



Mandurah Active Recreation Strategy 2015 - 2025

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Mandurah Active Recreation Strategy

Executive Summary

Public Open Space provides many social, health, environmental and economic benefits if functional, attractive and appropriately located for the community.

Public open space that enables the community to participate in active sporting pursuits provides further opportunities for a community to experience physical and mental health benefits through active participation, thus improving social cohesion and sense of community.

The City of Mandurah recognises the importance of providing Active Open Space to the community and acknowledges that the current and future planned provision of active open space is insufficient for Mandurah's projected population growth.

This not only creates challenges in the allocation and management of sporting grounds but also creates significant challenges in the maintenance of over used reserves and the uncertain quality and availability of playing space into the future.

Recent research into the "*Provision of Active Public Open Space in a Growing Perth-Peel Area*" assessed whether new state planning policies was having an impact on the provision of playing space in Local Government authority areas.

As a result, outer suburbs in the Perth-Peel Region has been found to have an insufficient provision of active open space.

Mandurah was highlighted as having the lowest provision of active open space anywhere in the Perth-Peel study area, falling well below the 10% Public Open Space allocation.

The suburbs of Lakelands, Dawesville, Dudley Park, Erskine, San Remo, Silver Sands and Wannanup do not currently have any active open space. Additionally, given the rural nature of Herron and Parklands they also do not have any active open space.

In an effort to address the current and future shortfall of active open space. The City of Mandurah is referencing the new standards of provision developed by Curtin University (2013) as a guide to the future provision targets of active open space in Mandurah.

Through an assessment of the City's current active open space and an indication of Mandurah's population predictions of more than 120,000 people by 2036, the City is expected to experience a shortfall of 36.2 ha (13 Active Open Space Models) if planning for future provision is not undertaken.

In order to ensure the City plans appropriately for its future population, the City developed the Mandurah Active Recreation Strategy (MARS) as an extension to the Dawesville and Southern Districts Active Recreation Strategy, to identify priority sites for the provision of active recreation throughout Mandurah.

The site selection for the provision of future active recreation models is based on the following objectives:

- equitable distribution across the study area (north to south and east to west);
- appropriate accessibility locally and at a broader scale;
- maximising opportunities for shared use with existing and proposed primary and high schools in the study area;
- positively contribute to local communities;
- maintain priorities for biodiversity strategic objectives and key environmental outcomes;
- sites that the City has opportunities to secure through existing or proposed land tenure (i.e. existing crown land or future developed land with public open space potential): and

- sites previously identified in Local Structure Plans, Master Plans or Department of Education School Development Plans.

The City has consolidated all planning documents including Local Structure Plans, Master Plans and Department of Education School Development Plans and of the 13 active reserve models required, 5 have been identified and confirmed through Outline Development Plans (Local Structure Plans) submitted and approved by the City. This is largely as a result of developer contributions being strategically located adjacent to a proposed school.

The remaining 8 Active Reserve Models were identified in 'draft' planning documents of a similar nature and with the support of the City will contribute to the City's active open space provision into the future.

Table One provides a summary of all proposed sites identified in approved or draft planning documents.

The outcomes of the Mandurah Active Recreation Strategy will guide the future planning and development of Active Open Space in Mandurah. It also makes recommendations for the inclusion of the core facilities required to activate sites; such as toilets, changing rooms, social spaces, lighting and parking facilities.

Whilst implementing the Mandurah Active Recreation Strategy, consideration must also be given to existing areas of active open space to ensure that facilities provided reflect the functional purpose of the space (i.e. neighbourhood, district, regional) so that the City can plan appropriately for the upgrade and development of core facilities on existing sites. This will ensure that all areas of active open space are utilised to their full capacity and provide a consistent standard across the City.

Note

To ensure continuity and consistency in the City's infrastructure planning, Recommendations of this Strategy will also be reflected and adopted in future updates and reviews of the City's Social Infrastructure Plan 2013 – 2043.

Table 1 Summary of Proposed Active Open Space Reserves

Site	District / Suburb	Area (ha)	Spaces	Classification	Documented
1 Ocean Road Reserve	Dawesville and South District Dawesville	2	1	Neighbourhood	Florida ODP
2 Calypso Reserve	Mandurah Island District Halls Head	3.6	1	Neighbourhood	Public Recreation Reserve
3 Lakelands Sports Facility	Mandurah North Lakelands	10.5	3	District	Lakelands Shared Use School, Sport and Recreation Master Plan / Lakelands West ODP
4 Caddadup Reserve	Dawesville and South District Dawesville	8	2	District	Inner Peel Region Structure Plan. Dawesville and Southern Districts Active Recreation Strategy
5 Madora Bay North POS & Primary School	Mandurah North District Madora Bay	3	1	Neighbourhood	Madora Bay North ODP
6 Meadow Springs North Primary School	Mandurah North District Meadow Springs	4.5	1	Neighbourhood	Meadow Springs ODP
7 Dawesville High School Site	Dawesville and South District Dawesville	8	1	Neighbourhood	Dawesville Road West ODP
8 Dawesville South (Panorama Project) ODP Area	Dawesville and South District Panorama	3	1	Neighbourhood	Urban development with existing ODP (Requires revision)
9 Peel Education & Training (PET) Campus	Mandurah East District Greenfields	2.8	1	Neighbourhood	Gordon Road Structure Plan
10 1 x site TBA	TBA	2.68	1	Neighbourhood	
Total			13		

****Note** All sites recommended in the Mandurah Active Recreation Strategy are outside of the targeted environmental retention areas identified in the Biodiversity Strategy.

Strategy Recommendations

Acknowledging the growing population in Mandurah over the next 10 years and the targeted growth areas, the following strategic outcomes are recommended for the provision of active open space and sporting facilities in Mandurah. Recommendations are in order of priority and reflect both capital and non-capital projects.

- 1. Develop an Action Plan and estimated delivery timeline for the implementation of proposed active reserves, including;**
 - Land Acquisition Strategy (where appropriate)
 - Feasibility Study/Business Plan
 - Internal/External Organisation Consultation
 - Environmental Assessment and Offset Strategy (where appropriate)
 - Water provision strategy
 - Community Consultation
 - Funding Model
 - Project Schedule with consideration of the 'Estimated Delivery Timeline's' identified in this Strategy
- 2. Develop a Shared Use Neighbourhood Sporting Facility at Ocean Road Primary School**

Extend the existing Primary School Oval to accommodate one active recreation model that will accommodate both school and community activities and develop appropriate infrastructure such as flood lighting, toilets, changing rooms and storage as core neighbourhood facilities.
- 3. Carry out a Facility Audit of existing Active Open Space** and make recommendations on the infrastructure required to activate the space in line with the minimum facilities standards established in the Mandurah Active Recreation Strategy. Funding required should be considered through the City's annual capital budgeting process and any further project specific funding to be identified through the City's 10 year capital budgeting process, with grants incorporated where possible.
- 4. Develop one active recreation model as a neighbourhood facility at Calypso Reserve in Halls Head.** Consideration to be given to additional core infrastructure in line with the minimum standards for a neighbourhood facility.
- 5. Develop a Shared Use District Sporting Facility in Lakelands**

Develop three active recreation models adjacent to the future proposed Lakelands Senior High School and proposed Lakelands North Primary School with appropriate core infrastructure that includes shared active open space, sports flood lighting and a community sports facility.
- 6. Review the Caddadup Reserve Land Use Master Plan** with consideration of a district level sporting facility that could accommodate two active recreation models and appropriate club facilities.

7. **Liase with the Department of Education planners** on future timelines for the development of the **Madora Bay Primary School, Meadow Springs North Primary School and Dawesville High School** with a view to develop active open space (where possible) adjacent to the schools and achieve one shared use active recreation model or a significant training zone for use by both the community and the school. Where there is no land available, such as Dawesville High School, the City is to pursue a shared use agreement with the Department of Education for access to school facilities under a shared use and cost arrangement.
8. **Liase with the Department of Training and Workforce Development** on a potential timeframe for the development of the active reserve adjacent to existing campus facilities with a view to pursue a shared use agreement with the Department of Training for access to active open space facilities under a shared use and cost arrangement.
9. **Pursue a Public Open Space allocation adjacent to proposed Department of Education Land within the Panorama Project** in Mandurah's Southern District, with a view to develop the land in consultation with the school to achieve a single active recreation model under a shared use agreement.
10. The City will work with other local governments and state and federal agencies to **plan for the development of the Ravenswood Regional Sports Facility** and to move towards the implementation of stage 1, within the next 10 years.
11. **Review the City's 10 Year Capital Plan** to ensure the inclusion of priority sport and recreation projects and that appropriate funds are allocated.

Mandurah Active Recreation Strategy

Part 1 Introduction

1.1 Background

Public Open Space (POS) is an essential element in every community, regardless of whether people live in the city, suburbia or rural localities. POS creates areas where the community can meet, recreate and enjoy areas of natural bushland that may be otherwise scarce in some urban developments. Public open space creates the opportunity for social cohesion and not only enables people to interact but can improve the mental and physical health of a community.

Communities that have access to active open space have the opportunity to participate in structured sports activities and consequently reduce the risk of diseases and conditions largely related to sedentary lifestyles. With such indisputable benefits for communities, the provision of passive and active open space is an essential service every community should have access to.

The allocation of public open space within Local Government Authorities is largely acquired through developer contributions at a rate of 10% of the subdividable area. This is generally identified during the planning stages of a new development and prior to approval of Local Structure Plans. In previous years, this 10% was generally provided to Local Governments in the form of large areas of open space that allowed for flexibility of use.

In recent years, the introduction of new planning policies, such as 'Liveable Neighbourhoods' Water Sensitive Urban Design' and 'Bush Forever' has raised concerns over the functionality of POS that has been designed under the new legislations.

Dr Gary Middle of Curtin University carried out a study in 2013 "*Provision of Active Public Open Space in a Growing Perth-Peel Area*". The aim of this research was to establish if the perception that there are insufficient active reserves being provided in newer suburbs of Perth/Peel that could accommodate active sport, is correct.

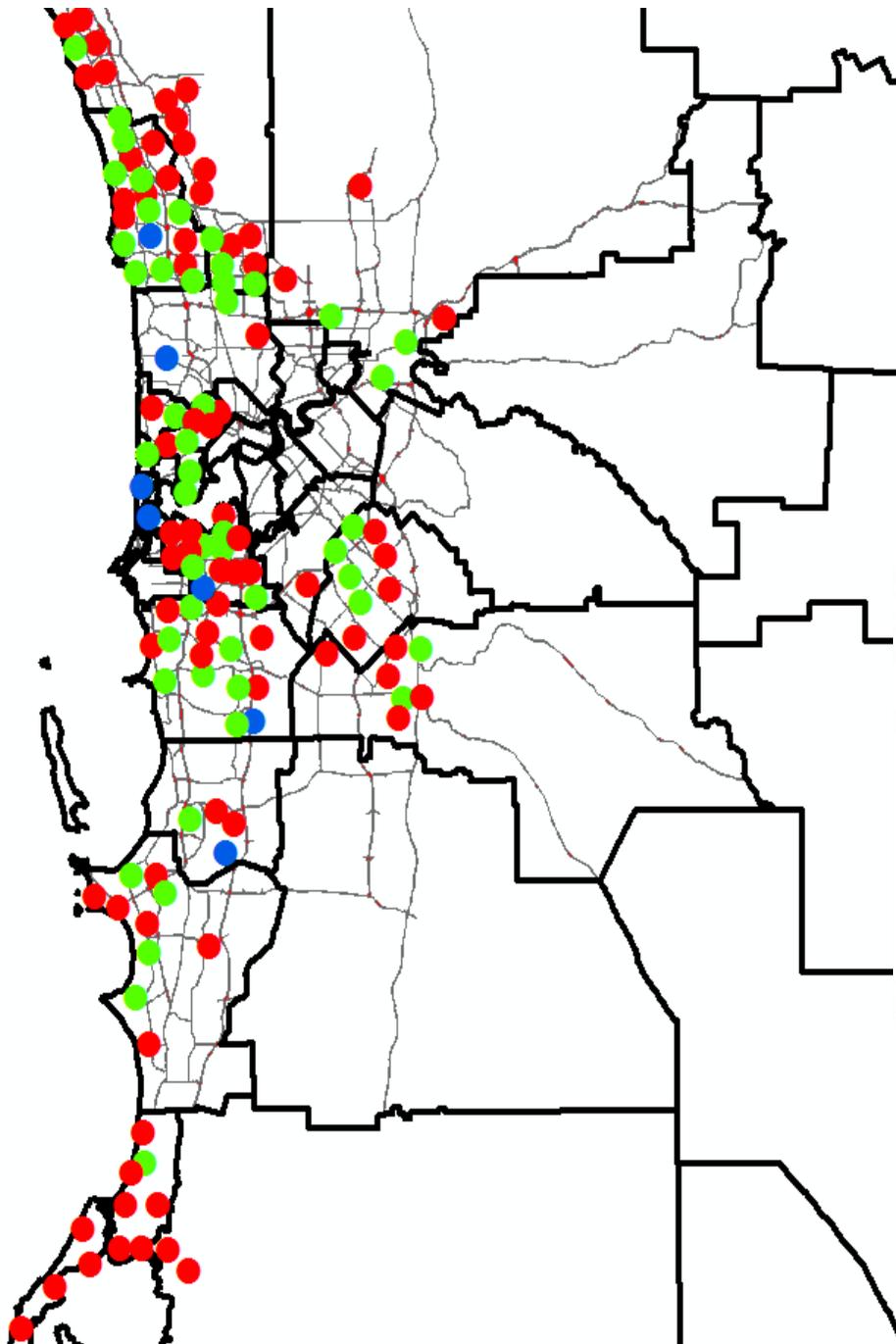
The study found that;

"in delivering significant environmental and social benefits, the unintended consequence of implementing Bush Forever, Water sensitive urban design and Liveable Neighbourhoods planning policies has been a reduction in the amount of open space able to accommodate organised sport."

The study identified that newer suburbs in the fringe growth subregions of Perth have a shortage of active open space. Furthermore, the City of Mandurah was identified as having the lowest provision of active open space anywhere in the Perth-Peel study area, falling well below the 10% POS allocation (See Figure 1). The suburbs of Lakelands, Dawesville, Dudley Park, Erskine, San Remo, Silver Sands and Wannanup do not currently have any active open space in addition to the rural localities of Parklands and Herron.

Dr Middle's study went further to determine, 'what is an adequate amount of active open space'? Therefore identifying standards of provision to guide future planning of active open space. The study concluded that the standards of provision for active open space are either 6.5m² per resident or 1.4% of the subdivisible area of land. These standards are inclusive of playing area only and do not include run-offs, buildings, parking or services.

Figure 1 Active Open Space in the Perth and Peel Region



Local Government	Suburb name	POS suburb type	Active OS (%)	
Mandurah	Coodanup	Bush Forever & WSUD constrained	0.00	
	Dawesville	Bush Forever & WSUD constrained	0.00	
	Dudley Park	Bush Forever & WSUD constrained	0.00	
	Erskine	Bush Forever & WSUD constrained	0.00	
	Greenfields	10% POS suburb	1.11	
	Halls Head	10% POS suburb (some LN)	0.92	
	Madora Bay	Bush Forever & WSUD constrained	0.61	
	Mandurah	10% POS suburb (some Old-inner)	1.28	
	Meadow Springs	Bush Forever & WSUD constrained	1.63	
	San Remo & Silver Springs	10% POS suburb	0.00	
	Wannanup	LN constrained	0.00	
	Average for Mandurah			0.67

Legend

Green – well above the Curtin 1.4% guideline;

Blue – reasonably consistent with the Curtin 1.4% guideline; and

Red – well below the Curtin 1.4% guideline.

Reference: Middle, G et al

The lack of active open space in Mandurah has been acknowledged by the City in the past and in efforts to address this, the City has strategically negotiated access to a further 8 active reserves under shared use agreements with the Department of Education for the use of school ovals.

This has enabled the City to provide more areas of active open space to the community out of school hours, however despite this, the Mandurah community is still underprovided for and the City continues to manage the challenges associated with overused active reserves and a growing population.

The need for this Strategy was largely identified as a result of the following:

- The growing population of Mandurah
- Uneven distribution of active reserves in Mandurah
- Lack of active open space suitable for senior sport, i.e. school ovals are generally not large enough for senior sport
- Poor planning history in the provision of active open space in specific areas of Mandurah i.e. Dawesville, Dudley Park, Coodanup and Erskine
- Ongoing challenges to manage over used active open space

1.2 Integrated Strategy Planning Framework

The Mandurah Active Recreation Strategy links with the following City of Mandurah Strategic Plans:

1.2.1 Corporate Business Plan 2014 – 17

Environment

- Protect and ensure the health of our natural environment and waterways
- Ensure that our planning and activities maintain a sustainable balance between urban growth, the environment and social values

Social

- Provide a range of social, retail, recreational and entertainment experiences for our residents and visitors

1.2.2 Health and Well Being Plan 2011 - 2013

Priority Area - Physical Activity and Health Eating

Goal One: To promote and encourage physical activity and healthy eating

1.2.3 Strategic Review of Active Reserves and Community Meeting Facilities (2006)

This review identified that the active reserves within the City of Mandurah are experiencing over use which is not sustainable for the provision of quality, safe facilities. This issue is further compounded as the population grows significantly in the next 5-10 year period. The study identified the need for a southern zone (Ocean Road Site) and an eastern zone (South Yunderup) and recommended these be established by 2006.

The recommended approach was that a district level active reserve should be accommodated within the Caddadup Reserve Master Plan. A site in Ocean Road was also identified due to the opportunity for sharing resources with the Department of Education and the Catholic Education Department. The report recommended that a district level reserve be developed 'as soon as possible' to cater for the growth in soccer and cricket in the southern part of Mandurah.

1.2.4 Mandurah Social Infrastructure Plan 2013-2043

Social Infrastructure is the combination of community facilities, services and networks which enhance community health, wellbeing and economic prosperity within the community. The Mandurah Social Infrastructure Plan was developed to address the fast growing population, needs and expectations of the community and identify the best options of facility provision in to the future. The Plan identifies areas of Mandurah that is lacking community meetings spaces and makes recommendations for future facilities, including facility locations, concept designs, funding options and proposed management models.

The Strategic Review of Active Reserves and Community Meeting Spaces has now been superseded by the Mandurah Social Infrastructure Plan (SIPS) 2013-2043 as a guide to the delivery of community meeting facilities. The planning and development of active open space will be guided by the Mandurah Active Recreation Strategy (MARS). The recommendations of both the SIPS and the MARS will be implemented with reference to each other to ensure the City delivers functional facilities and without duplication.

1.2.5 Dawesville and Southern Districts Active Recreation Strategy 2014

The City of Mandurah recently developed the Dawesville and Southern Districts Active Recreation Strategy that identifies the undersupply of Active Open Space-Playing fields in Mandurah's southern suburbs. The Study is supported by recent research conducted by Curtin University highlighting the undersupply of Active Open Space as a result of recent planning policies.

The Strategy includes: site identification, site assessments and recommendations for the development of active open space in the southern district that will accommodate the local demographic now and into the future.

1.2.6 Peel Region Sport and Recreation Facility Plan (PRSRFP) 2010

Originally developed in 2002 and aimed at identifying the regional sport and recreation facility requirements for the next 20 years, the Peel Sport and Recreation Facilities Plan outcomes included recommendations on the development of new facilities in the region and strategies to improve existing facilities. A review of the PRSRFP was carried out in 2010 as a result of the growth and change within the Region and the following recommendations are considered relevant to this study:

Focus Area 1: Fiegerts Road
Strategy: Development of Fiegerts Road Regional Sport and Recreation Complex

Focus Area 4: Lakelands School
Strategy: Realignment of Lakelands school and open space provision to provide regional level sports facility infrastructure to serve North Mandurah/Keralup South and Southern Rockingham.

Focus Area 5: Dawesville
Strategy: Development of Playing Pitch infrastructure in Dawesville

Focus Area 12: Dual Use of School Sites
Strategy: Through agreement with the Department of Education, establish a consistent approach to the co-location and use of sports facilities on school sites.

Focus Area 19: Development of Peel Education Campus
Strategy: Enhance sporting infrastructure at the Peel Campus to provide an Education and Community resource.

Mandurah Active Recreation Strategy

Part 2 Context Analysis

2.1 Geographic Profile

The City of Mandurah is located 72 kilometres south of Perth and spans 50kms along the coast from its northern extremity at Madora Bay down to Lake Clifton and Yalgorup National Park to the south. Mandurah is one of the fastest growing Cities in WA with a population currently exceeding 80,000 people with an expected growth of approximately 50% by 2036. Bordered by the City of Rockingham to the North, the Shire of Murray to the East and Shire of Waroona to the South, Mandurah is located in the Peel Region and is WA's largest regional LGA.

2.2 Demographic Profile

Most of Mandurah's growth is expected to take place in the northern and southern suburbs of Mandurah which are still under development i.e. Madora Bay, Lakelands, Florida and Dawesville. Although some of Mandurah's growth can be attributed to natural increase (Births – Deaths), much of the population growth over the next 10 years is attributed to net migration.

Recent research suggests that Mandurah is the Region of choice for Fly-in Fly-out (FIFO) families as it offers affordable housing and is accessible to Perth airport. In addition to FIFO families, Mandurah offers a lifestyle desirable to many retirees, both demographics contributing significantly to Mandurah's population. However, the migration of people to Mandurah's northern and southern suburbs is expected to be predominantly young families or at least a significant increase across all age groups.

It is important that the demographic of Mandurah's suburbs are factored into the planning of community infrastructure and public open space so that the City can plan now and into the future. For example, the two largest age groups in Lakelands by 2021 will be 0-14 year olds and 35-44 year olds and this growth will be sustained through to 2036 as demonstrated in Figure 2.

In the Southern corridor of Mandurah the migration of young families is clearly identified in the Dawesville – Lake Clifton area. The southern suburbs of Mandurah are a combination of older semi-rural developments and new suburban developments with new schools and a shopping precinct. As a result, figure 3 depicts a major gain of young and mature families (0-14 and 30-54 years) and a significant gain in 'empty-nesters' and retiree age groups (55-69 year olds). It is assumed that the newer developments and town centre of the southern suburbs will appeal more to families with young children and therefore the need for appropriate facilities for these families must be considered at the planning stage.

In addition to Dawesville, Lakelands and Madora Bay, all of which are predicted to have well over a 100% increase in population in ages 0-45 years by 2036, Coodanup and Mandurah are also expected to experience significant growth in this age group by 2036 (see table 2). Although it can be assumed that families will account for a large number of 0-45 year olds moving to these areas, these figures also include young singles in group housing and couples without dependants who choose to live close to the City Centre and public transport amenities.

Regardless of which demographic this age group falls into, there is a demonstrated need for sporting facilities to support community recreation in these areas.

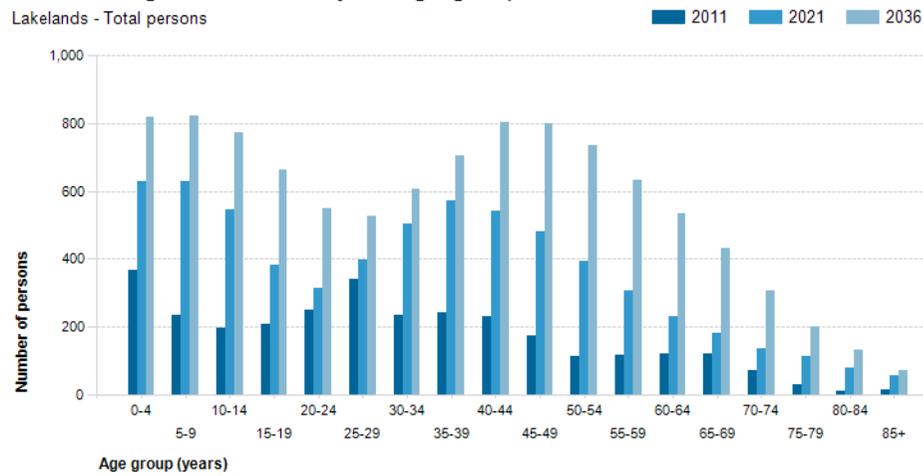
Table 2 Population and age structure (Ages 0 to 45 years)

Area	2014		2036		Change from 2014 - 2036	
	Number	%	Number	%	Number	%
Coodanup	2,000	51.3	3,686	50.9	+1,686	+84.3
Dawesville - Bouvard - Herron - Clifton	3,920	57.5	7,499	51.6	+3,579	+91.3
Dudley Park	2,985	45.5	3,668	39.4	+683	+22.9
Erskine	1,933	40.3	2,474	38.4	+541	+28.0
Falcon	2,624	49.8	3,161	43.9	+536	+20.4
Greenfields - Parklands	6,103	54.2	7,623	52.4	+1,520	+24.9
Halls Head	7,976	56.1	8,282	48.3	+306	+3.8
Lakelands	3,068	75.3	6,438	63.4	+3,371	+109.9
Madora Bay	1,198	58.6	3,167	54.8	+1,969	+164.3
Mandurah	4,039	48.1	6,483	43.0	+2,445	+60.5
Meadow Springs	4,106	59.5	3,882	48.2	-225	-5.5
Silver Sands - San Remo	1,178	50.7	1,371	48.6	+194	+16.4
Wannanup	1,739	53.0	2,015	42.2	+276	+15.9
City of Mandurah	42,867	53.7	59,748	48.6	+16,881	+39.4

Figure 2 Forecast Age Structure – Lakelands

Forecast age structure - 5 year age groups

Lakelands - Total persons



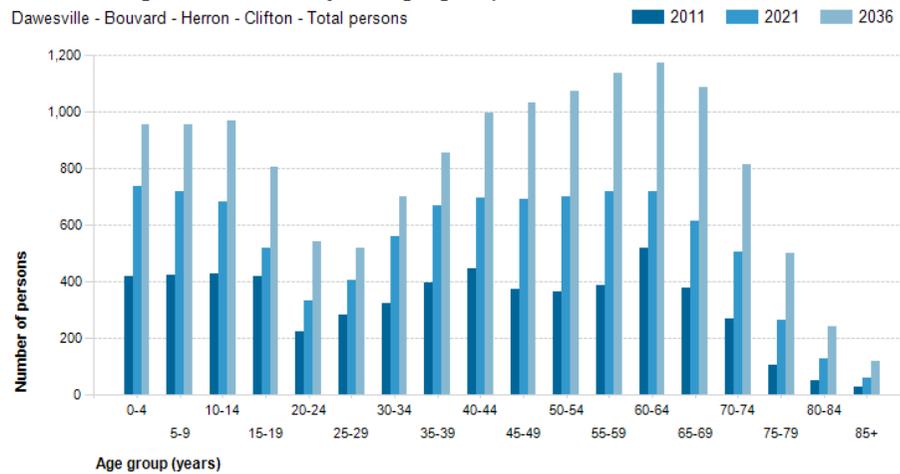
Population and household forecasts, 2011 to 2036, prepared by .id the population experts, September 2012.



Figure 3 Forecast Age Structure – Dawesville to Herron

Forecast age structure - 5 year age groups

Dawesville - Bouvard - Herron - Clifton - Total persons



Population and household forecasts, 2011 to 2036, prepared by .id the population experts, September 2012.



2.3 Current Facilities

2.3.1 Provision of Active Open Space

The City currently has 23 active reserve spaces. These spaces range from local to regional level facilities and cater for a variety of sports. Table 3 and Figure 4 identify all City of Mandurah active reserve spaces, their size, ownership and the location of each.

Existing areas of active open space can be categorised using the 'Classification Framework for public open space developed by the Department of Sport and Recreation (see Appendix One).

Classifications are based on size and function of the POS, however in the case of City of Mandurah facilities, classifications have been applied largely based on the function of the POS and the catchment that it services rather than the number of playing spaces available.

Table 3 Existing Active Recreation Facilities

		Area (ha)	Spaces	Land Tenure
Regional Facilities				
1	Rushton Park Sporting Facility	9.0	3	Crown Reserve
District Facilities				
2	Meadow Springs Sporting Facility	6.3	3	Crown Reserve
3	Bortolo Reserve	4.5	2	Crown Reserve
4	Peelwood Sports Facility	6.5	3	Crown Reserve
5	Merlin Street Reserve (inc South Halls Head PS)	3.2	2	Crown Reserve / Department of Education School
6	Falcon Reserve	1.8	1	Crown Reserve
Neighbourhood Facilities				
7	Coote Reserve (Madora Bay)	0.7	1	Crown Reserve
8	Park Road Oval 1 & 2 (John Tonkin College / North Mandurah PS)	2.2	2	Department of Education School
9	Tindale Reserve (John Tonkin College)	1.1	1	Department of Education School
10	Fowler Reserve (Riverside PS)	1.5	1	Crown Reserve / Department of Education School
11	Coodanup Community College	2.6	1	Department of Education School
12	Glencoe Reserve	1.1	1	Crown Reserve
13	Falcon PS	1.2	1	Department of Education School
14	Ocean Road PS	0.8	0.5	Crown Reserve / Department of Education School

Figure 4 Existing Active Recreation Facilities

- Regional Recreation
- District Recreation
- Neighbourhood Recreation

Regional Facilities
① Rushton Park Sports Facility
District Facilities
② Meadow Springs Sports Facility
③ Bortolo Reserve
④ Peelwood Sports Facility
⑤ Merlin Street Reserve (inc South Halls Head PS)
⑥ Falcon Reserve
Neighbourhood Facilities
⑦ Cote Reserve (Madora Bay)
⑧ Park Road Oval 1 & 2 (John Tonkin College / North Mandurah PS)
⑨ Tindale Reserve (John Tonkin College)
⑩ Fowler Reserve (Riverside PS)
⑪ Coodanup Community College
⑫ Glencoe Reserve
⑬ Falcon PS
⑭ Ocean Road PS



2.3.2 Active Open Space Exemptions

Mandurah has one additional area of public open space in central Mandurah that is suitably sized for active recreation. Known as Hall Park, the City retains this reserve as a 'Special Events' ground with no sports clubs permanently based at the Reserve. Hall Park is adjacent to the City's Western Foreshore, the old Mandurah Bridge and Bill Bowler Skate Park.

There is public toilet, shower and storage facilities available, however there are no formal changing rooms or kiosk facilities.

Hall Park is frequently used for City-run events such as Crab Fest, Australia Day Celebrations and seasonal festivals and by external groups for events such as the Mandurah Island Challenge, Ironman 70.3 Mandurah and a number of touring circus's, to name a few.

The reserve is available as a show ground for one-off exhibition matches, should none of the existing active reserves be suitable, however it is not currently available to Clubs as a home ground due to the regularly booked events throughout the year. Retaining 'special events' at Hall Park is in the best interest of the City due to the positive economic impact to local businesses as a result of increased tourism opportunities generated by these events.

In addition to Hall Park being used as an events ground by the City, it is also subject to change as part of the master planning for the western foreshore and new traffic bridge. For this reason, it is at this stage not considered a long term viable option as an active reserve.

2.4 Active Open Space Facility Benchmarks

Previously referenced and applied in the City's 'Dawesville and Southern Districts Active Recreation Strategy', there are now a number of benchmarks available to Recreation Planners in West Australia as a guide to the provision of Active Open Space. These guidelines can be applied either based on population predictions, as a percentage of the gross sub dividable area or alternatively if applying the guidelines developed by Parks and Leisure Australia, then a ratio of playing spaces per 1000 residents can be applied. The recommended guidelines from 3 WA studies, for the provision of Active Open Space, are detailed below.

- City of Wanneroo: 4 per cent of Gross Sub dividable Area for Active Open Space (includes playing surface, parking and clubrooms)
- Curtin University Research as presented by Dr Garry Middle: 1.4 per cent of Gross Sub dividable Area OR 6.5m² per person

This is the playing surface only - calculations are based on 1 senior oval being 1.8 hectares in area.

- Parks and Leisure Australia(PLA) Benchmarks: Generic Open Space (3.5ha)

Active Open Space	1 per 3500 people
AFL Ovals	3 per 15 000 people
Soccer Pitches	1 per 1000 - 3000 people (depending on demographic)
Cricket Wickets	1 per 3000 people

All of the benchmarks above have been developed through studies within the Perth-Metropolitan area and therefore are applicable to Local Government areas that reflect a similar urban density.

As the City of Mandurah's gross urban densities are similar to that of Perth averages, the above benchmarks are considered suitable for determining the Active Open Space requirements for the City of Mandurah.

However, as identified in the Dawesville and Southern Districts Active Recreation Strategy, there are some areas of Mandurah, particularly to the south, that are particularly rural with large expanses of undeveloped and unpopulated land (National Parklands). For this reason, it would be considered appropriate to apply the population based benchmarks in this Strategy, not only to create consistency with the Dawesville and Southern Districts Active Recreation Strategy but also to ensure that the City do not over estimate on provision planning as a result of applying area based benchmarks.

2.5 Active Open Space Model

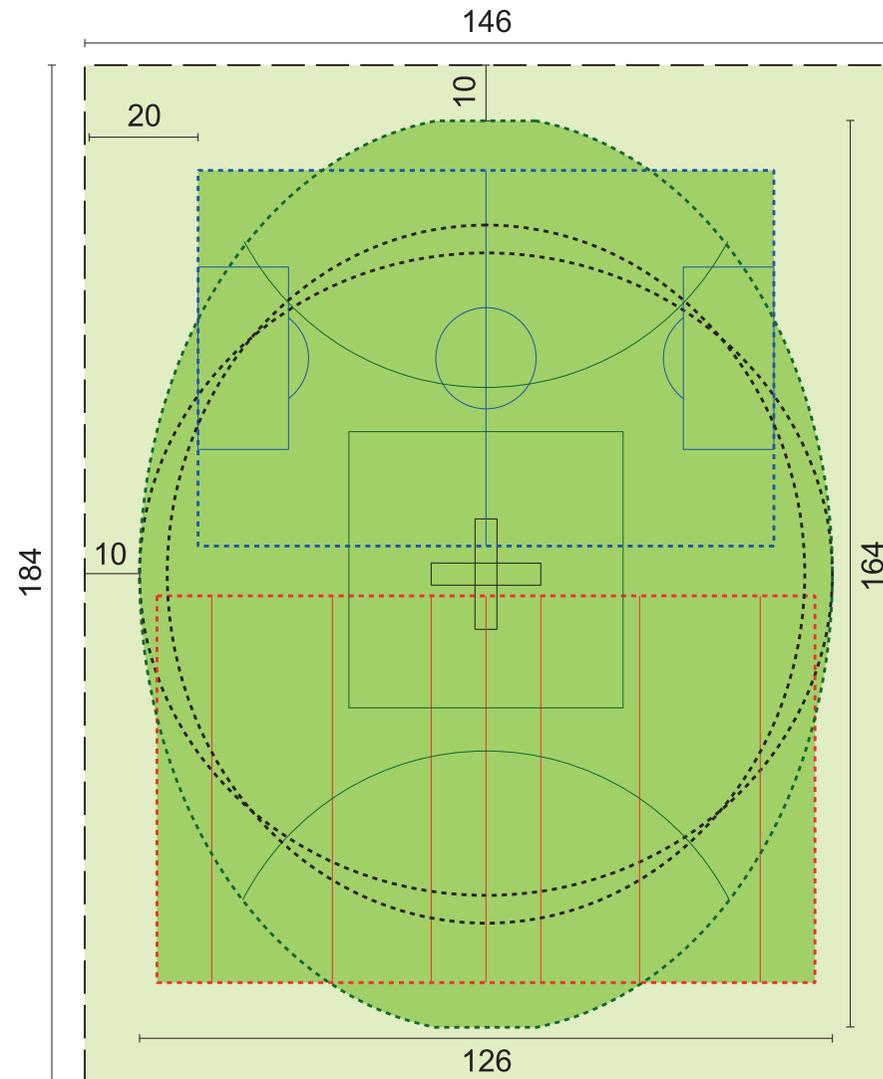
The City of Mandurah has recently developed an Active Open Space Model that provides flexible playing space for a combination of oval or square playing spaces. The Model was first designed and applied to the Dawesville and Southern Districts Active Recreation Strategy with the intent that it would be applied to all future planning related Strategies for the provision of Active Open Space in Mandurah.

Unlike the population provision benchmarks above from Curtin University research, the Active Open Space Model includes run-off areas in addition to the designated play space. Therefore a minimum area of 2.68 hectares of land is required for one Active Reserve Model.

This will ensure that the Strategy recommendations will more accurately reflect the appropriate land allocation for the delivery of active open space.

Note that the 2.68 hectares is exclusive of parking and other sporting and community infrastructure that may be appropriate depending on the classification of the active open space.

Figure 5 Active Open Space Model Template



Green:	AFL Senior Oval	(164m x 126m 1.64ha)
Black:	Cricket Senior Oval	(126m x 115m 1.23ha) (run parallel or perpendicular to AFL oval)
Blue:	Soccer Senior Pitch	(105m x 68m 0.71ha)
Red:	Rugby Senior Pitch	(120m x 70m 0.84ha)

TOTAL AREA INCLUDING EDGES 184m x 146m 2.68ha

2.6 Determining Demand and Need for Active Open Space

Table 4 Demand Provision (Population Based)

	2013 Population	2031+ Population	Notes
Population	80,683 people (ABS)	114,570 people (Forecast .id)	
Benchmarks	6.5m ² / person	6.5m ² / person	<i>Curtin University Benchmarks 2012 1.8ha per Active Reserve)</i>
Estimated active open space provision requirements	52.5ha playing space	74.5 ha Playing Space	
Actual Play Space	39.2ha	-	
Shortfall Hectares	13.3ha	36.2ha	
Actual No Active Open Space	23 Spaces		<i>Based Curtin University Benchmarks</i>
Shortfall Spaces	4.9 Spaces	13.5 Spaces	<i>Based on CoM Active Open Space Planning Model 2.68ha</i>
Recommended Future Provision		13 Active Open Space Models	

Mandurah Active Recreation Strategy

Part 3 Strategic Plan

3.1 Recommended Facility Provision

3.1.1 Regional Facility Planning

Within this Strategy, consideration must also be given to large scale regional facilities. In addition to considering active recreation facilities in Mandurah, the City must also be aware of the growing demand for facilities within the Peel Region.

Within the Draft South-Metropolitan Peel Sub-regional Planning Framework, recently released by the West Australian Planning Commission, Mandurah is considered a Strategic Metropolitan Centre. The Draft South-Metropolitan Peel Subregional Planning Framework covers an area of almost 5,000 square kilometres which includes the cities of Armadale, Cockburn, Gosnells, Kwinana, Mandurah and Rockingham, as well as the shires of Murray, Serpentine-Jarrahdale and Waroona.

The framework sets out proposals to identify sites to meet the growing requirements for regional sport and recreation facilities, among others, and as a Strategic Metropolitan Centre, Mandurah is expected to provide for central regional activities servicing a population of up to 300,000 people within its urban structure.

The hierarchy of facility provision outlined in the Mandurah Active Recreation Strategy focuses on the provision of district and local level facilities with a future regional facility proposed at Ravenswood (Fiegerts Road) within the Shire of Murray.

In 2010, the Peel Region Sport and Recreation Facilities Plan was reviewed by Coffey Commercial Advisory and found that the original recommendations of the 2002 Peel Facilities Study remained relevant.

The Plan states:

“There is a need within the Peel Region to establish a complex which can cater for a large number of sports and be the sporting focus for the region in the same way that Lark Hill provides a sporting hub for the City of Rockingham and Kwinana”

A 60 hectare site for a regional facility has long been identified in the Inner Peel Region Structure Plan (1997) located at the intersection of the Perth-Bunbury Highway (Peel Deviation) and Pinjarra Road.

The draft South-Metro Peel Subregional Planning Framework is consistent with this recommendation to develop regional facilities on this land, as Ravenswood will be considered a ‘specialised activity centre’ with the aim “to facilitate land for a clustering of activities that include regional sporting and tertiary education”.

The site is reserved as Regional Open Space, however no master planning for the site has been carried out to date. It is acknowledged that the development of the Ravenswood Regional Sports Facility will require a co-ordinated approach between federal, state and local governments.

Recent communications with the Department of Sport and Recreation and neighbouring local governments has seen the establishment of a working group that will focus on the forward planning of a regional sports facility in the Shire of Murray with acknowledgment that this will be a long term project. The City of Mandurah is committed to being actively involved with the project working group to progress with the planning of the Ravenswood Regional Facility.

Within the hierarchy of sport and recreation facilities, it is expected that a regional facility such as the Ravenswood Sports Facility will service the wider Peel Region, including Mandurah as the Strategic Metropolitan Centre as Lark Hill has provided for the City of Rockingham.

3.1.2 District and Neighbourhood Facility Planning

It is considered that a regional facility at Ravenswood will ensure that the Mandurah population has access to appropriate recreation space whilst the City will seek to maximise the opportunities within the municipal boundaries of Mandurah.

Active open space planning at a local level must consider industry standards of provision based on population nodes and facility catchments. Facility classifications such as district and neighbourhood will be determined not only by their catchment but by the space available and the number of active recreation models achieved.

For the purposes of this Strategy, existing areas of Active Open Space in Mandurah will be benchmarked against the Curtin University's minimum of 1.8 hectares being equal to one area of Active Open Space. This is to provide some guidance as to the practical use of existing Active Open Space and with acknowledgment that many of the existing areas of Active Open Space in Mandurah are unable to be extended, therefore achieving a minimum of 1.8 hectares is considered a good outcome.

However, in the forward planning of new areas of Active Open Space, the City will apply the dimensions of the Active Reserve Template (2.68 hectares) to ensure any new facilities clearly comply with the sports run-offs, therefore ensuring flexible use for all sports in any community.

The majority of active open space currently available in Mandurah is located on crown land that is managed by the City, however as previously mentioned, the City has entered into formal shared-use agreements with the Department of Education for the shared use, maintenance and provision of 7 school ovals.

This enables the City to increase its available active open space provision to the community by 10.7 ha from 27.9 hectares to 38.6 hectares. Unfortunately, most school ovals only accommodate junior sports therefore are not suitable for senior competition, however school ovals provide invaluable space for junior sport and senior training thus alleviating the pressure on the City's larger active reserves.

In 2013 the population of Mandurah, as per the Australian Bureau of Statistics was 80,683, and is forecast to reach 114,570 by 2031 (forecast id). As a result it is estimated that Mandurah will require 74.5 hectares of active playing space by 2031 based on Curtin University's recommended 6.5m² per person.

By applying the active reserve model dimensions of 2.68 hectares, the City needs to provide an additional **13 Active Open Space Models by 2031** to ensure adequate facilities for the community.

In planning for the additional 13 Active Open Space Models, the City needs to consider the distribution of its current facilities and where possible aim to develop new facilities where there are obvious gaps in the provision of active open space and where new suburbs are planned.

Consideration must also be given to the demographic of the population so that facilities are provided in areas where young families are expected to reside and with good transport links in the area. With financial consideration, it would be more cost effective for the City to, where possible, allocate active open space adjacent to new schools. This will provide the opportunity to negotiate shared use agreements, minimise land acquisition, avoid duplication of infrastructure and share maintenance costs.

3.2 Opportunities for Provision

The Dawesville and Southern Districts Active Recreation Strategy involved the identification of a number of undeveloped sites followed by the careful selection of 4 sites suitable for active recreation.

This was considered the most appropriate approach as there is a lack of planning for public open space and the reality that Dawesville and the Southern Districts has limited Active Open Space. As a result, the City now has a planning document to reference for active open space in the southern districts.

The objective of the Mandurah Active Recreation Strategy is to consider all previous active open space planning carried out by the City. This will entail the consolidation of approved planning documents that include the development of active open space, such as Local Structure Plans, Master Plans and Department of Education plans.

The consolidation of this information will inform the City of how many Active Open Space Models can be achieved through the implementation of existing plans and if the required 13 Active Open Space Models can be achieved.

The site selection for the provision of future active recreation models is based on the following objectives:

- equitable distribution across the study area (north to south and east to west);
- appropriate accessibility locally and at a broader scale;
- maximising opportunities for shared use with existing and proposed primary and high schools in the study area;
- positively contribute to local communities;

- maintain priorities for biodiversity strategic objectives and key environmental outcomes;
- sites that the City has opportunities to secure through existing or proposed land tenure (i.e. existing crown land or future developed land with public open space potential); and
- sites previously identified in Local Structure Plans, Master Plans or Department of Education School Development Plans.

3.3 Planning Considerations

Throughout the process of planning future active recreation facilities, it is important that consideration is given to wider planning fundamentals that may have a significant impact on the validity of the Project.

In planning for a further 13 active recreation sites in Mandurah consideration must be given to environmental management of the site, how the site will be irrigated and how both of these requirements will financially impact the Project during development and into the future.

3.3.1 Environmental Offsets

Each of the proposed sites within the Mandurah Active Recreation Strategy will be subject to an environmental assessment (where appropriate) and a recommendation made on whether clearing of bushland is required for development.

The City has carried out a provisional assessment of each of the proposed sites in the Mandurah Active Recreation Strategy and made recommendations for those that may require environmental offsets. This includes identifying a suitable parcel of land to be revegetated and budgeting the appropriate funds for both the clearing and revegetation element of the project.

Should bushland clearing be necessary, the City will be required to submit a clearing permit to the State Department of Environmental Regulation and if required make a referral to the Commonwealth Department of Sustainability, Environment, Water, People and Communities. These processes combined can take up to 10 months and at a potential cost of over \$7000 to the City. This does not include consultant fees which can equate to a further \$10,000 if required.

As previously mentioned, the City must consider an estimated cost of approximately \$30,000/hectare to action the required offsets with an additional \$10,000/year for monitoring and reporting of the site. These processes and costs must be factored into the planning and development timeframe for each site.

If a proposed revegetation site is not for the purpose of conservation, the City will also need to submit a change of purpose request to the Department of Lands for an amendment of the management order. This process can take 4-6 months and must be factored into the planning and development timeframe for each site. Refer to site specific tables for details on required offsets and locations.

In circumstances where a proposed site is currently owned privately, clearing will be required to be carried out by the developer prior to handing over to the City. This will be at cost to the developer and not the City, with no offset requirements subject to negotiations with individual landowners.

Similarly, if a proposed site is solely Department of Education land or Crown Land adjacent to a school that is proposed as a shared use site, the land can be cleared by the DOE without offsets being required and at a shared cost to the City and the Department.

3.3.2 Water Provision

It is essential that the City considers the long-term provision of an adequate and viable water source for each of the proposed sites identified in the Mandurah Active Recreation Strategy.

The City requires approximately 10,000KL of water per year for each hectare of active open space that requires irrigation and water can be sourced through various avenues such as;

- groundwater bore extraction
- recycling of waste water
- Storm water harvesting
- Desalination plant; or,
- use of scheme water

The City has carried out a provisional assessment of each of the proposed sites in this strategy and identified a potential water source for each site where appropriate. Refer to site specific tables for details.

3.4 Proposed Active Open Spaces

3.4.1 Endorsed Plans

Five active recreation sites have been identified across three Local Structure Plans approved for North and South Mandurah suburbs. These sites are detailed below.

- Ocean Road Primary School (1 space)
- Lakelands District Open Space (3 spaces)
- Meadow Springs North Primary School (1 space)

Ocean Road Reserve

Land Description

Reserve 49116 Ocean Road Dawesville

Tenure & Management

Crown Reserve & Department of Education School Site
(proposed shared use agreement)

Land Area

2.65 ha

Zoning / ODP / Master Plan

Florida Outline Development Plan

Water Source

Caddadup Waste Water Recycling Facility

Clearing Permit / Environmental Offsets

Requires 1.6ha of clearing and 3.56ha of offsets at Westbury Reserve

Notes and Information

Identified in the Dawesville and Southern Districts Active Recreation Strategy in 2014, the Ocean Road Primary School site can accommodate one Active Open Space Model of the recommended 13 in Mandurah. The Ocean Road PS Site was previously identified for active recreation and shared use in the Florida ODP.

As a priority site, funding has been confirmed and the detailed design has been finalised for this site. Construction to be completed in 2015/16.

Figure 6 Ocean Road Reserve – Detailed Design



Lakelands Sports Facility (District Open Space)

Land Description

Lot 9117 Mandurah Road/ Lot 101 Mandurah Road Lakelands

Tenure & Management

Existing Freehold (Private)
Proposed Public Open Space and School Sites

Land Area

10.5 hectares

Zoning / ODP / Master Plan

Lakelands Activity Centre Structure Plan

Water Source

Bore Licence for deep Leederville Aquifer. Application lodged.

Clearing Permit / Environmental Offset Strategy

Degraded site, however PEET Ltd will complete all required clearing prior to handover.

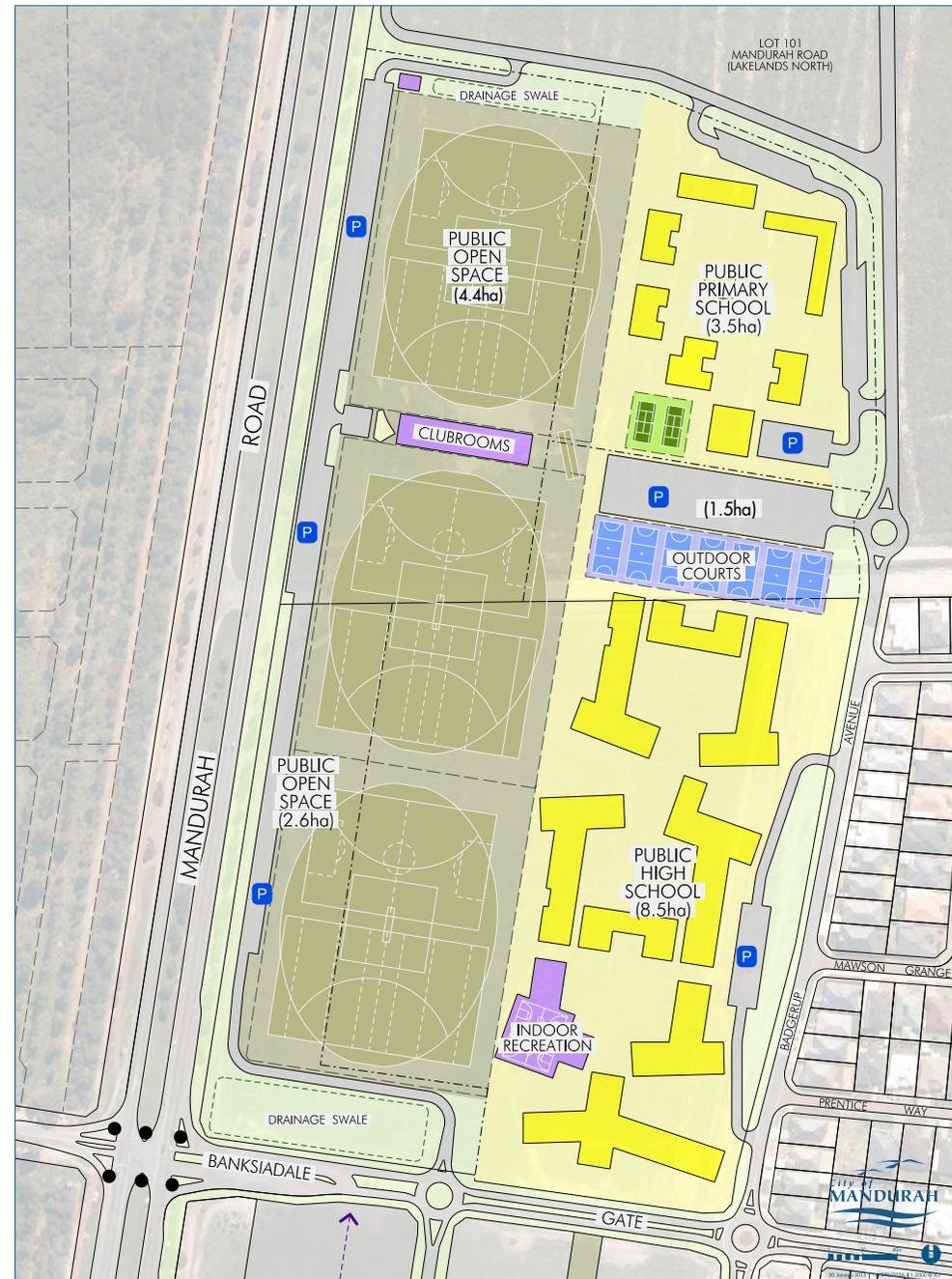
Notes and Information

Lakelands District Open Space is located in the City's northern suburbs.

The Master Plan was carried out in conjunction with the Department of Education and PEET Ltd in 2012 to maximise the use of the stakeholders combined land holdings to provide sport, recreation, and education infrastructure in the Northern District of Mandurah.

The updated Plan will accommodate three Active Open Space Models (District level facility).

Figure 7 Lakelands Recreation and Education Master Plan



Meadow Springs North Primary School

Land Description

Reserve 48180 & Lot 989 Broadstone Vista Meadow Springs

Tenure & Management

Crown Reserve & Department of Education School Site

Land Area

5.0 ha (POS & School Site Combined)

Zoning / ODP / Master Plan

Meadow Springs Outline Development Plan

Water Source

Gordon Road WWTP, Infrastructure required.
Water Corporation to develop infrastructure by 2027

Clearing Permit / Environmental Offset Strategy

To be cleared as part of site development by DOE

Notes and Information

Identified in the North Mandurah Structure Plan, the combination of crown land adjacent to a primary school site will provide the opportunity for shared use by the community. However, this site may be restricted in size due to existing infrastructure and therefore the template may be modified and not be suitable for senior competition

The site can accommodate one modified Active Open Space Model suitable for training and junior competition.



3.4.2 Draft Plans

In order to achieve the remaining 8 Active Reserve spaces recommended in this Strategy, the City has consolidated a number of sites that have been identified in one of the following categories:

- Identified in a draft Local Structure Plan
- Identified in a draft Master Plan
- Undeveloped land zoned 'Public Recreation' in the Town Planning Scheme

These sites are as follows:

- Calypso Reserve
- Caddadup Reserve
- Madora Bay North POS & Primary School
- Dawesville High School Site
- Dawesville South (Panorama Project) ODP Area
- Peel Education Campus
- 1 x Site - To be determined

Note: The City is yet to identify a final site to achieve the recommended 13 active recreation models. A further site will need to be identified into the future to ensure that the sport and recreation requirements of the community are met.

Calypso Reserve

Land Description

Reserve 27051 Calypso Road, Halls Head

Tenure & Management

Crown Reserve (Public Recreation)

Land Area

3.6ha

Zoning / ODP / Master Plan

Regional Open Space / Local Recreation

Water Source

Licence in place or Halls Head WWTP adjacent

Clearing Permit / Environmental Offset Strategy

Requires 3.6ha of clearing.
Proposed Offset Site – per approval by DER
(*Lot 100 McLarty Road under consideration*)

Notes and Information

Crown land located in Halls Head near central Mandurah. The site is vested with the City for Public Recreation and is currently undeveloped and minimally maintained for the purposes of passive recreation.

This site can accommodate one Active Open Space Model.



Caddadup Reserve

Land Description

Reserve 2851 Old Coast Road, Dawesville

Tenure & Management

Crown Reserve (Recreation and Foreshore Management)

Land Area

79.8ha (8.0 ha net area)

Zoning / ODP / Master Plan

Regional Open Space

Water Source

Recycled water reuse from Caddadup WWTP

Clearing Permit / Environmental Offset Strategy

Requires approximately 8 hectares of clearing.

Proposed offset site – per approval by DER.

The City is currently investigating a suitable offset site

Notes and Information

Identified in the Dawesville and Southern Districts Active Recreation Strategy as an opportunity to provide two Active Open Space Models (District Level Facility) of the recommended five within the Strategy.

Previously removed from the Caddadup Reserve Master Plan, however the Dawesville and Southern Districts Recreation Strategy makes recommendations to review the Master Plan with the inclusion of active open space as a priority.



Madora Bay North POS & Primary School

Land Description

Lot 100 Mandurah Road, Madora Bay

Tenure & Management

Existing Freehold (Private) - Proposed Shared Use Site

Land Area

Approximately 3ha

Zoning / ODP / Master Plan

Madora Bay North ODP

Water Source

Developer currently has water licence in place.
City to negotiate transfer of licence post development.

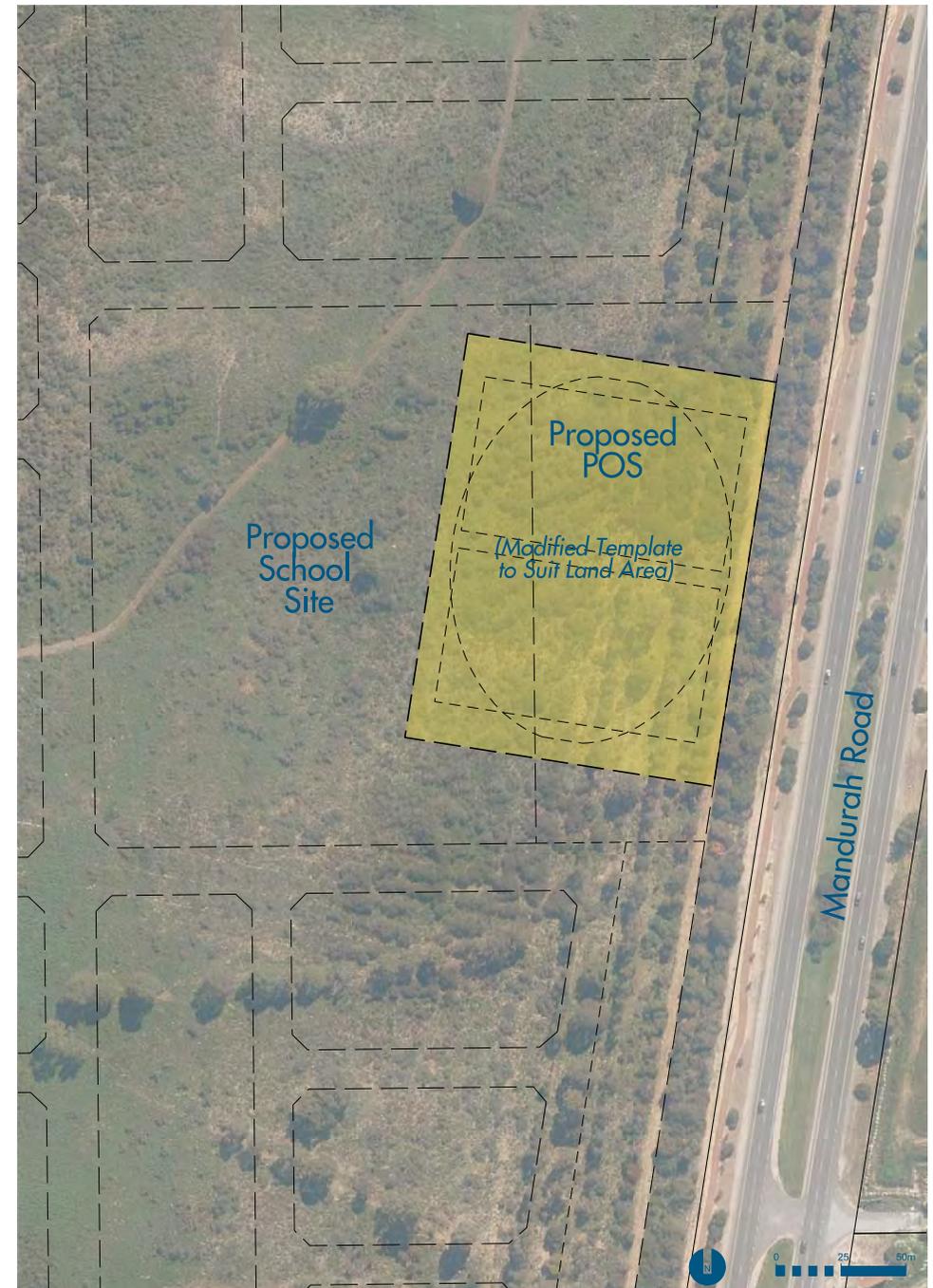
Clearing Permit / Environmental Offset Strategy

Land to be cleared by the developer prior to handing over to the City.

Notes and Information

Identified in the Madora Bay North Outlined Development Plan, the City has requested that a portion of the 10% allocation of POS, within the Madora Bay development, is adjacent to the proposed Primary School to enable the development of one Open Space Model.

The City will need to negotiate a shared use agreement to pursue use of the school grounds and would request input at the detailed design stage of planning.



Dawesville High School Site

Land Description

Lot 392 Bailey Boulevard, Dawesville

Tenure & Management

Freehold (Department of Education)

Land Area

8.0 ha

Zoning / ODP / Master Plan

Bailey Boulevard ODP

Water Source

Potential to pipe water from Caddadup Waste Water Treatment Facility – subject to Hydro Plan Assessment

Clearing Permit / Environmental Offset Strategy

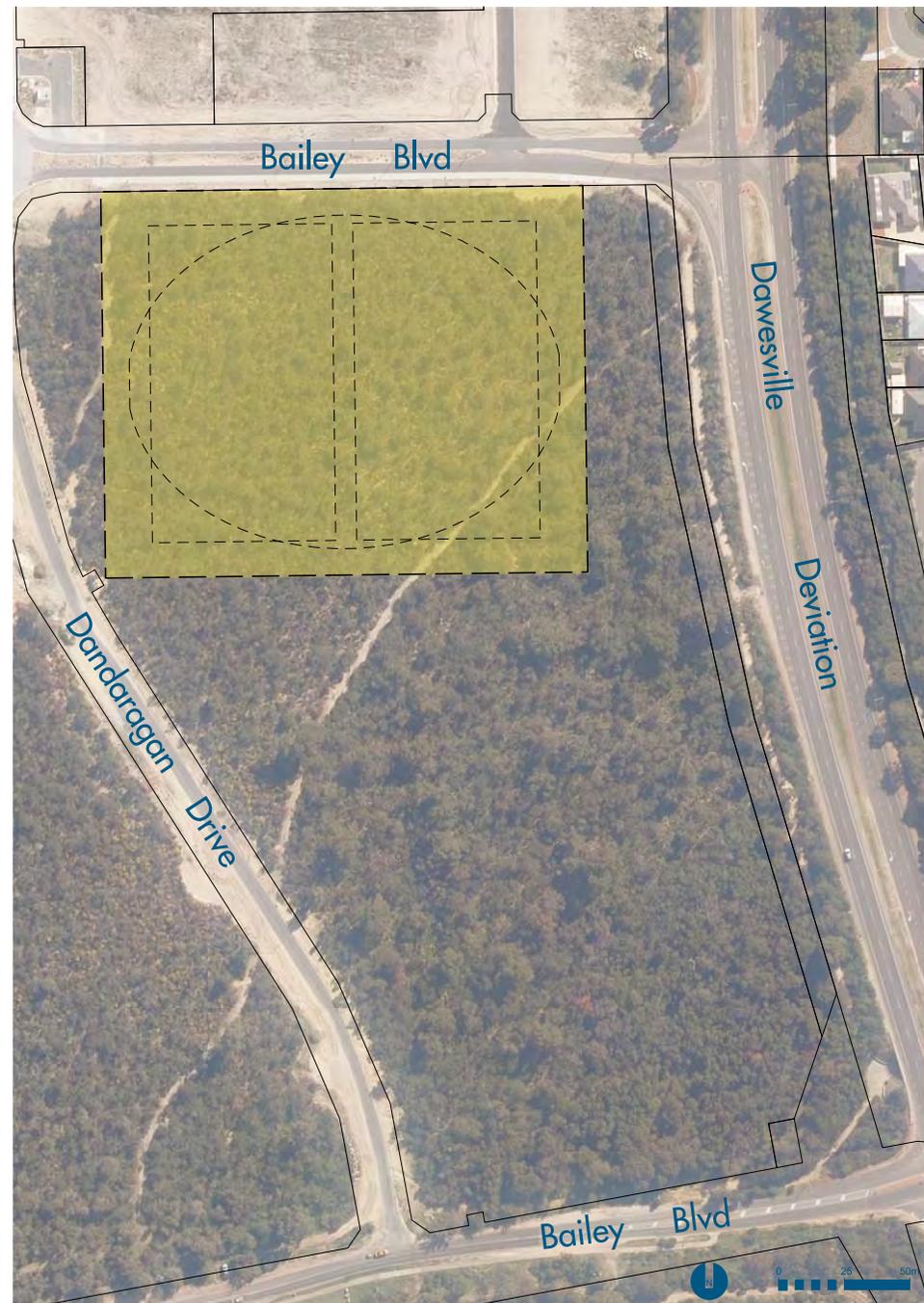
Clearing to be carried out by Department of Education

Notes and Information

Identified in the Dawesville and Southern Districts Active Recreation Strategy as an opportunity to provide one Active Open Space Model of the recommended five within the Strategy.

Dawesville High School has been previously endorsed within 'Lot 1 Dawesville Road' Outline Development Plan.

The City proposes to negotiate a shared use agreement with DOE to utilise school playing fields. City involvement during the planning stages of the active open space will be required.



Dawesville South (Panorama) ODP Area

Land Description

Lot 22 Old Coast Road Dawesville

Tenure & Management

Freehold (Private)

Land Area

Approximately 3ha

Zoning / ODP / Master Plan

None (Existing ODP requires update & modification)

Water Source

TBA – potential to access deeper ground water

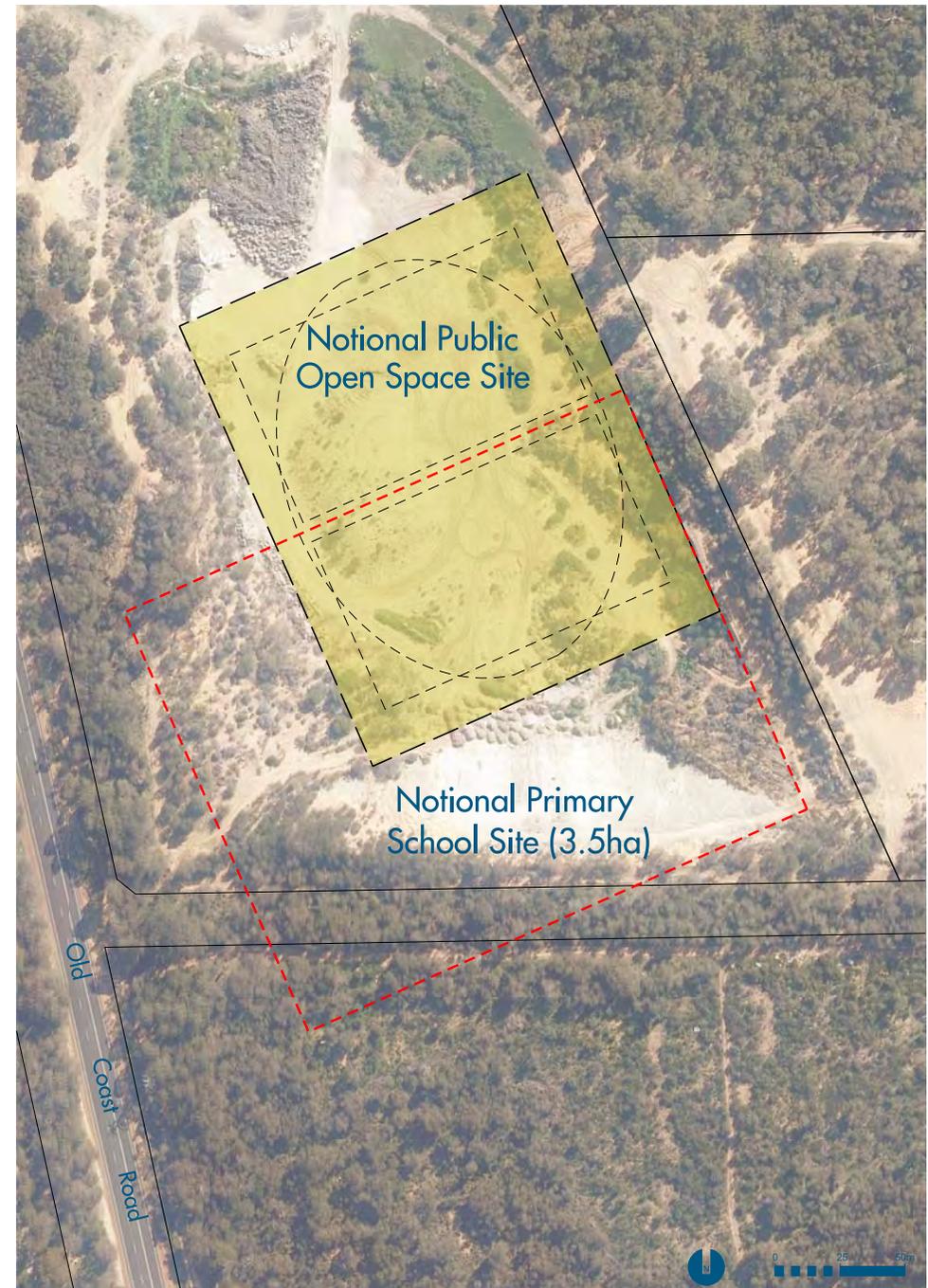
Clearing Permit / Environmental Offset Strategy

Degraded site, clearing and offsets not anticipated

Notes and Information

Identified in the Dawesville and Southern Districts Active Recreation Strategy as an opportunity to provide one Active Open Space Model of the recommended five within the Strategy.

The 'Dawesville South Outline Development Plan' identifies a proposed primary school site. With appropriate planning and allocation of POS adjacent to the school, the City has the opportunity to negotiate a shared use agreement with DOE over the adjoining parcels of land. The existing ODP requires amendments to identify appropriate POS north of the primary school



Peel Education Campus

Land Description

Reserve 45344 Education Drive, Greenfields

Tenure & Management

Crown Reserve (Department of Education)

Land Area

2.8ha

Zoning / ODP / Master Plan

Gordon Road Structure Plan

Water Source

Gordon Road WWTP adjacent to site. Infrastructure required

Clearing Permit / Environmental Offset Strategy

Degraded site, clearing and offsets not anticipated

Notes and Information

Previously identified in the Peel Region Sport and Recreation Facilities Plan in 2002 as a competitive ground for soccer, the PET campus site can accommodate one active reserve template.

This site, previously identified in the Gordon Road Structure Plan, is located on land vested with the Department of Training and Workforce Development. The proposed development of the site is subject to planning discussions with managing body.

Site can accommodate one Active Open Space Model



Table 5 Summary of Existing and Proposed Sites

		Area	Spaces	Tenure
Regional Facilities				
1	Rushton Park Sports Facility	9.0ha	3	Crown Reserve
*	Ravenswood Regional Sports Facility (Fiegerts Road)			
District Facilities				
A	Lakelands Sports Facility	10.5ha	3	Crown Reserve / School Site (Proposed)
2	Meadow Springs Sports Facility	6.3ha	3	Crown Reserve
3	Bortolo Reserve	4.5ha	2	Crown Reserve
4	Peelwood Sports Facility	6.5ha	3	Crown Reserve
5	Merlin Street Reserve (inc South Halls Head PS)	3.2ha	2	Crown Reserve / School Site
6	Falcon Reserve	1.8ha	1	Crown Reserve
B	Caddadup Sports Facility	8.0ha	2	Crown Reserve
Neighbourhood Facilities				
C	Madora Bay North PS	3.0ha	1	Crown Reserve / School Site
7	Coote Reserve (Madora Bay)	0.7ha	1	Crown Reserve
D	Meadow Springs North PS	3.0ha	1	Crown Reserve / School Site
8	Park Road Oval 1 & 2 (John Tonkin College / North Mandurah PS)	2.2ha	1	School Site
9	Tindale Reserve (John Tonkin College)	1.1ha	1	School Site
E	PET Campus	2.8ha	1	School Site
10	Fowler Reserve (Riverside PS)	1.5ha	1	Crown Reserve / School Site
11	Coodanup Community College	2.6ha	1	School Site
F	Calypso Reserve	3.6ha	1	Crown Reserve
12	Glencoe Reserve	1.1ha	1	Crown Reserve
13	Falcon PS	1.2ha	1	School Site
G	Northport Reserve	1.4ha	1	Crown Reserve
H	Ocean Road Reserve (inc Ocean Road PS)	2.65ha	1	Crown Reserve / School Site
I	Dawesville High School	3.0ha	1	School Site
J	Dawesville South (Panorama - inc PS Site)	3.0ha	1	Freehold (existing)

Figure 8 Proposed Active Recreation Facilities

- Regional Recreation
- District Recreation
- Neighbourhood Recreation

Regional Facilities
① Rushton Park Sports Facility
* Ravenswood Regional Sports Facility (Fiegerts Road)
District Facilities
Ⓐ Lakelands Sports Facility
Ⓑ Meadow Springs Sports Facility
Ⓒ Bortolo Reserve
Ⓓ Peelwood Sports Facility
Ⓔ Merlin Street Reserve (inc South Halls Head PS)
Ⓕ Falcon Reserve
Ⓖ Caddadup Sports Facility
Neighbourhood Facilities
Ⓒ Madora Bay North PS
Ⓙ Cooto Reserve (Madora Bay)
Ⓚ Meadow Springs North PS
Ⓛ Park Road Oval 1 & 2 (John Tonkin College / North Mandurah PS)
Ⓜ Tindale Reserve (John Tonkin College)
Ⓝ PET Campus
Ⓟ Fowler Reserve (Riverside PS)
Ⓠ Coodanup Community College
Ⓡ Calypso Reserve
Ⓢ Glencoe Reserve
Ⓣ Falcon PS
Ⓤ Northport Reserve
Ⓡ Ocean Road Reserve (inc Ocean Road PS)
Ⓢ Dawesville High School
Ⓣ Dawesville South Urban Development Area (inc PS Site)



Table 6 Proposed Sites Recommended Delivery

Priority / Site	Year	Justification
1 Ocean Road Reserve	2015/16	Identified in the City's 10 Year Capital Plan, the City has completed an environmental assessment of the Ocean Road Primary School site and prepared an off-set strategy in addition to confirming access to water for irrigation. Ocean Road is a high priority as there is currently only one junior school oval south of the Dawesville Cut.
2 Calypso Reserve	2016/17	Located in Halls Head, the development of an active reserve in Central Mandurah will offer an alternative training site for nearby Clubs and alleviate reduce the overuse of existing facilities at Merlin Street and Peelwood Reserve. Calypso has been identified in the City's 10 year Capital Plan.
3 Lakelands District Open Space	2018/19	Due to the considerable land developments in North Mandurah, the development of Lakelands District Open Space will provide facilities suitable for Clubs to operate and host competition for northern suburbs. The site has been master planned to share facilities with Lakelands Senior High School which is expected to open in February 2019.
4 Caddadup Reserve	2021/22	In order to accommodate the growing population in Mandurah's Southern Districts, the City aims to provide a District level facility in Caddadup Reserve, subject to a Feasibility Study and Environmental Assessment..
5 Madora Bay POS and Primary School	TBA	The time frame for an active reserve in Madora Bay is subject to the development timeline of the local primary school. There is currently no timeframe for this school. Once the Department of Education has determined a timeline for the development of the Madora Bay Primary School, the City can appropriately plan and identify funds in the 10 year Capital Plan.
6 Meadow Springs North Primary School	TBA	Meadow Springs North Primary School Oval will be developed in line with the opening of the Primary School and this will be determined by the Department of Education and subject to population need. As Meadow Springs, Lakelands and Madora Bay continue to grow, this active reserve will be required prior in the next 10-15 years.

Priority / Site	Year	Justification
7 Dawesville High School	TBA	The timeframe for the development of Dawesville High School Oval is currently undetermined and will be in line with the development and opening of the school led by the Department of Education; however the development of Ocean Road Primary School oval and a district level facility will alleviate the pressure for facilities in the southern districts. All recommendations in this Strategy are required by 2031 subject to population growth as predicted.
8 Dawesville South (Panorama Project) ODP Area	TBA	The timeframe for the development of the Panorama Project is currently undetermined, however the development of Ocean Road Primary School oval and a district level facility will alleviate the pressure for facilities in the southern districts. All recommended active reserves in this Strategy are required by 2031 subject to population growth as predicted.
9 Peek Education Campus	TBA	The development of senior sports facilities at the Peel Education Campus that will serve not only the Education Department but will alleviate the pressure on existing facilities in Greenfields and Coodanup as the population of these suburbs continues to grow. Further discussions with the PET and DOE is required to determine the long term plans and timeframe for the delivery of additional active open space on this site.
10 1 x Active Recreation Model	TBA	One additional site is yet to be determined. The City will pursue the identification of one additional site into the future in order to achieve the number of active reserve sites recommended in the Mandurah Active Recreation Strategy.

3.5 Active Open Space Facilities

In addition to the identification of new sites suitable for active open space, the City must also consider the core facilities required to make a site suitable for training and competitive fixtures if required. This may include facilities such as: parking, toilets, changing rooms, flood lights, kiosk and social space.

The recommended core facilities for active open space are dependent on the classification and function of a reserve.

Please see the table below for a guide to 'Active Open Space Core Facilities'.

It is recommended that the City complete a facility audit and ensure that appropriate planning is in place to upgrade facilities at existing active open space in accordance with the Active Open Space Core Facilities Guide and factor the above requirements into the forward planning of new facilities.

Table 7 refers to the core facilities for structured sporting activities (training and competition) only. In relation to community recreation and non-structured activities, the City has previously developed a guide for the 'Minimum facilities required by Park/Reserve function and hierarchy'. Developed by the City of Mandurah Landscape Services Team in 2012, the 'Minimum facilities required by Park/Reserve function and hierarchy' refers to all other infrastructure that may be found in an area of public open space which is not sport specific.

Therefore, when the City develops or upgrades Public Open Space that is intended for both recreational and structured sporting activities, consideration must be given to the core facilities required by sporting groups and the broader community. Please refer to appendix 3 for a copy of the 'Public Open Space – Stage 3 - Minimum facilities required by Park/Reserve function and hierarchy'. The development or upgrade of core facilities for the purposes of structured sport on active open space will be subject to budget availability in the City's capital budget and/ or external funding partners.

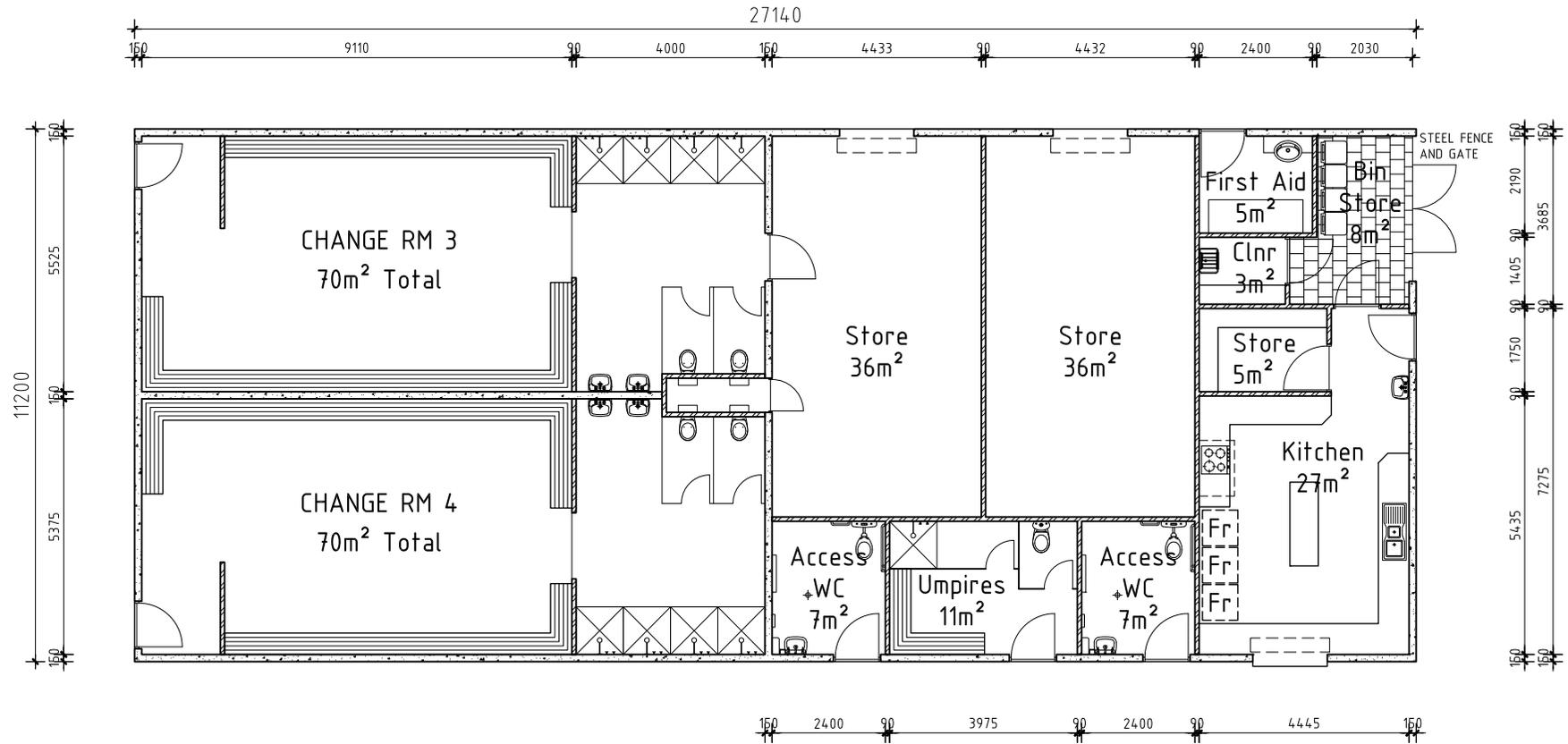


Table 7 Active Open Space Core Facilities Guide

Classification	Core Facilities	Sport Specific	Optional
Neighbourhood	Toilets Changing rooms x2 Storage (Small) Parking	Training nets Central Cricket Wicket Water/Power supply Goal posts	Flood lights(training) Shelters Kiosk
District	Toilets Changing rooms x 4 Storage (Large) Kiosk Flood lights (training) Disability toilet/umpires changing Parking Meeting Space Social space First Aid Room	Training nets Central Cricket Wicket Batting nets Water/Power supply Goal posts Jumping Pit Concrete circles	Kitchen Spectator seating Flood Lights (competition) Shelters
Regional	Toilets Changing rooms x 4 Storage (Large) Kitchen Flood lights (Training & Competition) Disability toilet/umpires changing First aid Social space Meeting space Grandstand Parking First Aid Room	Dugouts Race Wicket (Turf) Batting nets Water/Power supply Scoreboard Goal posts Jumping Pit Concrete circles Athletics Track & Run-ups	

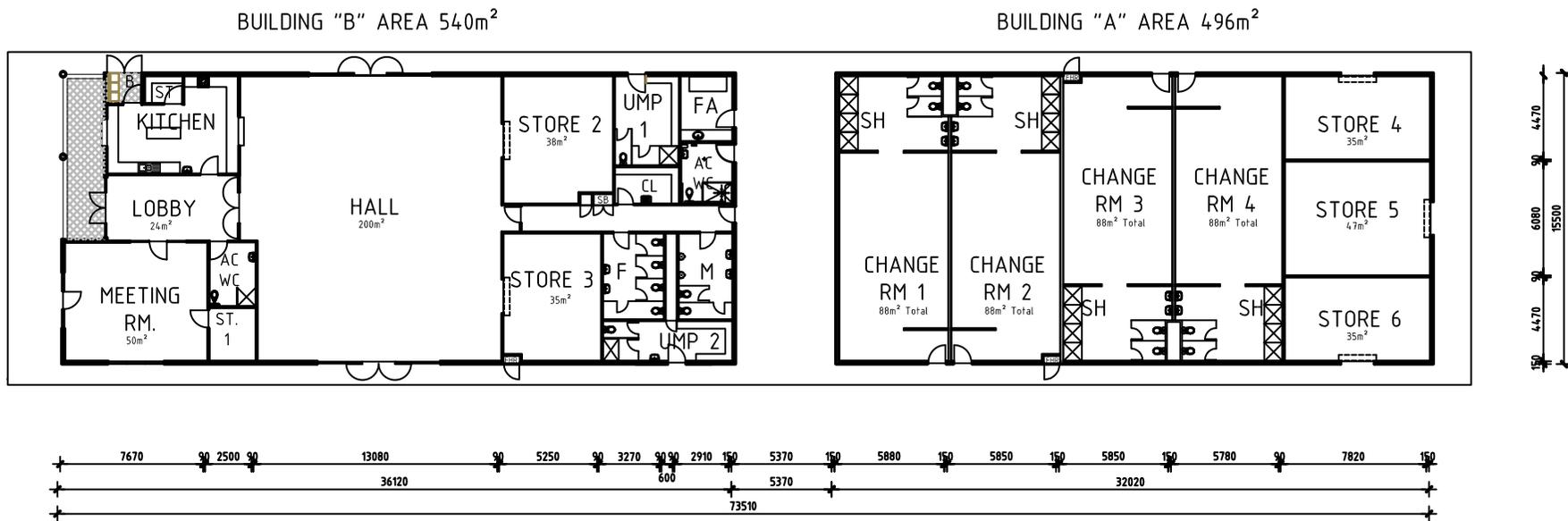
Figure 9 and Figure 10 give examples of a Neighbourhood and District level community sports facility. Each facility reflects the core elements expected in a facility of that classification based on the guide in Table 7. There is no example of a regional community sports facility provided as each individual facility is subject to varying design elements due to the wide range of needs, size and function of regional facilities.

Figure 9 Example of Neighbourhood Sports Facility



Plan Prepared by Holten Connor Architects and Planners
 Plan No 1415MLL; SK.01 Rev P01 Dated December 2014

Figure 10 Example of District Sports Facility



Plan Prepared by Holten Connor Architects and Planners
 Plan No 1415MLL; SK.01 Rev P04 Dated October 2014

3.6 Strategy Recommendations

Acknowledging the growing population in Mandurah over the next 10 years and the targeted growth areas, the following strategic outcomes are recommended for the provision of active open space and sporting facilities in Mandurah. Recommendations are in order of priority and reflect both capital and non-capital projects.

- 1. Develop an Action Plan and estimated delivery timeline for the implementation of proposed active reserves, including;**
 - Land Acquisition Strategy (where appropriate)
 - Feasibility Study/Business Plan
 - Internal/External Organisation Consultation
 - Environmental Assessment and Offset Strategy (where appropriate)
 - Water provision strategy
 - Community Consultation
 - Funding Model
 - Project Schedule with consideration of the 'Estimated Delivery Timeline's' identified in this Strategy
- 2. Develop a Shared Use Neighbourhood Sporting Facility at Ocean Road Primary School**

Extend the existing Primary School Oval to accommodate one active recreation model that will accommodate both school and community activities and develop appropriate infrastructure such as flood lighting, toilets, changing rooms and storage as core neighbourhood facilities.
- 3. Carry out a Facility Audit of existing Active Open Space** and make recommendations on the infrastructure required to activate the space in line with the minimum facilities standards established in the Mandurah Active Recreation Strategy. Funding required should be considered through the City's annual capital budgeting process and any further project specific funding to be identified through the City's 10 year capital budgeting process, with grants incorporated where possible.
- 4. Develop one active recreation model as a neighbourhood facility at Calypso Reserve in Halls Head.** Consideration to be given to additional core infrastructure in line with the minimum standards for a neighbourhood facility.
- 5. Develop a Shared Use District Sporting Facility in Lakelands**

Develop three active recreation models adjacent to the future proposed Lakelands Senior High School and proposed Lakelands North Primary School with appropriate core infrastructure that includes shared active open space, sports flood lighting and a community sports facility.
- 6. Review the Caddadup Reserve Land Use Master Plan** with consideration of a district level sporting facility that could accommodate two active recreation models and appropriate club facilities.

7. **Liase with the Department of Education planners** on future timelines for the development of the **Madora Bay Primary School, Meadow Springs North Primary School and Dawesville High School** with a view to develop active open space (where possible) adjacent to the schools and achieve one shared use active recreation model or a significant training zone for use by both the community and the school. Where there is no land available, such as Dawesville High School, the City is to pursue a shared use agreement with the Department of Education for access to school facilities under a shared use and cost arrangement.
8. **Liase with the Department of Training and Workforce Development** on a potential timeframe for the development of the active reserve adjacent to campus facilities with a view to pursue a shared use agreement with the Department of Training for access to active open space facilities under a shared use and cost arrangement.
9. **Pursue a Public Open Space allocation adjacent to proposed Department of Education Land within the Panorama Project** in Mandurah's Southern District, with a view to develop the land in consultation with the school to achieve a single active recreation model under a shared use agreement.
10. The City will work with other local governments and state and federal agencies to **plan for the development of the Ravenswood Regional Sports Facility** and to move towards the implementation of stage 1, within the next 10 years.
11. **Review the City's 10 Year Capital Plan** to ensure the inclusion of priority sport and recreation projects and that appropriate funds are allocated

Mandurah Active Recreation Strategy

Part 4 Appendices

4.1 References

1. Middle, G., Tye, M., and Middle, I., Active Open Space (playing fields) in a growing Perth-Pell: Implications of Bush Forever, Water Sensitive Urban Design and Liveable Neighbourhoods for active sporting recreation. A report for the Department of Sport and Recreation WA. Perth. September 2012
2. Classification framework for public open space: Department of Sport and Recreation
3. Public Parkland Planning & Design Guide (WA) Department of Sport and Recreation
4. Liveable Neighbourhoods: A Western Australian Government Sustainable Cities Initiative
5. Benchmarks for community Infrastructure, PLA Working Document. Parks and Leisure Australia, March 2012
6. Australian Bureau of Statistics
7. Social Infrastructure Plan 2013-43, City of Mandurah
8. Forecast id – The Population Experts

4.2 Classification Framework for Public Open Space (Department of Sport and Recreation)

Regional	
Purpose and Function	<p>Regional Open Space (ROS) may accommodate important recreation and organised sport spaces as well as significant conservation and /or environmental features.</p> <p>ROS may provide substantial facilities for organised sport, play, social interaction, relaxation and enjoyment of nature.</p> <p>ROS can assist to protect biodiversity conservation and environmental values through retention of bushland, wetlands and other natural features.</p>
Access	<p>ROS serves one or more geographical or social regions and is likely to attract visitors from outside any one local government area.</p> <p>Users not living within close proximity will use either private vehicles or public transport systems.</p>
Typical Size	Size is variable and dependent on function
Location and design	<ul style="list-style-type: none"> • ROS is allocated outside the structure planning process by the WA Planning Commission in consultation with local government. • Location of ROS is usually determined by resource availability and opportunities to utilise and/or protect the space • ROS should be well connected to major road and public transport networks. • Sports spaces allocated within ROS must have the capacity to accommodate required field dimensions for both junior and adult sporting competition and appropriate supporting amenity. • ROS should accommodate biodiversity principles and environmental management goals where possible
Activities	ROS should be large enough to accommodate various concurrent uses, including organised sports, children’s play, picnicking, bush walking, and protection of natural features.

District	
Purpose and Function	<p>District Open Space (DOS) is principally designed to provide for organised formal sport.</p> <p>DOS will very likely include substantial recreation space and some nature space.</p> <p>DOS design and function should consider biodiversity principles and environmental management goals</p>
Access	Within 2 kilometres or 5 minute drive
Typical Size	5 – 15 hectares
Location and design	<p>DOS should:</p> <ul style="list-style-type: none"> • Be located central to the catchment to maximise accessibility • Accommodate the recommended dimensions and supporting amenity for formal sport and recreation • Be located on district distributor roads with good passive surveillance • Be serviced by public transport networks • Include accessibility, safe pedestrian and cycling connectors. <p>DOS may also:</p> <ul style="list-style-type: none"> • Be collocated with a school or other community facilities to create a community hub • Provide a significant visual break in the urban environment, particularly along major thoroughfares • Assist to preserve local biodiversity and natural area values
Activities	<p>DOS may:</p> <p>Consist of sufficient space to accommodate a variety of concurrent uses, including organised sports, children’s play, picnicking, exercising the dog, social gatherings and individual activities.</p> <p>Include a combination of bushland, open parkland for casual play and space for organised sport.</p> <p>Accommodate multiple user groups, clubs and associations</p>

Neighbourhood	
Purpose and Function	<p>Neighbourhood open space (NOS) serves as the recreational and social focus of the community. Residents are attracted by the variety of features and facilities and opportunities to socialise.</p> <p>NOS may be used for junior sport or sports training if appropriate space is available</p>
Access	Within 800 metres or 10 minute walk
Typical Size	1ha to 5ha
Location and design	<p>NOS should:</p> <ul style="list-style-type: none"> • Be central to surrounding neighbourhoods • Include accessible, safe pedestrian and cycling connections • Form part of an overall pedestrian and cycling network to connect key destination points • Support good passive surveillance • Be responsive to natural features • Build on a sense of place • Assist to preserve local biodiversity and natural area values. <p>NOS may also:</p> <ul style="list-style-type: none"> • Be collocated with schools to create a community hub • Be large enough to enable different activities and uses to occur simultaneously
Activities	<p>NOS may include a combination of open parkland and bushland with activity spaces for casual play</p> <p>NOS may include sports facilities, depending on ability to accommodate desirable field dimensions and necessary supporting amenities</p>

Local	
Purpose and Function	<p>Local open space (LOS) is usually small parklands that service the recreation needs of the immediate residential population.</p> <p>LOS is primarily used for recreation and may include small areas of nature space.</p> <p>LOS is unlikely to be used for any formal or informal sport.</p>
Access	Within 400 metres or 5 minute walk
Typical Size	0.4 ha to 1ha**
Location and design	<p>LOS should:</p> <ul style="list-style-type: none"> • Be located within 5 minutes walk from surrounding residences • Include accessible, safe pedestrian and cycling connections • Form part of an overall pedestrian and cycling network to connect key destination points • Support good passive surveillance • Be responsive to natural features • Build on a sense of place • Assist to preserve local biodiversity and natural area values.
Activities	<p>LOS activities may include:</p> <ul style="list-style-type: none"> • Children’s play, dog walking, picnics, friends and family gatherings • Relaxation and rest spots • Casual team activities • Walking, running or cycling

4.3 Minimum Facilities by Park/Reserve Function (City of Mandurah, Public Open Space Review Stage 3)

Function	Hierarchy	Paths / access	Car parking	Bike parking	Fencing	Signage	Irrigation	Children's play activity	Open grass / kickabout area	Sport / physical activity facility	Lighting	BBQ cooking facility	Seating	Rubbish bin/s	Pavilion / Building	Shelter (open hard roof structure)	Shade (natural or built)	Drinking Fountain	Picnic table settings	Toilets	Power	Water (potable)	Outdoor shower	Public art
Organised sports	Regional	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	District	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Neighbourhood	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Unorganised sports / physical activity	Regional	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	District	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Neighbourhood	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Local	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Passive Recreation <i>(informal individual/group recreation - not water based)</i>	Regional	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	District	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Neighbourhood	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Local	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Community Purpose	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Water based Recreation <i>(Foreshore / Beach Reserves)</i>	Regional	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	District	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Play	Regional	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	District	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Neighbourhood	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Local	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Conservation <i>(flora and fauna)</i>	Regional	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	District	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Neighbourhood	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Local	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Access way/Linkage	Regional	✓		✓				✓	✓		✓		
	District	✓		✓				✓			✓		
	Neighbourhood	✓		✓				✓			✓		
	Local	✓		✓				✓			✓		
	Community Purpose	✓		✓							✓		
Events	Regional	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	District	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Neighbourhood	✓	✓	✓	✓	✓	✓			✓	✓		
	Local	✓	✓	✓	✓	✓	✓			✓	✓		
	Community Purpose	✓	✓	✓				✓		✓	✓	✓	✓
Relaxation/ contemplation	Regional	✓			✓								
	District	✓			✓								
	Neighbourhood	✓			✓								
	Local	✓			✓								
Building Surrounds	Community Purpose		✓	✓		✓		✓	✓	✓	✓		✓
Formal Garden	Regional	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
	District	✓	✓	✓	✓	✓		✓	✓	✓	✓		
	Neighbourhood	✓			✓					✓	✓		
	Local	✓			✓					✓	✓		
Cultural Heritage Protection	Regional				✓								
	District				✓								
	Neighbourhood				✓								
	Local				✓								
Cemetery/memorial	Regional	✓	✓		✓				✓	✓	✓	✓	✓
	District	✓	✓		✓				✓	✓	✓		
Possible future use	Regional				✓	✓							
	District				✓	✓							
	Neighbourhood				✓	✓							
	Local				✓	✓							
	Community Purpose				✓	✓							
Utilities and Services	No minimum facilities requirements												
Drainage	No minimum facilities requirements. Refer general Public Opens Space Design Requirements												
Landscape/Visual Amenity	No minimum facilities requirements. Refer general Public Opens Space Design Requirements												