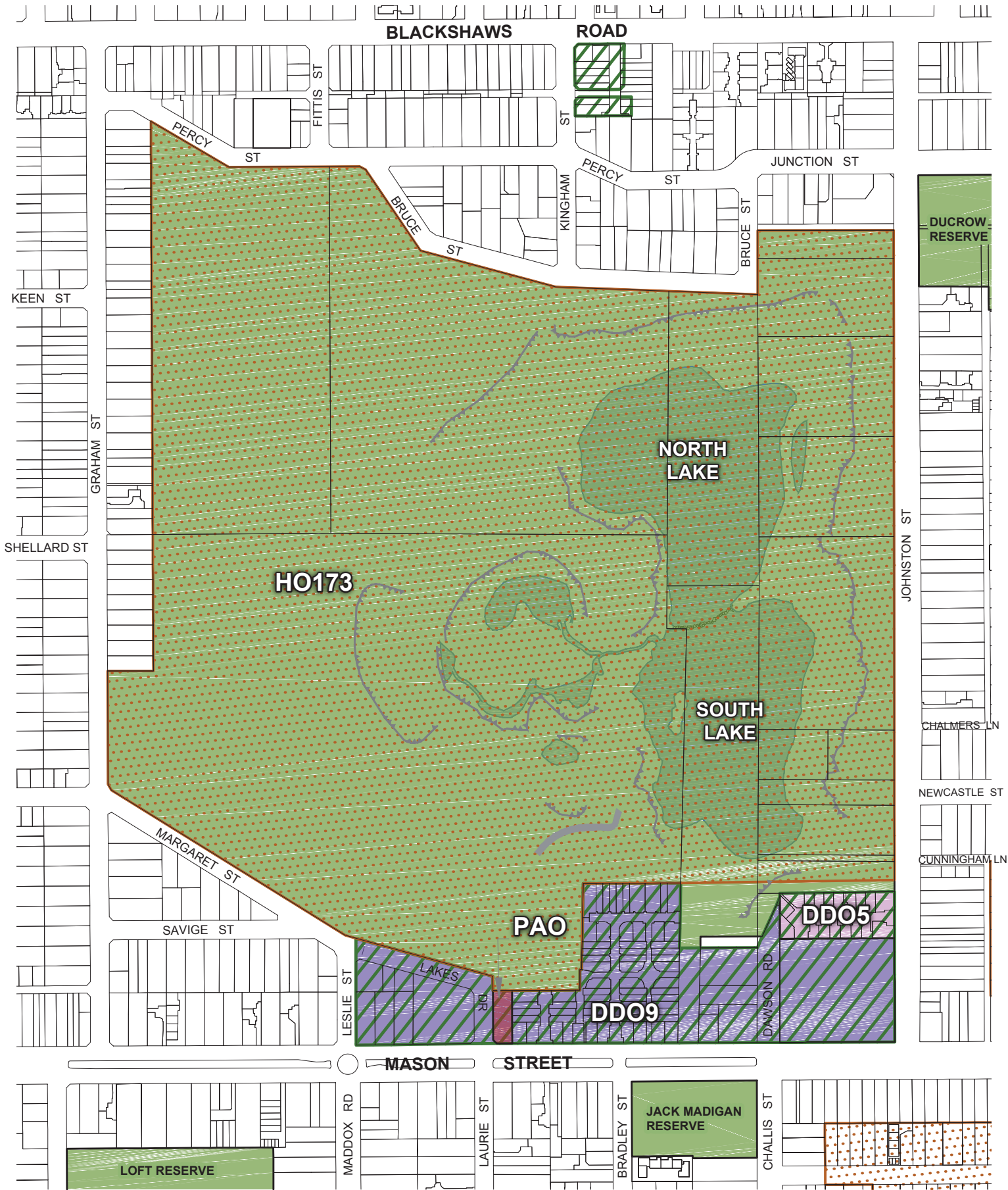
- *to minimise the visual impact of any new development to preserve the general amenity of the park, particularly the unique landscape qualities of Newport Lakes parkland which create a strong sense of enclosure, association and a feel of seclusion and removal from the surrounding urban fabric*
- *to ensure that enjoyment of the public park is not diminished by overlooking from any new development*
- *to respond to existing significant views from within and around the parklands*
- *to ensure new development on the site that is opposite or nearby established residential areas, respects the form, scale, and character of the existing residential development in those areas*
- *to ensure the use and development of the site is compatible with the industry on the abutting site.*

Specific Design Objectives







- *to ensure that any buildings and works do not interrupt the escarpment line as viewed from the North and south lakes areas within the parklands*
- *to ensure that residents of any proposed residential development are aware that noise attenuation measures have been undertaken to minimise conflict with adjacent industrial activities*
- *to ensure that any development on the site makes provision to protect residential users from noise emanating from industrial properties on the adjoining or nearby land*
- *To ensure that any new residential development on the site includes appropriate acoustic or other measures to attenuate industrial noise generated by the abutting industrial property both within the residences and the external living areas.*

Buildings and works

- *no buildings are to interrupt the escarpment line as viewed from the North and south lakes areas within the parklands*
- *buildings are to respect the form, character, scale, front setbacks, and front boundary treatments of nearby residential developments in Johnston Street*
- *buildings and works are to include adequate separation from the parkland with landscape treatment within the setback that respects the existing vegetation in the parkland.*



DRAWING KEY (Hobsons Bay Planning Scheme)

- | | | | |
|--|-----------------------------------|---|---|
|  | DESIGN & DEVELOPMENT (SCHEDULE 5) |  | PUBLIC ACQUISITION OVERLAY (PAO) |
|  | DESIGN & DEVELOPMENT (SCHEDULE 9) |  | PUBLIC PARKS AND RECREATION ZONE (PPRZ) |
|  | ENVIRONMENTAL AUDIT OVERLAY | | |
|  | HERITAGE OVERLAY (HO173) | | |

0 50 100 150 200m



Figure 3
EXISTING PLANNING ZONES AND OVERLAYS

2.3.5 Environmental Audit Overlay

An Environmental Audit Overlay (EAO) covers the former and existing industrial areas along Mason Street which have known identified or reasonably suspected land contamination. The overlay requires additional testing and remediation works to be undertaken prior to that land being used for a 'sensitive use', such as developing housing, play space, building a primary school or an early childhood centre.

Landfill gas risk is also subject to ongoing monitoring.

2.4 Open Space Planning

2.4.1 Hobsons Bay Open Space Strategy 2018-28

The Hobsons Bay Open Space Strategy provides a framework for Council to set priorities and make decisions on the maintenance, upgrade and development of both existing and new spaces or facilities, which will cater for the current and future needs of the Hobsons Bay Community.

Hobsons Bay City Council's vision is for all open spaces within to be accessible, connected, safe and inviting places with a well-maintained, well-designed, and environmentally sustainable network. Recognition of values need to be safeguarded and improved such as biodiversity, conservation, human recreation and wellbeing, heritage, and cultural importance of the open spaces for Hobsons Bay residents, workers, and visitors.

Hobsons Bay City Council's open space key principles are:

- Distribution, Access, and Connectivity
- Quality – multi-purpose and multi-functional open space
- Provision and Diversity
- Environment – supports biodiversity, sustainable and resilient.

Newport Lakes Reserve is classified as a regional open space and is used by visitors from across Hobsons Bay and western Melbourne. Its unique landscape characteristics providing a bushland natural setting in an urban environment make it one of the most popular reserves in the municipality.

Hobsons Bay Open Space Strategy has adopted the widely accepted principle that *'all residents should be within a 400m walking distance to open space'*. Newport Lakes is in the Newport West catchment which has good walkability and access to open space however there is open space 'gaps' within the adjoining northern Spotswood-South Kingsville and Altona North residential catchments. Refer Figure 4.

Newport Lakes will therefore be required to cater for increased usage due to the following factors:

- 'gaps' in the open space network (Refer Figure 4)
- projected population growth in the Spotswood – South Kingsville and Altona North catchment.
- open space status of a Regional Open Space which will provide amenities for a regional catchment.



DRAWING KEY (Hobsons Bay Open Space Strategy 2018)

- PRECINCT BOUNDARY
- OPEN SPACE INCLUDED IN ANALYSIS
- OPEN SPACE GAP AREA RESIDENTIAL LAND (PRIORITY AREAS)
- OPEN SPACE GAP AREA INDUSTRIAL LAND



Figure 4
EXISTING GAPS IN THE OPEN SPACE NETWORK

2.4.2 Hobsons Bay Biodiversity Strategy 2017-22

Hobsons Bay supports ecosystems provide habitat for a range of indigenous range of fauna as well as protection for rare and threatened species. These ecosystems are managed by the Hobsons Bay City Council Conservation Team in partnership with Parks Victoria (PV), Melbourne Water (MW), Department of Environment Land Water and Planning (DELWP) and local community groups.

Hobsons Bay Biodiversity Strategy was developed to guide management and enhancement of biodiversity values including:

- strengthening land use planning practices to better protect connectivity, bio-links, and other biodiversity values in the planning scheme
- utilise mapping and monitoring tools to enhance Hobsons Bay City Council’s capacity to effectively deliver biodiversity management
- strengthen partnerships with neighbouring land managers to better coordinate weed and pest animal management activities
- strengthen the connection between biodiversity management and open space planning, throughout the Open Space Strategy, to preserve both biodiversity and recreational values and manage conflicting uses
- review Hobsons Bay City Council’s conservation engagement events to ensure maximum value for the natural environment and local community
- engage with traditional owners and incorporate the actions identified in the Reconciliation Action Plan.

Newport Lakes is identified as having very high biodiversity values specifically for its Plains Grasslands and Chenopod Shrublands and its role in providing potential habitat for Swift Parrot and frogs which are protected under the *Environment Protection and Biodiversity Conservation (EPBC) Act* and its role as a refuge for wildlife in a built-up urban environment

2.4.3 Hobsons Bay Play Space Strategy 2013-23

Hobsons Bay Play Space Strategy 2013-23 provides the strategic direction for the provision and management of play spaces in Hobsons Bay over the next 10 years. The Strategy contains the guidelines to help facilitate the maintenance and promote opportunities for play. Hobsons Bay City Council's vision is to provide a diverse range of accessible, attractive, challenging, and well-maintained play spaces offering experiences to residents and visitors of all ages and abilities within a sustainable natural setting.

Newport Lakes as a regional open space is recommended to provide a 'Destination Play Space' and requirements outlined in the Strategy include:

- larger in scale with diversity of play opportunities for children of all ages and abilities
- provide facilities and amenities that cater for large number of long duration visits
- provide facilities and amenities to meet the needs of parents and carers
- primarily service for a 2 kilometre or precinct catchment
- parents, carers, and older children will use local transport, their car, walk or ride to the play space
- the budget allocation for these spaces will reflect their increased scope of provision and may well be developed in a staged manner over a period of years.

The redevelopment of play facilities at Newport Lakes will be guided by these requirements.

2.5 Climate change

2.5.1 Overview

The Climate Change Adaptation Strategy identifies that predicted changes to weather patterns including extended periods of drought and increased storm events, along with periods of extreme heat will impact on the safety and use of open space including areas such as Newport Lakes.

Natural features in open space including grass, garden beds, planted areas and trees contribute positively to improving the local microclimate in built up areas. Studies have revealed that places with a greater number of trees had better carbon-storage capacity, lower level of surface runoff entering drains, and were cooler where vegetation cover was greater than 50 per cent of the space (*CABE Space, The Value of Public Spaces, undated*). Benefit to urban heat mitigation is derived from the presence of large canopy shade trees combined with grassed, planted surfaces or other surfaces that hold moisture to mitigate the build-up of urban heat in sealed surfaces.

2.5.2 Key climate change considerations:

- Newport Lakes provides a safe cool open space for the local community during hot weather, particularly for people who do not have access to and cannot afford air conditioning
- drier conditions may increase fire risk and vegetation loss to drought and extreme weather events >45 deg C. Arboretum planting is likely to be more vulnerable to extreme conditions, however, the former quarry geology and limited availability of topsoil and nutrients can make even established indigenous vegetation vulnerable to extreme events
- lake water quality impacts from untreated stormwater collected to the lake will increase from flood and storm events
- reductions in water availability will impact on lake water quality increasing salinity and concentration of pollutants increasing the risk of toxic algal blooms and reduced availability of dissolved oxygen needed to support aquatic life in the lakes
- increased heat impacts on habitat and health of native fauna with mammals such as Grey Headed Flying Fox and many of the micro bat species are particularly at risk.

2.6 Health and wellbeing

2.6.1 Overview

Intangible values of urban bushland environments such as Newport Lakes are hard to quantify. Parks Victoria and Deakin University have undertaken research into the benefits of green space on people's mental and physical health. The study identified that city living involves a disengagement of humans from the natural environment and this is likely to be detrimental to health and wellbeing, with parks one of the only means of accessing nature for people in urban areas. The results indicate that bushland areas and parks can reduce crime, contribute to general wellbeing, reduce stress, and enhance productivity and promote healing. Other studies demonstrate that plants and nearby vegetation can have positive benefits including healing, improved mental capacity and productivity, improved job and life satisfaction and aiding community cohesion and identity (Deakin University, 2008).

Other research indicates that spaces with trees and grass offer more diverse play opportunities, and in particular higher levels of creative play for children than places without these natural landscape elements. There is also evidence to show that people use their local public spaces more and are more satisfied with them if they include natural elements, which in turn increases the amount of socialisation amongst neighbours (*CABE Space, The Value of Public Spaces, undated*). This research also indicates that well maintained open spaces increase people's use and value of them.

In summary the intangible benefits of areas like Newport Lakes to urban environments include:

- improved mental health and wellbeing
- improved sense of community cohesion and reduced crime
- increased social opportunities by encouraging people to regularly use the open space
- play opportunities for children, particularly creative play

- improved air quality and localised microclimate through reduction in reflective and hard surfaces
- visual and physical relief from the built form.

State-wide trends in participation also indicate that unstructured recreation is increasing at a faster rate than structured sport and recreation. Encouraging the community out into open space improves both their physical and mental health and wellbeing. Research for the Hobsons Bay Sport and Recreation Strategy identified there is growing popularity for passive recreation areas and infrastructure with walking being the most popular activity.

2.6.2 Key health and wellbeing design considerations:

- the need to design facilities to better cater to people of all ages and abilities, this is especially important at sites like Newport Lakes where the steep topography may limit access for some users
- improve cyclist and pedestrian use and safety by connecting open space reserves with linking paths and safe road crossings
- providing a range of spaces and landscape character types including social spaces to appeal to a wider range of users
- consider the use of lighting for user safety and the impacts on wildlife habitat and adjoining residents.

2.7 Arts and culture

2.7.1 Overview

Hobsons Bay Creative City Arts and Culture Plan highlights the importance of access to arts and culture as integral to a vibrant community. It makes a positive contribution to the liveability of a city. The arts enable the celebration of diversity, creativity, and innovation while participation in arts and culture can help create opportunities to build social connection, understanding and cohesion. The realm of arts and culture creates an environment for residents and visitors to reflect, explore, be challenged, play, and learn.

Newport Lakes has a rich natural environment which contrasts with the surrounding industrial and residential landscape. Hobsons Bay City Council has historically encouraged public art projects in open space, with some iconic pieces including The Diver at Mason Street entry by Simon Perry and Drew Cole are curated as part of the Council's collection.

Other local community and school projects have contributed a range of other undocumented items including mosaics and markers to the park which are not formally considered public art but provide an important community connection to the development of Newport Lakes Reserve.

2.7.1 Arts and Culture consideration

- as a regional open space there are significant opportunities to enhance arts and culture at Newport Lakes
- the bushland and lake setting provide natural artwork siting opportunities which are not available at other urban and coastal reserves

- potential key sites include:
 - Mason Street/Lakes Drive entry
 - South Lake, viewed from the main lookout
 - part of the new visitor entry and activation for the northwest precinct.

2.8 Events

2.8.1 Overview

The Hobsons Bay Events and Festivals Plan was developed to articulate Hobsons Bay City Council's role in events and the benefits derived from supporting events. The plan recognises the important roles events have in bringing people together, creating vibrant and healthy communities, celebrating local cultural identity and in making Hobsons Bay a great place to live and to visit. A key action is the provision of funding and in-kind support to events and festivals. Recognising it is not financially possible to support all events, Council will prioritise its support to events that deliver the key priorities identified in the Plan. Priority will be given to fund events and festivals that:

- Contribute towards:
 - fostering a strong sense of community
 - community wellbeing and diversity
 - protect and celebrate culture, heritage, and environment
 - provide to a diverse calendar of event type.
- deliver long term venue and/or other improvements and community benefits as a result of the event
- deliver new events opportunities, or for existing events, evolve to meet the changing needs and expectations of the community
- provide opportunities for Council participation, engagement, or involvement through association with the event.

Existing events at Newport Lakes include:

- Newport Lakes planting and conservation days
- Folk and Fuddle Bush Dance
- Parkrun (5km timing fun run) every Saturday 8am
- Bush Kindy Monday to Friday 8am to 12pm
- personal trainers.

2.8.2 Key events considerations:

- Newport Lakes provides opportunities for a range of community events with a diverse range of available outdoor spaces, open areas, and existing facilities
- the existing level of events in the park is unlikely to inconvenience existing users and given the current setback to adjoining residents there is potential to attract more events to the reserve
- there is a 240V supply in the Pavey Park BBQs but there is currently no event power supply or dedicated staging to support events at the reserve
- events and festivals are to be focussed on areas where there will only be lower impact.

2.9 Dogs and domestic animals

2.9.1 Overview

The Domestic Animal Management Plan outlines Council's management of domestic animals as required under the *Domestic Animals Act 1994*. The plan estimates that there are approximately 22,000 dogs and 14,000 cats in Hobsons Bay.

The Dogs in Public Places Policy outlines the conditions imposed on the presence of dogs in any public place within the municipality. This policy states that Council has the authority to delete and add to the list of designated off-leash areas by way of Council resolution. Currently dogs are required to be on a leash in all public places unless signage designated by Council states that dogs are permitted off-leash.

The Conservation Area at Newport Lakes has been designated a 'no dog' zone. This is to protect the ecological values of the bushland and lakes area. Pavey Park and the Arboretum areas are classified as dog on-leash areas, while the North West Plain area at Newport Lakes is a designated dog off-leash area. Refer Figure 2.

The Domestic Animal Management Plan notes that dog off leash reserves are not designated for the sole use of owners and their dogs. They are shared use areas. Although in an off-leash area, dog owners are required to always have their dogs under effective control.

Conflicts with dogs being exercised in open space can arise including:

- dog owners not adhering to the agreed off-leash areas and exercising the dogs off-leash in locations not designated for this purpose
- dogs off-leash intimidating other park users including the elderly, frail, and young children
- dogs off-leash impacting on other park users including people cycling and jogging, playing sport and children in playgrounds
- dogs off-leash disturbing wildlife in conservation areas
- dog owners not cleaning up after their dogs and impacts of dog excrement on public health.

Cats can have a significant impact on ecological values and native wildlife, especially in an urban setting where there is limited opportunity for wildlife to refuge from predatory cat behaviour. There are no cat restrictions currently in place within Hobsons Bay.

2.9.2 Key dogs and domestic animal considerations:

- the dog off leash area at Newport Lakes is well used. Further residential development north of Blackshaws Road and the increase in dog ownership experienced in most urban areas during COVID-19 mean dog off leash and on leash use within Newport Lakes is expected to continue to increase
- there is no off road access to the existing dog off leash area from Johnston Street. Dogs walked on leash are required to use Junction Street/Bruce Street or Mason Street entrances, walking around the no dog Conservation Area
- many dog owners park in the Pavey Park car park and walk their dogs through to the North West Plain dog off leash area using the sealed asphalt north-south path
There is no formal definition of dog on leash and off leash areas along this path or to the interface to the picnic area/playspace and Arboretum, resulting with many

dogs roaming off lead in these areas.

- dog poo bag dispensers require constant maintenance and can contribute to increased littering
- there are no cat restrictions currently in place within Hobsons Bay. An evening cat curfew could have significant ecological benefits for wildlife found in Conservation Areas at Newport Lakes.

3. HISTORY

3.1 Aboriginal Heritage

Council acknowledges the Bunurong People of the Kulin Nation as the Traditional owners of these municipal lands and waterways, and pay our respects to Elders past and present. The Bunurong People of the Kulin Nation people who lived in what we now know as the City of Hobsons Bay are known as the Yalukit-willam, a name meaning 'river camp' or 'river dwellers'. They are associated with the coastal land at the head of Port Phillip Bay that extends from the Werribee River, across to Altona and Williamstown, Port Melbourne, St Kilda, and Prahran. The Yalukit-willam people were semi-nomadic hunter gatherers who moved around to take advantage of seasonally available food resources. Major camps were usually set up close to permanent streams of fresh water and these places today are called Archaeological sites. The types of sites found in the City of Hobsons Bay include surface scatters, shell middens, isolated artefacts, and burials.

The open native grassland plains were good hunting and gathering grounds and among one of the vegetables collected was the Myrnong, commonly called Yam Daisy that has an underground tuber like a yam. It once grew prolifically along Kororoit Creek and on the plains to the west. The coastal swamp areas had ample bird life and there were abundant eels and fish in Stony and Kororoit Creeks. Large gatherings are reported to have occurred in what is now known as Altona Coastal Park. There are records of ceremonial dances that were held in Cecil Street under a large She Oak in Williamstown, which is now known as Gellibrand Point.

As the population of European settlers increased from 1839 onwards, the survival of the Bunurong People of the Kulin Nation became more difficult with mistreatment and loss of hunting grounds as pastoralists settled the area of Hobsons Bay.

The traditional owners and Registered Aboriginal Party (RAP) for the Hobsons Bay area including Newport Lakes are the Bunurong People of the Kulin Nation. There is limited information about cultural heritage values which existed at the site before clearing, quarrying and land filling activities commenced and there is no current acknowledgement of the traditional owners at the site.

While the entire study area has been subject to significant ground disturbance as defined in the *Aboriginal Heritage Regulations 2018*, the restoration of the site as an urban bushland conservation reserve presents as opportunity to revisit the pre-quarry cultural landscape as part of continuing the sites rehabilitation.

3.2 Other Heritage

Early settlers called the Newport area 'Goose Flats', and farm and pastoral property rights were granted to William Hall in 1852. Hall called the property 'Stony Rises' and initially leased out one acre as a quarry in the late 1860's with bluestone quarried for use as ballast for empty ships returning to Europe from docks at Footscray, Newport, and Williamstown and for building materials in Melbourne City.

Initial quarrying activities peaked in the 1880's with many of the local streets supporting names of local quarrymen including: Hall Street, Durkin Street, Anderson Street and Chambers Road. (Butler, 2000).



Photo 1: Pavey & Company Quarry Workers
(Source: FoNL)



Photo 1: Newport Quarry 1974
(Source: The Age 13/01/2012)

The smaller operations declined with the end of Melbourne's land boom and were reduced to only one operator by the early 1900's. After World War 1 industrial scale operations resumed with three quarrying companies operating at the site. Consolidated Quarries operated the largest quarry in the North West Hole, now called North West Plain. Pavey and Company operated in the south hole, now called Pavey Park and Matthews and Son (or The Matthews Brothers of Newcastle Street with William Edwards) operated a 10 acre quarry in the western hole, now the North and South Lakes.

Companies employed as many as 200-250 people at the height of production and in 1924, the City of Williamstown bought the eastern block of the area, along Johnston Street to provide aggregate building materials. The material excavated can be seen throughout Williamstown in the sea wall, roads, and gutters.

An aerial view of 1945 shows the major quarry holes as well as complexes of store buildings off Johnston Street in the north-eastern section of the site and what may be a large house yard and garden.



Photo 3: Newport Lakes, 1945 (1945.melbourne)

By the late 1960's, 100 years after the start of operations the quarry was considered 'worked out' and, after negotiations, the land use zoning was changed from light industrial to public open space. The first objective of the City of Williamstown Council under the Melbourne Metropolitan Board of Works guidelines was to make the land reusable.

In the early 1970's land fill operations commenced, and Pavey's Hole operated as a tip from 1975 until around 1982. Pavey's Hole, and the Arboretum, which was never quarried, were the first areas to be rehabilitated in the early 1980's. The Arboretum was landscaped and planted by Community Employment workers.



Photo 4: Eastern Hole post quarry and Southeast Corner
Lalor, 1970 (Source: FoNL)



Photo 5: Public meeting at quarry, Peter Lalor, 1970 Peter Lalor, 1970 (Source: FoNL)

3.3 Establishment of the Park

The first Friends of Newport Lakes formed in 1984 as an action group to stop City of Williamstown plans to turn the remaining quarries into a tip.

A compromise was reached to fill the North West Hole and to use the income from tipping fees to develop the other quarries as a bushland park. Work to re-claim the land started in 1987 with the North West Hole operated as a tip until 1995. In 1989, the Pavey's Park playground was built, and Pavey's Hole opened as a park.

Between 1992 and 1995 works to establish the Newport Lakes Park were guided by Maarten Hulzebosch. The lakes, which were originally nine metres deep were reduced to three metres as a safety measure. The land was built up to reduce the fall height of the quarry faces and the steppingstones were placed between North and South Lake. The dead stag gums in North Lake were installed as perches for larger water birds like Cormorants. To maintain a lake depth of three metres, water from an underground aquifer is pumped into the lakes by a bore in the Amphitheatre. This water is brackish and not potable.



Photo 6 & 7: Installing 'roost trees and steppingstones, 1992 (Source: FoNL)

Seed was collected from wherever it could be found, grown, and planted. This means that many of the trees are not indigenous but from South and Western Australia and failures were common on the shallow heavy clay soils and harsh conditions of the millennium drought.



Photo 8: Eastern holes 1994 (Courtesy: (Source: FoNL)



Photo 9: Hydroseeding, 1989

Between 1992 and 1995 several unemployed work schemes did more planting and weeding, built the original toilet block, put up possum boxes in the tallest outer trees, produced a leaflet and conducted tours and the reserve officially opened to the public on 15 December 1995.

The Masterplan for the Newport Lakes Reserve Bushland Park was released in 1996. There were two versions exhibited for public comment in the following year. The bushland plan which was to extend planting to the western half of the park, create new picnic areas and paths for pedestrians and bikes, restrict dog use from the Conservation Area, refine the Arboretum planting and activate support from local advocates. The other plan option included a shop/tearoom and an environmental educational centre.

The current Friends of Newport Lakes (FoNL) group was formed in 1997 and hold 7- 10 public planting/weeding and educating members events a year. For further information on the history early establishment of the park and current events please refer to <http://friendsofnewportlakes.com.au/>

3.1.3 Cultural and historical heritage considerations:

- key elements associated with the quarrying activities at the reserve are protected by the Heritage Overlay (HO 173) primarily the exposed bluestone quarry faces and remnants of blast holes and other quarrying activities. Refer Figure 3
- investigate opportunities to identify the Bunurong People of the Kulin Nation as the traditional owners at the main entry and other sites for interpretation of local cultural heritage values where appropriate
- develop signage documenting the early establishment of the park to assist visitor appreciation of park history and ongoing rehabilitation efforts in partnership with Friends of Newport Lakes
- provide interpretive information at the quarry remaining exposed rock faces.
- investigate use of QR codes to allow visitors to access the extensive historical and educational information available on the FoNL website.

4. GEOLOGY

4.1 Overview

Newport is located in the Victorian Volcanic Plain bioregion and the landform was dominated by volcanic eruptions which occurred from around four and a half million years ago to as recently as four thousand years ago. The lava from these eruptions covered the area to form a dense layer of basalt, commonly referred to as Bluestone.

Quarrying operations commenced in the late 1860s and continued for almost 100 years with bluestone excavated as a building material, railway and ships ballast. The quarry operations left four large pits and one smaller central pit.

In the 1970s the southwestern quarry pit was filled with municipal rubbish to form Pavey's Park. Municipal landfill operations then switched to the north-western quarry pit which was also filled with putrescible and non-putrescible water through the 1980s until operations ceased in 1992.

The remaining two larger eastern pits had naturally collected water and were retained as ornamental lakes with the rock hop crossing installed to separate them and form the northern and southern lakes. The Amphitheatre is the remains of the smaller central pit and large boulders left over from quarrying operations were placed (or left because they were too big to move) during the early establishment of the park form a key element of the landscape character.

Landfill sites and steep quarry batters were then terraced and covered with a thin layer of basaltic clay. The basaltic clay layer is typically dry and friable but becomes highly plastic and swells once wet.



Photos 10 and 11: Weathered basalt quarry faces.



Photos 12 and 13: Large quarry boulders

More recent geotechnical assessments for the park have focused on the stability of the remaining weathered basalt quarry faces. While the weathered basalt is considered stable, the cliff height and proximity to the paths above and below in many locations presents an ongoing site management risk.

4.1.1 Key geological considerations:

- the exposed former quarry faces are a key feature of the site and are protected by a heritage overlay. Protection and retaining visibility of these former quarry faces and blast holes left over from operations in a key requirement of the overlay
- ongoing embankment stability assessment and monitoring of protection fencing, rock anchors and warning signage to minimise risk to the public and staff undertaking works above and below cliff and embankment areas
- there have been community requests to use exposed quarry faces for rock climbing. This activity is difficult to safely regulate in an urban parkland setting and impacts include trampling of native vegetation and erosion above and below the rock faces present an unacceptable risk.

5. DRAINAGE AND WATER QUALITY

5.1 Drainage overview

The Newport Lakes water bodies have a combined area of 4.6ha and a maximum depth of 3m. They were formed from the remains of the eastern quarry pits, which at the time of closure, were naturally accumulating rainwater up to 9m deep.

The porous rock crossing separating the lakes was installed in 1992 as part of opening the park to public access and includes four balance pipes which link water levels across the two lakes and at the same time a nom 500mm thick clay liner was installed to minimise water loss to the surrounding ground water table.

The northern lake is slightly smaller with a volume of approx. 31,000m³ while the larger southern lake has a volume of approx. 45,000m³. The lakes are not connected to a water course and, although they are a fully enclosed system, they have a limited rainfall catchment and are topped up with piped stormwater from the surrounding streets and groundwater pumped in from a bore in the Amphitheatre.

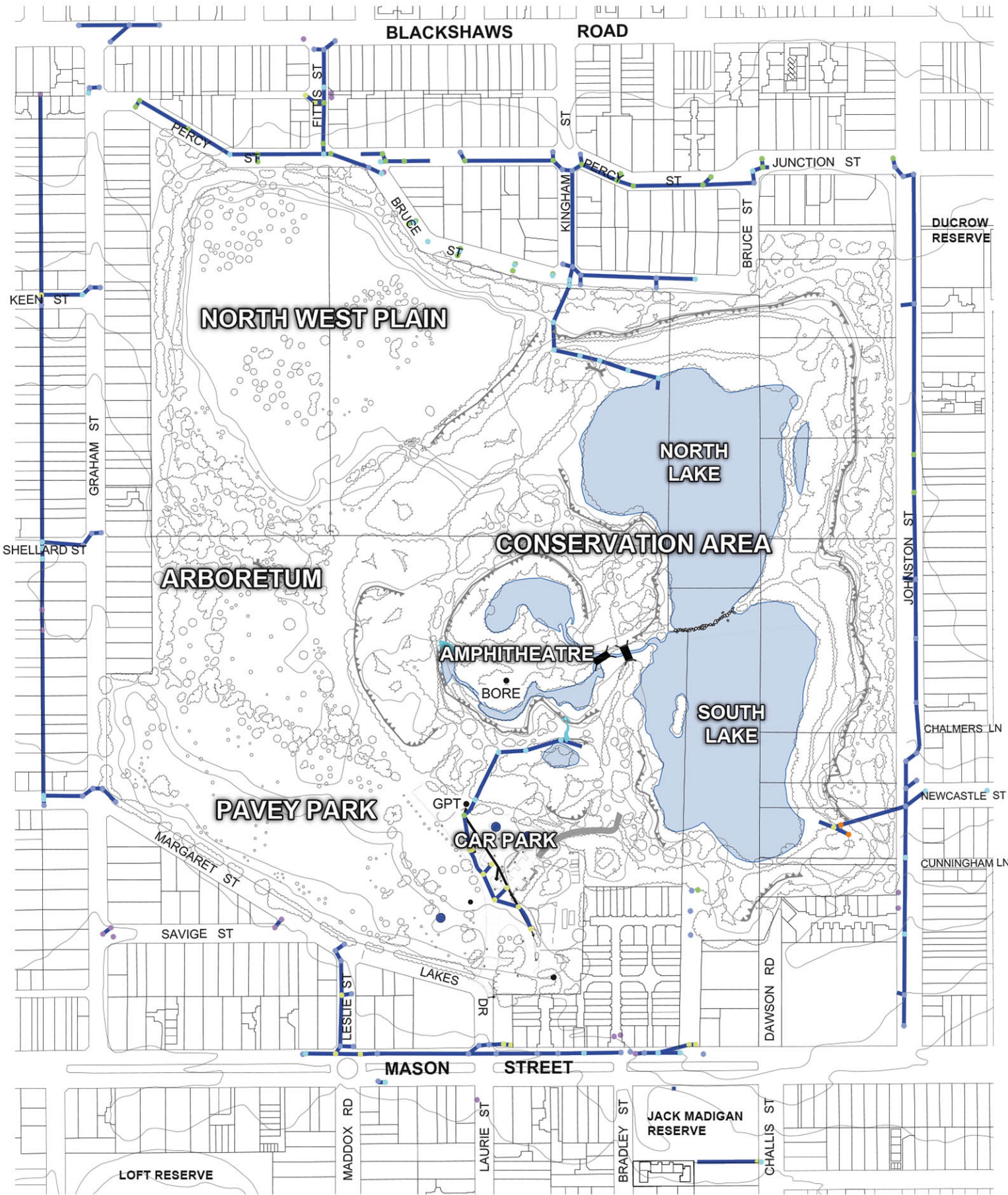
Assessment completed by Connell Wagner in 2008 confirmed that the combined seepage and evaporative water losses from the lake far exceed the stormwater inputs and constant groundwater replenishment from the Council managed bore is required to maintain the water levels in the lakes.

5.2 Water Quality

In response to the water balance deficit, stormwater connections for additional local catchments have been piped into the lakes, reducing reliance on bore water and slightly lowering salinity. However, only runoff from the main car park, which is directed to the Amphitheatre wetlands via a soak, receives any sort of treatment to remove nitrogen, phosphorus, and other pollutants before discharging to the lake system. Refer Figure 5.

Key issues associated lake water quality are as follows:

- there is no flushing system for the lake and the former quarry topography means that it is not possible to establish an outlet point
- the lakes are large and shallow with a limited rainfall catchment and the impacts of climate change and the threat of increased temperatures, lower rainfall and periods of prolonged drought present a significant threat to water supply and water quality
- reliance on bore water, especially during periods of low rainfall, increases salinity and pH levels such that it is not possible to maintain more diverse aquatic planting and wildlife in the lake
- piping untreated urban stormwater into the lake, while slightly reducing reliance on the bore water, presents an ongoing risk to water quality as pollutants washed into the lake will remain there increasing in concentration further degrading water quality, increasing the frequency of algal blooms, sediment toxicity levels and reducing the amount of dissolved oxygen available
- without pre-treatment there is also a significant risk from an acute pollution event, such as a fire or heavy vehicle accident, where retardants may be washed directly into the lake further contaminating water and sediments. If added would also be



DRAWING KEY

- BURIED DRAINAGE PIT
- GRATED DRAINAGE PIT
- GRATED SIDE ENTRY PIT
- JUNCTION PIT
- SIDE ENTRY PIT
- UNKNOWN PIT
- CAR PARK DRAINAGE
- UNDERGROUND DRAINAGE PIPES
- CULVERT
- OVER LAND WATER FLOW



Figure 5
EXISTING DRAINAGE

- difficult and expensive to remove
- the lake bathymetry does not have sufficient ephemeral, shallow and deep marsh zones needed to support wetland plants as required to sustainably manage nutrient inputs, even if salinity levels were lowered sufficiently to enable these plant species to survive.

5.2.1 **Drainage and water quality considerations:**

In order to ensure the long-term sustainability of water quality in the lakes, to maximise habitat and amenity values, and to reduce future threats from climate change, the following strategies are recommended:

Short term

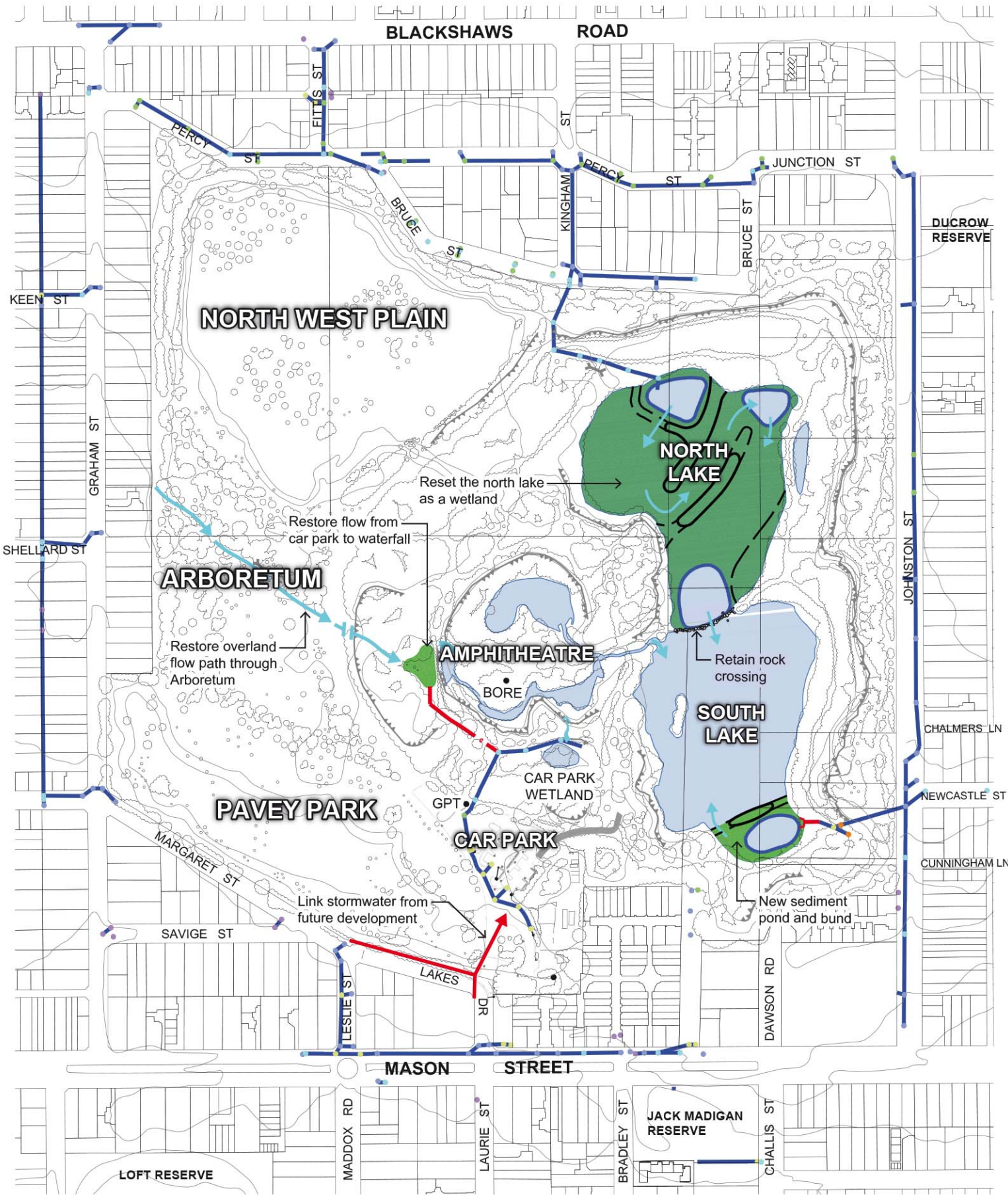
- install a new junction pit to implement an overflow system to control water levels in the current car park infiltration system to prevent tree loss and reduce water levels
- redirect stormwater drains from the car park to the Amphitheatre waterfall to reactivate this area and provide pre-treatment prior to discharge to the southern lake. Retain high flows to the existing infiltration area
- investigate restoration of the overland flow path from the Arboretum to the Amphitheatre waterfall area. This will also require relocation of the temporary mulch storage which blocks the culvert under the north-south sealed path
- ensure any future new residential development on Masons Road/Lakes Drive makes allowance for capture and connection of stormwater runoff to existing pits within the car park
- investigate improving the water quality treatment function of the Amphitheatre wetlands by installing an adjustable weir as part of bridge replacement and connecting the bore directly to the southern lake.

Longer term

The objective will be to reduce the amount of open water in the lakes, diverting the stormwater inlet areas to wetlands providing pre-treatment of stormwater prior to discharge into the retained open water sections of lake. The new wetlands will assist in removal of nutrients and toxic sediments while improving habitat values. The new freshwater wetland areas will be allowed to dry out in summer maximising habitat values while the reduced area of open water to be maintained in the southern lake will also reduce reliance on bore water. Figure 6 provides a schematic overview of proposed works, subject to detailed survey and design.

Works may include:

- converting the northern lake to a wetland as it has a larger existing stormwater catchment and there is potential to add more stormwater from future development areas north of Blackshaws Road via the existing drainage system
- protecting existing habitat areas on the western and perimeter of the lake during proposed North Lake wetland conversion works
- retaining the southern lake as predominantly open water fed by the bore with a smaller sediment trap and wetland installed to the inlet zone below Newcastle Street. This area will need to be separated from the lake by a bund to provide pre-treatment and to intercept and remove pollutants
- separating the southern open water lake from the northern wetlands to protect the new wetlands from bore water salinity (which may reach extreme levels in drought conditions killing the plants needed to treat the urban stormwater inputs). This change will also increase the availability of bore water as needed to maintain the open water body in the southern lake for amenity purposes



DRAWING KEY

PROPOSED

- NEW DRAINAGE PIPES
- DEEP OPEN WATER POOLS
- PLANTED BUNDS
- WATER FLOW
- NEW WETLAND PLANTING



Figure 6
**POTENTIAL WATER QUALITY AND
 EPHEMERAL HABITAT IMPROVEMENTS**

- the popular rock crossing will be retained as part of the southern lake and will function as it does now.

5.3 Implementation approach

Short term water quality improvement works can be completed without delay. Longer term works associated with changing areas of the existing lakes to water quality treatment wetlands will be most cost effectively undertaken during the next period of extreme drought.

The recommended implementation strategy would commence after two below average rainfall years allowing for design and funding to be coordinated across multiple financial years. Suggested program could be as follows:

Year 1 - Detailed Design

Year 2 - Secure funding and tender the works

Year 3 – Lake separation works

- install a new bund separating the northern and southern lakes, cap the balance pipes and turn off the bore. This will enable water to be pumped into the southern lake maintaining amenity and the rock crossing over summer as water levels in the northern lake are drawn down in preparation for establishment of the new wetlands.

Year 4 – Wetland construction works (north)

- works to be held until water levels have been substantially reduced with a north-south bund to be placed centrally and used to maintain input water levels along the western side of the lake which has existing Phragmites and habitat values
- this approach will also enable ongoing stormwater inputs after rainfall from the northern catchment to bypass and be directly fed into the southern lake via the western side during completion of the eastern side wetland construction works
- when the stormwater system is on bypass, pump out the remaining water and reset the eastern side of the North Lake as a wetland with new clay liner, sediment removal ponds and shallow and deep marsh zones
- retain bypass capacity and isolation pipes within the new wetland to maximise flexibility in water balance management for habitat, maintenance, and sustainability purposes
- control migration of the Typha and Phragmites while maintaining waterbird habitat. Infill with less invasive species such as Schoenoplectus, Bolboschoenus and Juncus sp. to enhance biodiversity values.

Year 4 - 6 – Wetland planting

- Phragmites and Typha will quickly reoccupy the new shallow marsh areas in the constructed wetland from existing areas in the former North Lake. While these species are typically not preferred from a water quality treatment perspective, they provide excellent bird habitat and attempting control on a large scale is unlikely to be effective given longer term seed build up
- it is therefore recommended to focus only targeted terrestrial and bund planting in the first two seasons, providing additional shade and shrub cover to the perimeter of the wetland, while evaluating water levels and water quality in the new wetland which is expected to draw down significantly over summer without bore water inputs, which will be directed exclusively to the southern lake
- once the new northern wetland water operating levels are known opportunities to connect in more freshwater flows from the Newcastle Street and Amphitheatre wetland, catchments could also be considered before final wetland planting is undertaken to maximise habitat for targeted species such as frogs.

6. FLORA AND FAUNA

6.1 Vegetation Management Zones

The Newport Lakes Parkland area is divided into four different zones within the 33ha site. Each zone has a different theme, and this is reflected in its historical planting and the existing vegetation and management of each zone.

Lakes Conservation Area

Natural bushland area surrounding the lakes and former quarry pits with unsealed walking tracks, lookouts/viewing platforms, and informal picnic areas.

Arboretum

European styled parkland area containing large conifers and deciduous trees. The planting in this area was designed to contrast with the Australian bushland character of the lakes Conservation Area.

North West Plain

Former quarry pit, then used as a municipal landfill, it is predominantly mown grass and used as dog off lead areas with a well-established tree to the perimeter and areas of rocky saltbush and groupings of semi-mature indigenous trees in the centre.

Pavey's Park

Former quarry pit, then used as a municipal landfill, the parkland features scattered mature and more recent tree planting and predominantly mown grass with visitor facilities including play equipment, picnic shelters, BBQ, and toilet facilities.

6.2 Lakes Conservation Area

6.2.1 Overview

The bushland plantings around the lakes and Amphitheatre area are a very successful example urban revegetation. An overstorey of local indigenous and Australian native trees has been established with patches of mid-storey shrubs and areas of grassland and forbs. High threat weeds, while requiring ongoing annual control, have virtually been eradicated from the core bushland areas, which is a remarkable effort given the high levels of disturbance associated with imported fill and rehabilitation of quarry areas in the early establishment of the reserve.

The revegetation works have been ongoing for over 30 years and reflect the strength of the original vision for the area, established by Martin Hulzebosch (curator of the park between 1986 and 1995) and the continuity of this management by long standing Council staff in partnership with the community through Friends of Newport Lakes.

Objectives for the area were to:

- provide patches which reflect natural associations and create a natural character
- accommodate visitor use including creation of useful clearings at water's edge and clear sightlines along paths
- minimise weeds, stabilise slopes and provide habitat

- strengthen existing vegetation where species are flourishing and the structure of the vegetation suits the landform and the park use
- introduce a greater number of western plains species and, in particular, understorey species.

Initial planting to this section of the reserve was undertaken using plants, predominantly tree species sourced from a range of locations including Western Australia and South Australia, reflecting the common approach to revegetation of modified sites at the time. More recent revegetation works have focused on planting of predominantly indigenous species found naturally in similar ecological vegetation classes (EVCs) of the Victorian Volcanic Plain bioregion. Refer to Figure 7

6.2.3 Escarpment and Terrace Vegetation Communities

These zones cover the filled slopes of the former quarry and the lower slopes around the lakes. These communities reflect the variable steepness, exposure and original planting mix which has formed a mix of woodland, open woodland, tall and low shrublands and grasslands.

Initial revegetation planting of indigenous and native Eucalypts has been supplemented by secondary planting of *Allocasuarina verticillata* and *Acacia* sp. to form a mosaic of variable age, height, and density. Subcommunities include:

CHENOPOD WOODLAND (4)

This zone is located along the southern lake bank and is predominantly a forest / woodland community with mixed eucalypt species with indigenous grass and shrub understories.



Photo 14: Chenopod woodland

MIXED SHEOAK – EUCALPYT WOODLAND (14)

A denser woodland located along the southern and north-eastern boundary the mix of Eucalypts and *Allocasuarina* provide screening to the adjoining residential areas.



Photo 15: Mixed Sheoak – Eucalypt Woodland

WA MIXED WOODLAND (15)
Open Woodland with mixed natives from Western Australia including *Eucalyptus macrocarpa* and *Eucalyptus lemannii*.



Photo 16: WA mixed woodland

ROCKY ESCARPMENT/SALTBUSH SHRUBLAND (12)

This zone features a mix of open woodland with *Atriplex* dominant and scattered patches of *Allocasuarina verticillata* and *Acacia implexa*.



Photo 17 Rocky escarpment – saltbush scrubland

SALTBUSH/EUCALYPT FOREST (13)

The eucalypt species are regionally indigenous *Eucalyptus camaldulensis* and *Eucalyptus leucoxylon*.



Photo 18: Saltbush/Eucalypt forest

OPEN GRASSY WOODLAND (8)

The predominant vegetation type is open forest of mixed eucalypt species with grass and shrub understories.



Photo 19: Open grassy woodland

6.2.4 Lake Aquatic Zones

The lake is up to 3m deep and the open water does not appear to contain any significant areas of submerged marsh due to a combination of depth and salinity spikes from bore water use.



Photo 20 Rock hop crossing and North Lake

Ephemeral Margin Zone

The lake water level is kept at a constant level so the ephemeral margin is narrow and in periods of extreme drought the biodiversity values can be reduced and *Phragmites australis* is dominant.



Photo 21 and 22 Wetlands and North Lake ephemeral margin

Wetlands

These wetlands are less than 1.5m deep and support a diverse range of plant communities, *Typha domingensis* and *Phragmites australis* and sedgeland of *Bulboschoenus*, *Carex* and *Juncus*. These communities are currently well established and spreading to the extent of their preferred habitat and are reliant on predominantly freshwater inputs rather than more brackish bore water. The zone also includes small copses of *Melaleuca ericifolia* and *Duma florenta*.

6.2.5 Key conservation management issues to be addressed include:

- ensure provision of ongoing resources to consolidate gains already made in controlling and displacing weeds and establishing plant communities
- continue phased removal of diversity suppressing species and colonisers which are reaching senescence
- manage fire risk and fuel loads along the southern boundary
- extend indigenous Grassy Woodland revegetation along the edge of Johnston Street beyond the existing fence
- manage existing vegetation to retain key views of the lakes
- use targeted revegetation with indigenous shrub and ground layer species to improve biodiversity in the bushland Conservation Area.



DRAWING KEY (HBCC Conservation Team)

- | | | |
|--|--|-----------------------|
| AMPHITHEATRE - PLAINS GRASS, SEDGELAND MIX AND OPEN RED GUM WOODLAND | 8 OPEN GRASSY WOODLAND | 15 WA MIXED WOODLAND |
| 2 ARBORETUM | 9 MIXED NATIVE LANDSCAPE | 16 WET EPHEMERAL ZONE |
| 3 BANKSIA GARDEN | 10 REVEGETATION | OPEN WATER |
| 4 CHENOPOD WOODLAND | 11 ROCKY TOPSOIL MOUND | |
| 5 DRY EPHEMERAL WETLAND | 12 ROCKY ESCARPMENT/ SALTBU SHRUBLAND | |
| 6 GENERAL WOODLAND MIX | 13 SALTBU SH/ EUCALYPT FOREST | |
| 7 IRONBARK WOODLAND AND MIXED SHEOAK/ EUCALYPT WOODLAND | 14 SHEOAK WOODLAND MIXED EUCALYPT WOODLAND | |

0 50 100 150 200m



Figure 7
EXISTING VEGETATION COMMUNITIES

6.3 North West Plain

6.3.1 Overview

Former quarry pit then used as a municipal landfill it is predominantly mown exotic grass and used as dog off lead areas with a well-established bank of mixed Eucalypts and Allocasuarinas to the perimeter. Rocky areas historically top dressed with local coastal soils have naturally regenerated coastal saltbush *Atriplex cineria*.

REVEGETATION (10)

More recent revegetation areas undertaken with an indigenous Grassy Woodland mix.



Photo 23: Revegetation

ROCKY TOPSOIL MOUND (11)

Area of excavated material from drainage works includes placed rocks and mixed indigenous grassy woodland species.



Photo 24: Rocky topsoil mound

6.3.2 North West Plan vegetation management considerations

- undertake additional indigenous shade tree planting within central rocky areas to improve amenity and seating space for visitors to the dog off-lead area
- retain perimeter tree planting removing lower branches to improve access for mowing and to retain views into the reserve from Bruce and Percy Streets for passive surveillance.

6.4 Pavey Park

6.4.1 Overview

MIXED NATIVE LANDSCAPE (9)

Pavey's Park is a former landfill, and the surface cover is shallow. The remnants of street tree planting exist on the western street frontage. The southern street frontage has been planted with a range of Australian native trees including River Oak that form a dense thicket.



Photo 25: Mixed native landscape

Former quarry pit, then used as a municipal landfill, the parkland features scattered mature and more recent tree planting and predominantly mown grass with visitor facilities including play equipment, picnic shelters, BBQ, and toilet facilities.

Dense planting along Lakes Drive and Margaret Street using River Oak *Casuarina cunninghamiana* forms a dense screening barrier limiting views into and out of the reserve. While this planting was important in the initial establishment of the park and provides some wind protection, it now limits passive surveillance and reduces public safety for visitors using the park and play areas.

Tree planting in other areas of the park has taken many years to establish

There are no large trees within the Pavey Park and recent plantings and trees planted on mounds have apparently been the most successful in recent years. However, these trees are not vigorous and have made little extension growth.

There is a need for shade planting near the playground and for some spatial definition through planting within the recreation area.

6.4.2 Pavey Park vegetation management considerations:

- establish additional shade tree planting focussing on proven Australian mature large canopy trees with a lower risk of branch failure to improve passive surveillance and safety
- thin areas of dense River Oak along Lakes Drive to open up views into the park while retaining some pockets for wind protection and to retain character while new planting establishes
- expand areas of bushland vegetation in garden beds to extend the Conservation Area character to the main entrance
- investigate soil improvement opportunities to capped landfill areas to assist the establishment of new planting.

6.5 Arboretum

6.5.1 Overview

European styled parkland area containing large conifers and deciduous trees. The planting in this area was designed to contrast with the Australian bushland character of the lakes Conservation Area and the original planting zones designed by Hulzebosch are summarised as follows:

- North American pines, conifers, and deciduous exotics
- European conifers and deciduous exotics
- Australian conifers and gymnosperms
- specimen planting of Oaks, Liquidambers, Elms, Pears, Willows, and other deciduous exotics
- garden beds with ground layer planting predominantly agapanthus with some juniper

Many trees in the Arboretum are nearing 30 years old and are well established providing the character contrast with the natural bushland character of the lakes Conservation Area envisaged during the initial establishment of the park. This is despite the fact that the heavy clay soils and periodic droughts contributed to the failure of some initial plantings and subsequent infill planting with mixed and self-seeded natives has impacted on the arboricultural integrity of the initial design.



Photo 26 & 27: Arboretum

There has been mixed success with conifers as some established specimens have become affected by “conifer canker” which can become prevalent in drought stressed trees. This can be managed in mild form by additional watering and pruning off the affected areas, however, without an operational irrigation system and targeted management this problem is likely to increase.

There have also been time gaps between formative pruning undertaken during establishment and branch structure in some trees may present structural issues at maturity. In other areas low branching (damage from mowers/maintenance vehicles) and overcrowding are impacting tree health.

There is no irrigation system and the dominance of Agapanthus in many of the garden beds will impact on access to water for mature trees, especially during extreme drought.

6.5.2 Arboretum management considerations

Complete a detailed arboricultural assessment to review health and useful life expectancy of new and established trees. This is an essential first step to identifying the long-term tree framework upon which the revised planting plan will be built.

Following completion of the assessment undertaken the following actions:

- conduct arboricultural assessment and review existing tree health in the Arboretum, formative prune to remove lower branches to improve sightlines and remove poorly performing and over-crowded trees. Replace tree labels and undertake replacement planting using exotic specimen trees to continue the existing planting theme.
- retain established healthy trees including Australian natives and undertake remedial pruning where needed to improve sightlines and access for mowing. These trees and the Arboretum area should be moved over to the park unit who specialise in this type of horticultural works
- review and infill gaps created by removal of non-performing trees while maintaining space for future mature growth. Species are to reflect the original exotic parkland vision where possible while using drought and disease tolerant cultivars
- formalise the path entries into the Arboretum to reinforce the character difference to the bushland and dog off lead areas
- develop new way finding signage and tree labels to identify significant trees and key elements of the collection
- investigate reset of the main overland water flow path through the Arboretum. While this is unlikely to generate much flow for the waterfall area, it could assist with passively irrigating new tree planting areas to improve drought tolerance
- contain the mulch storage area and establish new avenue tree planting along the main north-south path reflecting the character of the Arboretum on the west and the bushland Conservation Area on the east
- investigate sealed all ability access circuit track from the car park.
- through community consultation the idea if a sensory garden was suggested for the Arboretum. Investigate options of inclusion of a sensory garden in the largest open mown space of the Arboretum with connection to the proposed all abilities access track. The aim will be to enhance the experience within the Arboretum as the smaller lawns tend to be more frequented by picnickers and the large open space is often compromised by dogs off lead. Installation of the sensory garden will seek to reclaim this larger area currently demarcated as dog on leash, and further protect the smaller shady lawn areas from off lead dogs.

6.6 Fauna

The rehabilitation of Newport Lakes as a bushland conservation reserve has increased its importance as an urban biodiversity hot spot. Friends of Newport Lakes have recorded over 160 bird species using the area. The majority of these are common water birds including Black Swan, Pacific Black Duck, Royal Spoonbill, Great Cormorant, Australian Grebe, Purple Swamphen and White-faced Heron. Rainbow Lorikeets are commonly found in the bushland areas and birds of prey such as Black-shouldered Kite and occasional rare visitors such as Scarlet Honeyeater and Swift Parrot have also been recorded.

The lakes are also home to a range of common frogs, turtles, and eels. Lizards and

snakes can be found in rocky grassland areas and the restriction of dogs and the diversity of available habitat in the Conservation Area is encouraging recolonisation by more and more species. Possums are commonly released by Wildlife Rescue services and Grey Headed Flying Fox and a range of micro bats have been recorded.

Other species which form a critical part of the food chain include Damselfly, Crane fly, Dragonfly, Water Mite, Water Boatman, True Midge, Fisher Spider, Water Strider, Whirligig Beetle, Water Scorpion, Scavenger Beetle, Back Swimmer, Wiggler, Hydra, Isopod, Cyclops, Water Flea, Seed Shrimp, Flat Worm, Pond Snail, Tadpole Shrimp, Tubifex Worm, Freshwater Mussels, Yabbie, Mayfly, and Caddisfly.

Rabbits been controlled, but other feral species including foxes and cats present an ongoing threat to wildlife. Pest bird species including exotic waterfowl (e.g., northern mallard hybrids), Common Myna and Seagulls can also be found, and restriction on bird feeding at the lakes requires ongoing monitoring.

European Carp and other exotic fish including Gambusia and released domestic gold fish are found in the lake.

- stags and habitat logs placed during the initial establishment of the park are gradually decomposing. Replace during proposed wetland works and consider additional nesting boxes to maintain diversity

6.6.1 Key Fauna considerations

- maintaining lake water quality is critical to the health and biodiversity values at Newport Lakes
- the lakes are currently kept at a consistent water level for public landscape amenity; however, this limits habitat restoration for key species such as Crakes, Rails and other wetland birds, frogs, and other species critical to the food chain. Provision of additional ephemeral wetlands (wetlands which dry out over summer) is required to continue habitat improvements at Newport Lakes
- provision of additional ephemeral wetlands is key to sustainable reintroduction of rare species
- provision of a cat curfew could also be considered, and ongoing monitoring of foxes and other pest species will be required to maintain breeding habitats.

7. PARK ACCESS

7.1 Vehicle access and car parking

7.1.1 Main Car Park

The main car park is accessed from Mason Street via Lakes Drive. The car park was recently sealed with 50 marked standard bays and 5 accessible bays. There is provision for coach and long vehicle access, but no designated parking area. There is limited directional road marking and it is difficult to determine who has priority in some locations.



Photo 28: Main car park no directional marking



Photo 29: Main car park entrance bays



Photo 30: Accessible parking bays

There is path access from the accessible parking bays but no path link or designated road crossing points from the picnic area and toilets to the Lakes Conservation Area main entry. The car park can be closed in evening via an automated gate, but there is no release point if visitors are stuck inside after hours.



Photo 31: Main car park parking bays

7.1.2 Other Car Parking

There is extensive on street public parking along Johnston Street, Bruce Street, Margaret and Graham Street. There is limited parking in Lakes Drive which is closed to through traffic at Margaret Street. This means if visitors arrive and the car park is full, they are forced out onto Mason Street in order to access on street parking.

7.1.3 Vehicle access and car parking considerations

- extend line marking in the car park to designate additional parking bays, coach/long vehicle parking and priority at intersection
- establish a pedestrian priority path crossing at Lakes Drive entry to reduce vehicle speed and improve safety
- establish a pedestrian priority path link from the picnic area and toilets through the car park to the Lakes Conservation Area main entry
- investigate re-opening at Lakes Drive to Margaret Street west bound to improve vehicle circulation to on street parking if the car park is full
- remove dense River Oak planting at the entry to improve after hours passive surveillance of the car park.

7.2 External paths and links

There is extensive car parking at and around Newport Lakes, however, as part of Hobsons Bay City Council Sustainable Transport Plan it is preferred for visitors to walk, cycle, or use public transport to access the reserve.

7.2.1 Public transport

It is a pleasant 20-minute walk just over 2km from Newport Station to the Lakes Drive entry.

The 471 bus also runs along Mason Street every 15 minutes with a stop opposite Lakes Drive.

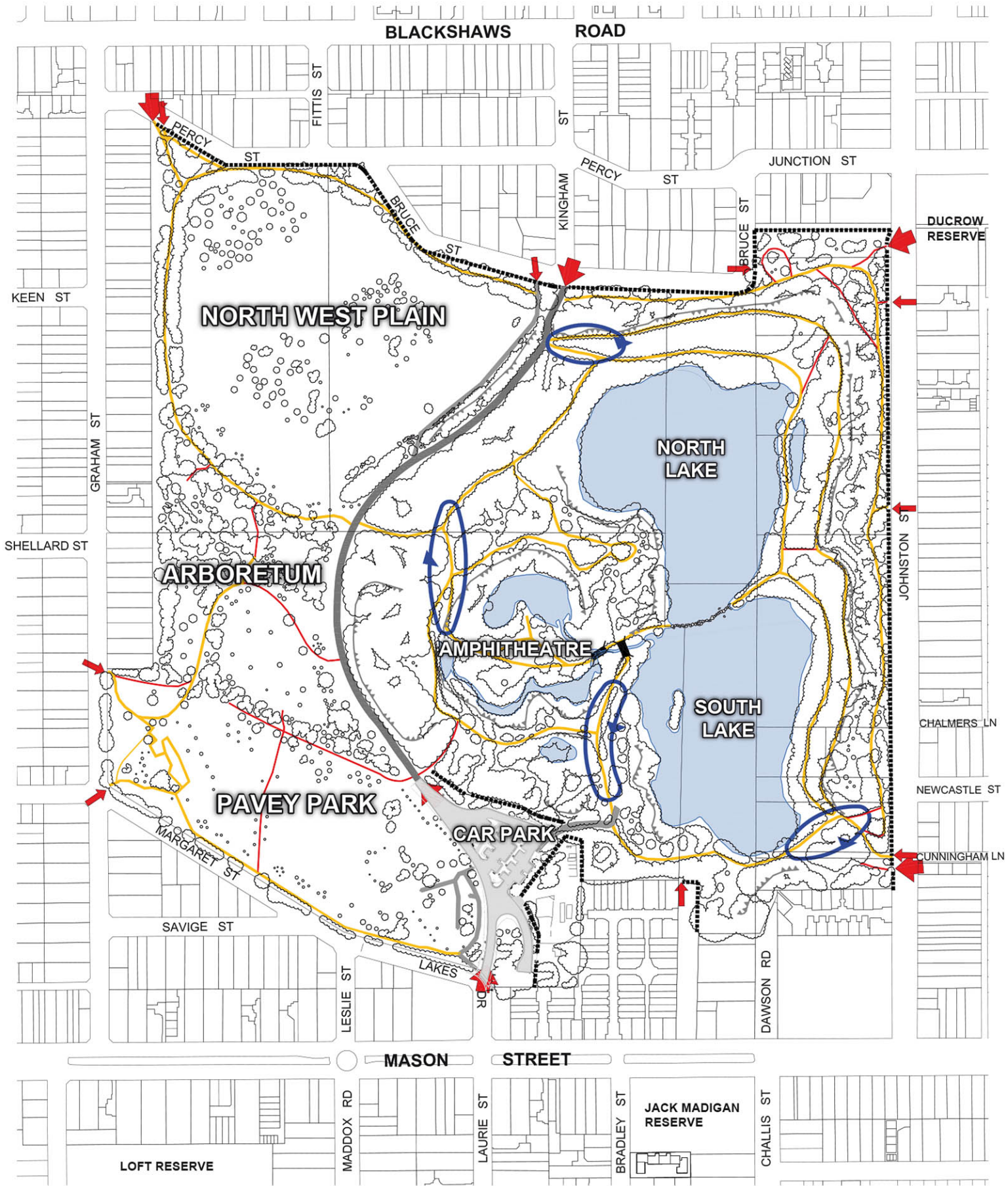
7.2.2 Walking and cycling links

Cycle paths along Mason Street are about to be upgraded. The works will also include a new kerb ramp at Lakes Drive/Laurie Street improving all ability access into the main visitor area of Pavey Park.

There are no kerb ramps at entries to the park along Johnston Street. The entry to the park off Mason Street is not well signed.

7.2.3 External path link considerations

- consider renaming the Laurie Street bus stop the Newport Lakes bus stop
- upgrade signage to Newport Lakes on Mason Street from both directions
- establish kerb ramps and a new footpath along Johnston Street
- review and improve pedestrian and cycle links to Newport Lakes from new development areas north of Blackshaws Road
- improve north south shared path link through the western side of the park.



DRAWING KEY

- ASPHALT PATH
- CONCRETE PATH
- UNSEALED WALKING PATH
- INFORMAL PATH
- CHAIN LINK FENCE
- STEEP GRADE
- BRIDGES
- PEDESTRIAN ENTRY
- MAINTENANCE VEHICLE ENTRY



Figure 8
ACCESS AND CIRCULATION

8. PATHS AND TRAILS

8.1 Overview

8.1.1 Main Paths

The extensive path network around Newport Lakes is predominantly unsealed which suits the bushland character and allows use for both walking and maintenance vehicle access purposes.

There are three lake circuits with a 1.3km loop via the upper escarpment, a lower lake level circuit of just on 1.2km and a shorter 800m circuit via the Amphitheatre and rock hop crossing.



Photo 32 & 33: Unsealed Path Steep

The main north-south path link between the Lakes Drive car park and Bruce Street is asphalt and dates from the landfill period. More recently all ability concrete paths have been added from accessible parking in the car park to the upper lookout and from the Bruce Street entry along the edge of the North West Plain dog off-leash area.

Path links to the toilets and picnic areas in Pavey Park are concrete and provide all ability access but other local path links across to Graham Street and Margaret Street are unsealed.

8.1.2 Other Paths

Paths in the Arboretum are unsealed and are in average condition given lower levels of use and the lack of a clear and legible circuit.



Photo 34: Arboretum entrance



Photo 35: Arboretum unsealed path

8.1.3 Accessibility

There is good all ability access to facilities in Pavey Park, the Arboretum and North West Plain via the existing path network.

Access to the lower lakes and Amphitheatre area is more challenging. There are three steep (>1 in 14) unsealed ramps used to access the lower lake circuit. While the ramp surfaces are generally in reasonable condition, they can deteriorate after heavy rainfall and require a higher level of maintenance than other sections of the network.



Photo 36: Conservation Area entrance



Photo 37: Informal paths

The ramps were put in as part of the initial quarry rehabilitation works and only minor modifications to the grade are possible without extensive removal of vegetation. All ability access will also only be meaningfully improved by upgrade of multiple ramps and given the length of the circuit exceeds 1.2km, means that the number of elderly and/or disabled persons who will benefit from ramp upgrades, who are not currently unable to complete the lower lake circuit walk, will be extremely few.

There is all ability access to the main lake lookout, however, there would be significant benefit from extending the all ability path access to complete a shorter circuit of around 400m from the main lookout to the waterfall area and back to the main visitor area. Upgrade of this shorter length walk, with direct connection to the main visitor area would provide significant benefit for visitors with less mobility.

8.1.4 Interpretive Trails

A key feature of the path access at Newport Lakes are the interpretive trails developed by Friends of Newport Lakes. There are four routes of varying lengths which are marked with mosaics and carved boulders to indicate points of interest.

All trails begin at the Purple Hen Swamp mosaic located at the main entrance east of the car park. Refer to the Friends of Newport Lakes Figure 9 Mosaic Plan.



Photo 38: Purple swamphen mosaic



Photo 39: Boulder 6 bird viewing

8.1.5 Maintenance access

The existing path network is used by Council staff for maintenance access. A 4m x 4m clearance for fire access is important along the southern lake boundary where there is no road access and limited access from directly adjoining higher density residential dwellings.

8.1.6 Path and trail access considerations:

- path surface condition affects the ability of people to use them.
- the width and surface material of paths influences the degree of accessibility there are a range of design issues associated with this including:
 - width of path relative to existing or anticipated levels and type of use
 - path surface material - unsealed paths generally appeal more to pedestrians. Advantages of unsealed paths include lower impact for walkers and joggers, slows cyclists, and pedestrians can hear cyclists approach from behind. Disadvantages of unsealed path surfaces include generally higher levels of ongoing maintenance to ensure they remain accessible, can restrict access during wet weather and discourage commuter cyclists
 - gradient
 - layout including alignment and curve radius which affects sight lines
 - vegetation adjoining paths
- there is no footpath along Johnston Street and therefore no way for dog walkers to walk to the North West Plain dog off-leash area without accessing the Conservation Area which is a no dog zone
- there is a lack of directional signage for first time visitors and the path network can be confusing
- unsealed paths are in generally good condition, however, areas with graded sections can become eroded and require ongoing maintenance
- through community consultation the idea if a sensory garden was suggested for the Arboretum. Investigate options of inclusion of a sensory garden in the largest open mown space of the Arboretum with connection to the proposed all abilities access track.

1 purple swamp hen mosaic
 Designed and made by students of Newport Primary School.
 Bird Facts: Swamp hen eggs are creamy-brown with purple-brown spots laid in nests of reeds. The hens rarely swim, but use their feet to eat grass, aquatic plants and molluscs.
 Surrounding Species: Fragrant Saltbush (*Rhagodia parabolica*), Coast Saltbush (*Atriplex cineria*), Wallaby Grass (*Danthonia* spp).
 Point of Interest: Each year 5000 trees, shrubs and grasses are planted in the Newport Lakes park. The Ranger works from a plan to know what local species to plant and where. All these seedlings are watered by hand until they establish - that's a lot of work and only one of the Ranger's tasks. The Friends of Newport Lakes hold two planting days on the third Sunday of May and October. Please join us at 11 AM.

8 black swan mosaic
 Designed and made by students of the Bayside Secondary College, Millers Road, Altona.
 Bird Facts: Swans mate for life and make their grass and reed nests on the island in the middle of the Lakes. Swan eggs are green. Swans eat aquatic plants and animals and a swan call sounds like a trumpet.
 Surrounding Species: Black Wattle (*Acacia Mearnsii*), Coast Saltbush (*Atriplex cineria*), River She-Oak (*Allocasuarina cunninghamiana*).
 Point of Interest: One of greatest challenges for the visitors, local residents, Friends and the Council is the difficulty in combining different uses of the park. In order for the lakes area to provide a sanctuary for waterbirds, dogs are not allowed in the North and South Lakes or Amphitheatre. However dogs are allowed, off-lead in the western half of the park.

2 bell frog mosaic
 Designed and made by students of Bayside Secondary College, Millers Road, Altona.
 Frog Facts: The Southern Bell Frog (*Litoria raniformis*) can change from green to brown in 10 minutes, depending on environmental conditions.
 Surrounding Species: Red Gum (*Eucalyptus camaldulensis*), She-Oak (*Allocasuarina verticillata*), Tussock Grass (*Poa labillardieri*)
 Point of Interest: The Amphitheatre is not a natural feature but the shape of the former bluestone quarry. On wet days there is a waterfall over the side of the cliff. The park's designer laid pipes to collect storm water from the western edge of the park to form this feature. In the centre of the Amphitheatre, partially hidden by vegetation, you'll see a metal box. This is the bore

that draws up water from 120 metres underground to supply the Lakes and keep them topped up. When you cross the stepping-stones, look for metal poles on either side. The Ranger uses these as a gauge to turn the bore on or off overnight.

7 new holland honey eater & fairy wren mosaic
 Designed and made by students of the Spotswood Primary School.
 Bird Facts: These honey eaters are a common sight in this park; listen for their sharp, shrill call and watch for their acrobatic flight displays. They eat insects and nectar and nest in cup-shaped nests 1-2 metres off the ground.
 Wrens live in cooperative family groups of females, young and one bright blue male in dome-shaped nests in shrubs or grass near the ground. The young males and the adult females are both brown. Listen for their pretty, reeling song.
 Surrounding Species: Black Wattle (*Acacia mearnsii*), Lightwood Wattle (*Acacia implexa*), Ironbark (*Eucalyptus sideroxylon*).
 Point of Interest: The cliffs form the main feature of this forested trail, however they are not a natural feature but were formed as the area was quarried for bluestone between 1885 and 1968. Up to 300 tradespeople were employed here. The stone provided ballast for ships returning to Europe and building material in Melbourne. Locally, stone was used in roads, gutters, the Williamstown sea wall and a freezing plant (demolished).

4 rainbow lorikeet mosaic
 Designed and made by students of the Spotswood Primary School.
 Bird Facts: This is the largest, brightest and noisiest of the Lorikeets; they feed in chattering, squabbling groups in the tops of blossom-laden trees. They have hairy tongues to collect nectar from blossom. They nest in tree holes so they can only use old trees for their homes.
 Surrounding Species: Hedge Wattle (*Acacia paradoxa*), Black Wattle (*Acacia mearnsii*) and Greybox (*Eucalyptus microcarpa*).
 Point of Interest: Virtuality all land between here and South Australia was formed in volcanic eruptions four and a half million years ago. Eruptions occurred as recently as four thousand years ago. The lava cooled to form a dense rock called Basalt, what we call Bluestone. Over this a thin, clay soil slowly accumulated.
 For thousands of years this area was flat, grassland scattered with bluestone. These were Bunjil or Eagle Clan lands, the park was the site of an ancient hill used by the local tribes. You might find shells scattered indicating a higher sea level than today or middens left from foraging for food.

3 magpie mosaic
 Designed by Linda Cottrell and made by participants at workshops held at the South Kingsville Community Centre and the Newport Lakes Native Nursery.
 Bird Facts: Their 'caroling' singing can be heard at dawn and dusk, however in breeding season they may swoop and attack. Magpies eat insects, worms, carrion and even snake. They make untidy nests of sticks in the forks of trees between 5-20 metres off the ground.
 Surrounding Species: River She-Oak (*Allocasuarina cunninghamiana*), Tree Violet (*Hymenantha dentata*), Hedge Wattle (*Acacia paradoxa*)
 Point of Interest: When you emerge from this young forest, you'll see two contrasting areas. To your right there is an undeveloped area and your left the Arboretum. The area to the right, once a quarry, was used as a tip until the end of the 1980's. Since then, it was capped with clay but its final use within the park is still to be decided. The Arboretum (as well as Pavey's Park beside the car park) was also a quarry and the first area to be redeveloped in the 1970's by Community Workers. An Arboretum is like a Botanical Garden and contains trees from other countries.

6 darter mosaic
 Designed and made by students of Newport Primary School.
 Bird Facts: Darters sound like a 'winding clock with a broken spring'. They dive for fish and then sit for long periods on trees, usually dead ones, near the water. They hold their wings open to dry their feathers.
 Surrounding Species: Blue Gum (*Eucalyptus globulus*), River Red Gum (*Eucalyptus camaldulensis*)
 Point of Interest: If you go back to the lakeside and look to your right you'll see a group of dead trees. These are a favourite perch for Darters. The park designer purposely 'planted' these trees for birds as well as fitting the stepping-stones. The stepping stones were made possible by partially raising the adjacent lake bed as a safety measure (if you look either side you can see how shallow the water is). The park's cliffs are sculpted as another safety measure.

5 crane's corner mosaic
 Designed and made by students of Bayside Secondary College, Millers Road, Altona
 Bird Fact: Cranes are shy birds that are often difficult to see before they disappear into the reeds. They feed on aquatic insects and plants and nest at the base of grass tussocks in the water.
 Surrounding Species: Common Reed (*Phragmites australis*), Wirilda Wattle (*Acacia retinoides*).
 Point of Interest: Apart from the stepping-stones, the lakeside area in front of you is a popular bird feeding spot. Try feeding the birds on land rather than in the water because the nutrients from their droppings and uneaten food help to create banks of algae in the summer. These are both unattractive and take oxygen from the water.



- path 1
- ... path 2
- path 3
- path 4

- light blue square dogs prohibited
- dark blue square dogs permitted off-leash

Source: Friends of Newport Lakes

**Lakes Nature Trail
 Numbered Boulder Markers**

- 1 Main Lookout
- 2 Amphitheatre Lookout
- 3 Waterfall
- 4 Lakes Crossing
- 5 Aquatic Life
- 6 Bird Viewing Area
- 7 Yellow Gum
- 8 Plant Communities

Figure 9
 MOSAIC DESCRIPTIONS AND INTERPRETATIVE TRAILS

8.2 Pedestrian Bridges and Crossings

8.2.1 Overview

There are two timber bridge crossings providing access to the Amphitheatre area. The hardwood bridges were both installed in the mid-1990s as part of the initial establishment of the park and provide the only access across the Amphitheatre wetland channels.

Timber structures rarely last more than 30 years and despite ongoing maintenance both structures will require replacement within the next 5 years.



Photos 40 Bridge 1



Photo 42: Bridge 2

Structural assessment has concluded that it will not be possible to reuse the existing timbers and complete replacement will be needed. Both bridges will need to be replaced in their existing locations to avoid the need to remove vegetation. Therefore, to retain access to the rock hop crossing they will need to be completed one at a time.

The smaller bridge is in the worst condition and will need to be completed first. Given brackish water conditions use of corrosion resistant fibre reinforced plastic subfloor and joists with stainless steel fixings is recommended to maximise the longevity of both structures.

The handrail and decking of both structures could, however, be completed in hardwood timber to retain the bushland Conservation Area character and effectively screen the more modern/urban materials. These handrails and decks can also be more easily and cost effectively be replaced after 20-25 years while the Fibre Reinforced Plastic (FRP) sub floor and posts should be designed to last at least 50 years.

8.2.2 Rock hop crossing

The rock hop crossing dividing the North and South Lakes is an iconic feature of Newport Lakes. The large flat topped quarry stones provide access both across and to the lakes and are extremely popular visitor attraction.

The longer term changes to modify the northern lake to create a wetland, as needed to secure the long term future of the lake water quality, will be completed without changing the function and character of this feature.

This will involve creating a new point of separation between the two lakes on the northern edge such that the rock hop crossing, with open water on either side, is retained within the ornamental southern lake.



Photo 42: Rock hop crossing



Photo 43: Rock hop crossing (Nearmap 2021)

8.2.3 Bridge and crossing considerations

- the existing bridge designs do not meet the requirements of AS 5100 Bridge Design and the timber structures are in poor condition and have a useful life expectancy of less than five years
- both pedestrian bridges will need to be replaced in their existing location to maintain access and avoid the need for removal of indigenous vegetation
- reuse of existing timber is not viable given degraded condition
- retention of the existing character is important to the overall lakes bushland character.

9. FACILITIES

9.1 Public Toilets

The public toilet facilities at the main carpark were upgraded in 2011 and provide for all ability access and are compliant with current CPTED principles.

9.1.1 Public toilet considerations

The toilet facility is well placed to service the playspace and Pavey Park picnic area, but lack of an off-road path connection to the Conservation Areas restricts access for other users. If this access can be improved, then there is no existing need for additional toilet facilities at the park.



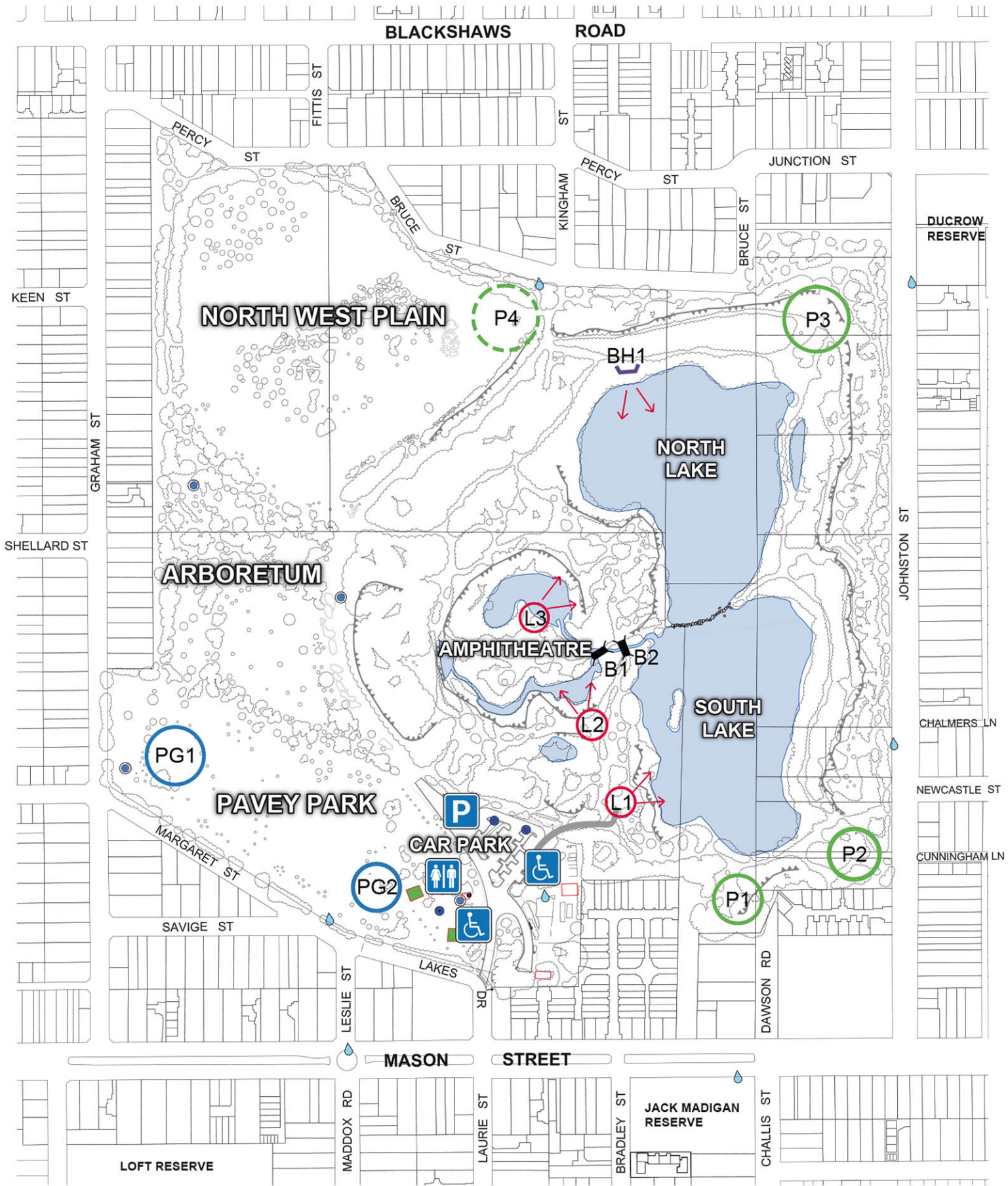
Photos 44 & 45: Existing Public toilets

9.2 Play Spaces

The *Hobsons Bay Play Space Strategy 2013-2023* classifies play spaces into two types - destination and local. The Strategy identifies where proposed changes, upgrades and gaps in provision are and has identified Newport Lakes for an upgrade to a destination play space.

Playgrounds are frequently used by children and families and also by grandparents taking grandchildren to them. The design of them, their location in the reserve and the range of activities they provide influences the desirability and use of the open space. Playgrounds are also often used by young people to hang out and use informally as a meeting place, and this use needs to be valued and supported. Providing a diverse range of play space sizes and types in a neighbourhood, giving children varied experiences and challenges within walking distance of home, is the preferred direction. Other facilities and features associated with the playground (such as shade, seating, drinking fountains, open grassed areas, plantings including dense stands of trees nearby) can build on the play experience and appeal of the open space. All-ability access to play areas is also a key requirement of any upgrade.

There are two play spaces at Pavey Park. Both play spaces were installed around 2006 and are set for renewal in the next couple of years.



DRAWING KEY

- | | | |
|-------------------|--------------------|--------------------|
| BIRD HIDE | LOOKOUT | PUBLIC PARKING |
| BRIDGE | PLAY SPACE | ACCESSIBLE PARKING |
| BUILDING | PICNIC AREA | PUBLIC TOILETS |
| DRINKING FOUNTAIN | FUTURE PICNIC AREA | PICNIC SHELTERS |
| WATER METER | | |
| WATER TAP | | |



Figure 10
INFRASTRUCTURE

9.2.2 Graham Street Playspace

The play space located at the Graham Street end of Pavey Park combines two areas of off shelf play equipment. It consists of two slide and climbing Omnitech Combination Units, one with slightly more challenging climbing apparatus including steel parallel bars, curved balancing beam and fireman's pole. The second has a large abacus, both a solid plastic ladder and a rope ladder for reaching the enclosed tower with the slide, and a small make-believe door and window frame space under the tower. Nearby are four jumping stools, a steel track ride, a double swing set with an infant seat and a strap seat, a wombat spring rider, a double aluminium spring seesaw and a plastic triple Infinity Climber. The playspace is located too far from the main picnic area to service visitors to Newport Lakes and functions as a local facility only.



Photo 46: Graham Street playspace



Photo 47: Play space near main car park

9.2.3 Pavey Park Play space (near the visitor car park)

At the main picnic area in Pavey Park there is a small Adventure + Combination Unit with a curved fibre glass slide and a double swing set, with an infant seat and a strap seat. This equipment although much smaller than Graham Street gets far more use given proximity to the picnic area and car park.

9.2.4 Play Space Considerations

- Hobsons Bay Play Space Strategy recommends upgrade of the existing play space at Newport Lakes to a destination play space providing a diverse range of accessible, attractive, challenging, and well-maintained equipment for visitors of all ages and abilities within a sustainable natural setting. Key objectives include:
 - provide an accessible and sustainable play space with infrastructure to support active and cognitive play for children of all ages
 - meet Australian Standards for playground safety compliance
 - key focus on nature and adventure play using imaginative play elements, utilising existing park features where possible
 - inclusion of universal design for all abilities including accessible paths
 - design of additional soft landscape areas to provide shade, visual interest, and natural play opportunities
- the preferred location for the new play space is close to existing car parking and picnic toilet facilities making use of existing mound to avoid the need for excavation of the former landfill site. The mound will also provide an opportunity to provide accessible access to a greater range of equipment without need for constructed ramps
- the new play space design theme is to include key Newport Lakes features including the iconic rock hop crossing and natural rock associated with historical

quarry operations. The aim is to bring key elements of the lakes Conservation Area into the main visitor area

- other facilities may include:
 - a large viewing tower with accessible ramps and challenging slides
 - a zipline flying fox and new swings
 - a nature-based play area with natural materials and indigenous planting
- consider future of Graham Street play space, whether to remain as a small space to cater to local community or provide other recreational opportunities.

9.3 Picnic Areas

9.3.1 Main Picnic Area – Pavey Park

The main picnic area has two large shelters with domed sheet roofs donated by AGL through the FoNL. The bases of each shelter are concrete with inlaid with two stone squares in the shelter and a decorative stone border denotes the edge of the shelter roof. Accessible concrete paths lead up to each of the shelters from the main path of the parking lot and are connected with concrete paths to the toilets. Each shelter contains two full off the shelf picnic tables with steel legs and timber seats and tabletops that would seat 4 comfortably, and two half picnic tables of timber, similar to the shelter's timber supports, that appear to be for two.



Photo 48: South Picnic Shelter



Photo 49: West Picnic Shelter

Each shelter has a wheelie bin attached to post and a BBQ. Drinking fountain facilities are near the public toilets and play space. The West Picnic Shelter is closest to the existing playground.

9.3.2 Other picnic areas

In addition to the picnic shelters there are three other more informal, unsheltered picnic areas in the Conservation Area. Two sit along the elevated southeast end of the park and the other is located on the northwest. Refer to Figure 10 Infrastructure for locations.

9.3.2 Picnic area 1 (South bank)

Two green painted flat square timber seats sit on opposite corners of a grassy clearing in the southern end of the Conservation Area. The clearing is steeply graded coming up from the main southern unsealed path with the seats at the levelled top of the hill are views across the lakes.



Photo 50: Barbecue



Photo 51: Picnic area 2



Photo 52: Picnic area 1

Picnic Area 2 (South bank)

Two of the same timber seats from Picnic Area 1 are nestled amongst the trees and shrubs in the south-eastern corner of the park with access from Johnston Street. The steep embankment has two levelled shelves where the seats are installed on the high and middle level tier. They look out through the trees across the South Lake.

Picnic area 3 (North bank)

The largest of the informal picnic areas sits on the middle tier of the landscaped embankments and can be accessed from the lower or middle path. The lower path approach has a set of flat rock steps that transverse the rock retaining wall to the mid-level tier. The middle path cuts through the back of the space skirting the rock escarpment that holds up the top tier. The space provides an opportunity to cross from the lower path to the middle path and an informal track runs through the west of the space. Easiest access to the picnic area is from the Bruce Street and Kingham Street pedestrian and vehicle access points, as there are no links from the upper path to utilise entries from the northeast corner of the park, so would require doubling back along the middle or lower path.



Photo 53: Picnic area 3

9.3.3 Picnic Area Considerations:

- the main picnic area will remain adjacent to the toilets and car park at Pavey Park. Upgrade of the play space is likely to increase use and an additional shelter will likely be required. This should follow the established theme
- other picnic area in the conservation zone will only remain informal as lack of access precludes upgrade.

9.4 Lookouts and platforms

There are three timber lookout platforms in the Conservation Area. Refer to Figure 10 Infrastructure.

9.4.1 Lookout 1 – main lookout

The main lookout is the only lookout that currently provides all ability access and is closest to the car park. The elevated timber platform is enclosed with a timber post and rail fence, with views out over the South Lake. There are two timber benches opposite each other. The deck has been replaced several times, but it is in poor condition.



Photo 54: Main lookout



Photo 55: Lookout 2

9.4.2 Lookout 2

Lookout 2 overlooks the Amphitheatre with a timber slat platform and a single bench seat in the same style as the main lookout. Revegetation on the escarpment has obscured views to the Amphitheatre which are now almost fully blocked. The lookout deck and subfloor is in poor condition and requires urgent replacement or removal.

9.4.3 Lookout 3

Lookout 3 is located on the north pond with the Amphitheatre and was built more recently. The large timber platform has a single step up from the unsealed path and is enclosed with a timber post and cable fence and one bench seat.



Photo 56 and 57: Lookout 3 Amphitheatre

9.4.4 Bird hide

The bird hide is located on the north bank and is designed with a screen to obscure hide bird watchers from the reedy areas on the northwest side of the lakes. The bird hide has 5 slots with small shelves for balancing binoculars and is down from a small set of soil steps retained with timber edging. The growth of vegetation makes the screen redundant, and it may function better as a lookout platform.



Photo 58: Lookout 4 bird hide



Photo 59: Bird hide access

9.4.5 Lookout and platform considerations

- the existing main timber lookout platform is in poor condition and has a useful life expectancy of less than five years. It will need to be replaced in the same location to maintain views and all ability access from the concrete path and to avoid the need for removal of indigenous vegetation
- the hand rail location obscures views for children and visitors in wheelchairs

- reuse of existing timber for the lookout platforms is not viable given degraded condition
- retention of the existing character is important to the overall lakes bushland character
- lookout 2 near the wetland soak is in poor condition and requires urgent replacement or removal. As views are now obscured by vegetation, the structure could be removed more cost effectively replaced with a fence/barrier and seating area closer to the path
- lookout 3 at the Amphitheatre is a more recent structure and has a useful life expectancy of more than 10 years
- the bird hide screen has been made redundant by regrowth of vegetation. The structure is in average condition with poor quality stair access but is a lower priority for replacement given lower levels of use. As an interim measure consider minor improvement to the steps and reset of the screen as a handrail to cost effectively change the structure to a seating/viewing platform. Monitor use following the changes and if there is no increase, remove the structure and replace only with a new seat located near the path
- longer term investigate a new accessible elevated platform up at path level with better views.

10. FURNITURE

10.1 Seats

The design and placement of seats affects their use and access. Seats provide resting places for people exercising, walking and for relaxation and enjoyment of the space. They also assist people with less mobility to visit and walk further in open space, by having convenient resting points along the way. The seats should include a variety of styles including bench seats, seats with backs and some seats with armrests to maximise access to all abilities. The seating styles at Newport Lake are mixed with many older style seats that are in poor condition.

Some seats have plaques and bases include a mix of concrete and crushed rock.



Photo 60: Modern style seat



Photo 61: Older style seat



Photo 62: Timber seat with back



Photo 63: Timber bench seat



Photo 64: Platform style seating



Photo 65: Picnic table and seats

10.2 Other furniture

10.2.1 Bicycle Racks

There are bicycle racks at the car park entry to the main entrance to the Conservation Area.



Photo 66 Dog poo bag dispenser and bin



Photo 67: Bicycle racks

10.2.2 Drinking Fountains

Drinking fountains can be found around Pavey Park and the Arboretum. There are three styles of drinking fountains throughout the park in various condition and the only one that is wheelchair accessible is located near the toilets. All are affected by poor drainage and placement of dog bowls is away from dog off-leash areas. Some of the drinking fountains are isolated and screened by dense vegetation.



Photo 68: Graham St



Photo 69: Main picnic area



Photo 70 Arboretum

10.2.3 Furniture design considerations

- when seating furniture is replaced, ensure consistency with Council's standard suite for park furniture
- improve drainage at existing drinking fountains, providing garden bed infiltration areas
- establish a drinking fountain with dog bowl in the dog off-leash area
- ensure new drinking fountains provide for all ability access
- maintain rubbish/recycling bins at main entries only
- provide dog poo bag dispensers and rubbish bins and new timber chicane entries to the dog off leash area at the North West Plain.

11. OTHER INFRASTRUCTURE

11.1 Fencing

Perimeter fencing to the north, east and southern perimeter of the park is a 2m high chain mesh fence with pedestrian and vehicle gates that can be locked. All vehicle gates in this fence type are locked. The pedestrian gates are heavy and generally swing closed. This fencing was installed in the late 80s to protect the site following a tragic accident on the steep quarry faces.



Photo 71: Chain mesh fence and gate



Photo 72: Bollard and rail fencing

Around the outer perimeter of Pavey Park and separating the park from the car park is a timber bollard and steel rail vehicle exclusionary fence.

The post and wire fencing has been used within the park to restrict access to the steep cliffs. In many places the fencing is in poor condition.

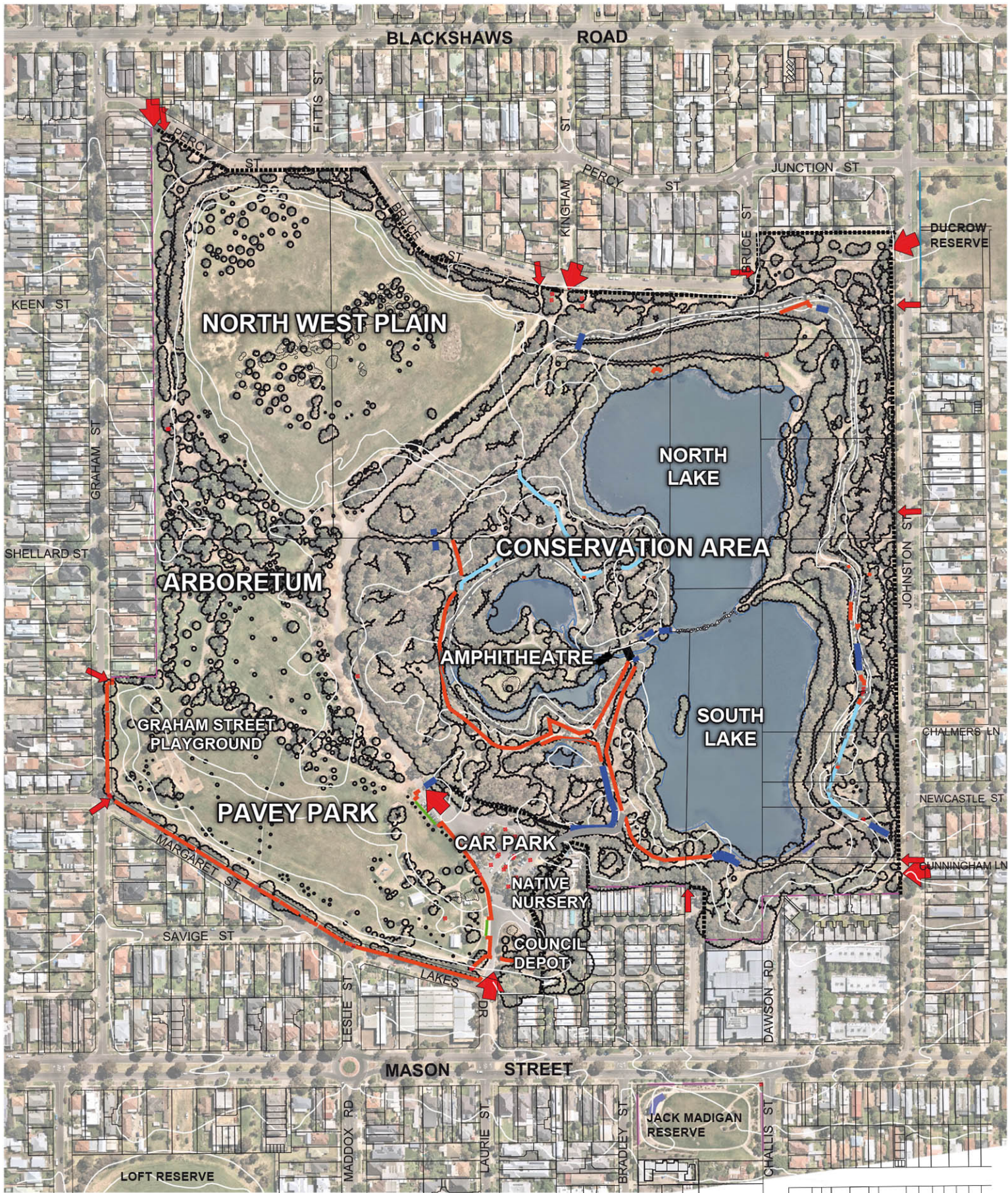


Photo 73: Cliff fencing



Photo 74: Timber post and rail fencing

At the Lakes Drive entrance there is a vehicle gate to the park with a timber fence and a vehicle gate also blocks vehicles from entering the maintenance path.



DRAWING KEY

- | | | | |
|-------|---------------------------|---|------------------------|
| ■■■■■ | HIGH CHAIN MESH FENCE | — | PRIVATE BOUNDARY FENCE |
| ■■■■■ | BOLLARDS/BARRIERS | — | PIPE RAIL FENCE |
| ■■■■■ | HABITAT POST & WIRE FENCE | ⊗ | BOLLARDS |
| ■■■■■ | PLAIN POST & WIRE FENCE | ➔ | PEDESTRIAN ENTRY |
| ■■■■■ | ROCK RETAINING WALL | ➔ | VEHICLE ENTRY |
| ■■■■■ | TIMBER POST & RAIL FENCE | | |
| ■■■■■ | POST & WIRE MESH FENCE | | |



Figure 11
EXISTING FENCING



Photo 75: Timber vehicle entry gate



Photo 76: Metal vehicle entry gate

11.1.2 Fencing design considerations

- high chain mesh fence is no longer fit for purpose and is unsightly. An upgrade with post and wire fencing is a more appropriate treatment for the reserve
- post and wire fencing is difficult to install to the rocky ground.

11.2 Information Boards

There are two information boards at the entry to the lakes Conservation Area. One is a plastic cabinet style board that contains A4 notices about Friends of Newport Lakes (FoNL) activities and events. The other is a timber post and slat structure with a corrugated slanted roof with directions for the Lakes Nature Trail with a selection of information and warning signs. Close by is another sign that states the gate open times and the ranger's contact details.



Photo 77: Information board signage/cabinet



Photo 78: Information board/shelter

11.3 Signage

Scattered throughout the park there is widespread signage in numerous graphic styles from different eras.

11.3.1 Risk Warning Signage



11.3.2 Directorial/Advisory Signage



11.3.3 Interpretive Signage



11.3.4 Memorial Signage



11.3.5 Signage Design considerations

- there are too many signs in the park and many duplicate or confuse existing information
- many older signs are in poor condition and do not meet current Hobsons Bay City Council standards
- remove redundant signage from across the park and install new boards at the main park entries to include risk warning advisory, directional and use information
- develop new wayfinding signage utilising Council's standard wayfinding signage suite.

11.4 Artwork

There is only one artwork commissioned and listed on the Hobsons Bay City Council collection – The Diver (2006) by Simon Perry and assisted by Drew Cole is set on the corner of Lakes Drive and Mason Street. The materiality and form of the piece are directly related to the site's recent history of quarrying and the dipping duck, in the words of Simon Perry, is “a metaphor for dipping into the pools of history to reflect on the memories and experiences of the parkland.”

There are numerous other community artworks, mainly found in the Conservation Area relating to the trail experiences.



Photo 79: The Diver



Photo 80: Crakes Corner



Photo 81: Rainbow lorikeet and galah



Photo 82: Boulder #6

The Bird Trail mosaics was implemented through FoNL, by local artist and FoNL member, Linda Cottrell, working with mosaic teacher Libby McKinnin, stone mason David Waters, and local schools in a workshop held in the Newport Lake nursery with tiles provided by Hynes Tiles. The group designed and constructed the large colourful mosaics of local wildlife. The small “Willy Wagtail” mosaics with numbers are also by the group and are to serve as the four Bird Trails directional markers. The trail descriptions were then made into a flyer and distributed for a Bird Trail Launch Event.

11.4.1 Artwork considerations:

- investigate opportunities to establish commissioned art installations for key sites including:
 - Mason Street/Lakes Drive entry
 - South Lake viewed from the main lookout
 - as part of the new visitor entry and activation for the northwest precinct
- investigate use of QR codes to improve community awareness of existing community art works, memorials, and sculptures in the park.

11.5 Operations

11.5.1 Nursery

Greybox Nursery is located off the main car park and accessed from Mason Street via Lakes Drive. The nursery is privately owned and operated, open Monday to Saturday between 1pm and 4pm, the nursery provides native and indigenous plants for revegetation projects at Newport Lakes and other Council projects as well as retail to the public.

11.5.2 Operations Depot

The Operations Depot is located beside the nursery. It stores plants and equipment used by Council staff in maintenance at Newport Lakes.



Photo 83: Nursery



Photo 84: Depot

11.5.3 Mulch Storage

The southern Arboretum section of the sealed north-south path is also used for storage of mulch. Mulch is delivered to dumps on the Arboretum side by Council Parks Staff and contractors using large trucks accessing the area from the car park.

The mulch is stored and weathered before being spread to garden beds and planting areas around Newport Lakes.



11.5.4 Operational considerations

- the nursery is an important part of the parks history and current operations. It also plays a role in community education and promotes use of local indigenous plants in private gardens providing direct support to urban wildlife and biodiversity values
- the Council depot provides critical on site storage for plants, equipment and materials used in park operations.
- mulch storage directly adjoins the main car park and visitor area impacts on the initial visitor experience and creates risk with reversing large vehicles
- the mulch is currently stored and blocks the overland flow path from the Arboretum to the waterfall area
- investigate an alternate mulch store area in the north of the park away from the main visitor area and access.

12. IMPLEMENTATION

12.1 What is proposed?

The Newport Lakes Open Space Conservation and Improvement Plan has been developed in consultation with existing site users and community stakeholders. The plan seeks to address the key objectives of the project including ongoing protection of key environmental and cultural heritage values, staged renewal of existing infrastructure and improvement of recreational facilities while maintaining the spaces and places that create the lakes unique character.

Vision

Preserve the natural environment, open space and existing lakes bushland character while supporting renewal of existing infrastructure and facilities that improve access, sustainability, and shared community use. Maintain the balance between parkland and natural bushland landscape character while improving water quality, urban habitat values and enhancing climate change resilience.

Key Goals

Environment

- the park's unique urban bushland environment including mature Australian native trees and indigenous mid storey shrubs, grasses and ground layer must be protected and enhanced for future generations
- lake water quality is to be maintained and opportunities to improve climate change resilience and biodiversity values explored
- protect and enhance habitat for native fauna through control of introduced pest species such as foxes and carp.

Cultural Heritage

- the cultural heritage of the park will be protected, and opportunities provided to improve awareness and understanding of cultural values
- the history and stories of the park will continue to be captured and celebrated through creative and artistic installations.

Community Use

- maintain a range of different places and spaces to enable people to gather, socialise and build greater community connections
- activities in the park will foster a greater connection to nature for people of all ages and backgrounds
- maintain balance between biodiversity and habitat conservation values and popular activities including dog walking to support community health, wellbeing, and enjoyment of the parkland
- provide additional facilities in support of increasing use by new residents from growth areas in Altona North.

Infrastructure

- park infrastructure will be redeveloped and replaced in accordance with Council policy and current standards, ensuring they are compliant, inclusive, and accessible
- new infrastructure will be designed in a way that is creative, sustainable, and responsive to the existing character and scale of the urban bushland setting.

Management

- the planning, development and management of the park will be done in a holistic manner continuing partnerships with local community groups
- new and emerging uses will be assessed according to the goals for the park, local needs, and the broader regional context to determine whether they are appropriate for the park or can be accommodated in other locations.
- consideration of additional resources and staffing is required to meet current and future demand.

Park Character

- the park will be managed in a way that protects the lakes and urban bushland character, local quarry history, Arboretum planting, and informal passive open space.

12.2 Implementation Priorities

- upgrade replacement of existing infrastructure including fencing, footbridges and lookouts will need to be completed as needed to ensure safety and retention of public access.
- vegetation maintenance including weed control, mulching and infill planting across the reserve will continue in partnership with Friends of Newport Lakes
- upgrade replacement of play equipment at the main visitor area will be guided by community input to the options proposed. A budget allocation of \$500,000 has been set aside for delivery in 2022/23.
- implementation of other works will be subject to funding with indicative priorities as shown on Figure 14 and 15 as follows:
 - (H) High Priority (1-3 years)
 - (M) Medium Priority (4-6 years)
 - (L) Low Priority (7-10 years)
 - (O) Ongoing (part of existing programs/works)

WATER QUALITY

Newport Lakes rely on a combination of urban stormwater and bore water. The accumulation of urban stormwater pollution in the closed catchment and the impacts of climate change such as reduced rainfall and increased temperature events present a significant threat to water quality. In order to ensure the long term sustainability of water quality in the lakes, to maximise habitat and amenity values the following strategies are being considered:

Short term

- W1** Implement an overflow system to control water levels in the current car park infiltration system to prevent tree loss and reduce water levels. Install a new junction pit to redirect stormwater drains from the car park to the Amphitheatre waterfall to reactivate this area and provide pre-treatment prior to discharge to the southern lake. Retain high flows to the existing infiltration area. (H)
- W2** As part of bridge replacement, install water level control to improve function of the Amphitheatre wetlands. (H)
- W3** Investigate restoration of the overland flow path from the Arboretum to the Amphitheatre waterfall area. (M)
- W4** Ensure any future new residential development on Masons Road/Lakes Drive makes allowance for capture and connection of clean stormwater run-off to the lake via existing pits within the car park. (O)

Longer term (following the next period of extended drought)

- W5** Convert the northern lake predominantly to wetlands providing pretreatment of stormwater to remove nutrients and toxic sediments while improving water bird and aquatic habitat values. (L)
- W6** Retain the smaller southern lake and rock crossing as open water using bore water to maintain water levels and amenity values even through extreme drought conditions. (L)
- W7** Replace habitat logs and stags as they eventually decompose and consider installation of additional nesting boxes. (L)

All of these actions are subject to further detailed hydraulic and ecological design.

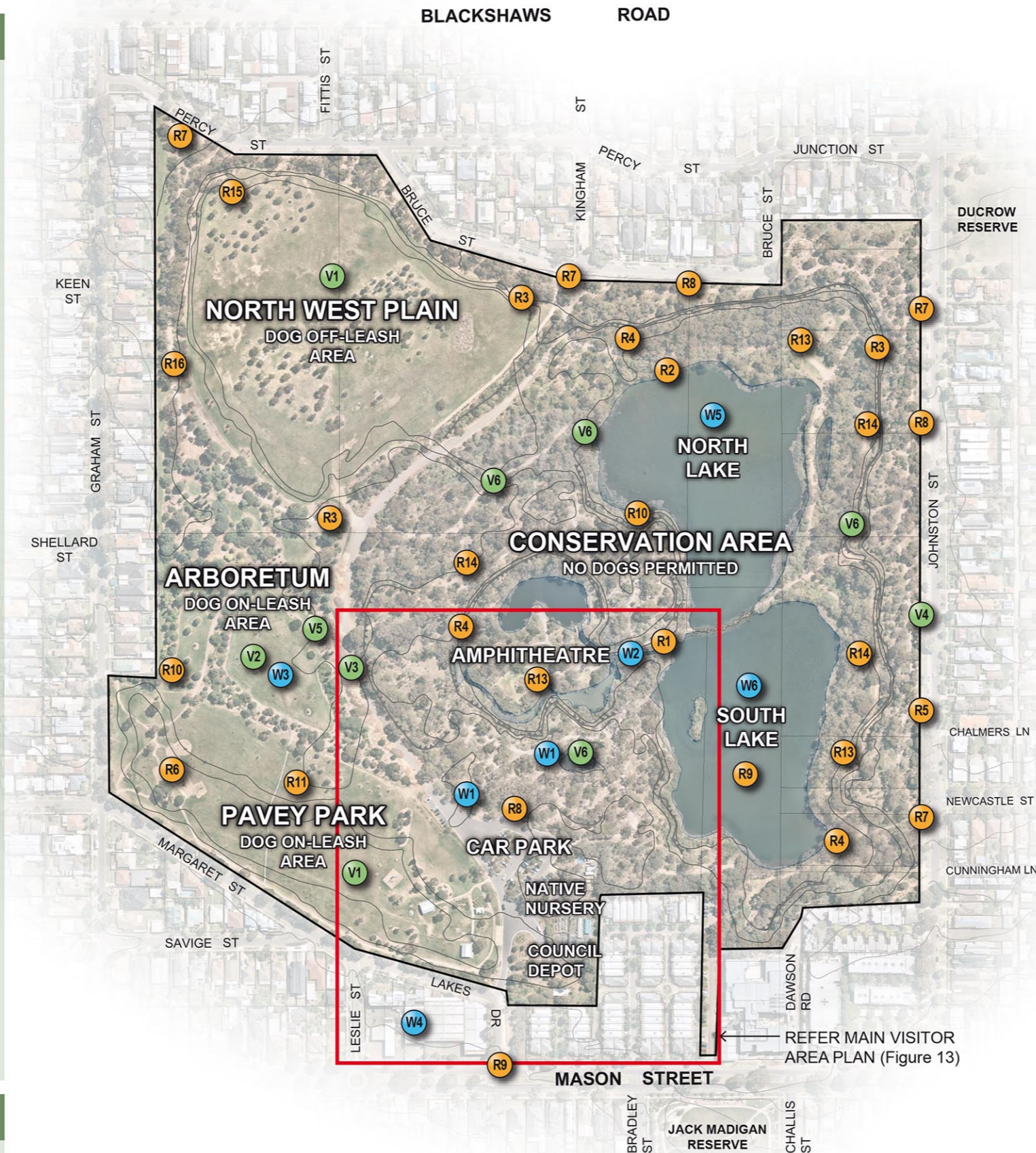
VEGETATION MANAGEMENT

Revegetation works have been ongoing for over 30 years and reflect the strength of the original vision for the area and the efforts of long standing HBCC staff in partnership with the community through Friends of Newport Lakes. Proposed future works include:

- V1** Undertake additional shade tree planting at Pavey Park and on the North West Plain dog off-leash area using native and indigenous trees. (H)

- V2** Undertake arboricultural assessment of existing tree health in the Arboretum, formative prune to remove lower branches to improve sightlines and remove poorly performing and overcrowded trees. Replace tree labels and undertake replacement planting using exotic specimen trees to continue the existing planting theme. (H)
- V3** Investigate options to relocate mulch storage to improve entry to the arboretum and reduce truck movements in the park. (M)

- V4** Extend bushland revegetation along the edge of Johnston Street beyond existing fence including informal track. (M)
- V5** Establish a new tree avenue along the north south path. (M)
- V6** Use targeted revegetation with indigenous shrub and groundlayer species to improve biodiversity in the bushland Conservation Area. (O)



RECREATIONAL

- R1** Replace the timber pedestrian bridges retaining the existing bridge character. (H)
- R2** Convert the existing birdhide to a lookout/ seating platform. (H)
- R3** Install timber barriers to improve definition between dog off-leash and on-leash areas, and provide dog drinking bowls. (H)
- R4** Regrade and install timber assist rail to improve all ability access on steep sections of unsealed path. (M)
- R5** Install new unsealed walking path along Johnston Street. (M)
- R6** Consider Graham Street play space future and explore opportunities for activities for older children and teenagers i.e. basketball court, fitness station. (M)
- R7** Remove high fence and replace signage to improve amenity at path entries. (M)
- R8** Longer term, replace high chainmesh fencing with a simple timber post and cable vehicle barrier. (L)
- R9** Investigate opportunities to establish community art installations for key sites at Newport Lakes. (L)
- R10** Investigate use of QR codes to improve community awareness and appreciation of existing natural values, history, mosaics and sculptures in the reserve. (L)
- R11** Upgrade power supply and investigate opportunities to support events at Pavey Park. (L)
- R12** Review and rationalise existing signage in accordance with current HBCC design guidelines. (O)
- R13** Upgrade existing seats through the lake bushland Conservation Area. (O)
- R14** Monitor and maintain existing fencing. (O)
- R15** Provide additional seating in dog off-leash area. (L)
- R16** Improve north-south shared path. (L)

INDICATIVE PRIORITIES

(SUBJECT TO FUNDING)

(H) HIGH

(M) MEDIUM

(L) LOW

(O) ONGOING

0 50 100 150 200m

APRIL 2022



NEW PLAY SPACE

Hobsons Bay Play Space Strategy recommends upgrade of the existing play space at Newport Lakes to provide a diverse range of accessible, attractive, challenging and well-maintained equipment for visitors of all ages and abilities within a sustainable natural setting. The new play space will be located close to the existing car parking and picnic toilet facilities, making use of the existing mound. The new playspace design theme is to include key Newport Lakes features including the iconic rock hop crossing and natural rock associated with historical quarry operations, existing car parking and picnic facilities (location of playspace to be determined at a later date). Other facilities will include:

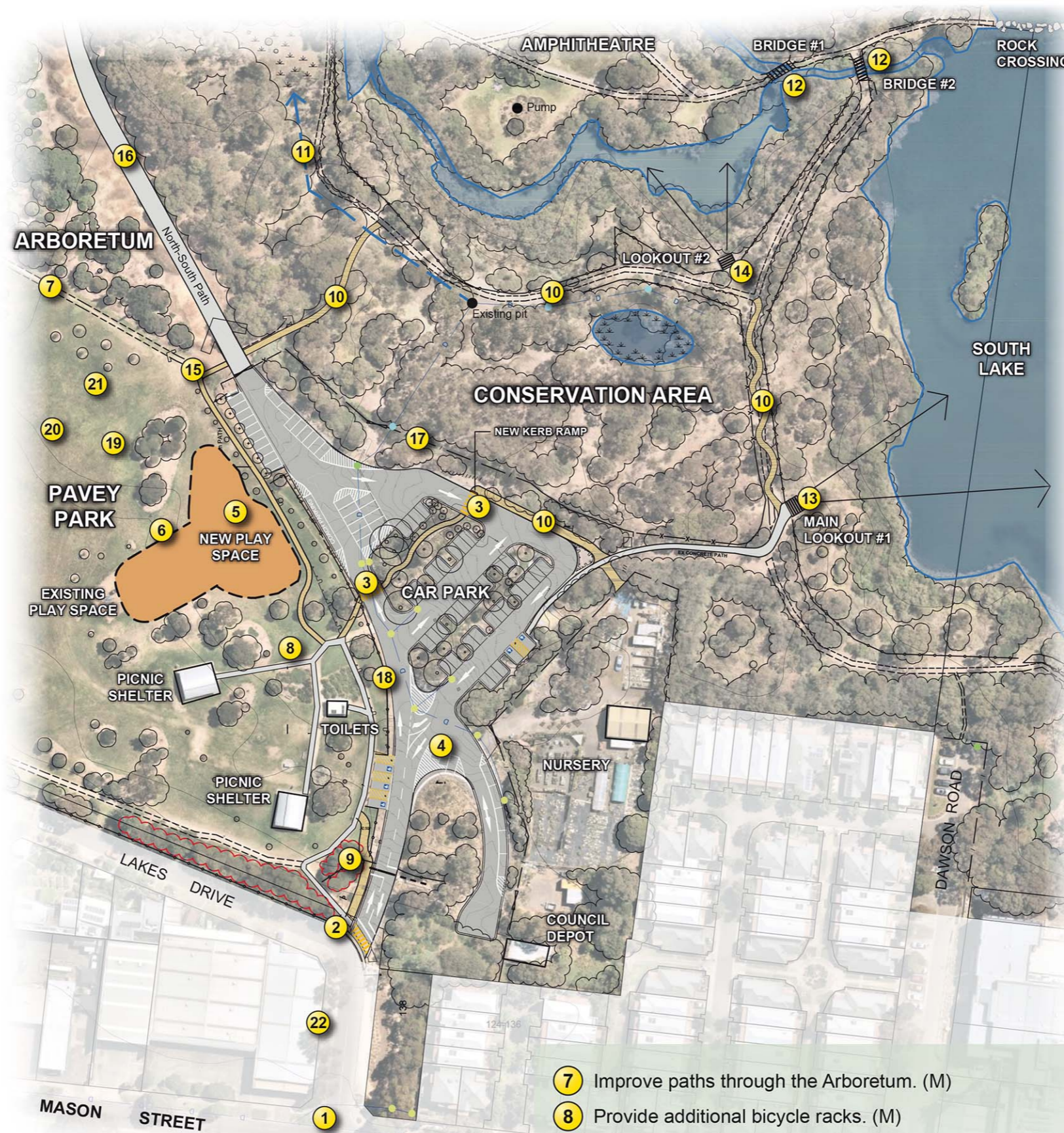
- A large viewing tower with accessible ramps and challenging slides
- A zipline flying fox and new swings
- A nature based play area with natural materials and indigenous planting
- Consider future of Graham Street play equipment

The community will have the opportunity to provide feedback on the design of new play space before it is constructed.

MAIN VISITOR FACILITIES IMPROVEMENTS

The play space is expected to attract additional visitors to the park and the following upgrades are proposed:

- 1 New signage and feature groundlayer planting to highlight the park entry and improve amenity on Mason Street. (H)
- 2 New raised pedestrian cyclist priority crossing at the Lakes Drive entry to improve safety and slow vehicle traffic on entry to the car park. (H)
- 3 New pedestrian priority crossings and an all ability off-road path connection through the car park linking the toilets and picnic area with the entry to the lakes Conservation Area. (H)
- 4 New line marking in the car park to reduce speed, improve pedestrian safety and maximise parking efficiency. (H)



- 5 New concrete all ability path linking the play space to parking areas and the toilet facility. (H)
- 6 Retention of existing trees and new shade tree planting within Pavey Park. (H)

- 7 Improve paths through the Arboretum. (M)
- 8 Provide additional bicycle racks. (M)
- 9 Partially remove the densely planted NSW River Oaks to open up views in the park for safety, to allow realignment of the entry path and establishment of new entry signage/sculpture and to provide low indigenous planting. Retain some trees for wind protection. (M)

OTHER PARK IMPROVEMENT WORKS IN THIS AREA INCLUDE:

- 10 Path improvements to establish an all ability access circuit via the lookouts and Arboretum. (H)
- 11 Diversion of stormwater run-off from the car park to reactivate the waterfall and ephemeral wetland area. (H)
- 12 Replacement of the existing pedestrian bridges in the same location while retaining the hardwood timber character of the existing structure. (H)
- 13 Replacement of the main lookout in the same location while retaining the hardwood timber character and seating of the existing structure. (M)
- 14 Removal of the lower lookout platform (now obscured by vegetation) and replacement with a seating area adjoining the path and overlooking the wetland soak. (M)
- 15 Relocate temporary mulch storage areas and establish a new formal entry to the Arboretum from the car park and new play space. (M)
- 16 New tree avenue along the sealed north south path with deciduous exotic trees on the Arboretum side and indigenous trees on the Conservation Area side. (M)
- 17 Remove the existing chainmesh fencing and replace with an informal rock and planting barrier to exclude vehicle access from the car park. (L)
- 18 Extend indigenous grassland planting along the entry road and beneath the existing vehicle barrier. (L)
- 19 Provide an additional picnic shelter overlooking the new play space. (L)
- 20 Upgrade outdoor electrical supply to enable more community events in Pavey Park. (L)
- 21 Establish irrigation to improve grass surfaces in Pavey Park for informal games and kick about. (L)
- 22 Ensure any future redevelopment of industrial land as housing allows for protection of existing trees on Lakes Drive and the harvesting of stormwater. (O)

DRAWING KEY

- NEW PLAY SPACE
- NEW ALL ABILITY ACCESS PATHS

INDICATIVE PRIORITIES

- (SUBJECT TO FUNDING)
- (H) HIGH
 - (L) LOW
 - (M) MEDIUM
 - (O) ONGOING

0 10 20 30 40 50m

APRIL 2022



NEWPORT LAKES CONSERVATION AND IMPROVEMENT PLAN COST SUMMARY

Prepared by TBLD P/L for Hobsons Bay City Council 14/04/2022. Note preliminary cost estimates are for planning purposes only and subject to survey and design. Refer to Newport Lakes Conservation and Development Plan April 2022.

PLAN	High	Medium	Low	Ongoing	Total Cost
Water Quality	\$36,550	\$13,000	\$1,920,000	\$0	\$1,969,550
Vegetation Management	\$25,000	\$75,000	\$55,000	\$20,000	\$175,000
Recreation	\$280,000	\$572,000	\$639,000	\$145,000	\$1,636,000
Main Visitor Facilities	\$102,000	\$79,600	\$0	\$0	\$181,600
Other Park Improvement Works	\$69,000	\$10,000	\$50,000	\$0	\$129,000
New Playspace	\$1,210,000	\$0	\$0	\$0	\$1,210,000
Total	\$1,722,550	\$749,600	\$2,664,000	\$165,000	\$5,301,150
Contingencies (10%)	\$172,255	\$74,960	\$266,400	\$16,500	\$530,115
Total Works	\$1,894,805	\$824,560	\$2,930,400	\$181,500	\$5,831,265

The following section provides an overview of the indicative capital costs to implement each of the key improvements actions identified, and presents these actions within an overall recommended implementation framework (i.e. priorities). Please note all works estimates are for planning purposes only and are subject to funding.

The priorities are as follows:

- High (1-3 years)
- Medium (4-6 years)
- Low (7-10 years)
- Ongoing (part of ongoing works and programs)

Indicative Cost Details

The tables on the following pages provide a description and breakdown of the indicative costs for each action while noting that these elements are subject to survey and design.

Exclusions and Assumptions

The following exclusions and assumptions have been made in determining the indicative preliminary opinion of probable cost information:

- The indicative costs are provided for budget guidance purposes only, the cost of individual projects may vary significantly depending on the construction method used, materials, site conditions, engineering requirements and final designs.
- Prices do not include GST
- No allowance has been made for professional fees (i.e. building and construction drawings), these could add a further 10% to key individual projects.
- No allowance has been made for a project contingency, a minimum allowance of 10% of the total project cost is recommended.
- No allowance has been made for volunteer labour or in-kind support.
- No allowance has been made for statutory planning costs or requirements. It is assumed these will be borne directly by Council where applicable.
- Prices quoted are based on current rates; no allowance has been made for cost escalation or time delays.
- No allowance has been made for service upgrades or improvements (i.e. power, water).

NEWPORT LAKES CONSERVATION AND IMPROVEMENT PLAN

WHAT WE HEARD (MARCH 2022)

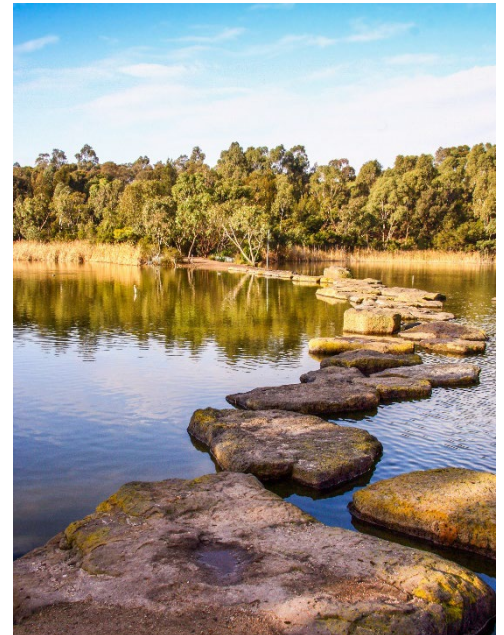
Background

The Newport Lakes Conservation and Improvement Plan has been prepared to identify, protect and enhance the environmental, cultural heritage and community open space values associated with the lake and surrounding open space area.

The plan seeks to balance the role of the reserve as a primary biodiversity conservation area whilst meeting the increasing needs of the local community for access to open space and passive recreation.

The draft plan has been developed by Thompson Berrill Landscape Design and Hobsons Bay City Council in consultation with key stakeholders and will be used to guide strategic planning and management actions, capital works and implementation priorities for the Reserve over the next ten years. It can be viewed online at:

participate.hobsonsbay.vic.gov.au/newport-lakes



The community engagement process

To help shape the plan, we engaged the local community from 29 September to 31 October 2021, to better understand how they currently use the space, its importance and what future improvements are required to protect and enhance the Reserve while meeting community needs.

Feedback was invited by either completing a survey hosted on Council's online engagement platform, Participate Hobsons Bay; attending an online drop-in information session (two sessions held in October) or by contacting the project team directly by email or phone.

6,900 postcards were distributed to Newport area to encourage community involvement in the project alongside a broader promotional campaign over social media.

Who got involved

The project's website on Participate Hobsons Bay received 1,852 site views from 1,239 individual site visitors during the engagement period from 29 September to 31 October 2021.

We received 301 survey submissions and five emails sharing feedback. Of these, respondents were mainly couples with children, aged 35-44 years with 64% identifying as female, 35% identifying as male and 1% identifying as non-binary or not disclosed. 57% of respondents live in Newport and 14% live in Altona North. Respondents living outside of Hobsons Bay make up 6% of total responses.

Two online community drop-in sessions were held via Zoom on Wednesday 27 October and Saturday 30 October 2021. Participants were invited to chat with Council officers, ask any questions they may have had and comment on the draft plan. Approximately 40 people attended these sessions.



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NEWPORT LAKES CONSERVATION AND IMPROVEMENT PLAN

WHAT WE HEARD (MARCH 2022)

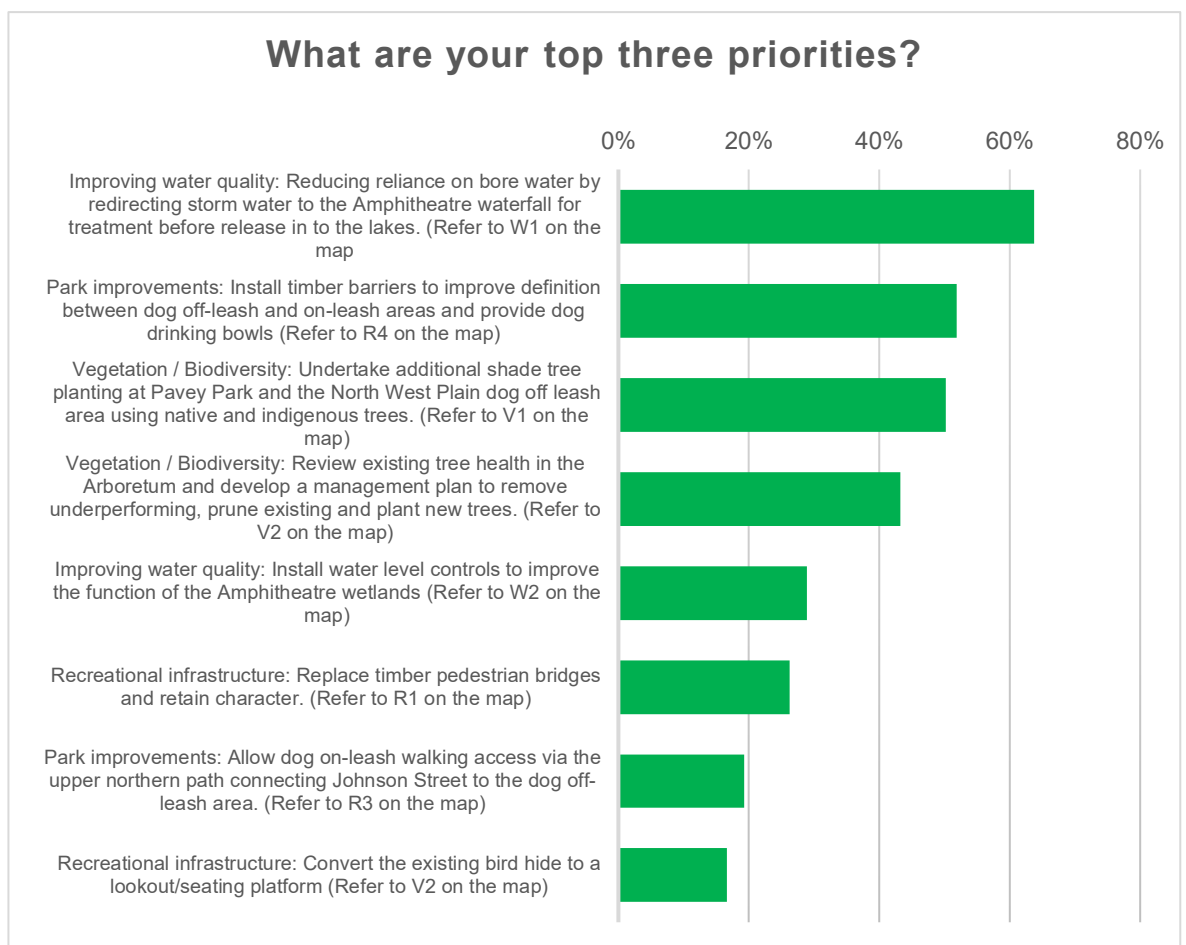
What we heard

Through the online survey, we heard that the Lakes Conservation Area is the most visited area of the Reserve and people visit the Reserve with family to either enjoy nature, exercise or see wildlife.

Most survey respondents are frequent visitors of the Reserve - over one-third of respondents visit the Reserve a few times a week while 29% visit daily.

A range of priorities and actions were identified within the plan for the lake and open space over the next ten years. When asked to rank these priorities, you told us your top three priorities were:

- 1. Improving water quality:** Reducing reliance on bore water by redirecting storm water to the Amphitheatre waterfall for treatment before release into the lakes (Refer to W1 on the map*)
- 2. Park improvements:** Install timber barriers to improve definition between dog off-leash and on-leash areas and provide dog drinking bowls (Refer to R4 on the map*)
- 3. Vegetation / Biodiversity:** Undertake additional shade tree planting at Pavey Park and the North West Plain dog off leash area using indigenous trees (Refer to V1 on the map*)



* maps can be viewed at: <https://participate.hobsonsbay.vic.gov.au/newport-lakes>



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NEWPORT LAKES CONSERVATION AND IMPROVEMENT PLAN

WHAT WE HEARD (MARCH 2022)

We also asked you if you had any further feedback or comments on the plan.

The name of the plan has now substituted the word 'Development' for 'Improvement' as the former mislead some, when the real objectives is to improve and upgrade infrastructure to extend asset lifespans and ensure the Reserve can cope with current and future usage.

Overall, you supported the conservation of the Newport Lakes Reserve and in particular the Lakes Conservation Area. There was acknowledgement of this being a detailed and well considered plan. In your feedback, we heard some suggestions to improve the plan.

There was universal support for improving water quality in the Lakes to improve biodiversity and sustain a larger number of native plants and animals.

There was a strong desire to include further measures to ensure dogs are restricted to designated areas within the reserve. Ideas included to improve signage, install gates or barriers at entrances to the Lakes Conservation Area, provide fencing around the dog off-leash area and for more enforcement of local laws throughout the Reserve.

There was also concern for management of feral and domestic animals that have the potential to negatively impact native wildlife and habitats.

In addition to dogs, foxes and cats, bicycles in the Conservation Area was noted as a safety concern, and remarks were made that improved signage and barriers may prevent this issue.

Improved signage was called for throughout the Reserve, including maps and reserve information at entry points, educational signage on the history of the reserve and wildlife found here, and the use of plant and species labels.

Suggestions were also made to establish a café within Newport Lakes Reserve.

Within the North West Plain area, more bins were requested and for these to be emptied more frequently, along with pathway lighting, more benches and seating areas.

We heard mixed feedback regarding planting and vegetation management, with some calls for more native plants throughout the Reserve, some for more biodiversity in the vegetation and others for more shade trees.

Overall, there were requests for general maintenance throughout the reserve.

There were a variety of ideas and feedback shared regarding the upgraded play space in Pavey Park, the community will have the opportunity to provide feedback on concept designs at a later date.

Next steps

Thank you to all community members who got involved and shared their feedback on the draft Newport Lakes Conservation and Improvement Plan.

Council will consider all suggestions, comments and concerns when finalising the plan before sharing the final version on the project website:
participate.hobsonsbay.vic.gov.au/newport-lakes.



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