

City of Nedlands

Public Open Space Strategy: Nedlands & Dalkeith



June 2024
LK Advisory Pty Ltd

The City of Nedlands and LK Advisory acknowledge the Traditional Custodians of the land to which this Strategy relates, the Whadjuk people of the Noongar Nation, and pay our respects to Elders both past, present and emerging.

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Part 1

Implementation



1 Introduction

This Public Open Space Strategy (Strategy) is confined to the suburbs of Nedlands and Dalkeith, which are the primary development and population growth localities in the City of Nedlands.

The Strategy is structured in two parts, as follows:

PART 1 – IMPLEMENTATION

This Part comprises Sections 1 – 9 and represents the Implementation component of the Strategy. It provides an overview of the research, analysis, findings, conclusions, and recommended actions for the provision and maintenance of Public Open Space (POS) in Nedlands and Dalkeith, to cater for the needs of the growing population.

PART 2 – BACKGROUND & ANALYSIS REPORT

This Part comprises Sections 10 – 15 and provides a detailed explanation of the background and analysis underpinning the Strategy, as summarised in Part 1.

2 Purpose

The City of Nedlands Public Open Space Strategy (Strategy) establishes a framework to guide the provision, use of and investment in parks and reserves in Nedlands and Dalkeith (Study Area) to 2050, to align with the strategic metropolitan planning framework. It considers the implications of population growth on the City's Public Open Space (POS) assets in these two suburbs and makes a series of specific, targeted and strategic recommendations to maintain and enhance the quantity, quality and accessibility of POS for the existing and growing population.

2.1 Vision

The City's 'Vision', established in its Strategic Community Plan – Nedlands 2028 (SCP), is:

“Our city will be an environmentally sensitive, beautiful and inclusive place.”

The SCP contains two specific objectives/strategies under 'Urban Form' for Recreation and Open Space as follows:

Strategic Community Plan – Objectives/Strategies

- Retain and enhance useability of existing Public Open Space and pursue opportunities for new Public Open Space in areas experiencing growth.
- Exercise flexibility for quality alternative public realms to be provided as part of significant development.



2.2 Strategy Objectives

The objectives of this POS Strategy are to:

1. Cost-effectively optimise existing public open spaces by aligning amenities and functionality with community expectations.
2. Identify, understand and address the impacts of new development and population growth on the open space network.
3. Identify opportunities to improve access to public open spaces by maintaining or enhancing residents' access and proximity to high-quality public open spaces in the context of a growing population.
4. Establish a road map to ensure all parks meet a minimum 'City of Nedlands Standard'.
5. Establish principles to identify and prioritise expenditure of cash payments in lieu of public open space that may be collected through the development process.

3 Community Value of Public Open Space

POS is a critical component of the urban fabric in Western Australian towns and cities and is valued by the community for its health, environmental, social and economic benefits.

...the effect of an absence of accessible open space is difficult to appreciate...

Stephenson and Hepburn Plan Report (1955)

The benefits of abundant and high-quality POS include:

1. Socialisation and Community Building:

Public open spaces provide opportunities for community members to gather, socialise, and build connections with one another. This can help to foster a sense of community spirit and belonging.

2. Physical and Mental Health:

Access to green spaces can improve physical health by providing opportunities for physical activity, such as walking, cycling, and playing sports. Green spaces also have positive effects on mental health, including reducing stress and improving mood.

3. Improved Safety:

Public open spaces can provide natural surveillance that can improve community safety by deterring crime and providing a safe place for people to gather.

4. Cultural Identity:

Public open spaces play a role in shaping the cultural identity of a community by providing unique character and sense of place. This can help foster a sense of pride and connection to the community among its members.

5. Access to Nature:

Green spaces provide access to nature, which can improve overall well-being and make individuals feel less stressed.

6. Economic Benefits:

Public open spaces bring economic benefits to a community by attracting visitors, improving property values and supporting local businesses.

4 Literature Review

The Strategy is based on a comprehensive review of relevant legislation, strategies, policies, plans and data, including other local government POS strategies in the region, as listed in **Appendix 1**.



5 Purpose and Relationship to other City Documents

The Strategy serves as a mechanism to prioritise future investment and development of the City’s parks and reserves through ongoing engagement with the local community. The Strategy is part of the City’s Integrated Planning and Reporting Framework which includes the Strategic Community Plan, Corporate Business Plan, Asset Management Plan(s), Workforce Plan, Long Term Financial Plan and Annual Report.

The Strategy does not negate the City’s responsibility to maintain and/or upgrade parks and associated assets to meet the needs of its population, as described in the City of Nedlands Asset Management Strategy – Parks 2023-2025 and other Asset Management Planning documents.

Furthermore, the Strategy acknowledges the City is preparing enviro-scape masterplans that consider water quality and conservation (hydro-zoning, eco-zoning), the natural and built environment and climate change, along with accessibility, amenity, and community use to ensure parks and related facilities are fit for purpose.

The City has already completed enviro-scape masterplans for four parks¹ and aims to complete two further enviro-scape masterplans each year over the coming financial years, including for Masons Gardens, College Park, Melvista Park, Genesta Park and Grainger Reserve which are all within the study area.

The Strategy should inform the content of the new enviro-scape masterplans and assist the City in deciding whether it is necessary to review any of the existing enviro-scape masterplans.

¹ Bishop Road Reserve, David Cruikshank Reserve, Carrington Park, and Point Resolution Reserve.

6 Summary of Public Open Space in Nedlands and Dalkeith

The Strategy is based on a comprehensive audit conducted in December 2022 to quantify the location, size and amenity of all POS in Nedlands and Dalkeith. The audit captured 31 parks and reserves of varying sizes and classifications, as summarised in Table 1 and Figure 2 (in Part 2). The parks and reserves are classified according to the City’s Parks and Reserves Hierarchy and Functions Classifications set out in Table 6 and Table 7. The audit is based on a range of sources, including the Parks and Leisure Australia Western Australia (PLA WA) Mapping Portal, Local and Metropolitan Region Scheme reserves, various City resources, visual inspection and aerial photography.

Table 1 - Number & Type of Parks by Suburb

Suburb	Local	Neighbourhood	District	Total
Nedlands	7	4	3	14
Dalkeith	8	7	2	17
Total	15	11	5	31

Table 1 and Table 2 demonstrate there is more POS in Dalkeith than in Nedlands. However, Nedlands is larger than Dalkeith, has a larger population, and contains substantially more development growth areas than Dalkeith. Additionally, while the amount of POS accounts for 9.52% of the gross area of both suburbs, which is close to the 10% nominal POS requirement, Dalkeith benefits from almost double the proportion of POS than Nedlands.

Table 2 - Distribution of POS between Nedlands and Dalkeith

Suburb	Local (ha)	Neighbourhood (ha)	District (ha)	Total (ha)	% of suburb
Nedlands 479 ha	1.1558	9.592	23.8555	34.6033	7.22%
Dalkeith 296 ha	2.6904	21.071	15.469	39.2304	13.25%
Total	3.8462	30.663	39.3245	73.8337	9.52%

The vast majority of POS is either reserved as Public Open Space under the City’s Local Planning Scheme or Parks and Recreation under the Metropolitan Region Scheme (MRS). Some POS is, however, reserved as Parks and Recreation (Restricted), Local Road, Public Purpose (Recreation), or not reserved at all.

POS provision in Dalkeith is generally higher than in surrounding Local Governments while Nedlands performs relatively poorly on this metric, noting source information varies significantly, as shown in Table 3. However, increased population growth in Nedlands will significantly reduce the amount (hectare) of POS / 1,000 persons if no additional POS is provided. This highlights the importance of not only improving the quality of POS in Nedlands but also increasing the quantity and distribution of POS.

Table 3 - POS Provision (Ha / 1,000 persons) comparison with other Local Governments and the suburbs of Nedlands and Dalkeith

Local Government/Study Area	Ha POS / 1,000 persons ²	Ha POS / 1,000 persons PLAWA Community Guidelines Report (2020)
City of Perth	11.46	7.72
Dalkeith (Ha POS /1,000 Persons)	9.28	
Town of Cambridge	7.54	6.70
City of Stirling	4.38	4.11
City of Bayswater	4.24	4.08
Nedlands (Ha POS /1,000 Persons)	3.5	
City of Subiaco	3.42	3.54
City of Vincent	3.37	2.59

6.1 POS Amenity

It is not enough to simply acquire, reserve and set aside land for POS. Parks and reserves must also be developed and maintained on an ongoing basis in alignment with the needs and expectations of the local community.

In addition to reviewing the areas, classification and distribution of POS, the audit process captured quantitative data on playgrounds, lighting, usable turf, and other amenities such as bins, toilets, clubrooms and drinking fountains. This enables comparison and analysis of the provision of these amenities by any number of groups, categories, and metrics and on a park-by-park basis. To simplify this complexity, the Strategy uses the quantity of these items and a weighting factor to calculate an 'Amenity Score' for each POS, as shown in Table 4 (over page).

Generally, POS with an amenity score of less than 50 could be improved with additional assets, subject to the physical constraints of the park. Accordingly, any parks/reserves that score less than 50 should be investigated to provide additional assets to improve their amenity score to at least 50, based on specific consultation with user groups and nearby residents.

In general terms, due to the shortage of POS in Nedlands, and in particular the shortage of high amenity POS, at least four specific parks in Nedlands should be prioritised for additional and/or upgraded amenities in the short term. All remaining parks with an amenity score below 50 should also be considered for additional and/or upgraded assets, based on close engagement with the local community.

Some larger POS outside of the study area, such as Allen Park, is of regional importance and therefore generates a larger catchment that includes suburbs in the study area. Subject to Minister approval, it may be appropriate to expend cash-in-lieu funds collected in Nedlands and Dalkeith in Allen Park, on the basis that residents in those suburbs benefit, at least in part, from those upgrades.

²According to UWA research included within the City of Vincent POS Strategy 2018.

Table 4 - Amenity Score for each Park

Public Open Space	Classification	Total area (ha)	Amenity Score
Goldsmith Reserve	Local	0.0660	4
Granby Park	Local	0.0580	6
Little Park (Aberdare Rd)	Local	0.017	7
Memorial Light	Local	0.038	9
Shirley Fyfe Park	Local	0.327	16
Nedlands Park	Local	0.506	16
Birdwood Parade Reserve	District	7.137	17
Karella Park	Local	0.104	18
Campsie Park	Local	0.110	26
Leura Park	Local	0.046	29
Brockman Reserve	Local	0.395	30
Genesta Park	Local	0.251	32
Otto Point Reserve	Neighbourhood	2.115	33
Beatrice Road Reserve	Local	0.482	38
Birdwood Park	Neighbourhood	1.010	38
Paul Hasluck Reserve	Neighbourhood	4.725	39
Blain Park	Local	0.250	42
Hollywood Reserve	District	6.411	43
Bishop Road Reserve	Local	0.881	49
Dot Bennett Park	Neighbourhood	1.139	56
Carrington Park	Local	0.315	71
Peace Memorial Rose Gardens	Neighbourhood	1.670	72
Melvista Park	Neighbourhood	4.740	84
Point Resolution Reserve	District	8.332	87
Sunset Dalkeith	Neighbourhood	2.022	95
Highview Park	Neighbourhood	2.043	100
David Cruickshank Reserve	Neighbourhood	5.426	112
Mason Gardens	Neighbourhood	3.159	117
Charles Court Reserve	District	7.700	169
College Park	District	9.744	172
Beaton Park	Neighbourhood	2.614	187

6.2 Public Open Space Gap Analysis

The standard ratios in the Parks and Leisure Australia Community Facility Guidelines 2020 (PLA Guidelines) enable a clear POS gap analysis to be undertaken for Nedlands and Dalkeith under certain growth scenarios, as shown in Table 5 below.

Table 5 - Gap Analysis

Nedlands	POS type/asset (standard)	Current Population (9,886)	Natural growth – 2050 (11,242)	Likely growth – 2050 (18,569)
	Local Parks (1:1,000 persons)	9 parks 2 new parks required	11 Parks 4 new parks required	18 parks 11 new parks required
	Neighbourhood Parks (1:5,000 persons)	4 parks No additional assets required	4 parks No additional assets required	4 parks No additional assets required
	District Parks (1:15,000 – 25,000 persons) / Sports space	3 District POS No additional assets required	3 District POS No additional assets required	3 District POS No additional assets required
	Playgrounds (1:2000 persons)	4 playgrounds No additional assets required	5 Playgrounds No additional assets required	9 playgrounds 1 new playground required

Dalkeith	POS type/asset (standard)	Current Population – 2021 (4,219)	Natural growth – 2050 (4,864)	Likely growth – 2050 (5,044)
	Local Parks (1:1,000 persons)	8 parks No additional assets required	8 parks No additional assets required	8 parks No additional assets required
	Neighbourhood Parks (1:5,000 persons)	7 parks No additional assets required	7 parks No additional assets required	7 parks No additional assets required
	District Parks (1:15,000 – 25,000 persons)	2 District POS No additional assets required	2 District POS No additional assets required	2 District POS No additional assets required
	Playgrounds (1:2000 persons)	2 playgrounds No additional assets required	2 playgrounds No additional assets required	2 playgrounds No additional assets required

The gap analysis demonstrates that there is an existing and rapidly expanding gap in Local POS provision in Nedlands, which is consistent with the observations in the City's Local Planning Strategy. Nedlands is currently undersupplied by two local parks and needs two additional local parks (four in total) to meet the needs of natural population growth by 2050. However, 11 new local parks are required to cater for the additional population directly associated with development areas in Nedlands.

Accordingly, over the coming three decades, the City should aim to provide 11 new local parks in Nedlands, prioritised as follows:

- 1. In areas that are currently not within a 400m walkable catchment of any POS; and
- 2. In areas that are currently not within a 400m walkable catchment of Local POS.

The provision of new parks can be undertaken through land acquisition, on or off-market, and through the conversion of one or more well-located drainage sumps to underground storage with POS landscaping on the surface or even the conversion of some road segments to POS. There are no additional POS requirements in Dalkeith, except in some cases to enhance existing POS to increase its amenity score.

7 Acquisition and Development of Public Open Space

The City can use cash-in-lieu funding to acquire land for 11 new local-sized parks outside of existing POS catchments in Nedlands. Cash-in-lieu can also be used to develop/landscape new POS in alignment with community expectations and as limited by clause 4.3.9 of the WA Planning Commission's (WAPC's) Development Control Policy 2.3 to achieve a minimum amenity score of 50 – noting that expenditure of cash-in-lieu on these items is subject to Ministerial approval. Any gap, shortfall, or ineligibility to use cash-in-lieu funds may be substituted with municipal funding.

The City needs to secure \$63,913,750 in cash-in-lieu funding over the coming three decades to 2050 to service the needs of its growing population to 2050 with additional and higher amenity POS. This equates to an average of ~14,788/dwelling (assuming 4,322 additional dwellings are created) or 6.61% of the value of land that is likely to be developed during this time. Accordingly, the Strategy proposes to reduce the current cash-in-lieu of POS requirement to pay 10% of the subdivisible land, to 5% for the creation of 3-5 lots and 7% for the creation of 6 or more lots instead. This recognises the need and nexus between the cash-in-lieu POS funding that needs to be collected and the demand for POS generated by new developments and population growth. The tiered system also recognises that higher cash-in-lieu percentage on small subdivisions may negatively impact housing affordability for small developers.

Furthermore, it is recommended that, as a matter of course, the City recommends a condition requiring a POS contribution on all subdivision applications in Nedlands and Dalkeith that propose to create three or more lots, recognising there is an existing deficiency of POS in Nedlands and proposals to create five lots or fewer are likely to eventuate in the locality due to an abundance of R40 and R60 coded land.

³Refer to Part 2 - Background & Analysis Report

The City should only accept cash-in-lieu of POS in circumstances where ceding 10% of the subdivisible land would be insufficient to be of practical use, or in a location that is already well-served by POS. In circumstances where cash-in-lieu may be accepted, the WAPC's standard subdivision condition R3 b) should be amended to only require cash-in-lieu payment equivalent to 5% or 7% (not 10%) of the value of the land, as this will raise sufficient funds to both acquire and landscape additional land for POS in Nedlands to meet the needs of its growing community to 2050.

As far as practicable, this approach minimises the cost and impact of POS provision on new developments, while still raising the funds needed to acquire and develop new POS in growth areas. Larger development projects in areas already reflecting a POS deficiency will still need to cede 10% of the land where it would yield an area of POS that is of practical use to the community and in a location that fills an existing POS gap.



8 Conclusion

As the City of Nedlands continues to experience significant population growth, there is a need to establish a clear road map to resolve the existing and growing gap in POS accessibility within the study area. This Strategy addresses this gap by:

1. Identifying a growing deficit in local public open space and the high likelihood that subdivision proposals creating 5 lots or less are likely to occur throughout Nedlands and Dalkeith;
2. Acknowledging that in many cases 10% of the subdivisible lot area will be too small to be of practical use and in these cases, the City may accept cash-in-lieu of land for POS;
3. Activating the entitlement to impose an obligation to provide POS, or pay cash-in-lieu thereof, for subdivisions that propose to create three or more lots (instead of six or more lots);
4. Acknowledging that a requirement to pay cash-in-lieu of POS equivalent to 10% of the value of the land could have unintended and undesirable consequences and would yield more funding than necessary to acquire and deliver POS to an acceptable standard for the City’s growing population. Where payment of cash-in-lieu of POS is justified, the payment amount is proposed to be reduced to 7% of the value of the subdivisible land for creation of 6 or more lots, and for 5% POS contribution for 3-5 lots;
5. Establishing a framework to guide the acquisition of land for Local POS in Nedlands;
6. Providing a roadmap to inform the City’s expenditure on improving the amenity of its parks and reserves;
7. Providing a comprehensive suite of strategies, actions, and opportunities to leverage in the pursuit of better POS accessibility in a growing community.

The Strategy is based on a comprehensive POS audit and aims to guide the provision, use of, and investment in parks and reserves in alignment with estimated population growth. The full list of recommended actions is provided in Section 9 and includes an assessment of the Impact, Ease, Affordability, Immediacy and Alignment of each Action, for the City’s ease of prioritisation.



9 Actions and Strategies

Action	Assessment					Comments/Recommendations
	Impact	Ease	Affordability	Immediacy	Alignment	
1. Adopt and commence implementing Local Planning Policy 7.7: Public Open Space Contributions which, in some circumstances, permits payment of cash-in-lieu of land for public open space at a rate of 5% (for 3-5 lots) or 7% (for 6 or more lots) of the value of the land for all applications that propose to create 3 or more dwellings or lots and incorporate this local POS strategy into the City's Local Planning Strategy.	✓	✓	✓	✓	✓	<div><div>a. This is a critical action that facilitates the collection of cash-in-lieu at a fair and appropriate rate that aligns with the need and nexus between new development and the demand it generates for new POS.</div><div>b. Ensure the policy guides the imposition of advice notes on development applications that propose to create 3 or more dwellings or lots, advising the applicant of the requirement to pay cash-in-lieu of POS through the subdivision process, including built strata subdivision.</div><div>c. Ensure the policy articulates that the opportunity to pay 5% or 7% (depending on number of lots) of the value of the land is only applicable in circumstances where ceding 10% of the land subject to a development and/or subdivision would be insufficient to be of practical use or within a location that is already well serviced by POS. In general terms, larger development sites in an area where there's a deficiency in POS should cede land for public open space, providing 10% of the land yielded will be of practical use for public open space.</div><div>d. Where the policy provisions are applicable, the City will request the Commission insert 5% (for 3-5 lots) or 7% (for 6+ lots) of the value of the land (instead of 10%) and apply model subdivision condition R3 b), recognising that collecting 5% or 7% of the value of the land will raise sufficient funds to both acquire and landscape additional land for POS in Nedlands to meet the needs of its growing community.</div></div>
2. Create a cash-in-lieu reserve account and prepare a Land Asset Optimisation Strategy to provide POS in strategic locations where gaps have been identified within the network and leverage any and all opportunities to secure land for POS in priority areas.	✓	✓			✓	<div><div>a. Create a POS Acquisition and Development Reserve Fund.</div><div>b. As cash-in-lieu funding becomes available, use it to purchase land either directly or by capitalising on suitable open market opportunities for new Local sized (~1,816m²) POS in areas outside of a 400m catchment of any POS as a priority and areas outside the 400m walkable catchment of Local POS as a secondary priority.</div><div>c. The typical lot size in areas that are currently not within a 400m walkable catchment is ~800-1000m², which in isolation or in combination with another adjoining lot will be suitable to fill the gap in POS, and typically cost in the order of ~\$2,124m² in Nedlands.</div></div>
3. Convert at least three drainage sumps that are well located to cost-effectively fill gaps in the City's POS network to underground storage and redevelop the surface as parks with a minimum amenity score of 50 using cash-in-lieu funds (subject to Minister approval), similar to the 'Sumps to Parks Project Example' included as Appendix 2 in the City's Community Benefits and Infrastructure Contributions Report (February 2022).	✓	✓	✓	✓	✓	<div><div>a. Subject to further high-level feasibility analysis, the City should convert sumps to parks at least as follows:<div><div>▪ North of Stirling Highway and West of Ord Street;</div><div>▪ South of Stirling Highway and West of Marita Road; and</div><div>▪ The sump on Dalkeith Road between Princess Road and Jenkins Avenue.</div></div></div><div>b. Purchase an additional lot adjacent to each sump to ensure an appropriately sized parcel of land for POS.</div></div>
4. Subject to the outcomes of engagement with the community, use a combination of cash-in-lieu funding (subject to Minister Approval) and municipal funds (where works are not eligible for cash-in-lieu funding) to develop land purchased for new Local Parks to an acceptable level of amenity.	✓		✓		✓	<div><div>a. Engagement with the local community is critical to the installation of amenities that meets the needs of the community.</div></div>
5. Improve the amenity of all parks in alignment with the outcomes of engagement with local community members. Note some works/amenities may be eligible for cash-in-lieu funding, subject to Minister approval.		✓		✓		<div><div>a. Prioritise parks and reserves in Nedlands that have poor levels of amenity.</div><div>b. The City may apply to the Minister to spend cash-in-lieu funds to update amenities in Allen Park, on the basis of its significant size, exceeding 15ha. It can therefore be classified as Regional Open Space, which has a large catchment inclusive of the suburbs of Nedlands and Dalkeith.</div></div>
6. Take steps to ensure the community can access local school ovals and other amenities after hours.			✓		✓	<div><div>a. Note this action may require a financial commitment to share the cost to maintain the turf and gardens.</div></div>
7. Develop a Payment-in-lieu of Parking Plan (PLPP) to facilitate the collection of payment-in-lieu of parking and guide the expenditure of this additional funding to enhance the public realm (streetscape) for improved walkability, bicycle and public transport access and to provide/maintain public parking infrastructure.		✓				<div><div>a. While this does not directly facilitate the delivery of POS, it does facilitate the delivery of an improved public realm in the vicinity of growth areas. Funding collected can be used to undertake streetscape upgrades, widen footpaths, tree planting, landscaping, street furniture and installing small parklets. These interventions will improve walkability and can be carefully designed to realign the look and feel of the public realm with the ongoing transition to a higher-density urban environment.</div></div>
8. Investigate opportunities to improve POS accessibility by improving movement for pedestrians across Stirling Highway.		✓	✓		✓	<div><div>a. This may be implemented through a separate planning instrument such as a structure plan or precinct plan that manages development along Stirling Highway.</div></div>
9. Investigate the closure of Loretto Primary School and any emerging opportunity through its subsequent redevelopment to secure high-quality POS in an ideal location to fill a gap in POS accessibility.		✓	✓			<div><div>a. While the land is already subdivided, but will likely require further subdivision and/or amalgamation or lot realignment prior to development, which will trigger a POS contribution.</div></div>
10. Investigate opportunities to close roads at or adjacent to intersections to create new POS (in areas where POS accessibility is lacking) where it will not unduly disrupt traffic flows or vehicle access to private properties.	✓				✓	<div><div>a. There are several examples of this having been done successfully in other parts of Perth, including – Reddings Reserve in Palmyra, formerly Baal St, between Solomon St and Cleopatra St, closed in 1980; and Redfern St Mini Park in Subiaco, at the intersection with View St, closed in the early 1990s.</div><div>b. If the land is reserved as POS and vested with the Crown for recreation purposes these works will be eligible for cash-in-lieu funding.</div></div>
11. Investigate opportunities to repurpose City owned or controlled land as POS in strategic locations where gaps have been identified within the network.	✓	✓	✓	✓	✓	<div><div>a. Providing the land is reserved as public open space and appropriately vested with the crown for recreation purposes, development of the land as POS may be eligible for cash-in-lieu funding, subject to Minister Approval.</div></div>
12. Reserve Leura Park as Public Open Space as part of a future omnibus amendment to <i>Local Planning Scheme No. 3</i>		✓	✓		✓	

Part 2

Background & Analysis



10 Background and Context

The City of Nedlands (City) is a 19.6km² inner city Local Government with an irregular shape, bounded to the West by the Indian Ocean, to the east by the Cities of Subiaco and Perth, to the North by the Town of Cambridge, and to the south by the Swan River and the Towns of Claremont and Cottesloe as shown in Figure 1 below.

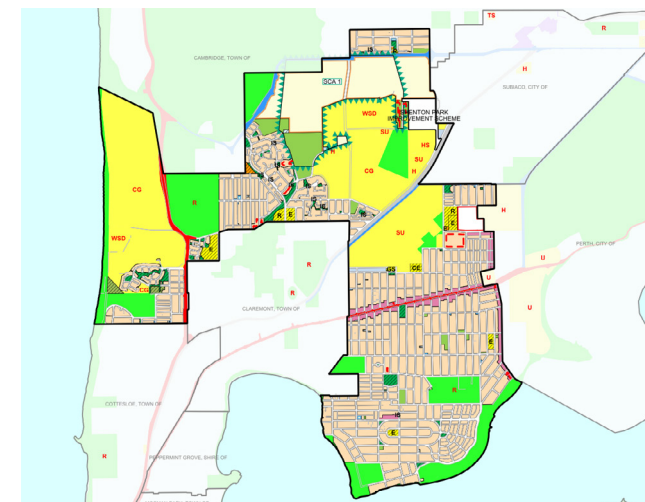


Figure 1 – City of Nedlands Context Map

The City's Local Planning Scheme No. 3 (LPS 3) came into effect on 16 April 2019, revoking the former Town Planning Scheme No. 2 (TPS 2) which had been operating since April 1985.

LPS 3 increased the residential density codes over 1,500 lots in the suburbs of Nedlands and Dalkeith, which has the potential to accommodate well beyond the City's infill target of 4,320⁴ additional dwellings from 2011 to 2050. Sustained development of these lots will result in a dramatic increase to the population within growth areas and place pressure on existing infrastructure and Public Open Space (POS) assets (including land and associated amenities).

Recognising the implications of impending population growth and coupled with the absence of any specific LPS 3 provisions to address this issue, the City of Nedlands Council, at its meeting on 27 October 2020, resolved that:

"Council:

- 1. instructs the CEO to commence preparation of an Infrastructure Contributions Framework under Local Planning Scheme 3;*
- 2. allocates funds ... to enable work to commence on the Infrastructure Contributions Framework ...;*
- 3. considers allocating ... budget for the completion of the Infrastructure Contributions Framework ...; and*
- 4. instructs the CEO to arrange a Councillor workshop prior to Council's consideration of the report to ... introduce the Infrastructure Contributions Framework. "*

Acting on Council's resolution, the City sought to examine the various infrastructure funding models available to decide which model(s) to pursue before taking action. The City subsequently engaged consulting firm LK Advisory to independently evaluate the merits of each infrastructure and community benefit funding model and its applicability the City of Nedlands.

The consultant's report analysed various funding models, both locally and interstate, and provided advice and recommendations for the City to consider, including the following specific recommendations if the City decided to pursue cash-in-lieu of public open space.

⁴ https://www.wa.gov.au/system/files/2021-05/FUT_PP-Central_Sub_Region_March2018_v2_part2.pdf#page=33

- c. *Prepare a POS strategy to ascertain new and upgraded public open space assets needed to cater for projected population growth.*
- d. *Ensure the POS strategy includes an evidence-based assessment of the amount, type, and distribution of POS relative to future growth areas.*
- e. *If the strategy confirms that additional POS is needed to accommodate future population growth, then prepare an implementation policy and commence collecting POS cash-in-lieu funds for this purpose.*

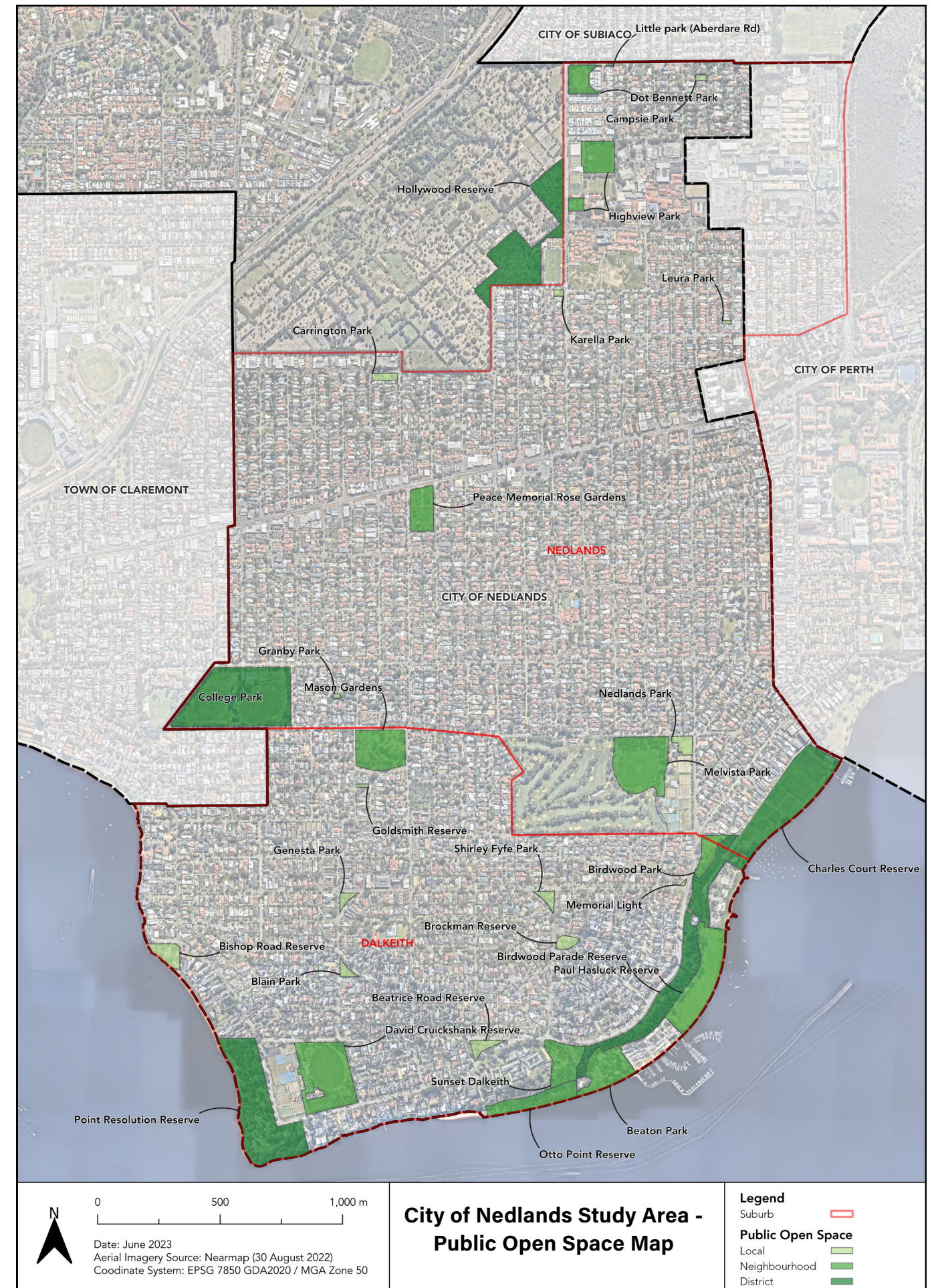
"Council:

2. *Selects the Cash-in-lieu of land for Public Open Space developer contribution model, with effect as follows:*
 - a. *For all affected developments (i.e. 6 lots/units or more) with a building permit issued on or before 30 June 2022, no contribution for public open space will be requested at the time of subdivision;*
 - b. *For all affected developments (i.e. 6 lots/units or more) that have a building permit issued between 1 July 2022 and 30 September 2022, 50% of the normal public open space contribution, as calculated in accordance with the Planning and Development Act 2005 will be requested at the time of subdivision; and*
 - c. *For all affected developments (i.e. 6 lots/units or more) that have a building permit issued on or after 1 October 2022, 100% of the normal public open space contribution, as calculated in accordance with the Planning and Development Act 2005 will be required at the time of subdivision; and*

- This Public Open Space Strategy (Strategy) and the associated Local Planning Policy – Cash in Lieu of Public Open Space (LPP) specifically addresses the above-mentioned resolution and recommendations.

This Strategy is based on a comprehensive POS audit undertaken to determine the precise size, location and amenity of all 31 publicly accessible parks and reserves that service Nedlands and Dalkeith, as shown in Figure 2.

The Strategy is carefully designed to align and not conflict with, or overstep, other City plans and strategies including its asset management plans, active recreation planning, foreshore management planning, ongoing asset condition assessments and the preparation of other Strategic Community Plan components of the integrated planning and reporting framework.



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10.1 Current State of the POS Planning Framework

In Western Australia, the policy framework for POS currently comprises a range of disparate, contemporary and outdated documents that lack consistency, coordination and completeness including:

- Sections 153 – 156 of the Planning and Development Act 2005;
- WAPC development control and operational policies;
- Liveable neighbourhoods (which is in an ongoing state of review); and
- A WAPC position statement.

The framework is further complicated at the local level as different Local Governments maintain their own strategic, statutory and policy frameworks for POS, with differing practices and implementation methods.

Accordingly, planning requirements for POS are spread across multiple and different layers of the planning framework and requirements are often duplicated and/or conflict with one another. This can diminish usability, generate misinterpretation among stakeholders and cause inconsistent decision-making.

The framework does not adequately address changes to contemporary living standards and culture, family composition, modern POS uses and needs, quality of life and changes to dwelling characteristics over time, particularly in the context of infill and areas earmarked for urban consolidation.

The 10% POS requirement has proven to work well in greenfield residential areas and is generally accepted by communities and developers alike. However, the 10% POS requirement has not been consistently applied in infill areas, is not well understood within established communities and is less tolerated by developers due to ad-hoc decision-making in the past, the high cost of infill land compared to greenfield land, and the associated impact of a 10% POS cash-in-lieu payment on development feasibility.

When it was conceived and implemented in the mid-1950s, the 10% POS requirement was loosely based on the English model familiar to the authors of the Stephenson and Hepburn Report 1955.

The Stephenson and Hepburn Report 1955 called for 3.0 – 4.7 acres (1.21 – 1.90 hectares) per 1,000 persons for local open space (depending on the district type), 5.5 acres (2.23 hectares) per 1,000 persons for district open space to be provided in local-level planning frameworks and/or through the subdivision process. The plan also identified 47,262.2 acres (19,126.33 hectares) of Regional Open Spaces to be reserved under the Metropolitan Region Scheme, which if applicable, commensurately reduced a subdivider's obligations to provide local and/or district open space. Depending on the district type, the POS requirement for Local and District Open Space was between 3.44 to 4.13 hectares per 1,000 persons or 34.4 – 41.3m² per person. Assuming an average residential density of 30 persons per hectare (10,000 / 30 = 333.333m²/person), this equates to 10.32% – 12.39% of the gross subdividable area.

Therein lies the rationale for the standard requirement to provide 3.36 hectares of POS per 1,000 people across a density of 30 persons per hectare, which is reflected in clause 3.1.2 of Development Control Policy 2.3 – Public Open Space (DC 2.3) and forms the basis for the 10% POS requirement.

However, population density is rising sharply (sometimes well above 30 persons/hectare) in some urban consolidation areas where established parks and reserves are already well patronised by the existing community. The question that arises is whether the existing POS provision in those areas is sufficient for the growing community.

Imposing the standard requirement to cede 10% of land or pay 10% of the value of land as cash-in-lieu of POS within an infill context can have unintended and/or undesirable consequences, particularly where land values (which vary based on location) are high.

As an example, a requirement to pay 10% cash-in-lieu in Nedlands or Dalkeith, where land values are in the order of ~\$20 to ~\$35 million/hectare respectively may add \$200,000 - \$350,000 to the costs of a typical small-scaled subdivision/development on a 1,000m² block. This (often unexpected) cost may force developers to compromise on the design and material quality of new development to maintain commercial feasibility. Alternatively, developers may be incentivised to pursue alternative infill development types that are ordinarily exempted from POS provision, such as two-lot subdivisions. However, this type of infill requires much more land to achieve the same increase in dwelling numbers, which may compromise the City's capacity to meet its infill dwelling targets by 2050.

In recognition of the above issues, the State Government is currently in the process of consolidating the POS planning framework to better manage POS provision within an infill context and may seek to reduce the POS/cash-in-lieu requirement to deal with these issues.

Given the City is early in the lifecycle of accommodating significant infill development, it is well-positioned to utilise this Strategy and other available evidence and data to demonstrate the need and nexus between infill development and the requirement for additional POS. This approach enables the City to calibrate its requirements to pay cash-in-lieu with both the number of dwellings anticipated over the coming decades, the value of land and the demand for, and the estimated cost to deliver more (or better) POS to cater for infill development.



11 Public Open Space Audit

The Strategy is informed by a comprehensive desktop and physical audit of all parks and reserves within the suburbs of Nedlands and Dalkeith.

The desktop assessment relied on the City’s spatial asset data, the UWA Public Open Space Tool, Nearmap Aerial imagery and the various documents and other resources referenced in **Appendix 1**. This was followed by a physical inspection of each park and reserve on Friday 2 December 2022. The data collected is provided as a filtered excel spreadsheet for ease of interrogation and analysis. Furthermore, the data has been converted to an attributed shapefile for spatial analysis and for ease of integration into the City’s public intra-mapping system, if desired.

The audit examines the parks and reserves in the context of the following characteristics:

- Location (suburb) and georeferenced polygon;
- Precinct (Nedlands [North], Nedlands [South] & Dalkeith), acknowledging Stirling Highway represents a significant physical barrier;
- Classification (District, Neighbourhood, Local);
- Reserve type (Metropolitan, Local etc.);
- Size (hectares);
- Function (Recreation/Passive, Sports/Active, Natural/Bush);
- Amenities (playgrounds, lighting, shelter, barbeques, seating etc.); and
- Accessibility (internally via paths and externally via public transport, walking and car parking).

The audit provides critical information and baseline data for the POS Strategy in alignment with the City’s Parks and Reserves Hierarchy and Functions Classifications, which are reproduced (albeit in a simplified format) in Table 6 and Table 7 below.

Table 6 - City of Nedlands POS Hierarchy Classifications

Classification	Description
Local Less than 1 hectare. 400 metres or a 5-minute walk.	<ul style="list-style-type: none">▪ Characteristically a small sized park that services the needs of the immediate residents in nearby streets.▪ Will usually comprise a high proportion of Recreation Space and may include some Nature Space.▪ There is no provision for Sports Space.▪ Facilities/activities may include children's play area, dog walking, picnics and BBQs, friends and family gatherings, relaxation and rest opportunities, casual sporting activity.
Neighbourhood 1 and 5 hectares. Within 800 metres or a 10-minute walk.	<ul style="list-style-type: none">▪ Characteristically a small to medium sized park that services the needs of a community of residents.▪ Will usually comprise a high proportion of Recreation Space and may include minor areas of Sport Space, for training and/or junior sports, and some Nature Space.▪ Facilities/activities may include children's play area, dog walking, picnics and BBQs, friends and family gatherings, relaxation and rest opportunities, casual sporting activity.
District 5 and 15 hectares. 2-5 kilometres or a 5-10 minute drive, and will attract visiting sporting teams from nearby districts.	<ul style="list-style-type: none">▪ Characteristically a medium to large sized park that services the needs of structured sporting activities for the wider district and surrounding communities.▪ Will usually comprise a high proportion of Sports Space, will usually include Recreation Space and may include some Nature Space.▪ Facilities/activities may consist of sufficient area to allow various Sports Space and Recreation Space uses including structured sports, children's play area, dog walking, picnics and BBQs, friends and family gatherings, relaxation and rest opportunities, casual sporting activity.▪ Will usually accommodate multiple user groups, sporting clubs or associations.

Table 7 - City of Nedlands Public Open Space Function Classifications

Function	Description
Recreation Recreation spaces provide a setting for informal play and physical activity, relaxation and social interaction.	<ul style="list-style-type: none">▪ Recreation spaces enhance physical and mental health through activity that provides relaxation, amusement or stimulation.▪ Recreation spaces can be accessed by all to play, socialise, exercise, celebrate or participate in other activities that provide personal satisfaction or intrinsic reward.▪ Recreation spaces include gardens and open parklands, community gardens, corridor links, amenity spaces, community use facilities, civic commons or squares.
Sport Sport spaces provide a setting for formal structured sporting activities.	<ul style="list-style-type: none">▪ Sport spaces provide a venue for formal structured sporting activities such as team competitions, physical skill development and training.▪ Sport spaces are designed to accommodate playing surface, buffer zones and infrastructure requirements of specific or general sporting activity.▪ Players and spectators attend with the express purpose of engaging in organised sporting activity, training or competition or watching the game.▪ Most sport spaces can also be accessed by community members for informal sport and recreation.
Nature Nature spaces provide a setting where people can enjoy nearby nature and protect local biodiversity and natural area values.	<ul style="list-style-type: none">▪ Nature spaces provide opportunity for low-impact recreational activities, such as walking, cycling, picnicking, playing, watching or exploring natural features.▪ Nature spaces may include bushland, coastal areas, wetlands and riparian habitats, and geological and natural features. Sites are managed to enable recreational access while protecting local ecological and biodiversity values.

11.1 Qualifications

1. The area of each park is determined on the following basis:

a. Calculating the “\$area” of the cadastral geometry in the GDA 2020 / MGA zone 50 coordinate system in Quantum GIS (QGIS);

b. Where a portion of a park does not provide unrestricted public access, the cadastral boundary is trimmed to reflect the extent of the publicly accessible park and measured per point 1 above.

c. Sport space is measured based on recent aerial imagery and generally includes larger playing fields used for formally structured sporting activities and does not include private club/court-based sporting activities such as members-only and fee-paying tennis courts and croquet pitch (except for the free and publicly accessible tennis courts in Highview Park and College Park). Sport spaces also do not include smaller turfed areas suitable for casual sporting activities, which are instead captured as recreation spaces as per point 5 below.

d. Nature spaces include areas of intact bushland and foreshore environs but do not include landscaped POS with tree canopy cover.

e. Recreation spaces are defined by the total area of the publicly accessible POS, minus the sum of Sports space and Nature space.
2. The POS audit and Strategy only includes parks and reserved land that are accessible to the general public and does not include areas that are leased to a club where access is only obtained through paid membership (i.e. tennis, football, soccer, yachting) etc.

3. The audit includes Leura Park which is not reserved as POS, Melvista and Nedlands Park, which are located within an MRS Parks and Recreation (Restricted) reserve and Memorial Park, which is located in a local road reserve.
4. The audit only includes publicly accessible parts of Highview Park, which is reserved Public Purpose (Recreation).

5. The audit includes all of the MRS Parks and Recreation reserves land along the Swan River except for the Nedlands Yacht Club, the Perth Flying Squadron Yacht Club, the Tawarri Hot Springs site and most of the Sunset Heritage Precinct, except where reasonably accessible to the public as POS.

6. Clubrooms/facilities are only counted as an amenity where they are under the control of the City of Nedlands and not otherwise leased or sub-letted to a club or organisation that requires a paid membership to access. Generally, clubrooms for Tennis, bowls etc. are not included but community sports buildings such as the Adam Armstrong and JC Smith Pavilions are included.

7. The audit does not include the Nedlands Golf Club Western Australia for the reasons stated above.

8. Toilets are included where they were unlocked and accessible to the public at the time of the audit inspection.

9. While the audit measures the number and location of each asset, it does not include any analysis of the quality, condition or appropriateness of the asset, only whether it is there or not. The installation and or renewal of assets should be undertaken in alignment with the needs, desires and expectations of the local community and the City’s asset management planning framework.

10. The catchment analysis utilises Isochrones generated to depict the area accessible from a point of access to each POS within a certain time or distance threshold. An isochrone is defined as ‘a line drawn on a map connecting points at which something occurs or arrives at the same time’. The generated lines are converted into a Polygon that depicts a walkable, cyclable or drivable catchment around a park or reserve. These types of catchments are commonly referred to as a ‘Pedshed’. The Pedsheds in this Strategy are derived from the corners of, or known access points to, each park (or the centre of small parks) and generated using an open-source integration between Quantum GIS and Open Route Service, which utilises Open Street Maps as a basis to automatically measure distances along the road, footpaths and cycles ways from one or more specified points and form a catchment/pedshed.

11.2 Summary of Public Open Space Audit

A summary of the audit outcomes is provided in the tables below, including the number of each POS classification by Suburb in Table 8. Parks and reserves were included in the audit based on a range of sources, including the PLA Mapping Portal, Local and Metropolitan Region Scheme reserves, various City resources, visual inspection and aerial photography.

Table 8 - Number of Parks by Suburb

Suburb	Local	Neighbourhood	District	Total
Nedlands	7	4	3	14
Dalkeith	8	7	2	17
Total	15	11	5	31

Table 8 and Table 9 demonstrate there are more neighbourhood parks in Dalkeith and more district-size parks in Nedlands. However, Nedlands is larger than Dalkeith, with a larger population, and contains substantially more growth areas than Dalkeith. Additionally, while the amount of publicly accessible POS accounts for 9.52% of the gross area of both suburbs, Dalkeith benefits from almost double the proportion of POS than Nedlands.

Table 9 - Distribution of POS between Nedlands and Dalkeith

Suburb	Local (ha)	Neighbourhood (ha)	District (ha)	Total (ha)	% of suburb
Nedlands 479 ha	1.1558	9.592	23.8555	34.6033	7.22%
Dalkeith 296 ha	2.6904	21.071	15.469	39.2304	13.25%
Total	3.8462	30.663	39.3245	73.8337	9.52%

⁵ \$area – is a function of Quantum GIS that uses the dimensions of a polygon to measure area, and is calibrated to the locality using the GDA2020 / MGA zone 50 coordinate system, which is the most accurate coordinate system for the Perth and Peel Region.

The vast majority of POS is either reserved as Public Open Space under the Local Planning Scheme or Parks and Recreation under the Metropolitan Region Scheme. Some POS is either reserved as Parks and Recreation (Restricted) under the MRS, Local Road, Public Purpose (Recreation) or not reserved at all, as shown in Figure 3.

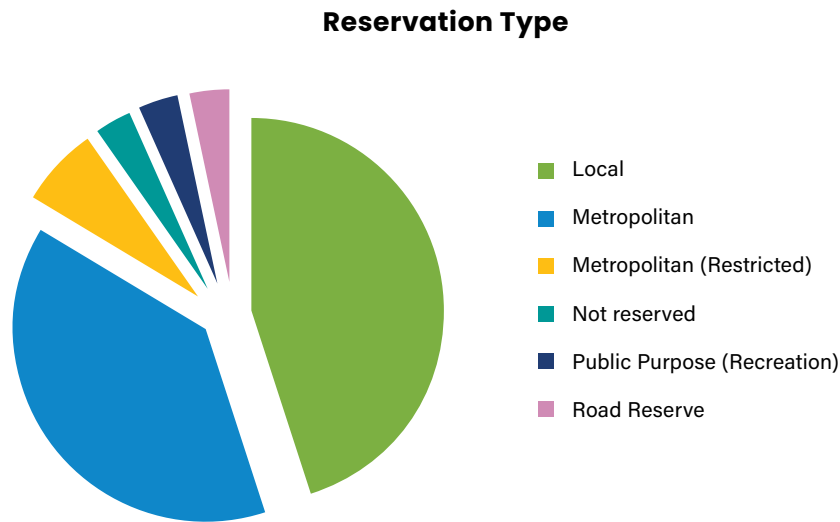


Figure 3 - POS Reservation Type

The balance of POS type differs between Nedlands and Dalkeith, with more passive recreation than active sports spaces in Dalkeith while Nedlands comprises a fairly even balance of recreation and sports spaces, and less nature space overall, as shown in Figure 4.

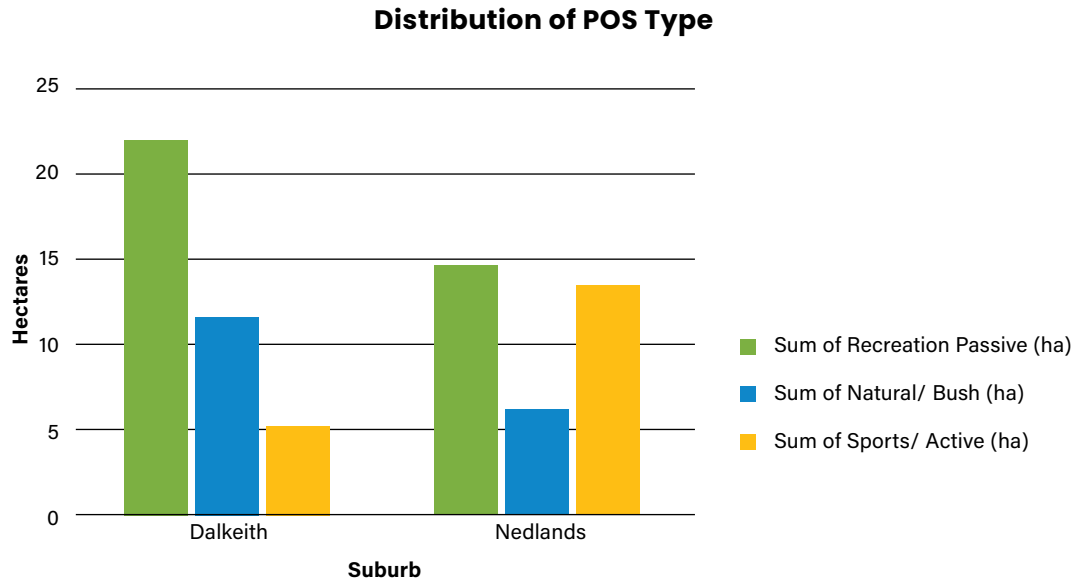


Figure 4 - Distribution of POS Type

Table 10 highlights a level of inequity in POS provision between Nedlands and Dalkeith which is exacerbated by the disproportionate allocation of infill development between the two suburbs, which is discussed in more detail in a later section of the Strategy. While the difference in POS provision on a per 1,000-person basis is significant, Dalkeith does contain several large foreshore reserves that service a larger catchment extending well beyond the boundaries of the study area that are also accessible to Nedlands residents.

Table 10 - Public Open Space Summary

Suburb (Pop)	Local Area (ha)	Ha/1,000 persons	Recreation (ha)	Recreation (ha)	Nature/bush (ha)
Nedlands (9,886)	34.6033	3.50	14.7623	13.541	6.3
Dalkeith (4,219)	39.1664	9.28	22.0674	5.433	11.73
Total (14,105)	73.8337	5.23	36.8297	18.974	18.03

Table 11 identifies an imbalance of POS within the suburb of Nedlands itself, with more POS provided south of Stirling Highway than north of Stirling Highway – which is a major physical barrier that affects access to POS located south of the highway for residents located north of the highway and vice versa. However, the catchment demonstrates that while land south of the highway technically has more POS, it also has lower accessibility to POS than land north of the highway due to the consolidation of POS in College Park.

Table 11 - Distribution of POS including division of Nedlands by Stirling Highway

Suburb (Pop)	Local (ha)	Neighbourhood (ha)	District (ha)	Total (ha)
Nedlands (North)	0.5918	3.182	6.411	10.1848
Nedlands (South)	0.564	6.41	17.445	24.4185
Dalkeith	2.6904	21.071	15.469	39.2304
Total	3.8462	30.663	39.3245	73.8337

Table 12 describes the area of POS per person in Nedlands and Dalkeith. It shows the amount of POS per person is currently 52.35m² of POS per person within the study area, with only 35.00m² in Nedlands an abundantly high amount of 92.99m² per person in Dalkeith.

Table 12 - m² of POS Classification / Person by Suburb

POS Classification	Nedlands (9,886)	Dalkeith (4,219)	Total (14,105)
Local	1.17m ²	6.38m ²	2.73m ²
Neighbourhood	9.70m ²	49.94m ²	21.74m ²
District	24.13m ²	36.67m ²	27.88m ²
Total	35.00m ²	92.99m ²	52.35m ²

Table 13 describes the distribution of and access to different types of POS per person in Nedlands and Dalkeith. Dalkeith has a higher count of each POS type person than Nedlands, except for sports space, which is marginally higher in Nedlands but this figure will reduce due to impending population growth.

Table 13 - m² POS Type / Person by Suburb

POS Type	Nedlands (9,886)	Dalkeith (4,219)	Total (14,105)
Recreation	14.93m²	52.30m²	26.11m²
Nature	6.37m²	27.80m²	12.78m²
Sports	13.70m²	12.88m²	13.45m²
Total	35.00m²	92.99m²	52.35m²

11.3 Local Government Benchmarking

11.3.1 POS Provision

POS provision in Dalkeith is generally higher than in surrounding Local Governments while Nedlands performs relatively poorly on this metric, noting source information varies significantly, as shown in Table 14 below. However, abundant population growth in Nedlands will significantly reduce the amount of POS / 1,000 persons if no additional POS is provided. This highlights the importance of not only improving the quality of POS in Nedlands but also increasing the quantity and distribution of POS.

Table 14 - POS Provision (Ha / 1,000 persons) comparison with other Local Governments and the suburbs of Nedlands and Dalkeith

Local Government/ Study area	Ha POS / 1,000 persons ⁶	Ha POS / 1,000 persons PLAWA Community Guidelines Report (2020)
City of Perth	11.46	7.72
Dalkeith		9.28
Town of Cambridge	7.54	6.70
City of Stirling	4.38	4.11
City of Bayswater	4.24	4.08
Nedlands		3.5
City of Subiaco	3.42	3.54
City of Vincent	3.37	2.59

⁶ According to UWA research included in the City of Vincent POS Strategy 2018.

11.4 Measuring POS Amenity

It is not enough to simply acquire, reserve and set aside land for POS. Parks and reserves must also be developed and maintained on an ongoing basis in alignment with the needs and expectations of the local community.

In addition to the area, classification and distribution of POS, the audit process captured quantitative data on playgrounds, lighting, usable turf, and other amenities such as bins, toilets, clubrooms and drinking fountains etc. This enables comparison and analysis of the provision of these amenities by any number of groups, categories, and metrics and on a park-by-park basis.

Figure 5 provides a snapshot of the amenities contained within the study area, which is predominantly seating, bins, dog-friendly and lighting in general areas. However, this chart does not sufficiently articulate the level of amenities afforded to each POS.

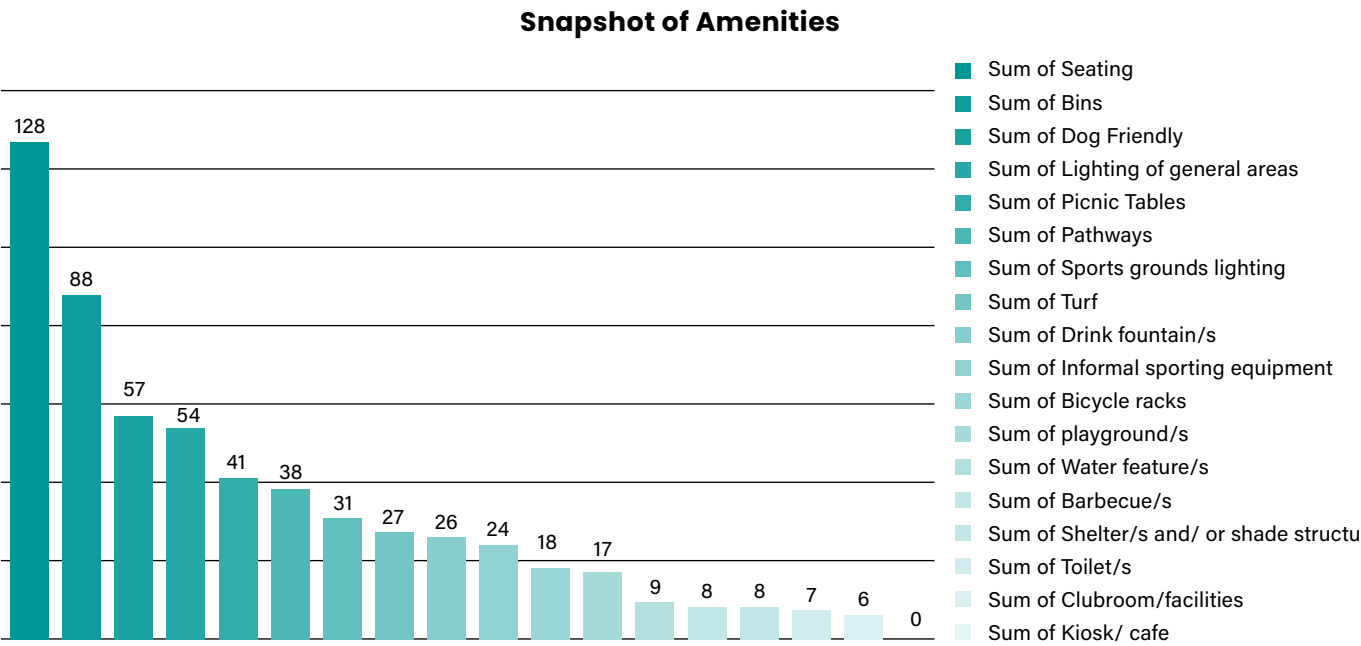


Figure 5 - Snapshot of Amenities Chart

To overcome this and simplify the approach to understanding and improving amenities in parks, the Strategy uses the quantity of these items and a weighting factor to calculate an 'Amenity Score' for each POS, as shown in Table 15 and Figure 6.

Generally, POS with an amenity score of less than 50 could be improved with additional assets, subject to the constraints of the park i.e. size, context etc. Accordingly, any parks/reserves that score less than 50 should be investigated to provide additional assets to improve the score to at least 50, based on specific consultation with user groups and nearby residents.

The Amenity Score approach also facilitates effective and meaningful engagement and ease of understanding among the community. For instance, community engagement questions and/or materials could specifically frame the conversation around the provision of these amenities to determine precisely what amenities would best fill service-level gaps from a user perspective.

For example, Shirley Fife Park in Dalkeith currently has an amenity score of 16 and requires an additional 34 points to achieve 50. This could be achieved by any combination of lighting, playground, drinking fountain, bins, seating and/or picnic tables, shelter etc. The local community is best placed to determine precisely what additional items should fill the gap, for instance, there may be strong demand for a basketball hoop among local youth, a water fountain, or additional infrastructure to qualify as a fenced-off dog park.

Table 15 - Amenity Score for each Park

Public Open Space	Classification	Total area (ha)	Amenity Score
Goldsmith Reserve	Local	0.0660	4
Granby Park	Local	0.0580	6
Little Park (Aberdare Rd)	Local	0.017	7
Memorial Light	Local	0.0380	9
Shirley Fyfe Park	Local	0.3270	16
Nedlands Park	Local	0.5060	16
Birdwood Parade Reserve	District	7.137	17
Karella Park	Local	0.1040	18
Campsie Park	Local	0.11	26
Leura Park	Local	0.0468	29
Brockman Reserve	Local	0.3950	30
Genesta Park	Local	0.2510	32
Otto Point Reserve	Neighbourhood	2.115	33
Beatrice Road Reserve	Local	0.4820	38
Birdwood Park	Neighbourhood	1.0100	38
Paul Hasluck Reserve	Neighbourhood	4.725	39
Blain Park	Local	0.2504	42
Hollywood Reserve	District	6.411	43
Bishop Road Reserve	Local	0.8810	49
Dot Bennett Park	Neighbourhood	1.139	56
Carrington Park	Local	0.3150	71
Peace Memorial Rose Gardens	Neighbourhood	1.6700	72
Melvista Park	Neighbourhood	4.7400	84
Point Resolution Reserve	District	8.332	87
Sunset Dalkeith	Neighbourhood	2.022	95
Highview Park	Neighbourhood	2.043	100
David Cruickshank Reserve	Neighbourhood	5.426	112
Mason Gardens	Neighbourhood	3.1590	117
Charles Court Reserve	District	7.7	169
College Park	District	9.7445	172
Beaton Park	Neighbourhood	2.614	187

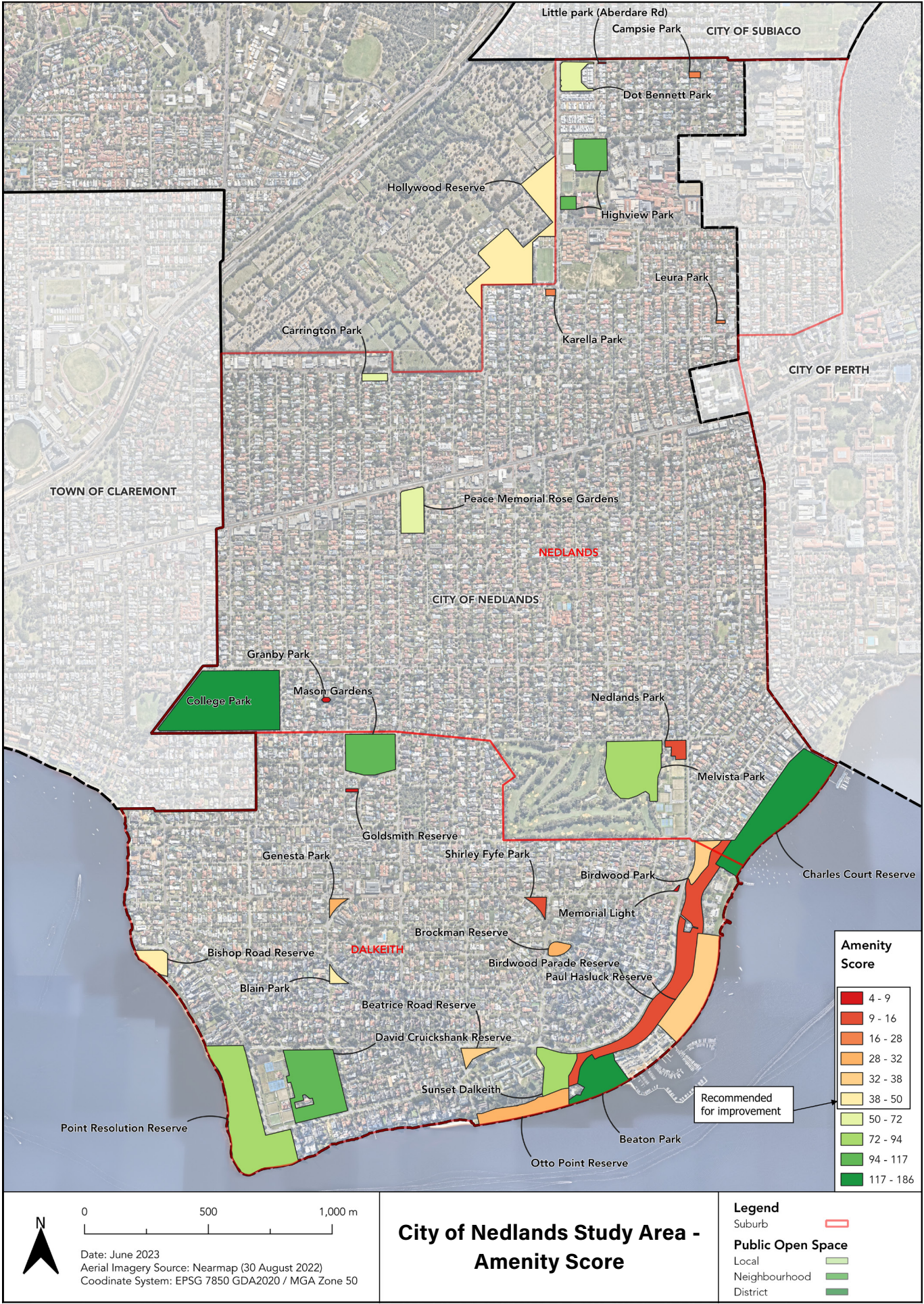


Figure 6 - Amenity Score

Those parks and reserves with an Amenity Score that is less than 50 are shown in Table 16 below. Some parks (highlighted in yellow) may be too small to accommodate an Amenity Score of 50, but still have room for improvement.

Table 16 - Parks and reserves with an Amenity Score below 50

Suburb	Classification	Public Open Space	Amenity Score
Dalkeith	Local	Goldsmith Reserve	4
Nedlands	Local	Granby Park	6
Nedlands	Local	Little park (Aberdare Rd)	7
Dalkeith	Local	Memorial Light	9
Dalkeith	Local	Shirley Fyfe Park	16
Nedlands	Local	Nedlands Park	16
Dalkeith	District	Birdwood Parade Reserve	17
Nedlands	Local	Karella Park	18
Nedlands	Local	Campsie Park	26
Nedlands	Local	Leura Park	29
Dalkeith	Local	Brockman Reserve	30
Dalkeith	Local	Genesta Park	32
Dalkeith	Neighbourhood	Otto Point Reserve	33
Dalkeith	Local	Beatrice Road Reserve	38
Dalkeith	Neighbourhood	Birdwood Park	38
Dalkeith	Local	Paul Hasluck Reserve	39
Nedlands	Local	Blain Park	42
Nedlands	Local	Hollywood Reserve	43
Dalkeith	Local	Bishop Road Reserve	49

In general terms, due to the shortage of POS in Nedlands, and in particular the shortage of high amenity POS, those parks highlighted in Green in Table 16 should be prioritised for additional and/or upgraded amenities in the short term. All remaining parks with a score below 50 should also be considered for additional and or upgraded assets, based on engagement with local community.

11.5 POS Accessibility

The Strategy utilises the catchments generally set out in Table 6 to analyse accessibility to each type of POS across Nedlands and Dalkeith. The catchments are defined as follows:

- 1. Local – 400m Walk
- 2. Neighbourhood – 800m Walk
- 3. District – 2km Drive
- 4. Playgrounds – 400m Walk

This section articulates any identified shortfall in access to sporting facilities and includes a full catchment analysis comprising a consolidated snapshot of walkability to the entry point of any park, irrespective of its classification, and effectively displays all land that is within a 400m (5-minute) walk of any type of POS. Land that does not fall within these catchments should be prioritised for additional Local POS.

11.5.1 Local Open Space

Seven (7) local parks comprise 1.1558 hectares in Nedlands and eight (8) local parks comprise 2.6904 hectares in Dalkeith, as shown in Table 17. Based on a 400m Isochrone around each park, 69.31% of Nedlands and 40.87% of Dalkeith are not within a walkable catchment of a local-sized park, as shown in Figure 7. The land around Stirling highway, and particularly south of Stirling highway is most affected, which also coincides with the areas that are most affected by population growth.

Furthermore, there is only 1.17m² of Local POS per person in Nedlands, while there is 6.38m² per person in Dalkeith and 2.73m² per person overall.

Table 17 - Local POS

Name	Suburb	Area (ha)	Recreation Passive (ha)	Sports/ active (ha)	Natural/ Bush (ha)	Amenity Score
Goldsmith Reserve	Dalkeith	0.0660	0.066	0	0	4
Granby Park	Nedlands	0.0580	0.058	0	0	6
Little Park (Aberdare Rd)	Nedlands	0.017	0.017	0	0	7
Memorial Light	Dalkeith	0.0380	0.038	0	0	9
Shirley Fyfe Park	Dalkeith	0.3270	0.327	0	0	16
Nedlands Park	Nedlands	0.5060	0.506	0	0	16
Karella Park	Nedlands	0.1040	0.104	0	0	18
Campsie Park	Nedlands	0.11	0.11	0	0	26
Leura Park	Nedlands	0.0458	0.0458	0	0	29
Brockman Reserve	Dalkeith	0.3950	0.395	0	0	30
Genesta Park	Dalkeith	0.2510	0.2510	0	0	32
Beatrice Road Reserve	Dalkeith	0.4820	0.482	0	0	38
Blain Park	Dalkeith	0.2504	0.2504	0	0	42
Bishop Road Reserve	Dalkeith	0.8810	0.72	0	0.161	49
Carrington Park	Nedlands	0.3150	0.315	0	0	71

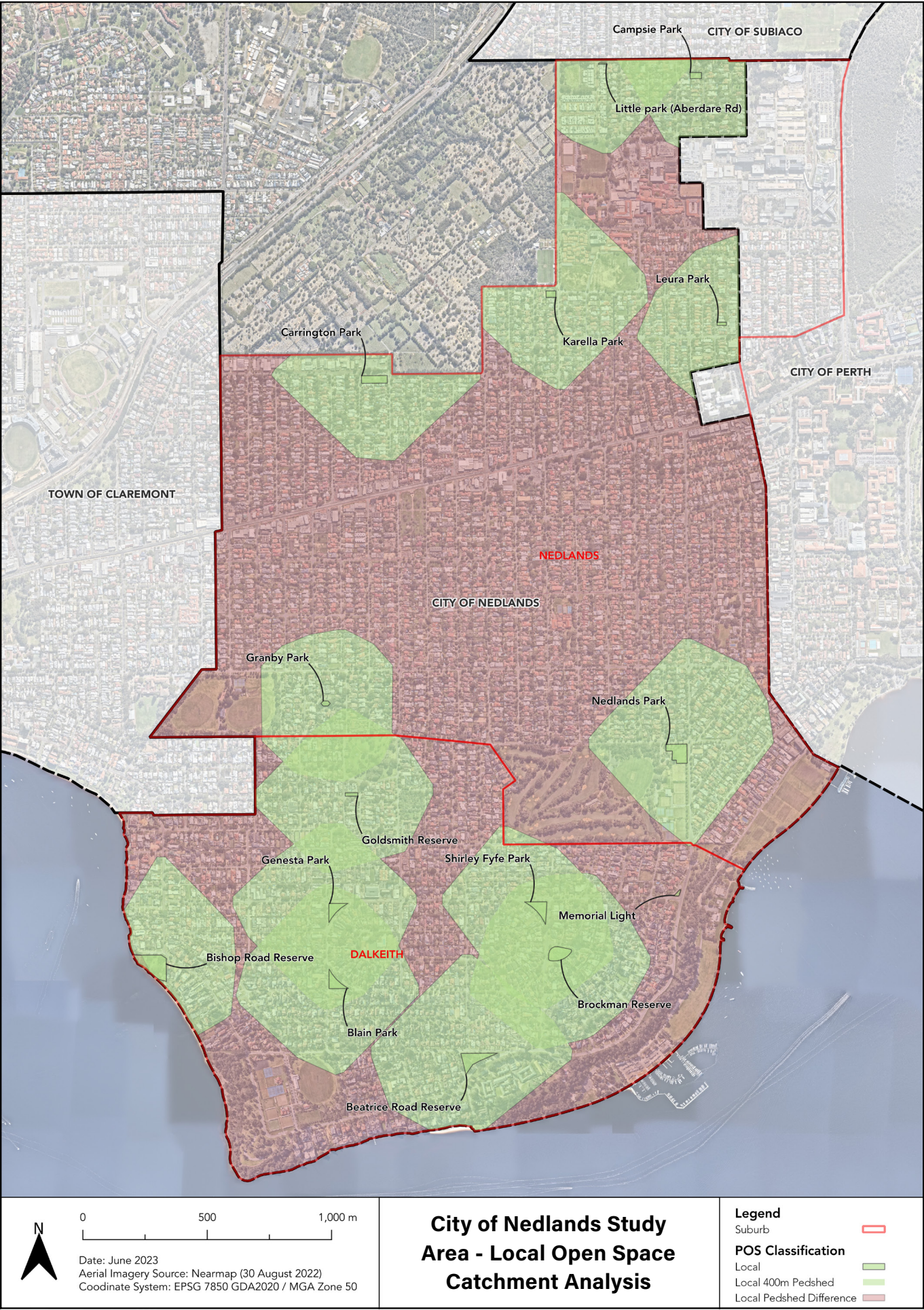


Figure 7 - Local Open Space Catchment Analysis (Note: Memorial Park does not have a catchment because of its size and local road reservation)

11.5.2 Neighbourhood Open Space

Four (4) Neighbourhood parks comprise 9.592 hectares in Nedlands and seven (7) Neighbourhood parks comprise 21.071 hectares in Dalkeith, as shown in Table 18. Based on an 800m walkable Isochrone around each park, 16.88% of Nedlands and 5.29% of Dalkeith are not within the catchment of a Neighbourhood-sized park, as shown in Table 18. The land towards the eastern end of Stirling Highway (within Nedlands) and two small areas of both Nedlands and Dalkeith, adjacent to the boundary with the Town of Claremont, are not within the catchment for neighbourhood POS.

Furthermore, there is only 9.70m² of Neighbourhood POS per person in Nedlands while there is 49.94m² of neighbourhood POS per person in Dalkeith and 21.74m² per person overall.

Table 18 - Neighbourhood POS

Name	Suburb	Area (ha)	Recreation Passive (ha)	Sports/ active (ha)	Natural/ Bush (ha)	Amenity Score
Otto Point Reserve	Dalkeith	2.115	2.115	0	0	33
Birdwood Park	Dalkeith	1.0100	0.691	0	0.319	38
Paul Hasluck Reserve	Dalkeith	4.725	2.162	2.563	0	39
Dot Bennett Park	Nedlands	1.139	1.139	0	0	56
Peace Memorial Rose Gardens	Nedlands	1.6700	1.67	0	0	72
Melvista Park	Nedlands	4.7400	2.64	2.1	0	84
Sunset Dalkeith	Dalkeith	2.022	1.583	0	0.439	95
Highview Park	Nedlands	2.043	0.987	1.056	0	100
David Cruickshank Reserve	Dalkeith	5.426	2.556	2.87	0	112
Mason Gardens	Dalkeith	3.1590	3.159	0	0	117
Beaton Park	Dalkeith	2.614	2.614	0	0	187

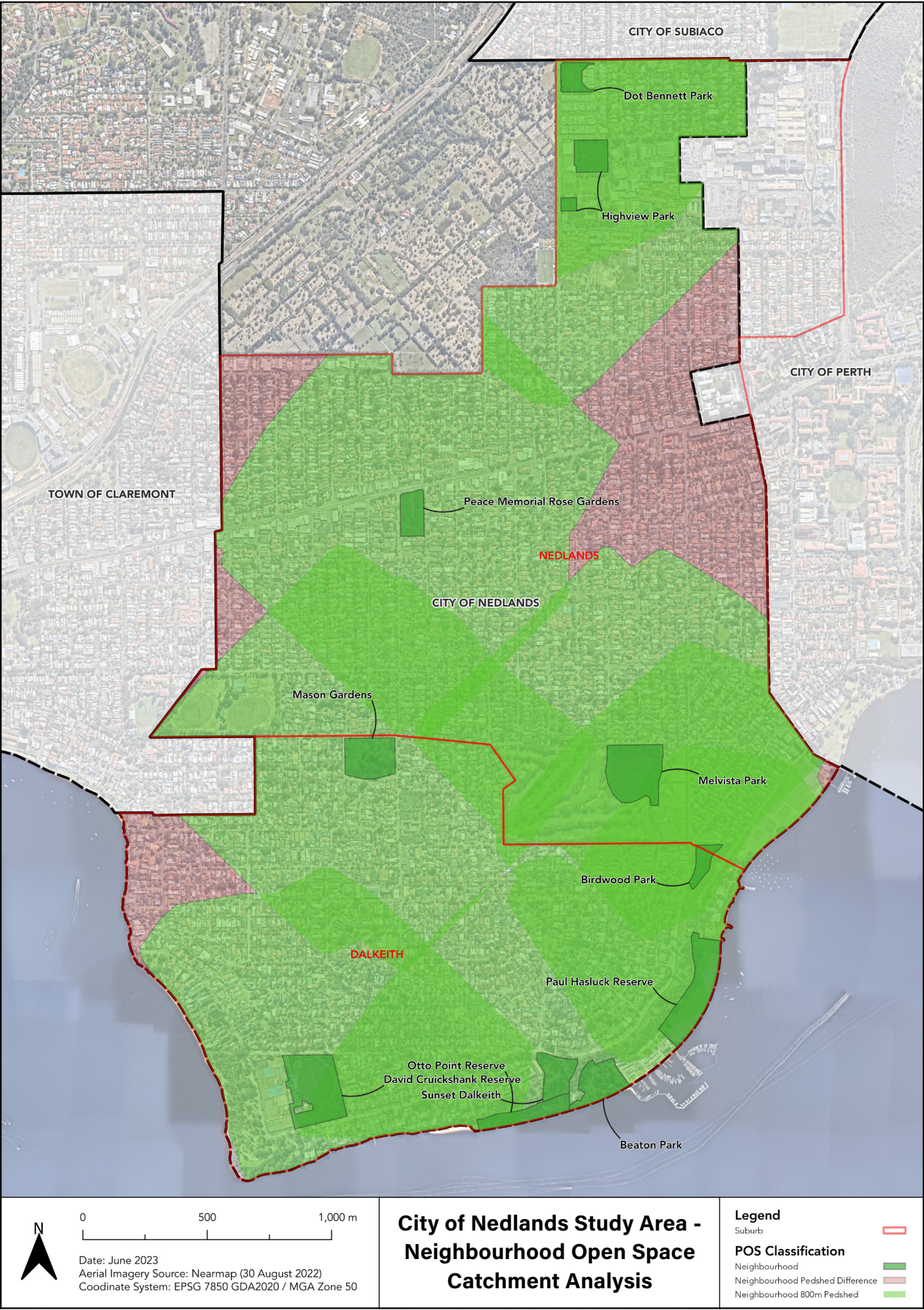


Figure 8 - Neighbourhood Open Space Catchment Analysis

11.5.3 District Open Space

There are five District Open Spaces in the study area:

1. College Park, Charles Court Reserve and Hollywood Reserve in Nedlands; and
2. Point Resolution Reserve and Birdwood Parade Reserve in Dalkeith.

District Open Spaces typically comprise 5 – 20 hectares and services 15,000 – 20,000 people in a catchment defined as a 2km or a 5-minute drive (rather than a walk), as shown in Figure 9. Accordingly, the catchments for District Open Space extend well beyond the Study Area, indicating that Nedlands and Dalkeith are both well-served by District Open Space, having access to both large-scale sporting reserves and large nature spaces (Point Resolution Reserve and Hollywood Reserve).

There is 24.13m² of District POS per person in Nedlands, 36.67m² per person in Dalkeith and 27.88m² per person overall.

Nedlands and Dalkeith also benefit from good proximity to District POS in adjoining Local Government areas, including

- JJ Abrahams Reserve;
- Matilda Bay Reserve;
- Rosalie Park; and
- Lake Jualbup.



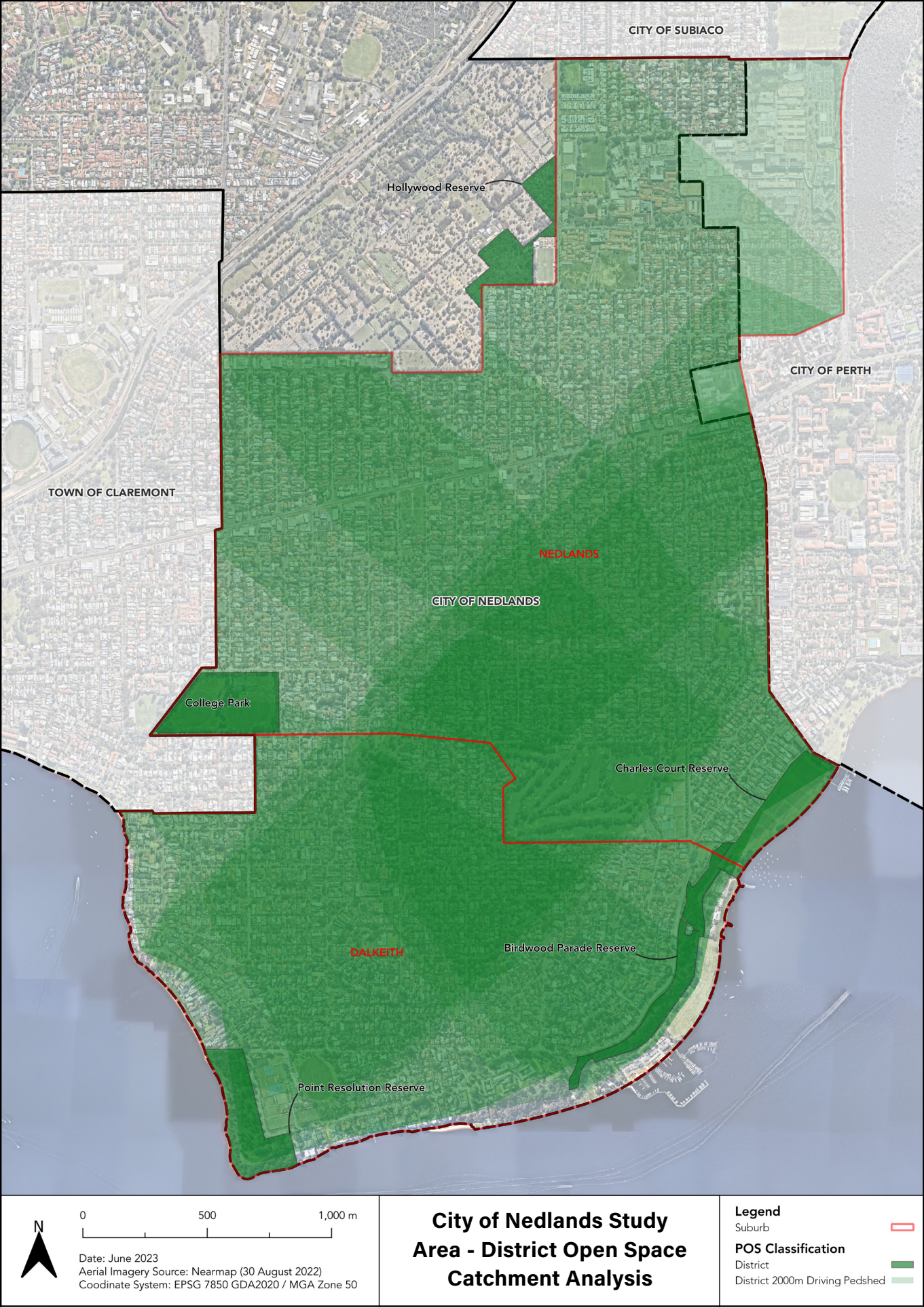


Figure 9 - District Open Space Catchment Analysis

11.5.4 Regional Open Space

There is no regional POS in the study area. However, the PLA Guidelines Mapping Data indicates that Nedlands and Dalkeith are both well-served by Regional Open Space within the given 10km catchment, as shown in Figure 10 below.

The nearest Regional Open Spaces are Perry Lakes Reserve, UWA Sports Park, Allen Park, Lake Monger Reserve and Kings Park.

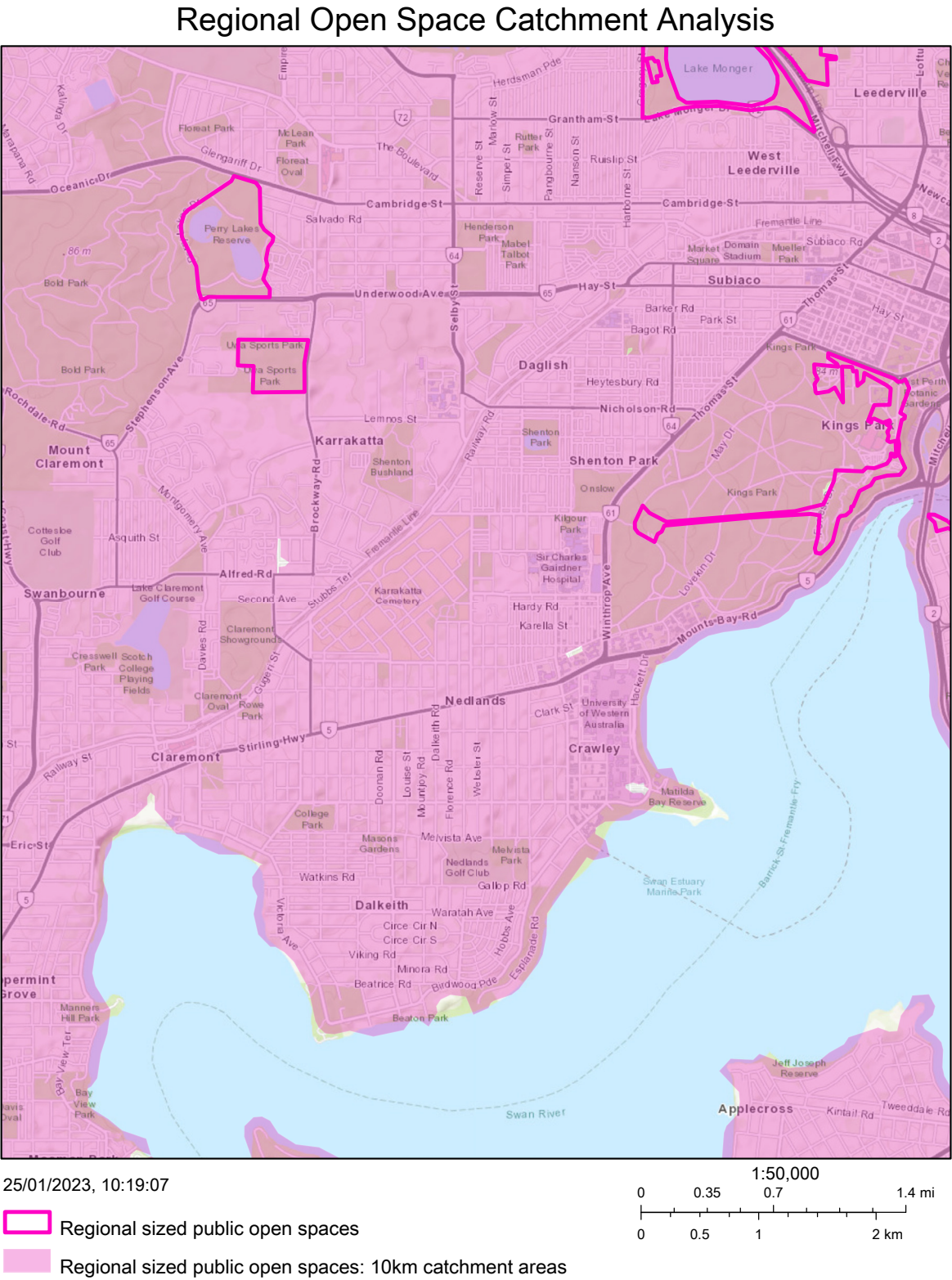


Figure 10 - Regional Open Space Catchment Analysis

⁷ Source: UWA Parks and Leisure Australia WA Community Facility Guidelines 2020 Mapping Portal for Perth and Peel – Australian Urban Design Research Centre

11.5.5 Playground accessibility

There are 17 playgrounds within the study area, eight (8) in Dalkeith and nine (9) in Nedlands. This equates to 1.89 playgrounds/1,000 persons in Dalkeith and 0.91 playgrounds/1,000 persons in Nedlands.

The distribution of playgrounds is concentrated in Dalkeith and relatively sparse in Nedlands, particularly south of Stirling Highway. There are large areas of land in both suburbs that are not within a 400m walkable catchment of a playground, including 61% of Nedlands and 42% of Dalkeith, as shown in Figure 11. Accordingly, new POS to mitigate any shortage of local POS in Nedlands should generally also comprise play equipment to improve accessibility to playgrounds.

According to 2021 ABS data, Nedlands (LGA) has a higher proportion of 0 to 14-year-olds compared to the Western Australian average. Furthermore, the number of children in this age bracket is growing (from 4,033 in 2011 to 4,201 in 2021) and the number of couples with children is growing too (from 2,922 in 2011 to 3,174 in 2021). Accordingly, there will likely be a growing demand for quality and well-distributed play equipment in a well-connected POS network and this should generally be provided in the out-of-catchment areas shown in Figure 11 on the next page.

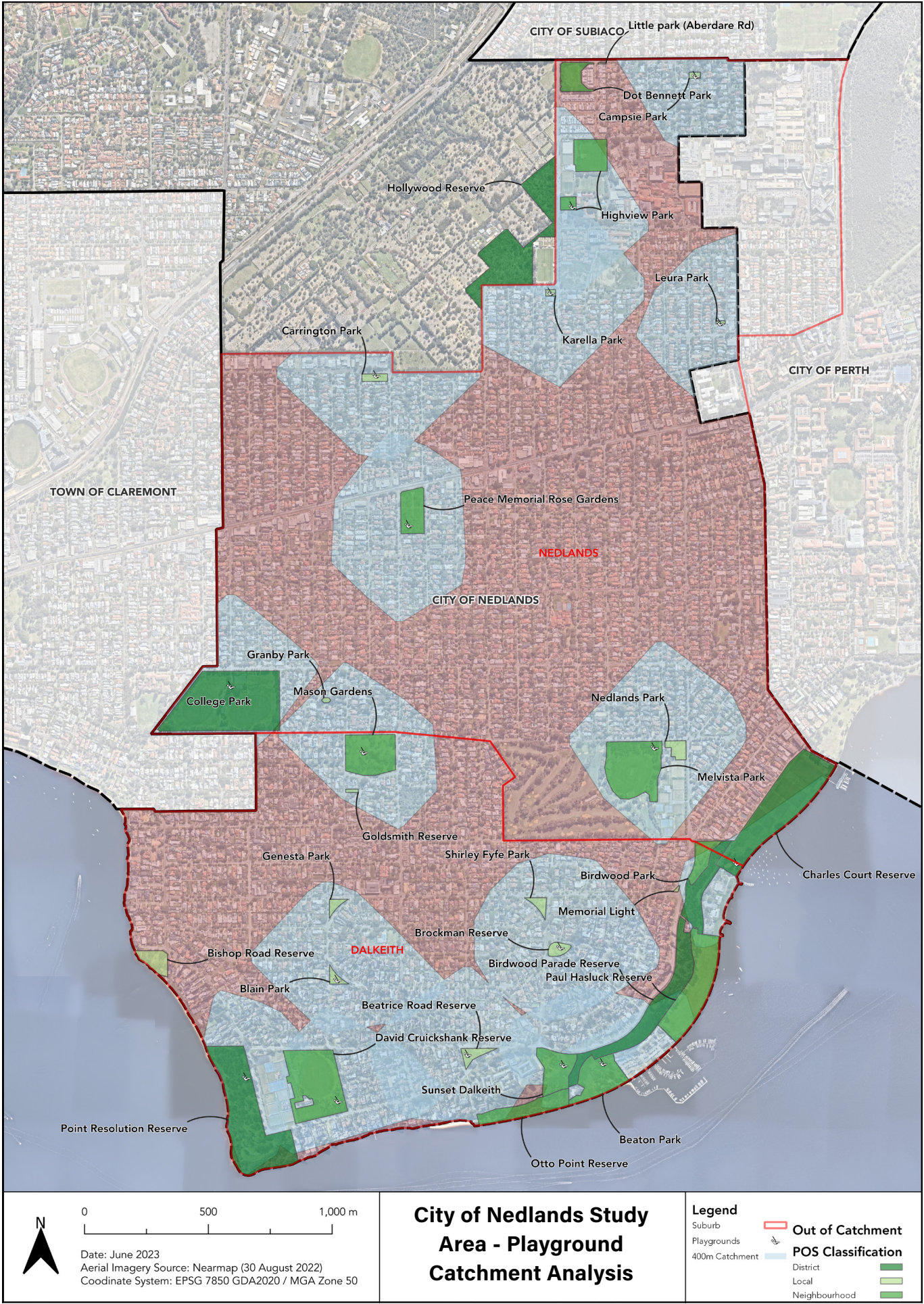


Figure 11 - Playground Catchment Analysis

11.5.6 Sports facility accessibility

The Strategy does not include a comprehensive analysis of access to and provision of community sporting facilities, as this work has already been undertaken by Dave Lanfear Consulting’s Strategic Active Sports Facilities Plan 2020 - 2050, which is yet to be endorsed by Council. Regardless, the PLA Community Facility Guidelines 2020 indicate that Nedlands is generally well serviced by access to most sporting facilities, relative to other similar Local Governments, except for outdoor basketball facilities and a lesser extent, Diamond pitches (refer to Table 19).

Table 19 - Access to Sporting Facilities

Local Government	% of the total population within the catchment									
	Aquatic Facility Catchment (5km)	Indoor Basketball	Outdoor Basketball	AFL	Cricket	Diamond	Grass Hockey	Synthetic Hockey	Soccer	Rugby
Cambridge	100%	100%	0%	100%	100%	50.09%	100%	97.97%	89.52%	92.97%
Claremont	97.74%	97.73%	0%	97.76%	97.88%	85.69%	93.87%	93.42%	89.52%	92.87%
Cottesloe	99.04%	99.84%	21.43%	99.83%	99.91%	99.83%	23.93%	10.70%	5.21%	99.87%
Mosman Park	74.55%	99.51%	82.52%	94.66%	99.64%	99.80%	6.68%	0%	47.64%	99.64%
Nedlands	99.68%	99.70%	0%	99.68%	99.79%	69.79%	98.83%	90.10%	98.19%	89.47%
Peppermint Grove	100%	100%	12.68%	100%	100%	100%	0%	0%	3.26%	99.01%
Perth	78.24%	99.73%	13.33%	75.61%	99.66%	5.07%	68.74%	45.55%	99.61%	18.50%
Subiaco	100%	100%	0%	100%	100%	46.43%	100%	100%	100%	99.44%
Vincent	100%	100%	3.52%	99.94%	100%	99.92%	100%	0%	99.95%	0.04%

Outdoor Basketball

Table 19 reveals an obvious deficit in outdoor basketball facilities in most of the Local Governments in the inner metropolitan region, except for Mosman Park (Gibbons Park Basketball Courts). According to the PLA WA Community Facility Guidelines 2020, there is no current need and/or business case to provide full-sized outdoor basketball courts within inner metropolitan areas as training and competition are centred around indoor court infrastructure. Furthermore, Nedlands and Dalkeith are already well-serviced by indoor facilities at the University of Western Australia (UWA) (4 indoor courts) and the WA Basketball Centre in the Town of Cambridge (8 indoor courts), as shown in Figure 12.

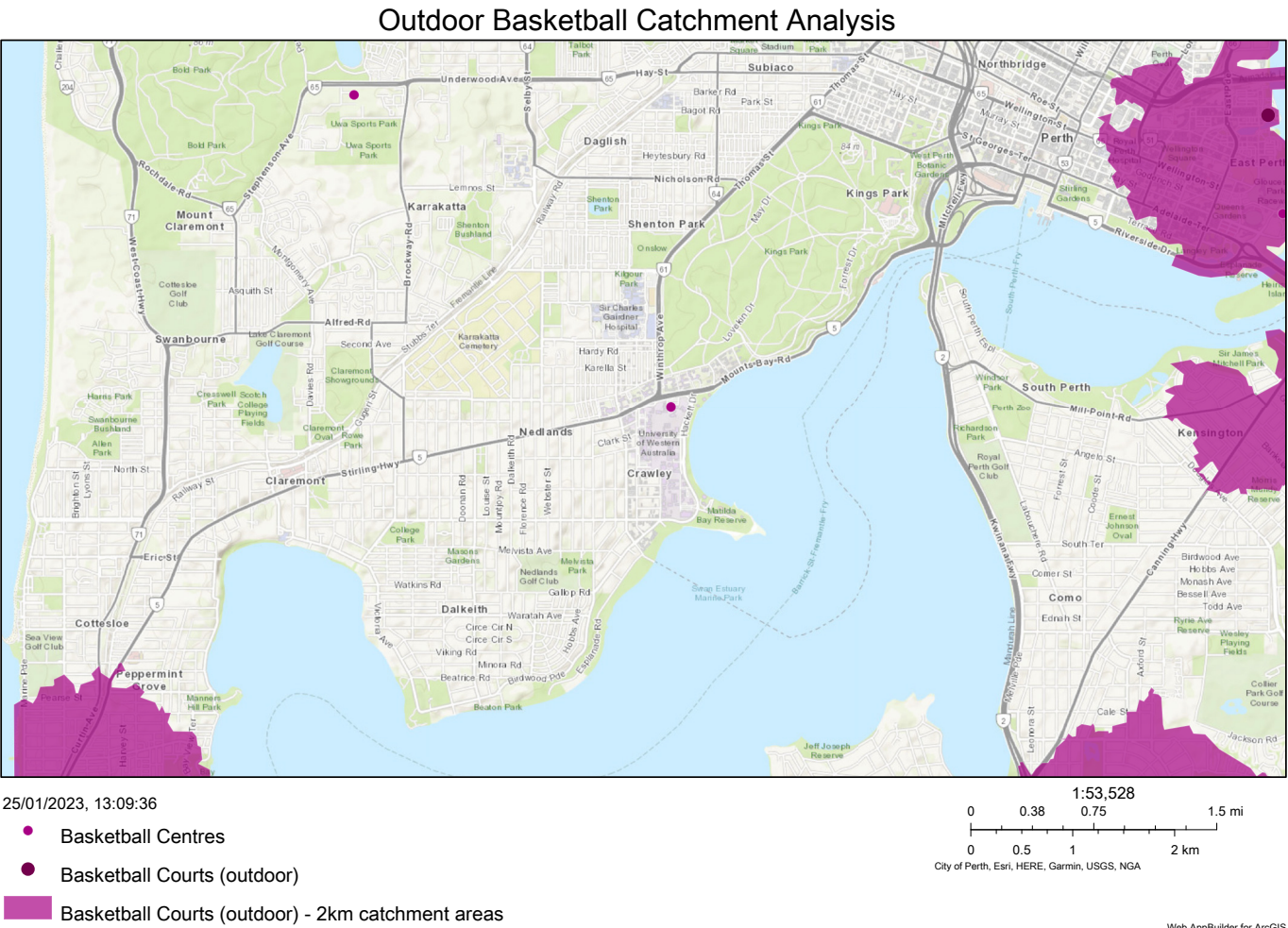


Figure 12 - Outdoor Basketball Catchment Analysis

Diamond pitches

According to the PLA Community Facilities Guidelines 2020, Diamond Sports are not well-serviced in many areas in the inner metropolitan region and any additional provision should cater to senior-level standards. The City of Nedlands already meets the median level of accessibility to Diamond Sports (as shown in Figure 13), which is provided in College Park. However, the catchment does not include all of Nedlands or Dalkeith and there may be an opportunity to expand the catchment by providing additional facilities at Highview Park, subject to the demolition of the existing clubhouse and the land subsequently meeting the necessary minimum dimensions for baseball and/or other diamond sports. Any such actions should though be subject of a needs assessment to ascertain community demand for diamond sports pitches.

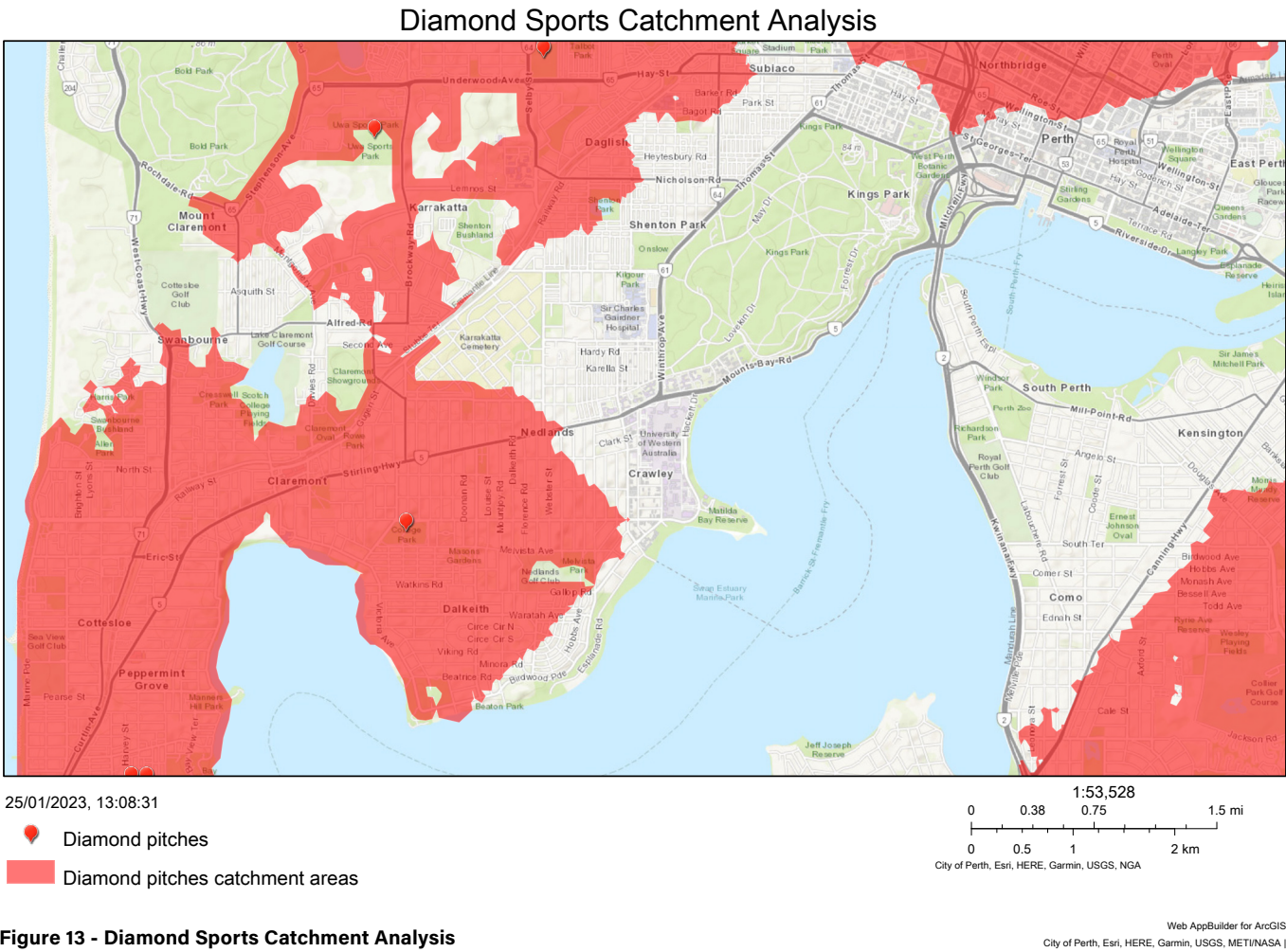


Figure 13 - Diamond Sports Catchment Analysis

⁸ Demolition of the existing clubhouse Highview Park is a recommendation of the City’s draft Strategic Active Sports Facilities Plan 2020 – 2050

11.5.7 Public Transport Accessibility

As shown in Figure 14, most POS in Nedlands and Dalkeith is within a 200m catchment of a public transport route, except the northern part of Highview Park, Mason Gardens, Goldsmith Reserve, Carrington Park and Blain park. In general terms, the areas of land that showcase a shortfall in access to POS and where new POS may be provided, particularly local POS, are well serviced by Public Transport.



Figure 14 - Public Open Space Interface with Public Transport

11.5.8 Full Catchment Analysis

Figure 15 illustrates the significant tracts of land (predominantly in Nedlands) that are not within a 400m walkable catchment of any POS whatsoever, including 40.5% of Nedlands and 11.44% of Dalkeith. These areas should be prioritised for additional POS to be provided through the conversion of sumps to parks, and the acquisition or ceding of land for POS through the subdivision process.

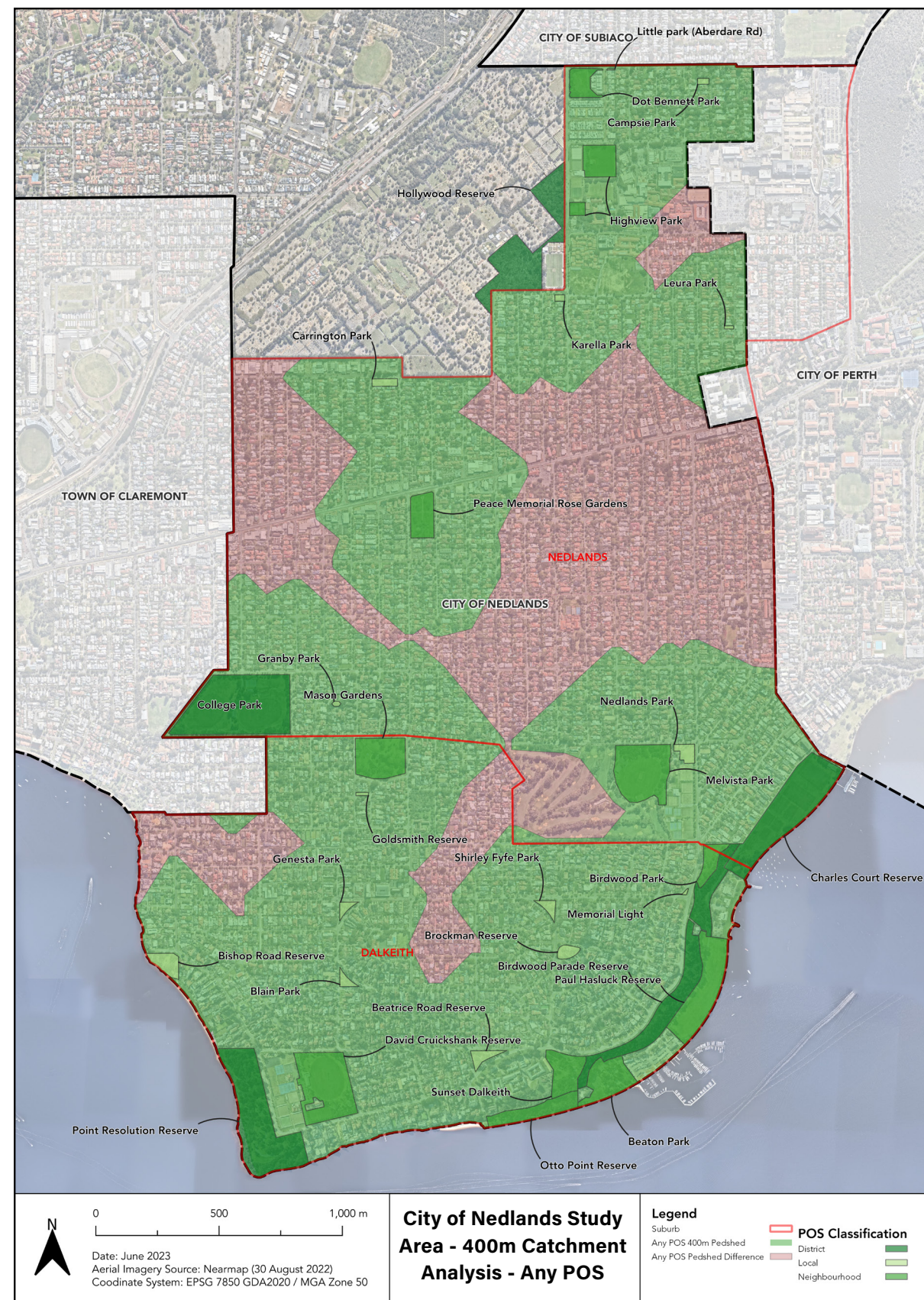


Figure 15 - 400m Catchments from any POS

12 Population Growth and Analysis

12.1 Census baseline data

Australian Bureau of Statistics (ABS) 2021 data indicates the City of Nedlands (overall) comprises 20,826 persons occupying 8,218 private dwellings. An additional 1,301 persons were either visitors or in other types of dwellings on census night.

Most of the City's population and dwellings are located in the suburbs of Nedlands and Dalkeith, which collectively comprise 14,105 persons in 5,134 occupied private dwellings.

On census night in 2021:

- Nedlands comprised 9,886 persons in 3,711 occupied private dwellings, which is an average household size of 2.66;
- Dalkeith comprised 4,219 persons in 1,423 occupied private dwellings, which is an average household size of 2.96.

ABS census data is also available as Statistical Area 1 (SA1) spatial shapefiles in polygons that range from 10 to 70 hectares. The SA1 areas enable examination of the distribution of dwellings and population in alignment with local government and suburb boundaries and key features such as Karrakatta Cemetery, Stirling Highway, Hospitals and Schools, as shown in Figure 16 (over page). The number of occupied private dwellings is shown in red numbers and the number of persons in occupied private dwellings is shown in black numbers.

All dwelling yield calculations and estimates (in a later section of the Strategy) are referenced to the applicable SA1 code, which enables clear spatial analysis of the distribution of population growth relative to the current population.





Figure 16 - Occupied Private Dwellings and Persons (SA1 - 2021)

The City's LPS 3 came into effect on 16 April 2019 and up-coded more than 1,500 lots with the potential to accommodate significantly more than the City's infill target of 4,320 additional dwellings by 2050. Most of the up-coded land is in Nedlands.

The City's growth areas are shown in Figure 17. Notably, much of the growth areas are located along the eastern end of Stirling Highway and Broadway (between Stirling Highway and Princess Road), as shown in a broken blue line, where there is a significant deficiency in access to POS.

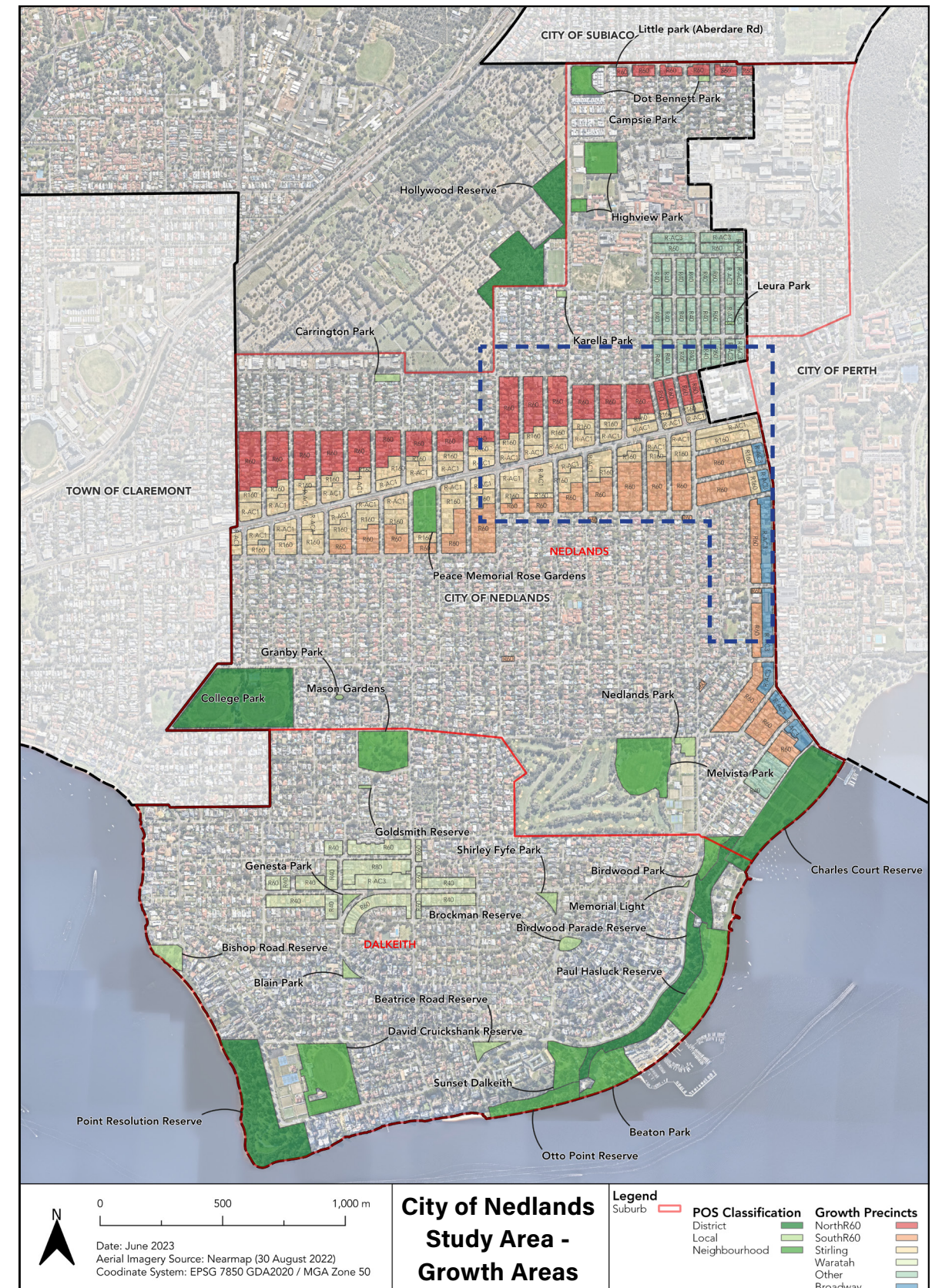


Figure 17 - Nedlands and Dalkeith Growth Precincts City Dwelling Approvals Data

The City has been collecting data on dwelling development approvals and building permits, which provides valuable real-world insight into development take-up since the gazettal of LPS 3 and inputs for projecting the estimated dwelling growth in future.

The City’s approvals data is grouped into the following key precincts:

- North of Stirling Highway (R60)
- South of Stirling Highway (R60)
- Stirling Highway (R160 & R-AC1)
- Broadway
- Waratah
- Other

The Strategy’s development potential analysis is categorised into the same key precincts to capitalise on the insights offered by the City’s dwelling approvals data.

While dwelling approvals do not guarantee that dwellings will be constructed in the short term, the data is a valuable indicator of development take-up, both in terms of the proportion of up-coded lots which have received development approval, and the approved density of development compared to the maximum dwelling yield possible for up-coded lots.



12.2 Approach to Population Growth Analysis

The POS Strategy leverages available data to analyse POS needs for the current (ABS 2021) population, and two population growth scenarios, as follows:

- Natural dwelling/population growth to 2050 (based on historical ABS data);
- Likely dwelling/population growth to 2050 (based on scheme density codes and land area data, calibrated to align with actual approvals data).

The likely dwelling/population growth is based on a calculated proportion of total possible development potential at full build-out and maximum take-up (based on scheme density codes and land area data) in each growth area precinct.

12.2.1 Natural dwelling/population growth to 2050

The natural growth data is shown in Table 20 below and indicates an average natural growth rate of ~25 dwellings per year for Nedlands and Dalkeith.

Table 20 - Natural Dwelling Growth Modelling (Occupied Private Dwellings)

Suburb	2011	2016	2021	2011–2016 rate/annum	2016–2021 rate/annum	2050	Additional by 2050 (Difference between 2021 and 2050)
Nedlands	3,535	3,557	3,711	4	31	4,219	508
Dalkeith	1,348	1,353	1,423	1	14	1,641	218
Total	4,883	4,910	5,134	5	45	5,862	726

Assuming household size remains the same, the above dwelling growth projections would equate to an additional 1,352 persons in Nedlands (based on an average household size of 2.66) and an additional 646 persons in Dalkeith (based on an average household size of 2.96), as shown in Table 21 below.

To understand the POS needs of the current and/or natural population growth to 2050, the strategy uses a population of 11,238 in Nedlands and 4,865 in Dalkeith, noting the figures are somewhat inflated by a sudden jump in the household size in Dalkeith that may be attributable to the Covid-19 pandemic.

Table 21 - Natural Population Growth Modelling

Suburb	2011	2016	2021	2050
Nedlands	9,437	9,680	9,886	11,238
Dalkeith	4,026	4,083	4,219	4,865
Total	13,463	13,763	14,105	16,103

⁹ The significant increase in persons from 2016 to 2021 in Dalkeith is likely due to a greater proportion of young people living at home with their parents. Data from the 2021 census reveals a 17% increase in people aged 25 – 34 living at home with their parents compared to the 2016 census, which is referenced in two articles, [here](#) and [here](#) each citing COVID-19 as one of the reasons for this anomaly.

12.2.2 Development potential based on full build-out and maximum take-up

Development potential at full build-out is calculated based on the areas of land affected by up-coding under LPS 3, as shown in Figure 17 earlier and the requisite residential density provisions of the R-Codes Volumes 1 and 2.

The total area of land affected by up-coding is shown in Table 22 below, with most of this land (112.293 hectares or 89.43%) being located within Nedlands.

Table 22 - Areas of Up-coded Land (ha)

Suburb	Broadway	North R60	Other	South R60	Stirling	Waratah	Total
Dalkeith						13.271	13.271
Nedlands	5.480	25.720	17.320	26.528	37.245		112.293
Total	5.480	25.720	17.320	26.528	37.245	13.271	125.564

The full build-out scenario is not an accurate indicator of actual population growth as it only ascertains the development potential of large areas of land and does not consider any barriers to development such as land fragmentation, site/market constraints, feasibility limitations, landowner disinterest in development etc. It effectively assumes all up-coded land is developed to the potential stipulated under the planning framework.

The City’s shapefile data enables efficient calculation of development potential across all the City’s growth areas based on the planning framework (R-Coding) and additional inputs are used to account for any existing dwellings that would be demolished through redevelopment.

The dwelling yield is calculated based on two key assumptions that separate land coded up to and including R80 and land coded more than R80.

Dwelling yield for land coded up to and including R80 is based on the average lot size permitted under the designated R-Code. For example, a cell that is coded R60 comprising 2.1598 hectares would yield 144 new dwellings at an average lot size of 150m². If the existing 33 dwellings in that area are then subtracted, the result is 111 additional dwellings.

For land coded higher than R80, the approach uses the requisite plot ratio divided by the average apartment size to determine yield, again, subtracting any existing dwellings.

For example, an R160 site comprising 4,180m² hectares has a maximum plot ratio of 2.0 (8,360m²). Dividing this figure by the average apartment size (70m²) yields a maximum development potential of 119 dwellings. Subtracting the existing eight dwellings means the land can generate an additional 111 dwellings. While it is noted that modern apartment development approvals in Nedlands generally comprise a slightly higher average apartment size than 70m², the plot ratio also often exceeds the maximum plot ratio, which compensates for this difference.

The above approaches are replicated across all 125.564 hectares of up-coded land, which reveals a maximum development potential of 19,564 additional dwellings, this accounts for the demolition of 1,849 existing dwellings to make way for new development.

¹⁰ The average apartment size of ~70m² is based on a decade of apartment sales data (over 4,000 sales extracted from CoreLogic) in similar western suburbs such as Subiaco and Claremont.

Full development potential is distributed across the same six key precincts used in the City’s dwelling approvals data, as shown in Table 23.

Table 23 - Full build-out by Precinct

Precinct	Full build-out (less existing dwellings)
Broadway	1,431
North R60	1,371
Other	1,598
South R60	1,465
Stirling (Includes R-AC1 and R160)	12,751
Waratah	948
Total	19,564

The capacity for each precinct to deliver its full development potential depends on a wide range of factors and constraints including but not limited to:

- Site constraints;
- Vehicle access;
- Lot configuration;
- High land value;
- High construction and other development costs;
- Market demand;
- Landowner intent;
- Local infrastructure capacity;
- Approvals processes;
- Landowner fragmentation; and
- Managing amenity impacts.

Understandably, each precinct and parcel of land is affected by the above factors in different ways, potentially resulting in land being developed at a lower density than permitted by the planning framework; at a higher density than contemplated by the planning framework; or remaining in its current state.

The spatial distribution of total development potential by the ABS SA1 is shown in Figure 18 with additional dwellings and the associated additional population based on an assumed household size of 2.2 for infill development.



Figure 18 - Spatial Distribution of Full Development Potential by SA1

12.2.3 Likely dwelling/population growth to 2050

Typically this kind of analysis of dwelling or population growth is based on a linear projection of historical data or an assumed development take-up rate of development potential in each precinct, i.e., 80%, 50%, 40% of potential etc. The City's dwelling approvals data provides a valuable means to combine these two approaches and calibrate the forecast take-up rates precinct-by-precinct based on actual development approvals data to date.

The actual number of dwelling approvals per precinct is shown in Figure 19 as light blue columns. This is projected out over 10, 20 and 30-year horizons and incorporates a reasonable diminishing return of 30%, 50% and 60% respectively. The formula is actual dwellings approved over two years multiplied by five for ten years, 10 for 20 years and 15 for 30 years, multiplied by a diminishing return of 0.7 (30%), 0.5 (50%) and 0.4 (60%) respectively.

The diminishing return is necessary to account for the initial influx of dwelling approvals after LPS 3 was approved as developers acted on lower-risk projects and to satisfy the high demand for new housing that emerged in the lead-up to the Scheme's gazettal. As the availability of easy-to-develop land diminishes over time, so too will average annual development yields.

As an example, over two years the City approved 162 dwellings in the South R60 precinct. This figure (162), multiplied by 15 and reduced by 60% determines that by 2050, the precinct has a likely yield of 972 dwellings or ~32 dwellings/annum. This is close to 60% of the development potential of the land (872). Accordingly, it is reasonable to use 60% of the development potential as a guide for future dwelling growth in this precinct, while using 40% in the North R60 precinct use the same approach.

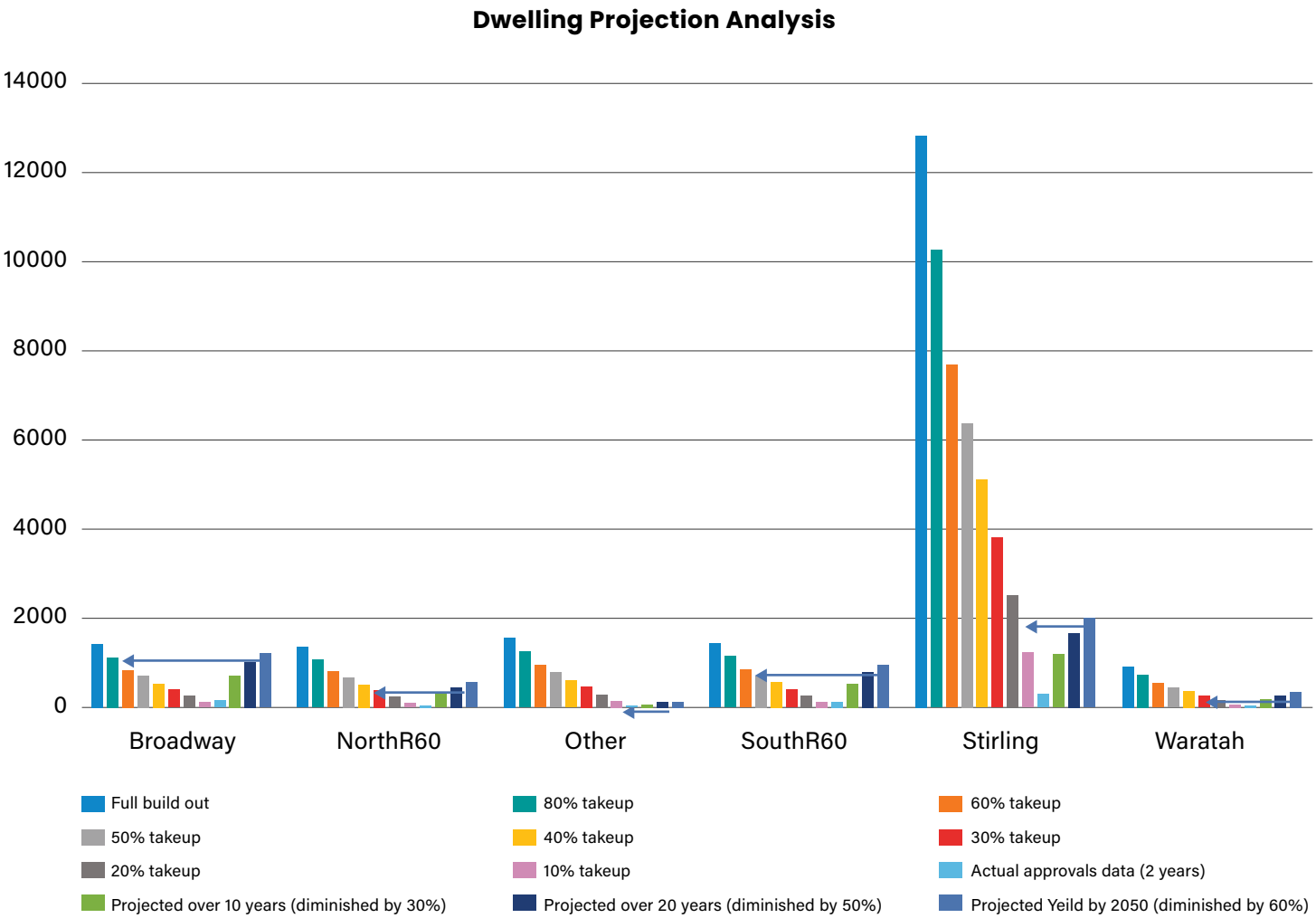


Figure 19 - Dwelling Projection Analysis

Table 24 - Adjusted take-up rates

Suburb	Precinct	Adjusted take-up rate	Additional dwellings to 2050	Total
Nedlands	Broadway	80%	1,144	3,947
	NorthR60	40%	540	
	Other	10%	149	
	SouthR60	60%	872	
	Stirling	10%	1,242	
Dalkeith	Waratah	40%	375	375
Total	4,322			

Accurately predicting the number of persons in each additional dwelling in this scenario is difficult, but in this case, it is calculated using a reduced household size persons/dwelling of 2.2 to account for the reduced dwelling size typical of infill development. Assuming infill development will generally comprise an average of 2.2 persons/dwelling, the 4,322 new dwellings by 2050 would yield an additional 9,508 persons in Nedlands and Dalkeith, taking the total population from 14,105 in 2021 to 23,613 in 2050. Most of this new population would be located within Nedlands, rather than Dalkeith, as shown in Table 25.

Table 25 - Forecast population growth

Suburb	2011	2016	2021	2050
Nedlands	9,437	9,680	9,886	18,569
Dalkeith	4,026	4,083	4,219	5,044
Total	13,463	13,763	14,105	23,613

¹¹ The lower 10% of potential is used for the Stirling Precinct to account for the additional complexity and difficulty to undertake development along Stirling Highway and the tendency for R160 lots to be developed at much lower density than permitted under the planning framework. This metric is the most sensitive and development approvals data and uptake should be carefully monitored over the coming years.



Figure 20 - Spatial Distribution of Likely Development by SA1

13 Public Open Space Gap Analysis

The standard ratios in the Parks and Leisure Australia Community Facility Guidelines 2020 (PLA Guidelines) enable a clear POS gap analysis to be undertaken for Nedlands and Dalkeith under certain growth scenarios, as shown in Table 26 and Table 27 below.

The gap analysis shows that Nedlands is currently undersupplied by two local parks and requires two additional local parks (four total) to meet the needs of natural population growth to 2050.

A further seven parks (11 total) are required to cater for the additional population directly associated with growth areas.

Accordingly, over the coming three decades, the City needs to provide 11 new local parks in Nedlands and their locations should be prioritised as follows:

- 1. In areas that are currently not within a 400m walkable catchment of any POS; and
- 2. In areas that are currently not within a 400m walkable catchment of Local POS.

The provision of new parks can be undertaken through land acquisition, on or off-market, and through the conversion of one or more drainage sumps to underground storage with POS landscaping on the surface. There are no additional POS requirements in Dalkeith, except in some cases to improve some existing POS with additional amenities.

Table 26 - Nedlands Gap Analysis

POS type/asset (standard)	Current Population (9,886)	Natural growth – 2050 (11,242)	Likely growth – 2050 (18,569)
Local Parks (1:1,000 persons)	9 parks 2 new parks required	11 Parks 4 new parks required	18 parks 11 new parks required
Neighbourhood Parks (1:5,000 persons)	4 parks No additional assets required	4 parks No additional assets required	4 parks No additional assets required
District Parks (1:15,000 – 25,000 persons) / Sports space	3 District POS No additional assets required	3 District POS No additional assets required	3 District POS No additional assets required
Playgrounds (1:2,000 persons)	4 playgrounds No additional assets required	5 Playgrounds No additional assets required	9 playgrounds 1 new playground required

Table 27 - Dalkeith Gap Analysis

POS type/asset (standard)	Current Population – 2021 (4,219)	Natural growth – 2050 (4,864)	Likely growth – 2050 (5,044)
Local Parks (1:1,000 persons)	8 parks No additional assets required	8 parks No additional assets required	8 parks No additional assets required
Neighbourhood Parks (1:5,000 persons)	7 parks No additional assets required	7 parks No additional assets required	7 parks No additional assets required
District Parks (1:15,000 – 25,000 persons)	2 District POS No additional assets required	2 District POS No additional assets required	2 District POS No additional assets required
Playgrounds (1:2000 persons)	2 playgrounds No additional assets required	2 playgrounds No additional assets required	2 playgrounds No additional assets required

The gap analysis demonstrates that there is an existing and rapidly growing gap in Local POS provision in Nedlands, which is consistent with the observations in the City's Local Planning Strategy.

If the population grows to 18,569 people by 2050 and no additional POS is provided, the amount of POS/person in Nedlands will reduce from 35m²/person to 18.63m²/person, which would put Nedlands lower than any of the Local Governments shown in Table 14 (as shown in Table 28 below).

Table 28 - Likely reduction of m² POS/person by 2050

POS Classification	Nedlands Current Population (9,886)	Nedlands Est. 2050 Population (18,569)
Local	1.17m²	0.62m²
Neighbourhood	9.70m²	5.17m²
District	24.13m²	12.85m²
Total	35.00m²	18.63m²

In addition to there being an existing and growing shortage of POS in Nedlands, in some cases, POS does not provide a sufficient level of amenity for local users. As much as is practical, all existing and each new POS should achieve a minimum amenity score of at least 50. The specific mix of amenities should be based on a dedicated engagement process with local community members. Figure 21 displays the size of each park on the X-Axis and its amenity score on the Y-Axis, which reveals a loose correlation between size and amenity score, as larger parks typically have a higher provision of amenities. However, some smaller parks also achieve a very high amenity score, such as Carrington Park, which combined with a significant shortage of POS in the area, means it attracts a high degree of patronage as a result. Larger natural/bush reserves typically score lower, which is not unusual but highlights an opportunity to make low-impact improvements to the amenities in these parks and reserves.

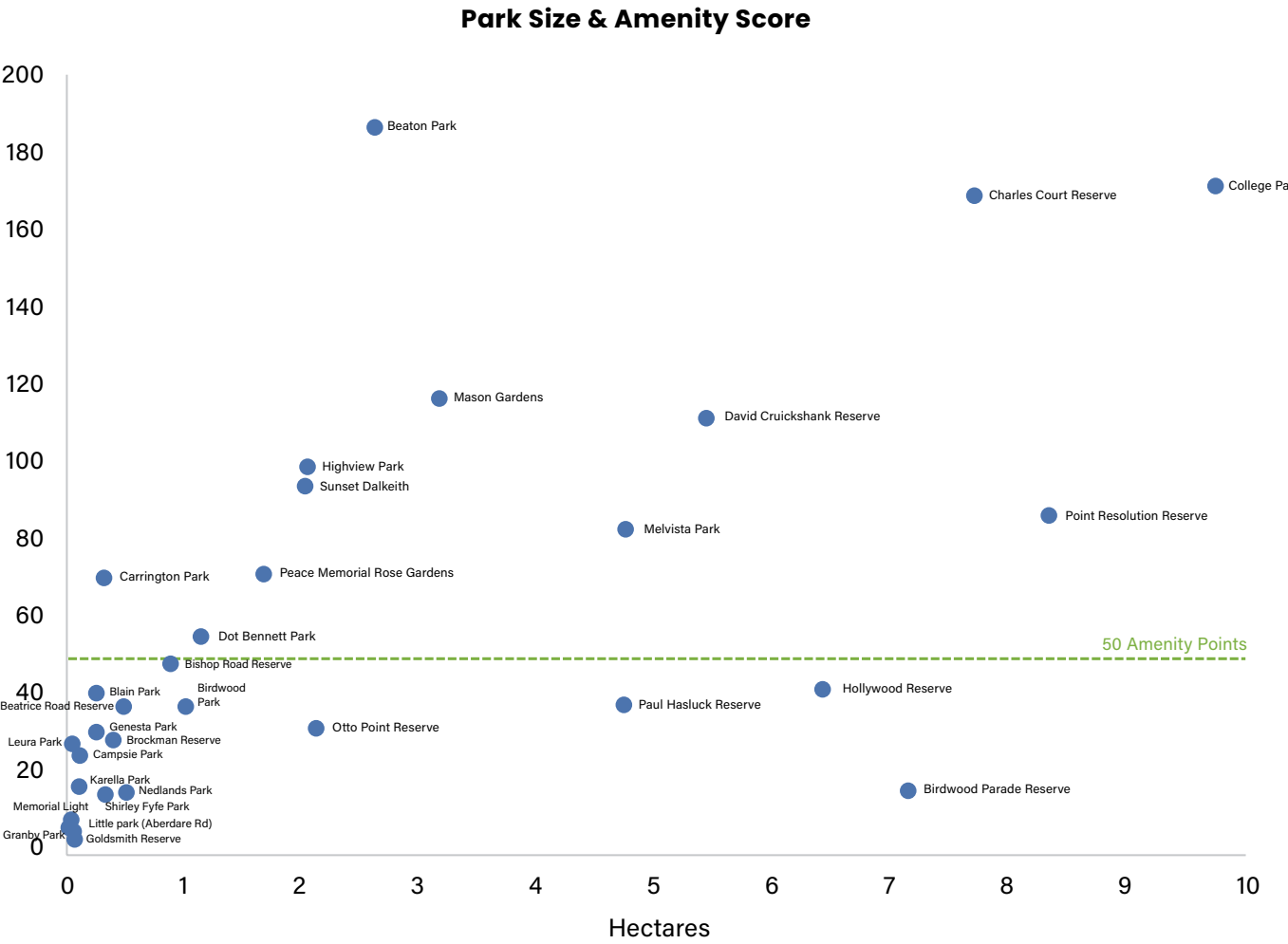


Figure 21 - Size of Park/Reserve plotted against the Amenity Score

14 Upgrades to and/or Acquisition and Development of Public Open Space

The City can use cash-in-lieu funding to acquire land for 11 new local-sized parks outside of existing catchments in Nedlands. Cash-in-lieu can also be used to develop/landscape new POS in alignment with community expectations and as limited by clause 4.3.9 of Development Control Policy 2.3 (expenditure of cash-in-lieu on these items is subject to Minister approval) to achieve a minimum amenity score of 50. Any gap, shortfall or ineligibility of cash-in-lieu may be offset by municipal funding.

14.1 Upgrades to sporting facilities

The City has already prepared a Strategic Active Sports Facilities Plan 2020 - 2050, which includes an order of probable costs to improve various sport and recreation facilities in alignment with community needs over the coming decades within the study area, some of which may be funded by cash-in-lieu funding subject to Minister Approval, as shown in Table 29 below.

If the cost of cash-in-lieu eligible items was shared between the 4,322 likely new dwellings to be created from 2020 to 2050, this would equate to \$2,252/dwelling.

Table 29 - Sport and Recreation Facility - Cash-in-lieu eligible costs

POS	Total project cost	Cost items eligible for Cash-in-lieu funding
College Park	\$8,174,540	\$1,456,875
Charles Court Reserve	\$5,529,807	\$776,875
Melvista Park	\$11,082,618	\$2,750,000
Highview Park	\$8,843,789	\$1,540,000
David Cruikshank Reserve	\$641,885	\$410,000
Allen Park	\$6,336,820	\$2,800,000
Total	\$40,609,459	\$9,733,750

14.2 Estimating the Cost of Acquisition and Development of POS.

The City should budget to spend \$42.48 million on 11 new local parks (averaging 1,816m²) comprising 2ha in Nedlands over the coming three decades. This equates to \$9,828/dwelling .

Assuming the cost of development and landscaping of each park will be in the order of \$200/m², this means a further ~\$4 million is required to undertake basic landscaping over 11 parks comprising an average of 1,816m² or 2ha in total. This equates to \$925/dwelling.

14.3 Improving the Amenity Score

While the POS gap analysis identifies new parks required to accommodate population growth, our audit of existing POS has identified that around 61% of the parks in Nedlands and Dalkeith need to be upgraded to meet the demands of population growth and achieve an appropriate standard with an amenity score of at least 50, or as close as possible having regard to site constraints.

Despite achieving an amenity score of less than 50, some of these parks/reserves may not need to be upgraded due to their size or context. For example, the otherwise unidentified 'little park' situated on Aberdare Road is only 170m² in size and may not have sufficient room for any additional assets. Additionally, Hollywood Reserve is mostly covered in bushland and would require careful planning and consultation with the local community to sensitively incorporate additional assets.

For the remaining parks that do not achieve an amenity score of 50 or greater, park/asset upgrades should be considered based on the context of the park (accessibility, size, and classification) and the needs of the existing and projected population.

The cost to upgrade amenities in all 31 parks will vary significantly and is expected to average \$200,000/ park or \$6.2 million over the coming three decades. This equates to \$1,434/dwelling.

The City should engage closely with the local community to guide investment in new park assets.

14.4 Sumps to Parks

There is an opportunity to convert three sumps to parks to address clear gaps in the distribution of POS, as shown in Figure 22 below. The cost to undertake this work will generally be in the order of \$500,000/ park including the installation of amenities to achieve an amenity score of at least 50. Accordingly, the City should aim to spend \$1.5 million on sump to park conversions over the coming three decades. This equates to \$347/dwelling.

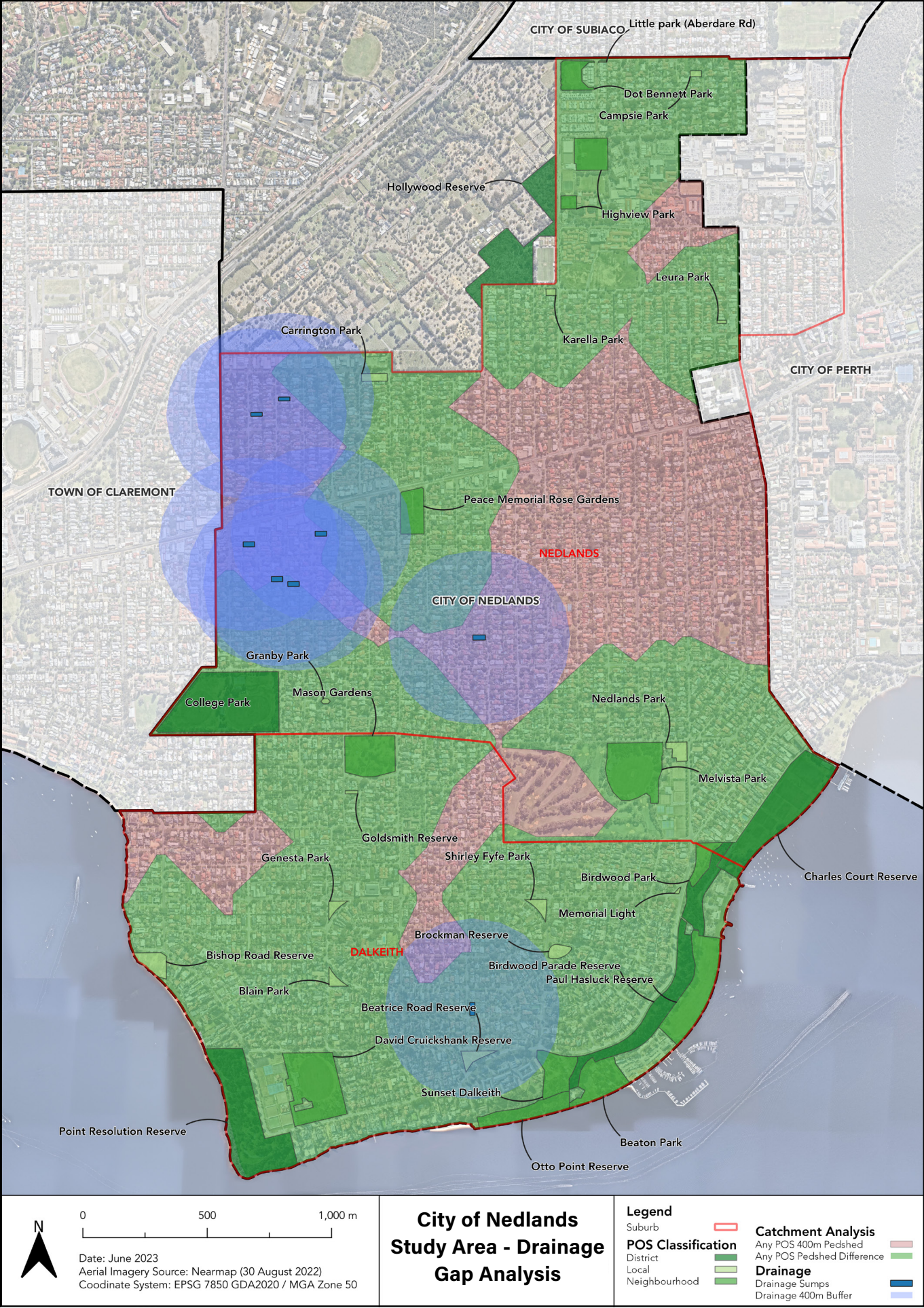


Figure 22 - Drainage Catchment Analysis

¹² Assuming the City generates 4,322 new dwellings to 2050

14.5 Total cost estimates and calibration with cash-in-lieu

Having regard to the various cash-in-lieu eligible expenditure set out in the preceding sections, the City needs to secure \$63,913,750 in cash-in-lieu funding over the coming three decades to 2050 to fund the POS needs of the additional population. This equates to an average of ~\$14,788/dwelling (assuming 4,322 dwellings are created). Although this figure will vary significantly depending on the density of the development and the value of the land upon which it is located. Leveraging the information gathered in the strategy, the % of land value for cash-in-lieu charges can be calibrated to align with both the area of land being developed and the required funds to meet the POS needs of a growing community. Assuming:

- The land values adopt for the purpose of calucating % of land value are as follows:
 - Stirling Precinct - \$30,000,000/ha
 - Waratah - \$31,783,418.60/ha
 - All other precincts - \$21,240,000/ha
- 41.3537 hectares of land is required to produce 4,322 additional dwellings by 2050, which is just under 33% of the City's growth areas.
- Accordingly, the City needs to collect 6.61% of the total value of the land (\$967 million) to raise the \$63,918,750. It is recommended that the City take steps to reduce the current requirement for 10% of the value of the land subject to a subdivision application to 7% for 6 or more lots, noting an additional .39% provides a fair and reasonable buffer to offset any variation around the assumptions within this report, and allows a further reduction to 5% of the land value for 3-5 lots. It is recommended that the City request a POS contribution on all subdivision applications proposing to create 3 or more lots by recognising:
 - For the purposes of the second dot-point under clause 3.1.6 of DC 2.3, that there is an existing deficiency of public open space in Nedlands; and
 - That the adoption of this strategy and associated policy constitutes an adopted a strategy to provide open space by land acquisition in the locality the subdivision in Nedlands; and
 - For the purposes of the third dot-point of the same clause, proposals to create five lots or less are likely to eventuate in the localities of Nedlands and Dalkeith due to an abundance of R40 and R60 coded land.

The planning framework should carefully articulate that in circumstances where ceding 10% of the land subject to a development and/or subdivision would be insufficient to be of practical use, the City, pursuant to clause 4.3.2 of DC2.3 should consider accepting applicant requests made pursuant to clause 4.3.4 of DC2.3 to pay cash-in-lieu of setting aside 10% of the land for POS. In these circumstances, the City will only request the Commission insert 5% (for 3-5 lots) or 7% (for 6 or more lots) of the value of the land into the standard subdivision condition R3 b), in recognition that collecting the above values of land will raise sufficient funds to both acquire and landscape additional land for POS in Nedlands to meet the needs of its growing community to 2050.

This approach will mitigate the impact of POS provision requirements on the majority of developments while raising sufficient funding to acquire and develop new POS in growth areas. However, larger development projects in areas with a POS deficiency will still be required to cede 10% of the land where this amount would yield an area of POS that is of practical use to the community.

In recognition of the rising cost of development, landscaping and acquisition, the approach to taking 5% or 7% of the value of the land is automatically indexed to the rising (or falling) value of the land. Accordingly, while the cost to acquire and deliver POS for a growing community in Nedlands is ~\$64 million in today's money, additional funding will be collected over time as land values increase to offset the higher cost of acquisition and development of POS in the future.

15 Population growth, new place developments and upgrades to the public realm

As the rate of population growth increases and the urban typology changes from predominantly suburban to a more ‘urban’ setting in growth areas, the need will emerge to change the public realm to reflect the new urban character, land use mix and development intensity.

Cash-in-lieu of POS funds generally cannot be used for place developments or public realm upgrades, except where the land is also reserved for POS. Hence, reserving, ceding or otherwise setting aside land for open space purposes provides an opportunity to unlock cash-in-lieu funds for public realm upgrades.

However, recent reforms to the Planning and Development (Local Planning Schemes) Regulations 2015 introduced the requirement for the preparation of a Payment-in-Lieu of Parking Plan (PLPP) to facilitate the collection of cash-in-lieu for car parking.

A PLPP must set out how the local government will spend money paid by a proponent under a relevant development approval condition, with expenditure limited to —

- a. The provision or maintenance of public parking infrastructure or other transport infrastructure (for example, public transport infrastructure or cycling or pedestrian paths) in the area to which the plan applies; or
- b. Ancillary or incidental purposes to those referred to in subparagraph i.

The WAPC’s PLPP Explanatory Guidelines ([here](#)), provides further insight into the ancillary or incidental purposes referenced above and how funds obtained through cash-in-lieu of car parking could be expended, including:

- traffic calming measures;
- footpath infrastructure, including new connections and upgrades;
- street furniture;
- street trees;
- street lighting;
- provision of, or upgrades to, bicycle networks;
- end-of-trip facilities; and
- improvements to wayfinding.

While upgrades to the public realm are not within the scope of a POS strategy, there is a shortfall of POS within the rapidly growing precincts in the City and greater investment in the public realm may provide a means to secure spaces where the local population can enjoy outdoor pursuits in their local community. Accordingly, it is recommended that the City develop a PLPP to ensure funding can be obtained through the development process for this purpose.

16 Conclusion

As the City of Nedlands continues to experience significant population growth, there is a need to establish a clear road map to resolve the existing and growing gap in POS accessibility within the study area. This Strategy addresses this gap by:

1. Identifying a growing deficit in local public open space and the high likelihood that subdivision proposals creating 5 lots or less are likely to occur throughout Nedlands and Dalkeith;
2. Acknowledging that in many cases 10% of the subdivisible lot area will be too small to be of practical use, and in these cases the City may accept cash-in-lieu of land for POS;
3. Activating the entitlement to impose an obligation to provide POS, or pay cash-in-lieu thereof, for subdivisions that propose to create three or more lots (instead of six or more lots);
4. Acknowledging that a requirement to pay cash-in-lieu of POS equivalent to 10% of the value of the land could have unintended and undesirable consequences and would yield more funding than necessary to acquire and deliver POS to an acceptable standard for the City's growing population. Where payment of cash-in-lieu of POS is justified, the payment amount is proposed to be reduced to 7% of the value of the subdivisible land for creation of 6 or more lots, and 5% for creation of 3-5 lots;
5. Establishing a framework to guide the acquisition of land for Local POS in Nedlands;
6. Providing a roadmap to inform the City's expenditure on improving the amenity of its parks and reserves;
7. Providing a comprehensive suite of strategies, actions, and opportunities to leverage in the pursuit of better POS accessibility in a growing community.

Appendix 1 Literature Review



Table 1 External Document & Decision Review

	Document/Decision	Topic							Comment/How Relevant
		Active Use + Existing Facilities	Passive Use	Strategy	Policy	Cash in Lieu Influence	Other	Currency/Completeness	
1.	Planning and Development Act 2005 (Sections 153 -156)					✓			<ul style="list-style-type: none">Provides head of power and method of calculation for cash-in-lieu of Public Open Space (POS).
2.	Western Australian Planning Commission – Issues and Options Paper – Review of Public Open Space Policy – January 2022	✓	✓		✓	✓			<ul style="list-style-type: none">Comprehensive report on the POS planning framework.Identifies existing challenges for POS through the POS planning framework particularly for infill areas and recommends options to resolve these.
3.	Position Statement: Expenditure of Cash-in-Lieu of Public Open Space - October 2020	✓	✓			✓			<ul style="list-style-type: none">Refers to Planning and Development Act 2005.Guides the collection, management and expenditure of Cash in Lieu of POS, including how to obtain Minister approval.Guides decision-making under sections 153-156 of the Act, essentially supersedes some parts of DC 2.3.
4.	Department of Planning, Lands and Heritage – Draft Liveable Neighbourhoods - 2015	✓	✓		✓	✓			<ul style="list-style-type: none">Provides a POS Schedule to calculate the relevant contribution (Element 5, Pg 101).Provides guidance for the public open space network (walkable catchments).Appendix 4 – Cash in lieu for POS replicates DC Policy 2.3.
5.	Department of Planning, Lands and Heritage – Development Assessment Panel Reforms – Special Matters Development Assessment Panel – Q1 of 2022						✓		<ul style="list-style-type: none">Depicts areas (Figure 5, which includes land adjacent to Stirling Highway within the City of Nedlands) where applications could be eligible (subject to criteria) for determination by the Special Matters DAP.
6.	Parks and Leisure WA – Western Australia Guidelines for Community Infrastructure – July 2020	✓	✓						<ul style="list-style-type: none">Comprehensive resource for POS, strategic and recreation facility planning and development.Provides useful benchmarks and classification of facility type and population range for provision of community infrastructure.
7.	Parks and Leisure WA – Western Australia Community Facility Guidelines Report: High Level Public Open Space and Sports on Public Open Space Data Review, Perth and Peel – July 2020	✓	✓						<ul style="list-style-type: none">Comprehensive review in support of document No. 6 above.Includes rationale for change in guidelines for POS and other facilities.
8.	Western Suburbs Greening Plan 2020-2025 (Western Suburbs Regional Organisation of Councils)		✓	✓					<ul style="list-style-type: none">Provides useful stocktake and analysis of existing green spaces within the Western Suburbs.
9.	City of Vincent – Public Open Space Strategy – December 2018	✓	✓	✓					<ul style="list-style-type: none">Provides a good example of a fit-for-purpose POS strategy.Succinct and legible to a broad audience.Limited focus on Cash-in-lieu and population growth.
10.	Town of Claremont – Draft Public Open Space Community Facilities Strategy – April 2022	✓	✓	✓					<ul style="list-style-type: none">Comprehensive and technically written.Provides a neighbouring example of matters for consideration and useful reference point for mapping of POS.Includes analysis of community facilities.
11.	City of Wanneroo – Local Planning Policy 4.3: Public Open Space – 2021	✓	✓		✓	✓			<ul style="list-style-type: none">Example of POS contributions/payments implemented by a policy.Lacks guidance on expenditure of cash-in-lieu, although this is covered in the Position Statement (Document 4).
12.	City of Wanneroo – Northern Coastal Growth Corridor – Community Facilities Plan – Review 2019-2029	✓							<ul style="list-style-type: none">Emphasis on community facilities.Provide useful examples of POS considerations in a greenfield context and approach to establishing needs.Limited use for an inner middle ring infill area POS Strategy.
13.	Subiaco Open Space Assessment Tool – March 2014	✓	✓						<ul style="list-style-type: none">Includes 8 assessment items, each with their own criteria. The criteria may influence the audit template, although the structure should be updated for ease of analysis.
14.	Development Control Policy 2.3 – Public Open Space in Residential Areas – 2002	✓	✓		✓	✓			<ul style="list-style-type: none">Guides decision-making under sections 153-156 of the Act (note: refers to former Town Planning and Development Act 1928).Identifies circumstances in which Cash-In-Lieu can be charged and specifies expenditure limitations.
15.	Perth and Peel @ 3.5million – Central Sub Regional Planning Framework -March 2018 - Part 1 - Part 2			✓					<ul style="list-style-type: none">High-level commentary regarding POS provision within the Central Sub-region.Recognises the Green Network (sport/recreation spaces, parks, facilities for active open space etc) as an Urban Consolidation Principle applicable across Urban Consolidation Precincts.
16.	Department of Planning Lands and Heritage – Liveable Neighbourhoods - 2009	✓	✓		✓	✓			<ul style="list-style-type: none">Reinforces allocation of POS required through subdivision.Appendix 4 – Cash in lieu for POS replicates DC Policy 2.3.

Table 1 **External Document & Decision Review**
Continued

	Document/Decision	Topic							Comment/How Relevant
		Active Use + Existing Facilities	Passive Use	Strategy	Policy	Cash in Lieu Influence	Other	Currency/Completeness	
17.	Institute of Public Works Engineering Australasia - Local Government Guidelines for Subdivisional Development - October 2017	✓	✓			✓	✓		<ul style="list-style-type: none"> Reinforces WAPC position regarding cash in lieu of POS. Provides development guidelines for the construction of POS as part of subdivision.
18.	Department of Sport and Recreation – Classification Framework for Public Open Space – November 2012	✓	✓		✓				<ul style="list-style-type: none"> Despite its age, the framework is still a key reference point for the size of POS and provides a basis for the POS classifications in the PLA guidelines 2020.
19.	Department of Sports and Recreation – Needs Assessment Guide – Sport and Recreation Facilities – March 2007	✓							<ul style="list-style-type: none"> Extensive (but outdated) document. Provides a step-by-step process for undertaking a needs assessment, methodology may be transferrable.
20.	Town of Cottesloe – Public Open Space and Playground Strategy – July 2019	✓	✓	✓					<ul style="list-style-type: none"> Assessment Matrix (Table 4) may influence audit template, although the structure should be transposed (reversed) for ease of analysis and integration with GIS.
21.	City of Fremantle – Greening Fremantle: Strategy 2020			✓					<ul style="list-style-type: none"> Recently outdated. Established actions and timeline to support the delivery of components of the strategic community plan. High level document that has some useful mapping examples.
22.	Department of Sport and Recreation – Active Open Space (playing fields) in a growing Perth and Peel – January 2013	✓	✓						<ul style="list-style-type: none"> Research paper relating to the existing shortfall of active open space (playing fields) in outer suburbs. Somewhat outdated, broad outcomes with limited interrogation of inner-middle ring suburbs.
23.	Department of Sports and Recreation – Emerging Constraints for Public Open Space in Perth Metropolitan Suburbs – March 2011	✓							<ul style="list-style-type: none"> Very high-level and now outdated. Focused on POS in outer metropolitan suburbs.
24.	Sports West – Strategic Priorities for WA Sport – July 2020	✓							<p>Informing document setting out strategic position for WA Sport.</p> <p>May be of some value as a reference point for the study area.</p>

Table 2 City of Nedlands Document & Decision Review

	Document/Decision	Topic							Comment/How Relevant
		Active Use + Existing Facilities	Passive Use	Strategy	Policy	Cash in Lieu Influence	Other	Currency/Completeness	
1.	City of Nedlands Community Benefits and Infrastructure Contributions Report February 2022	✓	✓			✓			<ul style="list-style-type: none"> Comprehensively sets out infrastructure and community benefit capture models and includes a recommendation to prepare a POS Strategy and highlights the potential and risks associated with collecting cash-in-lieu of POS.
2.	City of Nedlands Agenda Item PD14.03.22 Consideration of Community Benefits and Infrastructure Contributions Models – 22 March 2022	✓	✓			✓			<ul style="list-style-type: none"> Includes a recommendation to pursue cash-in-lieu for POS approach, prepare a POS strategy and Resolution 2 to manage the risk of implementing a comprehensive cash-in-lieu framework, which forms the basis for the LPP included in this scope of works.
3.	City of Nedlands GIS Data – Scheme, MRS & Parks Assets	✓	✓				✓		<ul style="list-style-type: none"> Comprehensive spatial scheme data including up-to-date R-Codes, Zones, Reserves etc. and MRS zones/reserves trimmed to the City of Nedlands. Includes detailed asset data including lines for fences and walls etc, polygons for soft fall areas etc, and points for all other assets including lighting, play equipment, furniture and bollards etc.
4.	City of Nedlands Urban Forest Strategy 2018 - 2023	✓	✓	✓					<ul style="list-style-type: none"> Notes the City has commenced 8 'Enviro-scape Master Plans' (EMP) for various parks/reserves and aims to deliver 11 more. Establishes urban canopy target of 20% by 2028 and 20% more than the 2017 audit by 2023.
5.	City of Nedlands Disability Access and Inclusion Plan	✓	✓				✓		<ul style="list-style-type: none"> Establishes actions for playgrounds to be upgraded to current Australian standards for equal access and safety by the end of the 2022/2023 financial year.
6.	Enviro-scape masterplans <ul style="list-style-type: none"> Bishop Road Reserve David Cruikshank Reserve Carrington Park Point Resolution Reserve 	✓	✓			✓			<ul style="list-style-type: none"> Establishes existing and proposed park assets, some of which overlap with works that are eligible for cash-in-lieu funding. Unclear to what extent the actions have been delivered. The City aims to complete 2 further enviro-scape plans each year over the coming two financial years, including the following parks (within the study area): <ul style="list-style-type: none"> Masons Gardens College Park Melvista Park Genesta Park Grainger Reserve Directors Gardens
7.	City of Nedlands - Strategic Active Sports Facilities Plan 2020 – 2050 (unendorsed)	✓							<ul style="list-style-type: none"> Comprehensive. Includes assessment of future needs to 2050 for several recreation areas within the study area. Includes a recommendation to develop a POS Strategy to support the SASFP 2020-2050 to create better connectivity and integration of the City's green spaces. Includes comprehensive recommendations to upgrade and/or improve various active reserves including David Cruickshank Reserve Highview Park Reserve, Melvista Park, Charles Court Reserve and College Park, which are located within the Study Area. Some of the recommended works overlap with items that are eligible for cash-in-lieu expenditure and are based on broad future population projections.
8.	City of Nedlands Local Planning Strategy 26 September 2017			✓					<ul style="list-style-type: none"> Includes mandate to prepare POS Strategy to 'manage the City's recreation and open space assets and provide for future community needs.' Establishes there is a shortage of local-level parks within the subject area, which warrants further investigation as part of a public open space strategy. Included POS classification system does not appear consistent with the PLA Guidelines.
9.	City of Nedlands Asset Management Plans: <ul style="list-style-type: none"> Buildings; Drainage; Parks; Paths; Roads. 	✓	✓						<ul style="list-style-type: none"> Much of the findings are subject to condition assessment that is currently underway and replacement value is not yet finalised. Acknowledges that without a POS strategy, the AMP is simply a document that compels the City to continue providing the same assets, as there is no plan for improved or additional assets. Notes 97.8% of parks assets are in average, good or excellent condition.

Table 2 **City of Nedlands Document & Decision Review**
Continued

	Document/Decision	Topic							Comment/How Relevant
		Active Use + Existing Facilities	Passive Use	Strategy	Policy	Cash in Lieu Influence	Other	Currency/ Completeness	
10.	City of Nedlands Strategic Community Plan 2018 - 2028			✓					<ul style="list-style-type: none">References the ongoing Enviro-scape master plans for all parks to coordinate replacement irrigation, equipment and other consideration to ensure parks are fit for purpose by 2030Structure makes it difficult to discern the City's approach to public open space, as the SCP is organised into Strategic Vision, Priorities, Objectives and Strategies, and Financial implications, rather than the strategic issues listed on page 17 (Population, Infrastructure, Economy, Environment and Community/lifestyle).Includes inclination to enhance the useability of existing POS and pursue opportunities for new POS in areas experiencing growth.
11.	City of Nedlands Annual Report 2020-2021						✓		<ul style="list-style-type: none">Limited relevance to Public Open Space (POS) Strategy.Provides very limited statistics on POS bookings.May include some useful high-level statistics for context.
12.	City of Nedlands Asset Management Strategy 2019 - 2029	✓	✓	✓					<ul style="list-style-type: none">Asset count statistics exceed the boundary of the Study area, with limited relevance to POS Strategy.
13.	City of Nedlands POS Audit Data Spreadsheet	✓	✓						<ul style="list-style-type: none">Structure not suited to data analysis nor integration with Geographic Information Systems.May provide a useful guide to preparing an audit template.Includes some base information that may immediately fill blanks in the audit template for parks and reserves within the study area.
14.	City of Nedlands Hollywood Reserve Management Plan City of Nedlands Birdwood Parade Management Plan City of Nedlands Point Resolution Management Plan		✓						<ul style="list-style-type: none">Few years out of date but provides a good background and substantive information on natural areas within the study area.
15.	City of Nedlands Corporate Business Plan 2013 - 2017						✓		<ul style="list-style-type: none">Overdue for review.Establishes significant funding (for financial years that have not passed) for Parks and Reserves.Includes action to build accessible play space (now complete) and upgrade three playgrounds per year to make them accessible, safe and shady.
16.	Strategic Recreation Plan 2010 - 2015	✓							<ul style="list-style-type: none">Outdated.Identifies major recreation reserves.Establishes activity-specific ratings for Badminton, Baseball etc.Establishes various management and facilities recommendations.Essentially superseded by Dave Lanfear Report (Document 7)
17.	City of Nedlands – Survey Responses Report Favourite Parks and Thoughts Map	✓	✓				✓		<ul style="list-style-type: none">Comprehensive but not suited to efficient compilation/analysis of responses.If tabulated data can be provided this may prove useful, however, full analysis of this data is not within scope.
18.	City of Nedlands Community Development Annual Report data	✓							<ul style="list-style-type: none">Limited relevance to POS Strategy, Data for Sport & Recreation not complete.

