H.D. GRAHAM RESERVE DRAFT MASTER PLAN

November 2018

Contents

HOBSONS BAY CITY COUNCIL

INSIGHT Leisure Planning

fitzgerald frisby landscape architecture

Figure 1.1: Melbourne Context Plan

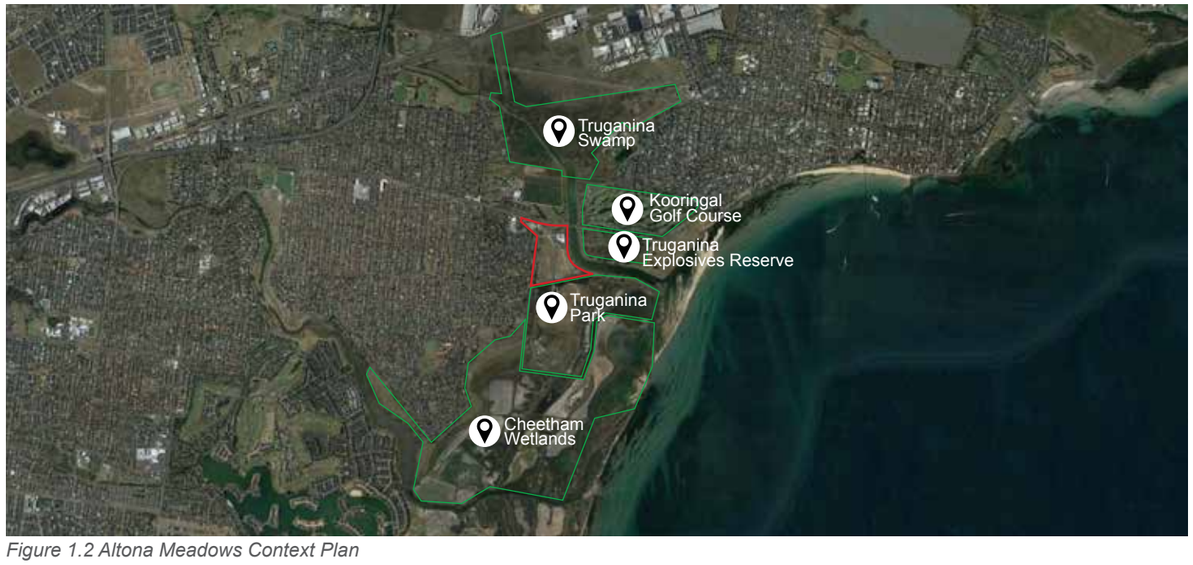


Figure 1.2 Altona Meadows Context Plan

Figure 1.3 H.D. Graham Context Plan

1. Introduction

1.1 Site background

H.D. Graham Reserve, a 19.1 hectare site in Altona Meadows, is located at the entrance of the Truganina Park, the 100 steps, and Cheetham Wetlands. The site as seen today is based on an earlier Master Plan completed in the year 2000. The Master Plan was developed by Hobsons Bay City Council following the closure of the Altona landfill, where Truganina Park is now located, in 1998.

H.D. Graham Reserve is located on Crown Land, zoned Public Park and Recreation Zone, and is managed by Hobsons Bay City Council, the Committee of Management.

The Reserve is bordered by Truganina Park to the south, Queen Street to the north, residential properties to the west and the Laverton Creek the east. Shared trails run along both the eastern and western boundaries of the reserve linking residential streets to the Reserve. Andrew Park Drive, a sealed asphalt road that runs through the centre of the site, forms the only entry/exit point to the reserve and leads to the car park for Truganina Park.

1.2 Project aim

The aim of this project is to develop a comprehensive Master Plan for H.D. Graham Reserve to guide future development in an ecologically sustainable and responsible manner, consistent with Council's current policies, strategies and plans. The Master Plan will respond to current and future community aspirations and needs, as well as the existing and potential future users of the site.

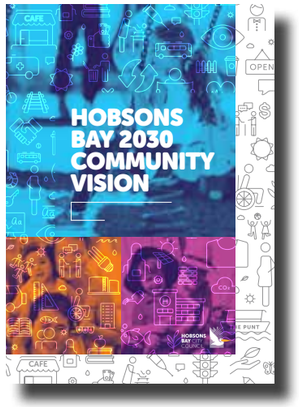
In order to achieve this aim, the following objectives have been developed.

The Master Plan will:

- Meet the current and future needs, issues and aspirations within capacity of H.D. Graham Reserve;
- Optimise the use of the reserve for active and passive recreation
- Identify and acknowledge natural and environmental significant values in relation to H.D. Graham Reserve to help protect and enhance habitat biodiversity;
- Respond to the challenges of global warming impacting the site such as Urban Heat Island Effect;
- Identify opportunities for Water Sensitive Urban Design;
- Identify opportunities for incorporation of Council's ecologically sustainable design directions;
- Adapt to changing demands for space and facilitates multi-use;
- Conserve, protect and interpret the cultural, environmental and historical values of the site, including any connections with the existing wetlands that could be strengthened through education, interpretation and access for visitors;
- Align with other strategic work, including the Sports Needs Analysis and the Open Space Strategy;
- Identify funding options and sources;
- Balance the visitation to the precinct catering for increasing sporting demands;
- Improve the connectivity and accessibility of the precinct to the neighbourhood and enhances access for pedestrians, cyclists and other visitors;
- Uphold the mission of the Ramsar convention through the wise use of all wetlands; and
- Respond to environmental and cultural conservation values such as:
    - Improving the sites' relationship to the Cheetham wetlands and Truganina Park.
    - Protecting and enhancing areas of significant vegetation, revegetation and habitat.
    - Protecting and increasing biodiversity.
    - Encouraging visitor education and interaction with site's environmental and cultural values.
    - Protecting and enhancing surrounding waterbodies.

2. Context

2.1 Strategic Context



Hobsons Bay 2030 Community Vision

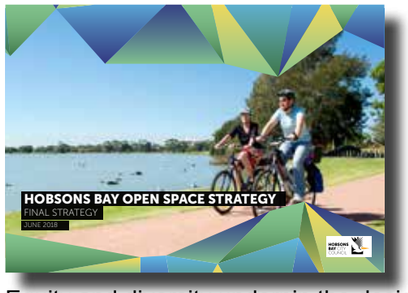
This document was developed by the community to guide Council's work in the municipality to the year 2030 and outlines the following vision "By 2030, embracing our heritage, environment and diversity, we - the community of Hobsons Bay – will be an inclusive, empowered, sustainable and visionary community, led and supported by a progressive Council of excellence". The document also presents the following priorities:

- Visionary, vibrant and accountable urban planning
- Community wellbeing and inter-connection
- Growth through innovation, access to local jobs, technology and education
- Proactive enrichment, expansion and conservation of the natural and urban environment
- Activate sustainable practices
- As accessible and connected community.

Council Plan 2017-2021

This plan outlines the following objectives, relevant to this project and in line with the Hobsons Bay Community Vision, that Council will work toward over the 4 year period 2107-2021:

- Provide access to high quality services to enhance community health and wellbeing
- Ensure all community members will have access to quality community, sport and recreation facilities, cultural experiences and open spaces that encourage a healthy and active lifestyle
- Support the growth of our local economy, and encourage business investment that creates and maintains local jobs
- Deliver, support and promote arts, cultural, heritage, recreational and sporting events and programs that foster a sense of belonging and contribute to the liveability of the city
- Improve the transport network and to address issues in public transport, our roads, foot paths and cycling routes
- Ensure urban development is appropriate and considers neighbourhood character and heritage
- Deliver and maintain well-designed, accessible and environmentally sustainable community assets
- Protect and enhance our coastal environment, biodiversity and natural areas
- Actively and innovatively address climate change and promote sustainable living
- Actively seek the community's views by providing a range of opportunities for the community to contribute to Council's decision making



Hobsons Bay Open Space Strategy 2018

This strategy guides the provision, protection, planning, design and management of open space within the municipality and outlines the following vision:
Hobsons Bay open spaces are accessible, connected, safe and inviting places. The network is well-maintained, well-designed and environmentally sustainable. It is recognised, protected and enhanced for its heritage and cultural importance, its contribution to human recreation and wellbeing, and its biodiversity and conservation values.
Equity and diversity underpin the design and location of open spaces at every scale across the municipality, enabling all Hobsons Bay residents, workers and visitors to delight in local open spaces. The report notes that there will be a limited increase in open space demand from within the Altona Meadows precinct, however significant population growth in surrounding precincts will contribute to increasing overall demand and usage pressures.

H.D. Graham Reserve is defined as a 'District Open Space' with a focus on active recreation. Key recommendations for H.D. Graham Reserve include expanding sporting facilities at H.D. Graham Reserve including car parking and connections and prioritising and implementing renewal works as required.

Disability Access and Inclusion Strategy 2013-2017

The Disability Access and Inclusion Strategy sets out a plan to improve the quality of life in Hobsons Bay for residents living with disabilities, their families and carers. The strategy aims to ensure people with disabilities can get around easily, are able to actively participate in the community, are accepted and respected, an are better supported to achieve their potential. In order to achieve this, Council commits to the following objectives, relevant to this study:

- Improving the accessibility of the built and natural environment
- Advocating for transport systems that are accessible and reliable
- Working with residents, service provides and organisations to be more inclusive
- Increasing opportunities and providing support for people with a disability to participate in local events, sports and recreation

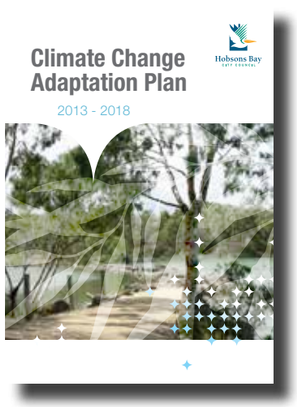
Universal Design Policy Statement: Council buildings and the public realm, 2017

This statement outlines Council's vision of achieving a fully accessible and inclusive municipality where all residents, regardless of their ability, can reach their full potential. In order to achieve this Council is committed to ensuring Universal Design principles are applied to new buildings, buildings undergoing significant upgrades, retrofits of existing buildings, and infrastructure, features and open space within the public realm. The also outlines the Universal Design principals for use within parks and reserves to ensure all types of facilities, furniture, fixtures and pavements are design to support access for all.

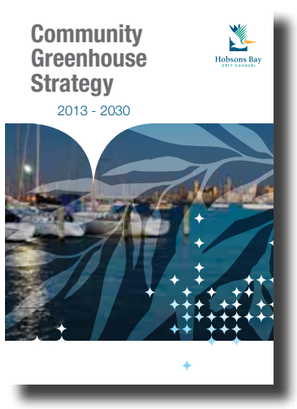
Biodiversity Strategy 2017-2022
The Biodiversity Strategy aims to value and protect the unique biodiversity of Hobsons Bay for current and future generations. In order to achieve this, the strategy outlines the following goals:
- Build ecosystem resilience to long term, adaptive planning
- Utilise best practice pest management to reduce threats to biodiversity
- Utilise urban ecology and natural area management to prevent species loss
- Protect the unique biodiversity of Hobsons Bay through holistic strategy land use planning
- Assist the community to value the unique biodiversity through education and engagement
- Incorporate community recreational benefits without compromising the unique biodiversity of Hobsons Bay.

Living Hobsons Bay: an Integrated Water Management Plan 2014-2019
This plan outlines a framework for prioritising sustainable water management actions including:
- Increasing water security by introducing effective monitoring and control to reduce waste and extending Council's portfolio of alternative water supplies
- Increase public amenity by increasing the amount of alternative water that is available to irrigate and protect green infrastructure
- Protect waterways and the Bay from key pollutants that reduce its recreational value by encouraging best practice stormwater management
- Increase public health by working with key stakeholders to prevent pollutants from entering the stormwater system. Council will also investigate techniques for using urban greening to mitigate the urban heat island effect
- Increase biodiversity to reduce peak stormwater flows and pollutants running off hard surfaces through the use of sustainable stormwater treatment
- Reduce nuisance flooding by increasing stormwater harvesting activities and encouraging best practice stormwater management in new developments

Climate Change Policy 2013
This policy aims to build Hobsons Bay capacity to effectively respond to the challenges of climate change to reduce the environmental, social and financial impacts. The objectives of the policy area:
- To provide a strategic framework for Council to manage its climate change vulnerability using a combination of adaptation and mitigation strategies
- To reduce the environmental impacts and operating costs of all Council operations, minimise fuel consumption, reduce corporate energy use and achieve zero net greenhouse gas emissions by 2020
- To undertake actions to reduce the community's greenhouse gas emissions and lead the community towards achieving zero net greenhouse gas emissions by 2030
- To respond to the risks of climate change to Council assets and services and assist the community to be more resilient to the effects of climate change



Climate Change Adaption Plan 2013-2018
The Climate Change Adaption Plan outlines a number of adaption actions which have been developed to address the identified high risks, such as financial impacts, increased legal liability, disruptions to Council service delivery and access to and the condition of open space. The actions address the following areas:
- The climate resilience of essential infrastructure
- The long term protection and enhancement of public open space
- Water and energy security and other sustainable design issues
- Community resilience to increased extreme events
- The management of coast assets at risk from flooding.



Community Greenhouse Strategy 2013-2030
This strategy was developed to support the reduction of greenhouse gas emissions within Hobsons Bay with the objective of becoming a zero net emission community by 2030. In order to achieve the following priorities have been outlined:
- Promoting existing energy efficiency resources for residents and businesses
- Providing energy efficient products to residents through bulk purchasing
- Further encouraging home composting
- Undertaking additional travel change behaviour programs
- Working with local government partners and others to develop a Regional Greenhouse Strategy
- Advocating for major public transport improvements.

Corporate Greenhouse Strategy 2013-2020
The Corporate Greenhouse strategy is intended to provide a cost effective way forward for Hobsons Bay City Council to achieve its zero net greenhouse gas emissions by 2020 target. The Strategy outlines the following action items:
- Continue to track the greenhouse gas emissions resulting from Council activities and provide an annual public report on emissions and activities undertaken to reduce these emissions
- Continue to investigate Scope 3 emissions sources to determine the emissions associated with it, in particular contractors, purchasing and capital works
- Investigate purchasing or creating offsets to monitor any changes in the associated federal emissions factor
- Maintain the zero net emissions by 2020 target
- Investigate the opportunity for the generation and/ or purchasing of offsets

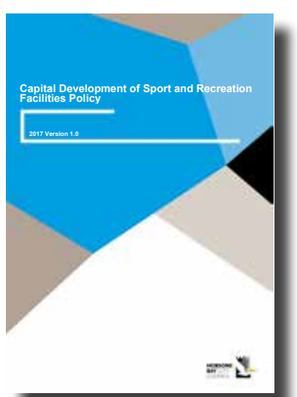
Ramsar: The 4th Strategic Plan 2016-2024
The mission of the Ramsar Convention is the "conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world." To achieve this Mission this document note the importance that vital ecosystem function and the ecosystem services they provide to people and nature are fully recognized, maintained, restored and wisely used.

Wetlands that are recognised under the Ramsar convention are identifed as being of international significance in terms of ecology, botany, zoology, limnology and hydrology. The Cheetham Wetlands, south of H.D. Graham Reserve we designated Ramsar status in recognition of its high value as habitat for water birds.

Sports Facility Needs Analysis 2018
This document was developed to assist Hobsons Bay City Council in determining the future planning and development of the municipality's sporting infrastructure and to identify priorities for the effective and sustainable delivery of sports facilities within the municipality. Some priorities identified, relevant to this project, include:

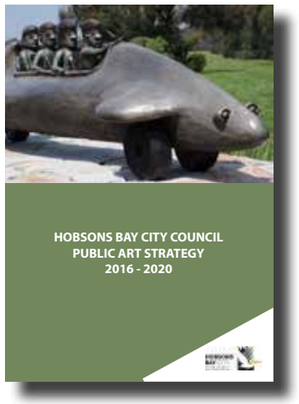
- The need to address growing demand for women and girls to participate in sport (particularly in AFL and soccer)
- Support the 4 indoor court expansion of the Altona Sports Centre to accommodate the projected needs for Basketball and Netball
- Engage the local cycling community and BMX track users in the upcoming H.D. Graham Reserve Master Plan and identify the potential for establishing a local cycling club
- Consider relocation of Rugby Union facilities to a site that better connects the western and northern suburbs
- Undertake upgrades of the existing BMX track in-line with H.D. Graham Reserve Master Plan outcomes ($40k estimated).Include the provision of 1-2 synthetic wicket Cricket grounds / soccer pitches in the master planning of H.D. Graham Reserve
- Monitor the change in demand for tennis and consider the provision of 2 additional tennis courts
- Local participation and facility use in all core or traditional competition sports is strong - Basketball and Netball (indoor sports), Soccer and AFL (winter sports) and Cricket and Tennis (summer sports). Collectively these sports cater for over 13,000 individual participants weekly during their competition season.

Synthetic Sports Surfaces Feasibility Study 2013
The objective of this Study is to provide strategic direction for the future provision and management of synthetic sports surfaces in the municipality. Synthetic surfaces address issues of surface quality due to drought, heavy rainfall and overuse. This strategy does not recommend the installation of synthetic playing surfaces at H.D. Graham Reserve.



Capital Development of Sport and Recreation Facilities Policy 2017
This Policy has been developed to guide Council's investment in sport and recreation facilities including pavilions, sports-grounds, tennis and netball courts, floodlights, cricket nets and other infrastructure. The policy also outlines the standard facilities, sizes and components required for core infrastructure such as sports pavilions, play amenities, change rooms, storage, spectator areas/ shelters, public toilets, first aid, lights, cricket wickets, goal posts, fencing, court and field sizes and car parking. These guidelines will be taken into consideration for the H.D. Graham Master Plan.

Play Space Strategy 2013-2023
This Play Space Strategy guides the provision and management of play spaces in the municipality over the 10 year period. The strategy outlines a vision for providing a diverse range of accessible, attractive, challenging and well maintained play spaces for all ages and abilities within an sustainable natural setting. This strategy recommends upgrading the skate park and BMX track at H.D. Graham Reserve as a high priority.



Public Art Strategy 2016-2020
The purpose of the Public Art Strategy is to provide strategic direction and potential opportunities for both permanent and temporary public art. This strategy does not recommend the installation of a public artwork at H.D. Graham Reserve.

Asset Management Policy 2017
The Hobsons Bay Asset Management Policy outlines Council's commitment to best practice asset management, provide principles for sound asset investment decision making and will apply to current and future assets owned, leased and operated by Council. This highlights the determination of Council to optimising its infrastructure and community assets, recognising their importance in achieving better amenity and services, improved health and wellbeing of the community and to meet the social, economic and environmental needs of the current and future community.

Community Engagement Framework 2015
This framework plan outlines Council's commitment to the community and outlines the community engagement principles, including respect, honest and transparency, participation and inclusion, and a responsive approach, that drive Council's engagement practices. The policy outlines guidelines for Council staff and officers and consultants acting on behalf of Council, on engagement planning and how they should engage with the community in different situations and provides specific information on how to undertake different types of community engagement. The guidelines outlined in the policy will be considered during the consultation phase of this project.

2.2 Demographics

Population and Population Change

The total number of people usually resident in Hobsons Bay on Census Night 2016 was 88,778. Which represents an increase of 5.86% from the 2011 Census population of 83,863 people. The population forecast for 2018 is 95,395 people, and is forecast to grow to 112,642 by 2036 (an increase of just under 20,000 people). This modest level of residential growth over the coming two decades is shown in Figure 2.1 below.

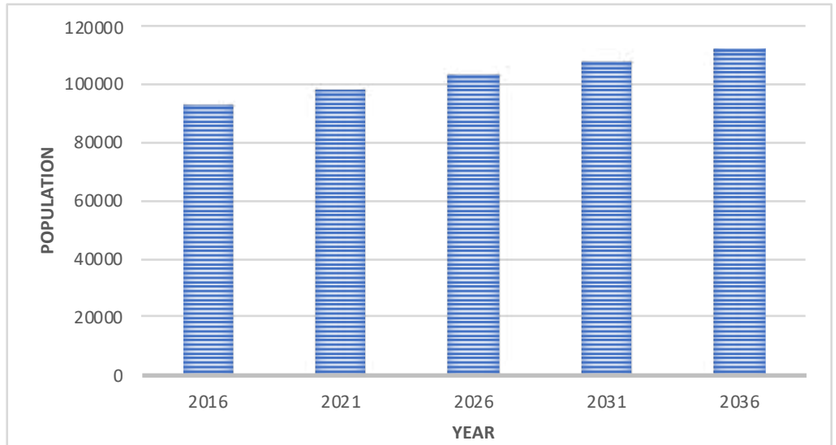


Figure 2.1: Hobsons Bay City Council Population Forecast (source: https://forecast.id.com.au)

The population of the municipality is expected to continue to grow at similar rates (i.e. 0.9%-1% per annum) through to 2036, reaching a forecast population of around 112,642 people. This represents an increase of around 19,250 people across the entire municipality over the next 18 years. Due to this population growth it is important to ensure recreation facilities across Hobsons Bay are capable of addressing existing community use demands

H.D. Graham Reserve is located in the Altona Meadows precinct where the population (over 20,000 in 2016) accounts for over 20% of the municipality's population. Altona Meadows is expected to experience very limited population change (i.e. increase by 161 people by 2036). However, there will be more significant population growth in neighbouring precincts, including Altona North (+8,010 people), Altona-Seaholme (+1,754) and Williamstown (+ 1,846). Spotswood-South Kingsville (+4,051) and Laverton (+2,483) are also expected to experience modest population growth.

More broadly across the region, including north-eastern areas of Wyndham City, are experiencing substantial population change which will contribute to increasing demand for access to open space and sporting venues throughout the west.

Population by Age

The average age of Hobsons Bay residents was 38 years in 2016. This is slightly older compared to the Greater Melbourne average of 36 years. The largest increase in persons between 2016 and 2026 is forecast to be in ages 10 to 14, which is expected to increase by 916 and account for 5.5% of the total persons. The largest 5 year age group in 2026 is expected to be 30 to 34 years, with a total of 7,979 persons.

The age structure within Hobsons Bay City is generally consistent with the rest of Victoria, as shown in Figure 2.3. The dominant age group in the municipality is aged 0-14, however has a lower than average percentage of 15-24 year olds and a higher than average percentage of 34-54 year olds.

Between 2012 and 2016, Hobsons Bay City has seen a steady increase in children aged between 0-14, which is expected to continue at a rate of 5.5% to the year 2026. The municipality has also seen a rise in the population of retirement age (55-47 years), as shown in figure 2.2. Conversely, a decrease can been seen in the population aged 15-24 and 35-54.

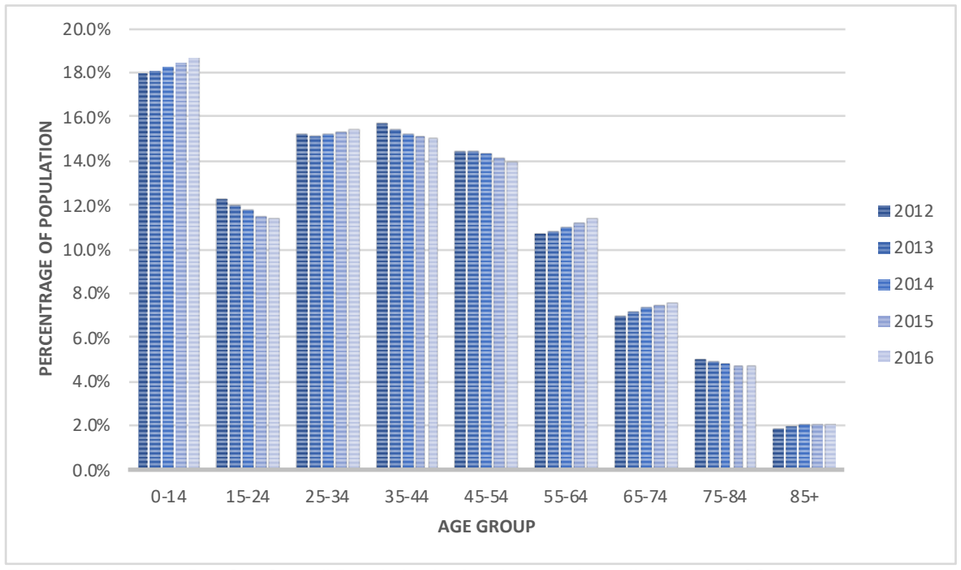


Figure 2.2: Hobsons Bay City Council Population by Age (source: Australian Bureau of Statistics)

This change in the population will influence sport, recreation and physical activity participation trends, preferences and demands. The high proportion of people aged under 34 years, and forecast growth in residents aged 10-14 years, will contribute to ongoing demand for formal sport facilities as these age groups have high rates of participation in organised sports. As such, the Master Plan should consider improvement initiatives that cater for use by all age groups and open space activation (e.g. paths, shelters, formal and informal physical activity participation opportunities). The Master Plan should also incorporate Universal Design principles to ensure accessibility for all age groups.

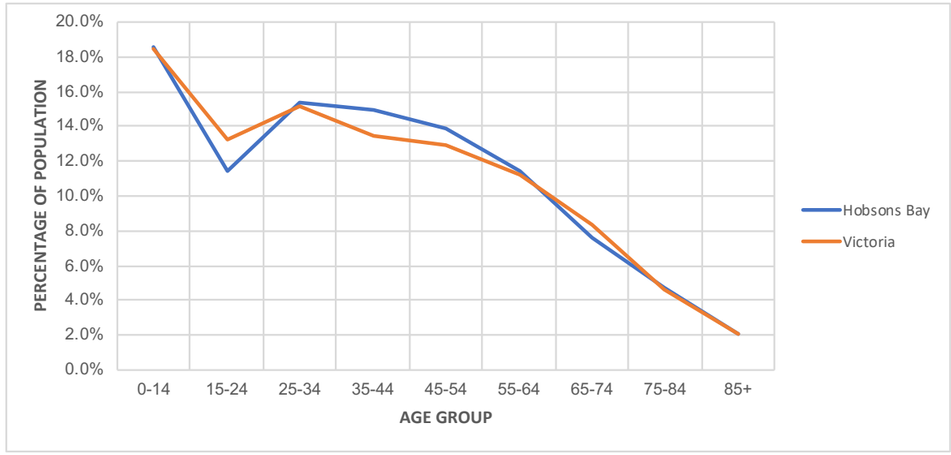


Figure 2.3: Hobsons Bay City Council and Victoria Population by Age (source: Australian Bureau of Statistics)

Population by Ethnicity

The three largest ancestries in Hobsons Bay in 2016 were English, Australian and Irish. In 2016, 30.4% of people in Hobsons Bay were born overseas, compared with 33.8% for Greater Melbourne. The largest non-English speaking country of birth in Hobsons Bay was India, where 2.9% of the population, or 2,566 people were born. The largest changes in birthplace countries of the population in Hobsons Bay between 2011 and 2016 were for those born in:

- New Zealand (+333 persons)
- India (+233 persons)
- China (+204 persons)
- Pakistan (+170 persons

Ongoing demand for 'traditional' sports and activities can be expected to continue associated with the ethnic profile of the community, including indoor court sports, cricket and soccer. The growing percentage of residents from New Zealand, India and Pakistan will contribute to increasing demand for both cricket and soccer as these activities attract high participation within these communities.

In response to these changes in ethnicity, the Master Plan should provide multi-use playing fields that are capable of being used by a number of sports or activities, including cricket, soccer and rugby. The Master Plan should also incorporate a number of community gathering spaces to support social connections, interaction and community use (e.g. spectator viewing areas, shelters, walking and cycling paths, and park furniture).

2.3 Recreation Demands and Trends

Open Space and Recreation

The H.D. Graham Master Plan aims to respond to Council's Open Space Vision and planning principles by providing a framework to improve the amenity, appeal, safety and opportunities to use the reserve consistent with its classification as a district level active open space. In order to achieve this, the Master Plan aims to:

- Respond to the environmental values of the site, including adjacent wetlands, whilst increasing the diversity of physical activity participation opportunities for the community, including formal sports.
- Improve accessibility, connections, vehicle circulation, pedestrian network and overall functionality of the site.
- Develop existing and proposed sporting facilities to improve the capacity of the reserve to cater for increases in open space demand from across the municipality. For example, multi-use playing fields that can be used as an overflow training and competition venue by clubs throughout the City (i.e. not assigned/ allocated to any one club or group).

Walking and Cycling

According to *The VicHealth Indicators Survey 2015* the top non-organised physical activities that Victorians participate in are: walking (51.2%), jogging/running (14%), and cycling (11.8%). Riding a bike or walking are easy, environmentally-friendly and low-cost forms of transport and exercise and provide numerous physical and mental health benefits, opportunities for social interaction and economic and tourism benefits.

Walking and cycling infrastructure is also paramount in meeting the growing transport needs within the state, particularly around neighbourhoods. The state government strategy *Plan Melbourne 2017-2050* identifies a goal of creating '20 minute neighbourhoods' (where most everyday needs are within a 20 minute walk, ride or public transport trip from a person's home) as a way to improve the quality of life for residents of the city. Walking and cycling infrastructure can play an important role in realising this goal.

H.D. Graham Reserve is located on the Laverton Creek Trail, a regional trail that runs from Laverton south to the coastline and connects Altona Meadows to the wider regional trail network within Western Metropolitan Melbourne. Additional trails within H.D. Graham Reserve connected to the Laverton Creek Trail will provide further opportunities for residents and visitors to walk or cycle for transport and/or recreation and engage in the numerous benefits on offer within and around the reserve.

Play

Play is important for improving a child's physical health and mental well being as it encourages, creativity, physical challenges, problem solving, decision making and social interaction. The H.D. Graham Reserve currently caters for unstructured play through the provision of trails, open lawn areas and natural elements such as logs, rocks and gardens as well as structured activity in sport courts, BMX track and skate park.

Playgrounds can also play a significant role in childhood development. Current research by the University of Western Australia suggests that playgrounds that allow interaction with nature and natural elements can help children to strengthen their immune system, stimulate their imagination. Decrease incidences of behavioural disorders, build confidence, and improve overall health and wellbeing.

Council plays a essential role in planning, providing, maintaining and promoting opportunities for play and as such the Master Plan should consider options for providing structured and unstructured play opportunities.

Active Recreation Demands

Hobsons Bay City Council's Sports Facilities Need Analysis (2018) outlines the demands for active recreation within H.D. Graham Reserve. Given this, the Master Plan will consider the following requirements and opportunities:

- Provision for 2 soccer pitches (with lighting) shared with a synthetic cricket pitch oval.
- Consider opportunities for a third soccer pitch (with lighting).
- Identify appropriate change rooms and public amenities to service the playing fields. Consider opportunities for staged development if required.
- Plan for appropriate car parking, circulation, pedestrian movement and functionality.
- Incorporate existing and proposed facilities (i.e. indoor / outdoor court provision; skate/BMX) into an integrated master plan for the site.
- Upgrade the BMX track surface, particularly jumps and berms.
- Demand for a BMX club facility has not been identified. It is acknowledged that Wyndham City are in the process of developing a Master Plan for Lawrie Emmins Reserve (approx. 3km away) which is likely to include regional standard cycling facilities, including national standard competition BMX track. It is likely that a new or expanded club will be established at Lawrie Emmins Reserve.

Active Recreation Trends

Soccer

As stated in the Football Federation Victoria State Facilities Plan (2017), all municipalities are currently experiencing growth in football participation. This plan also outlines the following recommendations/ directions specific to Hobsons Bay:

- Aim to have a minimum of 2 artificial pitches in Hobsons Bay by 2026.
- Upgrade ground drainage at existing Hobsons Bay venues.
- Potential demand for 10 additional pitches required by 2026.

In terms of what this means for the H.D. Graham Master Plan, the following facilities will be considered:

- Two soccer pitches, shared with a single cricket oval.
- Potential for a future third multi-use pitch, which could potentially be synthetic if required (i.e. synthetic pitch subject to future feasibility investigation).

Cricket

According to the Victorian Cricket Infrastructure Strategy (2018-2028), the Western Metro Region (including Hobsons Bay) is cricket's fastest growing participation Region across Victoria. 645 additional players (approximately 60 more teams) registered between the 2014/15 and 2015/16 seasons, 200 more than any other Region across the State during the same period. Growth in membership was experienced across all traditional player categories (introductory, junior and senior) as well as 74 additional female players, taking total female participation figures to just over 200. Wyndham (2,294), Brimbank (1,612), and Hobsons Bay (1,026) were the largest participating areas across the Region following the 2016/17 season, with the Western Region Junior (1,852), Victorian Turf (1,621) and Western Suburbs Churches and Community Cricket (1,426) Associations the largest competitions. The rise of mid-season cricket or 'winter cricket' is also expanding and more pronounced across western Metropolitan Melbourne, due mainly to the high proportion of sub-continent residents.

Designing new playing fields in partnership with winter sporting codes (e.g. AFL, Soccer, Rugby) that enable synthetic pitches to remain uncovered during the winter is a key priority for cricket in the west. As such, the inclusion of a single cricket oval with synthetic pitch that can remain uncovered year-round for training and competition use will be considered in the Master Plan. As, H.D. Graham Reserve is considered an 'overflow' venue, cricket practice nets or full scale sports pavilion are not proposed.

BMX and Skate

The BMX Victoria Strategic Plan 2016-2019 is designed to guide the governance, management and promotion of BMX in Victoria. The plan contains fifteen strategic priorities that fit under four pillars of leading, participating, performing, partnering. In terms of facility provision, the plan encourages BMX Victoria to liaise with all levels of government to actively seek facility development opportunities to support increasing participation opportunities, including formal clubs. No specific recommendations are identified for Hobsons Bay.

The Victorian Skateboard Association is recognised by the Victorian State Government as the Peak Body for Skateboarding in Victoria. Their aim is to foster, encourage and promote the sport of skateboarding throughout Victoria. The Association does not have a facility plan or strategy to guide LGA provision. However the State Government has previously developed a Skate Facility Planning Guide (2001) which provides direction on the planning, management and design of skate park facilities.

The existing skate and BMX facilities are well use and therefore, the Master Plan will aim to improve existing BMX and Skate facilities to support ongoing community use (i.e. consistent with District standard facilities within the Hobsons Bay open space planning hierarchy).

3. Existing Conditions

3.1 Land Use Planning Zones

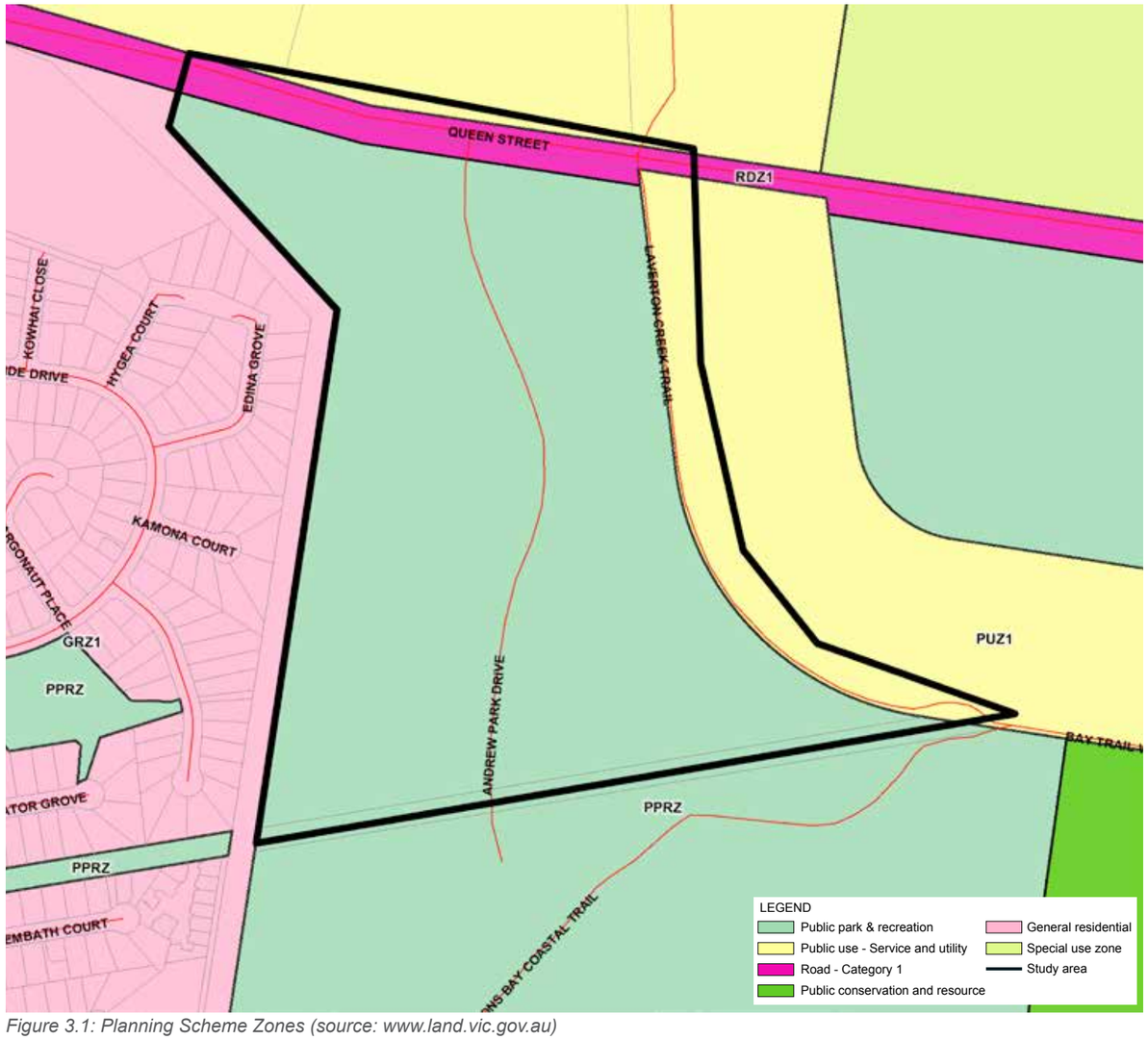


Figure 3.1: Planning Scheme Zones (source: www.land.vic.gov.au)

3.2 Planning Overlays

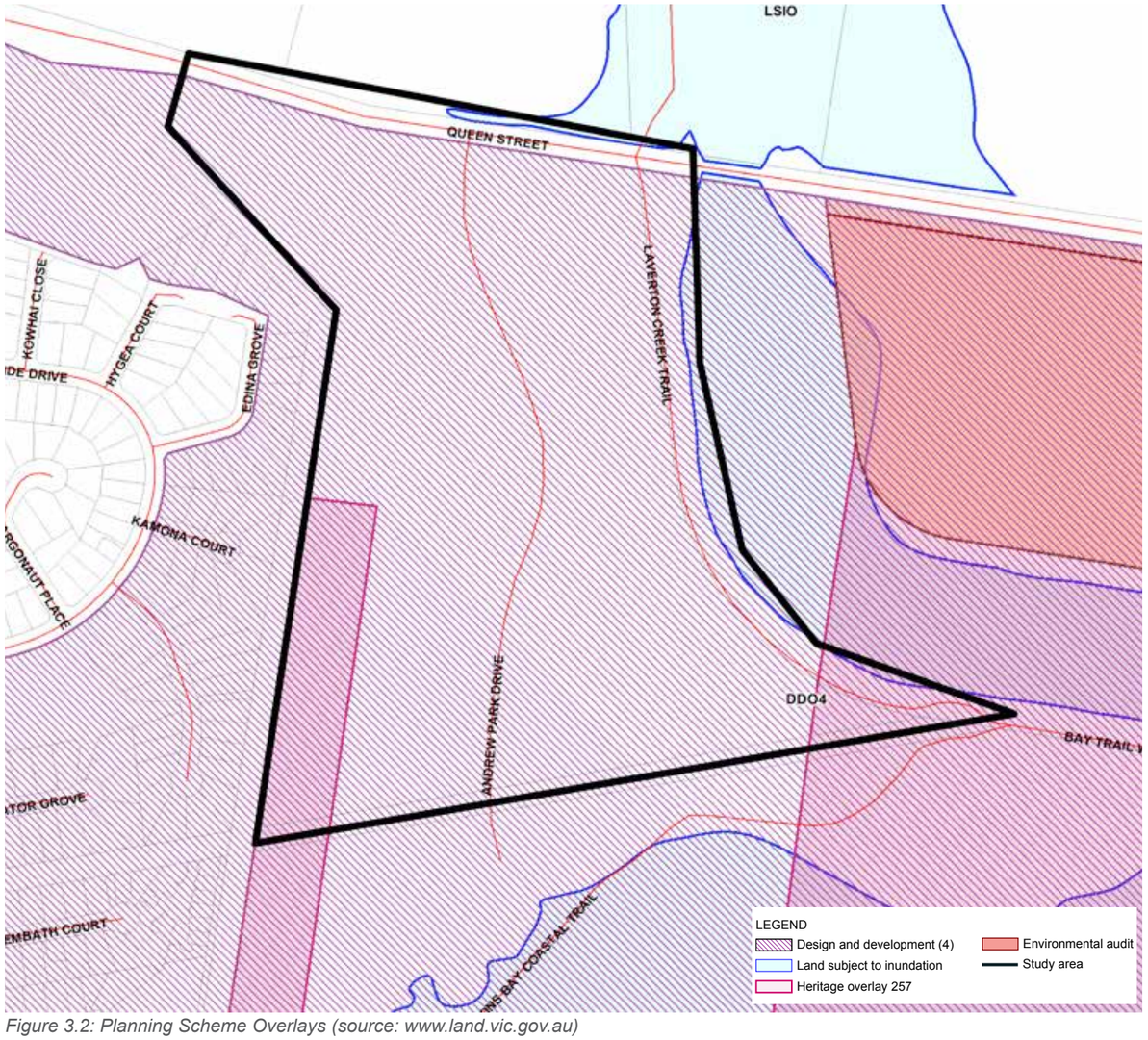


Figure 3.2: Planning Scheme Overlays (source: www.land.vic.gov.au)

The planning controls applicable to the study area are shown in Figures 3.1 and 3.2 above and include the following overlays:

- Design and development overlay, Schedule 4, which outlines height, scale, bulk and setback limitations in order to protect and enhance the environment of Hobsons Bay foreshore and the character of the area.
- Heritage Overlay which facilitates conservation and enhancement of heritage places of natural or cultural significance and to protect heritage places from being adversely impacted by development.
- Land subject to inundation, which identifies land in a flood storage or flood fringe area affected by the 1:100 year flood. This overlay ensures the protection of water quality and the health of water bodies and ensures that any development maintains the free passage and temporary storage of floodwaters to minimise flood related damage and hazards.

3.3 Land Management Zones

Figure 3.3: Land Management Zones
(Adapted from: Practical Ecology Report, 2017, Flora and Fauna Assessment, No Net Loss Analysis,Land Management Plan)

Figure 3.3 above outlines the four management zones for the existing conditions of the site. The different management areas and their purpose are:

- ***Construction and intensive recreation:*** this area highlights the area of construction for the proposed expansion of Altona Sports Centre and associated car park and court relocation. Active recreation is also a key program, encompassing skate and BMX facilities, hard courts and associated infrastructure.
- ***General parkland:*** this zone includes the large expanse of open mown grass areas within the site. Management of this zone currently involves maintaining the lawn, and controlling weeds and stockpiles.
- ***Bushland management and enhancement:*** this area is maintained for its habitat values and amenity and includes an increasing coverage of indigenous plants and habitat.
- ***Conservation and habitat:*** this area is managed to retain and protect the remnant vegetation, old trees used for habitat and heritage values. Extension of the indigenous vegetation is being increased to enhance habitat values, opportunity for education and engagement and the amenity of the reserve.

3.4 Land Managers

Figure 3.4: Land Managers

H.D. Graham Reserve is surrounded by a number of different land holdings, as shown in Figure 3.4 above, which should be considered in the Master Plan:

- Truganina Park, a Council managed former landfill site which now provides open space for visitors and residents, passive recreation opportunities and significant habitat for local fauna.
- Cheetham Wetlands consists of salt marshes and natural and constructed lagoons, the ecological processes of which are significant in sustaining values under the Ramsar convention. The wetlands also support over 200 species of birds.
- The Altona Treatment Plant, a small sewage plant servicing over 20,000 properties owned by City West Water. The plant captures, treats and uses the recycled water in manufacturing process and irrigation rather, preventing treated effluent from entering Port Phillip Bay.
- Truganina Explosives Reserve, former facility established to store and handle commercial explosive is managed by Council. Council are currently working on decontaminating the soil so that the site can become public open space and enjoyed by visitors.
- Truganina Swamp is fed mainly by water from the Laverton Creek. It consists of grasses, sedges and salt marshes provides important habitat birds, fish and butterflies.

3.4 Character Zones

Figure 3.4: Character Zones

3.5 Areas of Environmental Value

Truganina Swamp is a 175 hectare wetland fed mainly by water from the Laverton Creek which runs through the swamp. The grasses, sedeges and salt marshes that make up the swamp provide habitat for migratory wading birds, a number of fish and eels as well as two endangered species, the Altona Skipper Butterfly and the Orange Bellied Parrot.

The Kooringal Golf Course is located on an extensive series of sand ridges. The present layout of the golf course fairways preserves the original alignment of the ridges. These ridges play an important role in analysing changes in sea level over the past thousands of years.

The existing sugar gums located along the western boundary of H.D Graham Reserve play an important role in providing habitat for the local fauna.

A former landfill site, Truganina Park is now an important environmental asset and vaulable open space with provision for passive and unstructured recreation. The constructed wetland (formally a concrete drain) not only treats stormwater prior to water entering Port Phillip Bay but also provide important habitat for aquatic birds and the endangered Altona Skipper Butterfly.

The Cheetham Wetlands are an internationally renowned wetland. The 420 hectares of natural and constructed lagoons that make up the wetland provide important habitat and feeding areas for migratory birds. The Cheetham Wetlands are protected under the Ramsar convention and provide numerous environmental functions including groundwater recharge and discharge, water purification, water storage, nutrient recycling, shoreline stability and retention of sediment.

Figure 3.5: Areas of Environmental Value

Figure 3.5 above highlights how of H.D. Graham Reserve is situated amongst environments with significant environmental value including the Truganina Swamp, Laverton Creek Truganina Park, The Cheetham Wetlands and the Kooringal Golf Course. The Truganina Explosives Reserve (located across the creek in H.D. Graham Reserve) is currently being rehabilitated to allow future use as public open space, increasing the network of open space and potential habitat and feeding opportunities. Therefore, it is paramount that any works at H.D. Graham Reserve take into consideration the wider environmental context in which it is sited.

3.6 Issues and Opportunities

Pedestrians:

1 Increasing vehicular movements through the site due to recreation facility development creates the need for new and improved pedestrian priority crossing points at various locations across the site. Explore best practice traffic calming measures on Andrew Park Drive to make the precinct safe and inviting for all visitors.

2 Existing path network is discontinuous and at times not accessible to all users. Opportunity to provide Universally accessible path network across the site.

3 Opportunity to provide a stronger connection between Queen Street, and Altona Sports Centre in the north and the 100 Steps of Federation in the south.

Biodiversity and vegetation:

4 Areas of environmental significance exist across the site, particularly along the southern boundary where important habitat and biodiversity values should be enhanced and protected within the Notla Estate Main Drain and Truganina Park. Opportunity to further protect these areas by restricting public access and increasing vegetation to provide a buffer zone.

5 Opportunity to improve interaction between the public and the site's natural features through the creation of viewing nodes and interpretive signage.

6 Areas of revegetation exist to the southern part of the site. Opportunity to extend these areas.

7 Altona Meadows has been identified as having a high urban heat vulnerability, this has the potential to worsen with climate change. Opportunity to increase the tree coverage across the site, particularly high use and hardscape areas to create a cooler environment.

Recreation:

8 Large areas of mown grass present the opportunity for playing fields for a variety of sports and recreational uses. Location of reserve provides the opportunity to use recycled water from neighbouring water treatment facility to irrigate playing fields.

9 Opportunity to improve the existing facilities by expanding the skate park and providing shade and viewing areas.

10 The surface of the BMX jumps facility is currently limiting its use. Opportunity to upgrade the surface to improve usage.

11 There is currently no substantial play space or facility targeted towards younger visitors on site. Opportunity to provide a new play space within the reserve.

Water:

12 Opportunity to incorporate Integrated Water Cycle Management and Water Sensitive Urban Design initiatives such as swales and/or rain gardens to capture and treat stormwater run off and irrigation overflow to avoid negative impacts upon existing vegetation and water bodies surrounding the site.

4. Draft Master Plan

ACTION ITEMS

Pedestrians:

1. Provide pedestrian priority crossing points in safe and convenient locations to increase pedestrian amenity through the reserve. Create a shared zone along Andrew Park Drive between the car park and the sports centre.
2. Provide a continuous network of formal and universally accessible paths with wayfinding signage across the site.
3. Construct a 'nature trail' with wayfinding and interpretive signs to connect Queen Street, the Altona Sports Centre, and the proposed wetland education node.

Biodiversity:

4. Increase areas of vegetation to provide a buffer to areas of environmental significance and to assist with restricting public access.
5. Provide a viewing area to the existing wetland with interpretative signage. Ensure that environmental values of the wetland and surrounds are protected and enhanced.
6. Construct a viewing and interpretive node with shelter and seating. Opportunity to further develop into a Wetland Education Centre in the future subject to feasibility investigations. Ensure existing environmental values of the adjacent wetland and creek are protected and enhanced.
7. Construct an ephemeral wetland to provide suitable growing conditions for the Chaffy Saw-sedge to create habitat for the Altona Skipper Butterfly.
8. Investigate opportunity to construct a wetland to treat stormwater to best practice before being stored in an underground tank for use in irrigation.
9. Create an open woodland with indigenous trees and low story revegetation.

Recreation:

10. Construct 2x soccer pitches and a cricket oval with a synthetic wicket. Sports lighting to be provided to allow for training at night time.
11. Provide a multi-use, flexible irrigated playing field for training purposes. Explore the opportunity of providing a synthetic surface in the future.
12. Construct a pavilion to service the cricket oval and soccer pitches.
13. Create an informal recreation area/potential events venue to the lawn area to eastern side of the reserve. Provide shelter/s and picnic tables.
14. Extend the existing skate park to cater for current and future demand of the facility. Provide a shelter with seating at a location convenient for skate park users.
15. Upgrade the surface of the existing BMX track (jump peaks and berms) to concrete to improve usage of the existing facility.
16. Construct a new play space to expand the play and recreational opportunities for younger visitors in conjunction with Council's Play Space Strategy.

Water and WSUD:

17. Adopt best practice WSUD technologies and design measures across the site including the construction of a vegetated swale to the south of the playing fields to capture and treat stormwater run off and irrigation overflow.

Altona Sports Centre and New Development:

18. Construct overflow car park and new car parks utilising reinforced turf and permeable pavement technologies. Adopt light colour pavements for hard surfaces.
19. Remove car parking bays within the existing car park to provide garden beds and trees.
20. Provide shade trees to the west facing outdoor seating area associated with the Altona Sports Centre cafe.

4.1 Ecological Sustainable Development Initiatives

The following initiatives will be implemented at the site and be applied to all Master Plan action items where relevant

Remove parking bays within the existing car park to allow for garden beds to be installed. Proposed trees will provide shade and reduce the impact of urban heat island effect, whilst the garden beds will increase the permeability of the surface. Run off from the existing car park to passively irrigate proposed garden beds. Investigate opportunities to construct WSUD elements within the car park.

Install trees and shelter to BMX facility, skate park and playground to provide shade for visitors, increase canopy cover and reduce impacts of the urban heat island effect. Additional canopy tree planting is also proposed across the whole reserve, at a minimum doubling the number of canopy trees on site.

Ensure timber softfall mulch required for playground surface is made of recycled timber. Explore opportunities of using recycled rubber softfall where required (such as Playmatta).

Proposed toilets/change rooms/pavilion have a northern aspect to allow passive heating/cooling. The design of the pavilion should incorporate other ESD initiatives in accordance with Council's strategies, potentially including water harvesting, solar electricity generation, green facades, etc.

Investigate opportunities to harvest rain water from the sports fields.

Sports field lighting to use LED lights (which are energy efficient, financially sustainable and long lasting). Ensure lights fixtures are targeted to sports fields to reduce spill light and negative impacts on fauna that may inhabit the area and nearby residents.

Provide indigenous trees as succession planting for existing Sugar Gums along western boundary. Trees should cater for habitat requirements of local fauna.

Increase areas of vegetation to provide a buffer to protect areas of environmental significance by assisting to restrict public access. Vegetation should be indigenous to increase biodiversity and habitat values across the site.

Create an open woodland with indigenous trees and low story revegetation to increase biodiversity, provide habitat and increase the buffer between the active recreation area and sensitive environmental areas.

Plant trees to the west of the outdoor seating area associated with the Altona Sports Centre cafe to provide natural shade for users of the cafe and passive cooling to the Sports Centre.

The design for the Altona Sports Centre expansion (preceding the Master Plan process) includes a series of ESD initiatives, including storm-water harvesting and reuse, solar panels, passive heating and cooling, a green roof and green facades.

Construct an overflow car park with permeable paving as part of the Altona Sports Centre expansion project. Explore the opportunity to use recycled plastic reinforced grass or similar. Provide trees for shade and canopy cover through and around car park. Incorporate swales/ raingardens into the car park design.

Create a connected, universally accessible path network through and around the site to encourage sustainable transport methods and passive recreation. Explore opportunities in regards surface materials including recycled content and porosity. Sustainable and light coloured materials will be used.

Investigate opportunity of using recycled water from City West Water treatment facility to irrigate sport fields.

Investigate opportunity to construct a wetland to treat stormwater to best practice before being stored in an underground tank for use in irrigation.

Increase biodiversity on the site by constructing an ephemeral wetland with plantings of the Chaffy Saw-sedge (*Gahnia filum*) to create habitat for the endemic Altona Skipper Butterfly.

Create a series of boardwalks and viewing areas to encourage interaction between visitors and the surrounding environment. A recycled plastic product (or equally sustainable alternative material/product) will be used for proposed boardwalks.

Potential opportunity to provide a Wetlands Education Centre, incorporating ESD initiatives in accordance with Council's strategies, that assists in educating visitors about the site's environmental values.

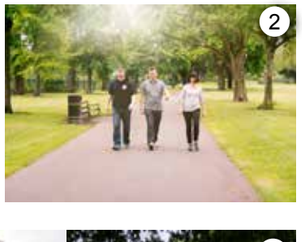
Construct a vegetated swale to the south of the playing fields. This WSUD element should capture and treat runoff during a large storm event and irrigation overflow to avoid negative impacts upon existing vegetation and water bodies surrounding the site. Investigate opportunities for additional targeted measures as a part of an integrated water management plan for the site.

4.2 Proposed site elements

Pedestrians

Shared Zone and Pedestrian Priority: Provide pedestrian priority crossing points within the path network in safe and convenient locations to increase pedestrian amenity through the reserve.

Create an at grade 20kph Shared Zone, employing psychological traffic calming and Naked Street design techniques, on Andrew Park Drive in the sports precinct to give priority to pedestrians and vulnerable road users. Investigate design options based on international best practice precedents



Path Network: Create a continuous network of formal and universally accessible paths with wayfinding signage across the site. Explore opportunities regarding surface material. Consider universally accessible recycled and/or porous or semi-porous paving options.

Nature Trail: Construct a ‘nature trail’ consisting of a distinctive path, wayfinding and interpretive signs between Queen Street, the Altona Sports Centre, and the proposed wetland viewing and interpretive node to encourage interaction between visitors and the surrounding environment. Include a wetland boardwalk that takes in the proposed ephemeral wetland, the salt water estuarine environment of the Laverton Creek and the existing constructed wetland. Consider the use of a recycled plastic product for proposed boardwalks.

Biodiversity

Vegetation Buffer: Increase areas of vegetation to provide a buffer to areas of environmental significance and to assist with restricting public access, increase habitat and improve biodiversity on the site.

Wetland Lookout: Construct a small viewing area to the existing wetland with seating and interpretative signage to encourage understanding of the site’s natural features and to improve visitors interaction with the wetland.

Biodiversity

Wetland Viewing and Interpretation Node: Construct a wetland education node to provide a sheltered seating area for visitors and groups to gather and to view and interact with the Laverton Creek, the proposed ephemeral wetland and the existing wetland. Opportunity to further develop this into a Wetland Education Centre in the future subject to feasibility investigations. The potential location for the centre is located within adjacent to areas of environmental value so any construction that may take place should ensure that the surrounding environments are protected and enhanced.

***Gahnia filum* Habitat:** Construct an ephemeral wetland to provide suitable growing conditions for the Chaffy Saw-sedge *(Gahnia filum)* to create habitat for the endemic Altona Skipper Butterfly. Extend areas of existing revegetation around the proposed ephemeral wetland as required.

Constructed Wetland: Consider opportunity to construct a wetland to treat stormwater to best practice before being stored in an underground tank for use in irrigation. Preliminary investigations have been undertaken regarding this option in the WSUD and IWCM Scoping and Prioritisation for Maribrynong and Kororoit Catchment report.

Open Woodland: Create an open woodland with indigenous trees and low story revegetation to increase biodiversity, provide habitat and increase the buffer between the active recreation area and sensitive environmental areas.

Recreation

Sports Fields: Construct 2x soccer pitches (to recommended Football Federation Victoria dimensions - 100 x 64m, with 9m end margin and 6m side margin) co-located with a cricket oval (to open age, community club minimum dimensions - 100m dia. with 10m buffer) with a synthetic wicket. Sports lighting to be provided to allow for training at night time. Investigate opportunities to harvest rain water from the sports fields.

Training Field: Provide a multi-use, flexible, irrigated playing field for training purposes. Explore the opportunity of formalising this field for a specific sport and/or providing a synthetic surface in the future. Investigate opportunity to provide a synthetic surface that demonstrates ecological and environmental benefits to offset any impacts.

Sports Pavilion: Construct a sports pavilion to the northern side of the cricket oval/ soccer pitches. Pavilion should include a minimum of four players change rooms and two umpires change rooms with amenities to cater for both male and female players as well as a kitchenette, a small social space, public toilets and storage. Pavilion to be built on northern side of cricket to provide optimal viewing points for spectators. Apply Council's ESD design brief in-line with endorsed strategic initiatives.

Informal Recreation/ Event Lawn: Create an informal recreation area and events venue to the area of mown grass to eastern side of the reserve. Provide picnic shelters and tables to cater for visitors and events.

Skate Park: Extend the existing skate park to cater for current and future demand of the facility. Provide a shelter with seating at a location convenient, such as the highest area for skate park users to watch over the skate park activity. Plant trees around the skate park to improve the provision of shade.

BMX Track: The current surface is considered dangerous to users who fall and is limiting the use of the facility. The surface of the existing BMX track (jump peaks and berms) should be upgraded to a sustainable alternative to concrete to improve usage and reduce maintenance of the existing facility.

Playground: Construct a new play space to expand the play and recreational opportunities for younger visitors within the youth precinct that currently exists where the BMX and skate facilities are located. The play space should be located so it's visible from the main road to advertise its presence to potential users and provide passive surveillance to discourage anti-social behaviour, close to car parking and pedestrian paths and be easily accessible from the Altona Sports Centre.

Water and WSUD

Vegetated Swale: Construct a vegetated swale to the south of the playing fields, on the edge of proposed garden bed area, to capture and treat stormwater run off and irrigation overflow to avoid negative impacts upon existing vegetation and water bodies surrounding the site.

Irrigation: Investigate the opportunity of irrigating the proposed sports fields and the training field with recycled water from the nearby City West Water treatment facility.

Altona Sports Centre and New Development

Permeable Paved Car Park: Construct overflow car park and new car parks utilising reinforced turf and permeable pavement technologies. Adopt light colour pavements for hard surfaces.

Retrofit Existing Car Park: Remove parking bays within the existing car park to allow for garden beds to be installed within car park. Install trees to provide shade and garden beds to increase the permeability of the surface. Investigate opportunities to construct WSUD elements within the car park.

Shade Trees: Plant trees to the west of the outdoor seating area associated with the Altona Sports Centre cafe to provide natural shade for users of the cafe and passive cooling to the Sports Centre.