



## OPEN SPACE ASSESSMENT: 2 & 4 GUESS AVE, WOLLI CREEK



© SGS Economics and Planning Pty Ltd 2019

This report has been prepared for City of Bayside. SGS Economics and Planning has taken all due care in the preparation of this report. However, SGS and its associated consultants are not liable to any person or entity for any damage or loss that has occurred, or may occur, in relation to that person or entity taking or not taking action in respect of any representation, statement, opinion or advice referred to herein.

SGS Economics and Planning Pty Ltd  
ACN 007 437 729  
[www.sgsep.com.au](http://www.sgsep.com.au)  
Offices in Canberra, Hobart, Melbourne, Sydney

# TABLE OF CONTENTS

---

<b>EXECUTIVE SUMMARY</b>	<b>III</b>
<b>1. INTRODUCTION</b>	<b>1</b>
1.1 Project Context	1
<b>2. SITE CONTEXT</b>	<b>2</b>
2.1 Site description	2
2.2 Existing open space network	3
2.3 Community Infrastructure Needs	7
<b>3. POLICY REVIEW</b>	<b>8</b>
3.1 Metropolitan Plans	8
3.2 Government Architect of NSW Policy papers	9
3.3 Local Plans and Policies	10
3.4 Key findings	14
<b>4. OPEN SPACE BENCHMARKS</b>	<b>15</b>
4.1 Benchmarks	15
4.2 Design Guidance	16
4.3 Key findings	16
<b>5. COMMUNITY PROFILE</b>	<b>18</b>
5.1 Census data analysis	18
5.2 Community open space needs	21
5.3 Priorities for open space provision	21
<b>6. SITE ASSESSMENT</b>	<b>22</b>
This section identifies areas that have access to open space within 200m. This is to understand whether the local community's access to open space is consistent with the Greener Places Guidelines.	22
6.1 Open space accessibility	22
6.2 Key findings	23
<b>7. OPTIONS FOR OPEN SPACE</b>	<b>24</b>
7.1 Options for open space provision	24
7.2 Community facilities	25
7.3 Role of site in broader open space network	26
<b>8. CONCLUDING REMARKS</b>	<b>27</b>
<b>APPENDIX: CASE STUDIES</b>	<b>28</b>

---

## LIST OF FIGURES

---

FIGURE 1: LOCATION OF SITE	2
FIGURE 2 EXISTING OPEN SPACE NETWORK (INCLUDING POSITIVE COVENANTS AND PROPOSED LUSTY STREET RESERVE)	3
FIGURE 3 DISCOVERY PARK AND VILLAGE SQUARE - PLAN	5
FIGURE 4 VILLAGE SQUARE PARK	6
FIGURE 5 COMMUNITY INFRASTRUCTURE	7
FIGURE 6 CURRENT AND PROPOSED PARKS AND OPEN SPACE	12
FIGURE 7 THE WOLLI CREEK AND BONAR STREET PRECINCT EXISTING AND PROPOSED PARKS	14
FIGURE 8 COMMUNITY PROFILE GEOGRAPHIES	18
FIGURE 9 EXISTING OPEN SPACE NETWORK (INCLUDING PROPOSED LUSTY STREET RESERVE AND ARNCLIFFE STATION OPEN SPACE)	22
FIGURE 10 ROLE OF GUESS AVENUE SITE WITHIN BROADER OPEN SPACE NETWORK	26

---

## LIST OF TABLES

---

TABLE 1: DISTRICT OPEN SPACES WITHIN 2KM OF STUDY SITE AND LOCATED WITHIN BAYSIDE LGA	4
TABLE 2: LOCAL OPEN SPACES WITHIN 400METRES OF STUDY SITE AND LOCATED WITHIN BAYSIDE LGA	4
TABLE 3: OPEN SPACE REQUIREMENTS IN DEVELOPMENT PROJECTS	11
TABLE 4: INFERRED DEMANDS FOR RECREATION SPACE	15
TABLE 5: MINIMUM LAND AREAS FOR DIFFERENT OPEN SPACE USES IN LOCAL PARKS	16
TABLE 6: AGE GROUPS	19
TABLE 7: UNEMPLOYMENT RATE	19
TABLE 8: HOUSEHOLD COMPOSITION	19
TABLE 9: COUNTRY OF BIRTH	20
TABLE 10: HOUSING TYPES	20
TABLE 11: INFERRED DEMANDS FOR RECREATION SPACE	21

# EXECUTIVE SUMMARY

---

## Introduction

2 and 4 Guess Avenue (the study site) is a 7,765 square metre site in Wolli Creek comprising two property parcels. In 2017, Bayside City Council resolved that it no longer required both sites for public purpose and is seeking to submit a planning proposal to amend the Rockdale LEP to rezone these sites from RE1 – Public Recreation to B4- Mixed use and to remove the public acquisition overlay that exists.

SGS was commissioned to consider the implications of rezoning these sites with regard to local open space provision and community facilities.

## Site context

The study site is located in Wolli Creek, which has experienced rapid growth in residential housing in the last 10 years. Overwhelmingly, this has been in high density apartment developments. In order to meet the needs of the growing residential community, new open spaces have been delivered as part of developments, either as private open spaces contained within developments, or in public open spaces protected by positive covenants.

Council has also planned for new open spaces in the area, including the Lusty Street Reserve located immediately to the north west of the study site.

## Existing open space network

There is a series of large district open spaces located to the north and west of the Guess Avenue Site, and these provide a range of opportunities for active and passive recreation. This includes Cahill Park, Waterworth Park, Tempe Recreation reserve and Robyn Webster Reserve. While these are located only short distances away, pedestrian access is constrained.

In the immediate vicinity of the study site is Discovery Park and Village Square. These were constructed as part of the Discovery Point development and are high quality open spaces that provide contrasting uses for local residents. A second Village Square located directly to the north of the study site is not considered part of the public open space network due to access constraints and its lack of visibility from the surrounding street network.

Other local open spaces in the area are typically small and provide a limited number of uses, such as a playground and a lawn.

Open space planning documents are out of date and preceed the merging of Botany Bay council and Rockdale Council and do not provide an accurate assessment of current open space provision levels. Council is currently preparing a new open space strategy which will provide greater guidance on open space planning.

## Policy Context

Strategic planning documents such as the Greener Places Discussion paper prepared by the Government Architect of NSW emphasise the need to improve the provision, diversity and quality of open spaces.

The study site has been identified as a key opportunity in local policy documents to deliver much needed open space in Wolli Creek, a rapidly growing area undergoing urban renewal.

It is the preferred site identified in the Wolli Creek and Bonar Street Precinct Public Domain Plan (2011) for a New Town Park and is well located for improving the community's access to local open space.

Should the site be rezoned, the Rockdale Development Control Plan 2011 identifies minimum land areas that should be allocated for landscaped open space within development projects. For a residential development, a minimum of 15 per cent of the land area is required to be landscaped, and, 5 square metres of communal space should be provided per person.

## Open Space Benchmarks

In high density areas, the Greener Places Manual recommends most houses should be located within 200 metres of open space, and that the minimum size for a local open spaces is 1,500 square metres where more efficient provision cannot be provided . Open spaces that are only 1,500 square metres provide a relatively limited range of open space opportunities.

## Community open space needs

The priorities for local and neighbourhood parks are

- Meeting places
- Gathering places with picnic and barbeque facilities
- Low cost sporting and recreation opportunities: eg gym facilities
- Community gardens

Although there are lower numbers of children in the local area, the high density of the area means that provision of diverse play spaces is an important consideration

## Open Space Assessment

An assessment of the local area to identify areas without access to open space within 200m highlights the important role of the Guess Avenue site in providing local open space to the community, particularly those living immediately to the south of the study site. Residents in this area do not have access to local open space within 200 metres.

In order to meet the standard in the Greater Sydney Regional Plan and the draft Greener Places Guidelines, where most houses in high density areas should have access to open space within 200 metres, the Guess Avenue site would be required to provide some open space.

The difficulty faced by residents in accessing parks on the eastern side of the Pacific highway further reinforces the need to ensure open space is provided at the Guess Avenue site.

## Options for Open Space provision

### 1,500 square metres of open space

This is the minimum size possible and would allow for a more limited range of activities to occur. It could incorporate

- a small playground
- lawn
- infrastructure which would encourage people to stay in the park. (eg seating, shade and a basic path network)

### 4,000 square metres of open space

An open space of 4,000 square metres would increase the open space offering in the local area in a meaningful way as it could include more diverse open space uses. In addition to those possible at 1,500 square metres, other elements that could be incorporated include

- New local play experiences such as nature play to compliment existing traditional small playgrounds
- Community gardens
- Larger gathering lawns
- Effective pedestrian links and visual links across the site

- Small active recreation areas such as basketball half courts

### Use of entire site for open space (7,765 square metres)

if the entire site is used for open space, it would substantially diversify the open space offering within the Wolli Creek precinct. In addition to those elements possible at 1,500 and 4,000 square metres, other elements that could be incorporated include

- large gathering places (with shelters and bbq facilities),
- informal playing fields,
- dog off leash areas, and
- exercise infrastructure

### Community facilities

A series of case studies were undertaken to identify how community facilities and open spaces were provided in higher density developments. A number of these incorporated community or communal gardens, which were seen as a way to develop community cohesion, and to provide residents the opportunity to engage in gardening where private open space was limited.

### Role in the broader open space network

Regardless of size, an open space on the site also offers an important opportunity for improving the connectivity of the open space network, which will in turn support greater walking and engagement in the public realm. It's role as a central open space that connects both small and large open spaces in the area is crucial.

### Concluding remarks

An open space of 4,000 square metres on the Guess Avenue site would mean that there is sufficient area for a large local open space to be provided that significantly diversifies the open space offering in the area. This would represent partial retention of the site (one of the properties) for open space purposes, while the remainder can be developed for mixed use. The remainder area would also be required to provide approximately 10 per cent as public open space to achieve the 4,000 square metres of open space.

The site is well located within the broader open space network and offers opportunities to improve local connectivity of open space, and to reinforce the active transport network.

Beyond the site, it will be important to consider access to major regional reserves where access is constrained due to the absence of river crossings and barriers to crossing the Princes Highway as a pedestrian. The types of additional uses on a 7,765sqm are considered district open space uses, and there is adequate access to district open spaces in the wider area, however pedestrian accessibility should be improved.

# 1. INTRODUCTION

---

## 1.1 Project Context

2 and 4 Guess Avenue, Wolli Creek are currently zoned RE1- Public Recreation. In 2017, Bayside City Council resolved that it no longer required both sites for public purpose and is seeking to submit a planning proposal to amend the Rockdale LEP to rezone these sites from RE1 – Public Recreation to B4- Mixed use.

Both properties are identified for acquisition for the purposes of Public Recreation under the Rockdale LEP, and the site is also identified as a proposed new park within Rockdale Development Control Plan 2011 and the Wolli Creek and Bonar Street Public Domain Plan.

SGS was commissioned to consider the implications of rezoning these sites with regard to local open space provision.

To address this, the report is structured as followed:

- **Site context:** Mapping and discussion of the existing provision of open space within the local context
- **Policy Review:** A review of key policy documents relevant to the rezoning proposal
- **Community Profile:** An assessment of the current demographic profile and future demographic projections, and their open space and social infrastructure needs
- **Open space benchmarks:** A review of current approaches to the provision of open space, including benchmarks
- **Site assessment:** An assessment against guidelines prepared by the Government Architect of New South Wales, in particular, Greener Places to understand the role of the site in local access to open space
- **Options for open space:** An assessment of alternate options for open space delivery on the site
- **Concluding remarks:** a summary of the key findings in the report
- **Appendix:** A series of case studies where open space is integrated into high density housing projects

## 2. SITE CONTEXT

This section describes the site context and role in the municipal open space network.

### 2.1 Site description

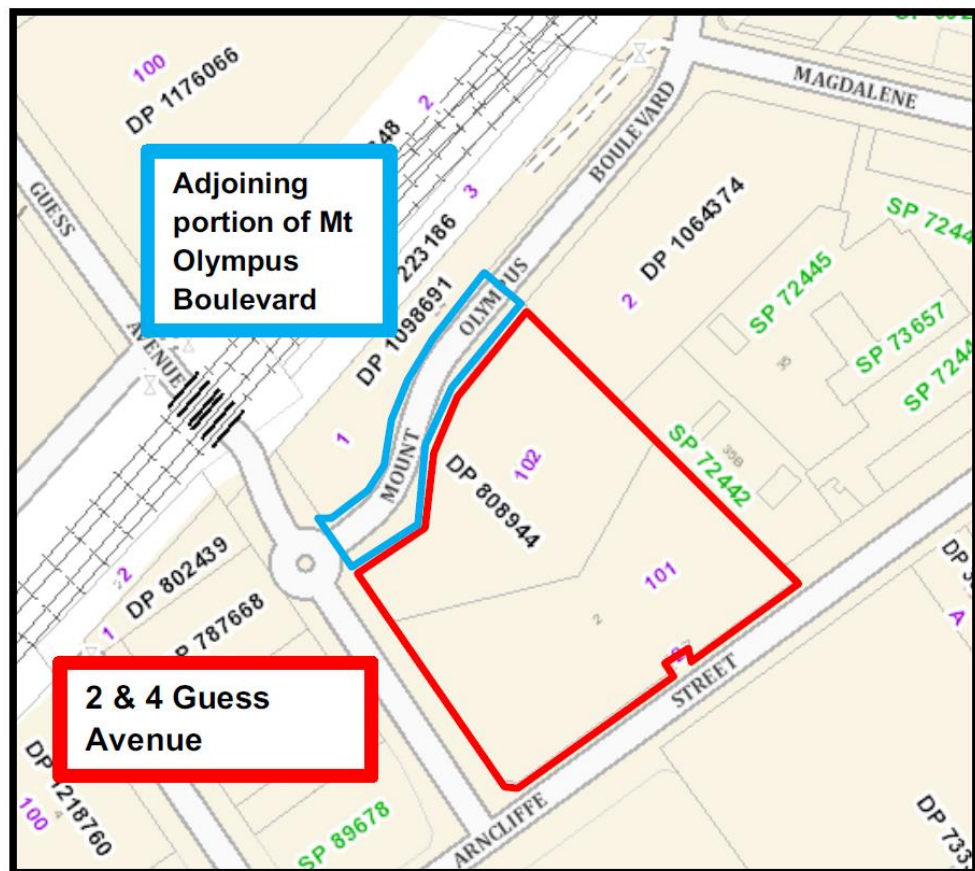
2 and 4 Guess Avenue is a 7,765 square metre site proposed for rezoning and removal of the public acquisition overlay in Wolli Creek. Open space near the site includes substantial reserves such as Cahill Park, as well as many gated private areas within developments. There are also pocket parks, ranging in size, distributed across the area.

The current use of the Guess Avenue is industrial, with remediation activities recently completed for No 4 Guess Avenue. No 2 Guess Avenue is still in use as 'National Truck Tyres'.

The study area for investigation is Wolli Creek and the surrounding suburbs of Arncliffe and Turrella.

Housing in the local area is uniformly contained in high density apartment developments. 96.7 per cent of dwellings in Wolli Creek are high density, compared with 40.8 per cent in Bayside<sup>1</sup>.

FIGURE 1: LOCATION OF SITE



Source: :www.maps.six.nsw.gov.au

<sup>1</sup>.id Forecasts <https://profile.id.com.au/baysidensw/dwellings?WebID=330>

Figure 2 shows the existing open space network. It includes three open spaces that were recently developed in Wolli Creek and are protected by positive covenants (Discovery Park, Village Square and Village Square 2) as well as the proposed open space, Lusty Street Reserve.

Source: SGS Economics and Planning 2019

There is a series of large district open spaces located to the north and west of the Guess Avenue Site, and these provide a range of opportunities for active and passive recreation.

The district level Cahill Park is located on the east side of the Pacific Highway and is physically the closest district park. It includes a large oval, 4 tennis courts and extensive passive open space, however the Princes Highway is a barrier to pedestrian access.

Other district parks that are within 2 kilometres of the study site are listed in Table 1.

TABLE 1: DISTRICT OPEN SPACES WITHIN 2KM OF STUDY SITE AND LOCATED WITHIN BAYSIDE LGA

Name	Size	Use
Arncliffe Park	3.79	General Community Use, Sportsfield, Culturally Significant
Banksia Chinese Market Garden	4.22	Market Garden / Culturally Significant
Barton Park	21.68	Estuarine Mangrove Forest
Cahill Park	7.57	General Community Use/Sportsfield (Rugby and Tennis)
Coolibah Reserve	3.91	Passive Use, Aesthetic /Play space & equipment, Sports field (Soccer and Cricket)
Eve Street Wetland	7.73	Ecologically significant wetland
Kogarah Golf Course	17.75	Golf Course
Kyeemagh Boat Ramp Reserve	4.88	General Community Use/Sportsfield (Hockey)
Riverine Park	33.78	Passive Use, Aesthetic /Play space & equipment, Bushland

Source: Bayside Council 2019

There are also major district parks located outside of the Bayside LGA and on the other side of Cooks River, including Waterworth Park, Tempe Recreation Reserve and Robyn Webster Reserve which provides more active open spaces as well as Kendrick Park which provides a high quality passive open space. Like Cahill Park, these are located only short distances away but they are also difficult to access with no pedestrian river crossings near by.

### Local open spaces

Local open spaces that are within 400 metres of the study site are listed in Table 2.

TABLE 2: LOCAL OPEN SPACES WITHIN 400METRES OF STUDY SITE AND LOCATED WITHIN BAYSIDE LGA

Name	Size	Use
Ajax Reserve	0.09	Pocket Park, Street Garden
Lusty Street Reserve (Proposed)	0.66	Local Park
Empress Reserve (SRA)	0.09	Pocket Park, Street Garden
Village Square 2	0.12	Urban Plaza
Discovery Park	2.40	Passive Use, BBQ, Aesthetic /Play space & equipment, Heritage
Village Square Park	0.16	Urban Plaza (poor access)

Source: Bayside Council 2019

The Guess Avenue site is located within walking distance of **Discovery Park**. This was developed as part of Discovery Point, and is three hectares of high quality open space that connects Discovery Point housing with the river. While it is difficult to navigate to from the street network it provides an important large open space in the area. (Figure 3)

FIGURE 3 DISCOVERY PARK AND VILLAGE SQUARE - PLAN



Source: Fraser Property

**Village Square (2)** was developed as an urban plaza within Discovery Point and is also shown in Figure 3. It provides a contrasting experience to Discovery Park with hard paving and retail shops surrounding it. These were both successful open spaces developed as positive covenants associated with Discovery Point.

Other local open spaces in the area are typically small and provide a limited number of uses, such as a playground and a lawn.

The site is adjacent to a development which contains another **Village Square Park**. This park is protected via a positive covenant. Despite theoretically forming part of the public open space network, the site is difficult to access: the main access is via three flights of stairs and there is also an option of lift access, and is not visible from street level (See Figure 4). The design of Village Square Park is primarily intended to create a view for residents in surrounding buildings, and there are only limited possible uses (e.g. walking through or sitting on the raised platforms).

Given the multiple constraints on access and a design that focuses on residents, it is not considered part of the functional open space network in this analysis.

FIGURE 4 VILLAGE SQUARE PARK



Source: SGS Economics and Planning, 2019

### Proposed open spaces

**Lusty Street** is located to west of Guess Avenue and a new local open space is proposed there. The proposed Lusty Avenue open space will provide another local open space in the immediate vicinity of the Guess Avenue site- future planning will need to ensure each of these proposed new local open spaces have complimentary functions to best meet the needs of local residents.

The **Bonar Street Community Park** is also proposed in the local area and is approximately 500 metres from the study site. It is intended to provide a local park for the surrounding residential area, and to provide new pedestrian connections.

There is also a new open space proposed close to **Arncliffe Station** as part of the Arncliffe Banksia Plan. It is located at the entrance to the M5 motorway and is approximately 600 metres from the study site.

### Open spaces within developments

Small communal open spaces are also often located within housing developments in Wollri Creek. These are designed as part of perimeter blocks, with housing interfacing the street, and open space located within the interior of the development. These open spaces are for the use of residents only and there is no access by the general public. They typically contain the same elements- a small playground, lawn areas and some seating. Site visits indicated that they are rarely used by residents within the development and are largely undifferentiated.

### Municipal open space provision

The high density of housing in Wollri Creek has put pressure on the local open space network and there are plans in place to provide new public open spaces at Lusty Street and Bonar Street.

Bayside City Council is currently preparing their open space and community facilities strategy which will provide greater guidance on open space planning and provision in the future. It is difficult to quantify municipal open space provision at present, as previous planning documents are out of date, and do not reflect the merging of Rockdale and Botany Bay Councils.

## 2.3 Community Infrastructure Needs

Residents in Wolli Creek have less access to community infrastructure than the adjacent suburbs of Turrella and Arncliffe. There are a number of long day care centres, but no family day care centres. The nearest pre-school is the Arncliffe West Preschool, and the nearest long day care centre is Integricare Children's Centre in Turrella.

Increasing the offering of child care and pre-schools within Wolli Creek would improve access to community facilities. These typically have lower floorspace demands than the other types of community facilities shown on the map. They are therefore easier to integrate into a new development.

FIGURE 5 COMMUNITY INFRASTRUCTURE



Source: SGS Economics and Planning, 2019

## 3. POLICY REVIEW

---

This section describes state and local government policies that guide open space planning in Wolli Creek

### 3.1 Metropolitan Plans

#### Greater Sydney Region Plan- A metropolis of three cities

The Greater Sydney Region Plan emphasises the important role of open space within Greater Sydney. Two of the core directions directly pertain to open space: 'A city in its landscape', and, 'A city of great places'. A key legacy of the plan will be the proposed Green Grid that covers Sydney in a network of open spaces and green transport corridors. The open space related strategies of most relevance to this site, include:

- Strategy 31.1: Maximise the use of existing open space and protect, enhance and expand public open space by
  - Providing opportunities to expand a network of diverse, accessible, high quality open spaces
  - Investigate opportunities to provide new open space so that all residential areas are within 400 metres of open space and higher density areas are within 200 metres of open space
  - Require large urban renewal initiatives to demonstrate how the quantity of, or access to high quality and diverse local open space is maintained or improved
  - Planning new neighbourhoods with a sufficient quantity and quality of new open space
  - Delivering shared and co-located sports and recreation facilities including shared school grounds and repurposed golf courses
  - Delivering or complementing the Greater Sydney Green Grid
  - Providing walking and cycling links for transport as well as leisure and recreational trips
- Strategy 32.1: Progressively refine the detailed design and delivery of Greater Sydney Green Grid Priority Corridors, Opportunities for connections that form the long term vision of the network, walking and cycling links.

#### Eastern City District Plan

The Eastern City District covers the Bayside, Burwood, City of Canada Bay, City of Sydney, Inner West, Randwick, Strathfield, Waverley and Woollahra local government areas, and is intended to give effect to the Metropolitan Plan. It will inform local strategic planning statements and local environmental plans, the assessment of planning proposals as well as community strategic plans and policies.

The Eastern City District Plan is centred on infrastructure, collaboration, liveability, productivity and sustainability, which is consistent with the Greater Sydney Region Plan.

## 3.2 Government Architect of NSW Policy papers

### Greener Places Discussion Paper (draft 2017)

Greener Places is a draft Green Infrastructure policy produced by the Government Architect NSW to guide the planning, design and delivery of Green Infrastructure in urban areas across NSW.

It identifies a policy gap at the state government level for delivering green infrastructure, and intends to connect metropolitan, district and local plans

It sets out principles and measurable outcomes for open space provision intended to be adopted by industry and government agencies, as well as by communities who inhabit the places and spaces of NSW.

### Greener Places Urban Tree Canopy Guide (draft 2017)

The Urban Tree Canopy Guide provides information on the importance of urban tree canopy and its capacity to improve urban climate, ecosystem and human health, and enhance health and wellbeing for communities across NSW.

It provides advice to local councils, State agencies, and other stakeholders. It also includes objectives, strategies, and targets for the NSW Government to preserve and enhance the urban tree canopy. It is currently being finalised

### Greener Places open space for recreation guide (draft 2017)

The open space for recreation guide provides series of performance indicators for open space, including accessibility and connectivity, distribution, size and shape, quantity, quality and diversity.

It sets out a new approach to ensure some minimum mandatory outcomes for open space in urban development and to provide performance based guidelines. This guide is a key reference document for the current study.

The standards identify a series of proximity measures for different open space typologies. For example, all residents in higher density areas such as Wolli Creek should be within 200 metres of a smaller local open space, and within 5 to 10 kilometres of a regional open space. It also takes into consideration different uses. For example, local play opportunities for the very young should be accessible within 200m of 80% of houses and within 300m of 100% of houses. It provides clear direction on a series of performance indicators for each of the different open space uses, including access, connectivity, location, diversity, features, shade requirements and spatial qualities. These guidelines are discussed further in section 5.

Strategies for providing open space for recreation

- Improve the provision and diversity of open space for recreation
- Understand the demands on existing open space and plan for new open space in new and growing communities
- Improve the quality of open space for better parks and facilities
- Use open space to connect people to nature
- Link to network of green space
- Encourage physical activity by providing better parks and better amenity.
- Provide open space that is multi-functional and fit for purpose
- Design versatile, flexible spaces
- Consider lifecycle costs management and maintenance

### 3.3 Local Plans and Policies

#### Bayside West Precincts 2036 Plan

Applying to the neighbouring areas of Arncliffe, Banksia and Cooks Cove, Wolli Creek is not within the scope of the Bayside West Precincts 2036 Plan.

The Plan identifies *to improve existing and provide new areas of open space* as one of its 5 objectives for the precincts.

Identifying similar challenges as those faced by Wolli Creek the plan notes “Access to open space is limited by major roads, making walkability difficult and unsafe in places.” The need to improve physical connections to new and existing open space areas is identified.

Similarly applicable is the identification of the opportunity for redevelopment areas within the precincts to provide public open space as large sites redevelop.

The Plan proposes a new 7,000 square metre park at Arncliffe Station, adjacent to the entrance to the M5 Motorway, as well as the upgrade of five other existing parks. The Plan also recognises the opportunities provided by private sites for delivering new open spaces. Two new parks are being investigated on land likely to be developed in the future: Eden Street Park and Allen Street Park.

#### Arncliffe and Banksia Green Plan

The Arncliffe and Banksia Green Plan identify three types of open space with Arncliffe and Banksia, pocket parks, local parks and neighbourhood parks. The classification of these types is based on size and utilizes access based standards.

Challenges identified in the plan which apply to Wolli Creek include:

- The current precinct boundaries do not include any major open spaces, only small green pockets mostly utilized as playgrounds or lawn. Proper recreational activities will be held in the large surroundings parks outside the Precinct.
- Underutilization of the existing open spaces mostly due to their marginal location and lack of amenity.
- Infrastructure barriers and lack of safe linkages to open space
- In areas undergoing major urban development there is a resulting urbanized character that lacks tree canopy and general amenity. Additional tree canopy within streetscapes need to be provided to mitigate increasing density and uplift. Local DCP should include expected percentage of tree canopy cover for future development. Targets set by Government Architect’s Office: tree canopy in Urban Zone, target of 25%

With regard to open space provision the plan notes that the existing public open space provision serving the current Precinct population equates to 19.8 sqm per person. The Open Space Plan proposes a total of 2.12 hectares of new open spaces to be added to the 21.25 hectares existing open space, achieving 23.65 hectares of overall open space within the Precinct of Arncliffe and Banksia and within 200 metres walking distance from its boundary. Assuming a future population growth of 25,000 people, this new provision of open space will equate to 9.5 sqm of open space per person.

#### Bayside 2030 - Community Strategic Plan 2018-2030, Bayside City Council

Bayside 2030 has as a strategic direction “our places are accessible to all” including the outcomes statement “Open space is accessible and provides a range of active and passive recreation opportunities to match our growing community”.

## Rockdale Development Control Plan 2011 – Part 7.1 Wolli Creek Precinct

As the purpose of the plan is to inform assessment of future development applications open space provision is focussed on individual sites.

Specific site open space requirements are shown in the table below.

TABLE 3: OPEN SPACE REQUIREMENTS IN DEVELOPMENT PROJECTS

Development/building type	Minimum landscaped area (of the site)
Low and medium density residential	25%
Residential flat buildings	15%
Mixed use (with shoptop housing)	10%
Highway commercial	10%
Industrial	10%
Child care centres	20%

Source: Rockdale Development Control Plan 2011

At least 20% of the front setback of a residential development is to be provided as landscaped area. Landscaped areas should adjoin the landscaped area of neighbouring properties so as to provide a contiguous corridor of landscape and vegetation.

Where a development has 12 or more dwellings communal areas must be provided at a rate of 5m<sup>2</sup> for each dwelling. It is noted that communal open space may be accommodated on a podium or roof in a residential mixed use building provided it has adequate amenity and convenient access.

Several special precincts are identified, including Wolli Creek. The Objectives for Wolli Creek are:

- To ensure that the nature and distribution of public spaces, buildings and facilities enhances the public domain and links key features and activities within Wolli Creek
- To promote pedestrian and cycle links to encourage sustainable travel in the precinct.
- To enhance local pedestrian and cycle routes and link them with regional networks, residential areas, work, shopping and recreation activities and public transport nodes.
- To consider and take advantage of the SWSOOS and its location by incorporating it into an open space network.
- To retain, manage and upgrade environmentally significant areas, including Wolli Creek Wetlands and the Cooks River

The plan controls include: Provide a small plaza (min size 200sqm) on the corner of Arncliffe Street and Brodie Spark Drive at 94 Arncliffe Street.

## Wolli Creek and Bonar Street Precinct Public Domain Plan, Rockdale City Council (2011)

While not identifying specific open space requirements the Public Domain Plan (PDP) for the Wolli Creek and Bonar Street Precinct seeks to guide and coordinate the design and construction of the improvements to the public domain of the precinct.

It recognises the need to provide clear and generous links between high use areas, and improve the relationship of streets to associated public spaces.

### Proposed New Parks

As shown in Figure 6 the PDP identifies the open space within the precinct as two existing parks, Cahill Park and Discovery Park along with three new parks, New Town Park, Bonar

Street Precinct Community Park and Thompson Reserve. The preferred location for New Town Park is on the study site at 2 and 4 Guess Avenue. The role and function of these parks are detailed below.

- Discovery Point Park (Park 1) forms a green open space as a curtilage to Tempe House. The park is privately owned but is accessible to the public.
- Cahill Park (Park 2) accommodates organised active recreation
- New Town Park (Park 3) would provide “green space as a relief from high density development” and incorporate water sensitive urban design to respond to the micro catchment of streets and the proximity of Bonnie Doon Channel”. It would act as a recreation/leisure opportunity for the commercial centre of Wolli Creek.
- Bonar Street Precinct Community Park (Park 4) would service the new residential precinct around Bonar Street, functioning as a gathering point, informal sports area, picnic spot and local playground.
- Thompson Reserve (Park 5) would link three disparate open spaces into a park, including the proposed Lusty Street Reserve. The reserve would provide recreational space for surrounding high density residential development allowing for informal recreation, a playground and picnic area.

Two sites are identified for New Town Park. Site one is the subject of this study, on the corner of Guess Street and Arncliffe Street. The second ‘alternative site’ is identified as the corner of Arncliffe and Gertrude Street. Both sites are shown as number 3 in Figure 6.

FIGURE 6 CURRENT AND PROPOSED PARKS AND OPEN SPACE



Source: Wolli Creek and Bonar Street Precinct Public Domain Plan, Rockdale City Council (2011)

The PDP listed the opportunities and constraints of the two sites.

New Town Park - Site Option One (Guess Avenue site):

- Located between Mount Olympus Boulevard, Guess Avenue and Arncliffe Street it has strong visibility from major connecting streets within the area.
- Existing *Lophostemon confertus* avenue along the western boundary.
- Significant level change along the northern park edge to be resolved within park design.

- Existing development along the north eastern boundary needs to be screened and integrated into the park design in order to resolve level change and negative frontage.
- Site provides a large area, which with resolution of levels and access can provide a range of level usable spaces to cater to a range of activities.
- Opportunity to incorporate WSUD strategy into the park design to demonstrate water filtration, collection and reuse.

#### New Town Park - Alternate Site:

- Located amongst series of new streets and developments linking across the Princes Highway to Cahill Park.
- Provides a key area of porous surface within the micro catchment of street surface flow, linking to the Bonnie Doon Channel - opportunity for WSUD project.
- Level site.
- Sits within active streets with mixed use ground level.

Ownership or current status of the sites are not discussed in the PDP.

The design principals for Site one of the New Town Park, located at the corner of Guess Street and Arncliffe Street are:

- Surrounding buildings shall take advantage of the outlook by addressing and opening up to public space to provide passive surveillance.
- A designated children's play area located towards the centre of the site provides a fenced and sheltered zone for children within the park.
- The park shall include amenities for park including seating and shelter. This space can also accommodate a meeting point along Arncliffe Street.
- Water sensitive urban design (WSUD) principles are to be implemented. Opportunities include a swale down the centre of the park to relate to the movement of water on the surrounding micro catchment of streets. The central swale is to be incorporated in the stormwater management system as a temporary detention basin to address flooding in the area
- Open space shall provide areas of refuge for passive use defined through planting
- Maintain sight lines to surrounding streets and pedestrian crossings through a comprehensive network of access paths and the implementation of CPTED principles
- A variety of spaces within the park shall be defined with level changes, raised seating walls, terraced grass areas and swales, and planted terraces along development boundary to mediate level changes to existing buildings. These level changes are to be designed to ensure that CPTED principles are implemented and disabled access to a minimum standard of 1428.1 design for access and mobility.

FIGURE 7 THE WOLLI CREEK AND BONAR STREET PRECINCT EXISTING AND PROPOSED PARKS



Source: Wolli Creek and Bonar Street Precinct Public Domain Plan, Rockdale City Council (2011)

### 3.4 Key findings

Strategic planning documents such as the Greener Places Discussion paper emphasise the need to improve the provision, diversity and quality of open spaces.

The site at 2-4 Guess Avenue has been identified as a key opportunity in policy documents to deliver much needed open space in Wolli Creek, a rapidly growing area with a recognised shortfall in open space provision.

It is the preferred site identified in the Wolli Creek and Bonar Street Precinct Public Domain Plan (2011) for a New Town Park and is well located to improve the community's access to local open space.

Should the site be rezoned, the Rockdale Development Control Plan 2011 identifies minimum land areas that should be allocated for landscaped open space within development projects. For a residential development, a minimum of 15 per cent of the land area is required to be landscaped, and, 5 square metres of communal space should be provided per person.

## 4. OPEN SPACE BENCHMARKS

This section describes a series of benchmarks identified in policy documents that are intended to guide open space delivery.

### 4.1 Benchmarks

The Draft Greener Places Guidelines prepared by DPE identify a series of performance indicators for open spaces based on their typology. In high density areas like Wolli Creek, a key performance indicator is that most dwellings should be within 200m of an open space, regardless of open space typology. High density areas require better access to open space than lower density areas, the assumption being that private open space is limited.

Regardless of housing density, district open spaces should be within 2 kilometres of most dwellings.

TABLE 4: INFERRED DEMANDS FOR RECREATION SPACE

Open Space	Distance from Most Houses
<b>Regional open spaces:</b> serve whole cities, metropolitan districts or one or more local government areas, or a regional centre and multiple towns and villages in non-metropolitan areas	5 – 10 kilometres
<b>District open spaces:</b> typically service catchments of less than one local government area, or several neighbourhoods but can service a catchment spanning across two LGAs.	2 kilometres
<b>Local open spaces:</b> caters to a local neighbourhood in urban areas	400 metres
<b>Local open spaces in high density areas</b> (population density greater than 60 or 100 dwellings per hectare)	200 metres
Distance of open spaces from schools	400 metres
Distance of open spaces from work places	400 metres

Source: Draft Greener Places Guidelines, DPE 2017

The recommended minimum size for local parks is 3,000 square metres, although in high density areas, local parks as small as 1,500 square metres can perform well with appropriate design.

The Greater Sydney Regional Plan also emphasises this benchmark. In lower density areas, most residents should be within 400 metres of an open space.

The Arncliffe and Banksia Green Plan also includes a hierarchy of open spaces with recommended catchments. These are

- Pocket parks: Parks smaller than 0.4 hectares (4,000 square metres): 300 metre walking distance catchment
- Local Parks: Parks between 0.4 and 1 hectare: 400 metre walking distance catchment
- Neighbourhood Parks: Parks between 1 and 5 hectares: 800 metre walking distance catchment.

## 4.2 Design Guidance

### Minimum land areas for different uses in open space

The Greener Places: Open Space for Recreation Manual (draft 2017) identifies the minimum land area that is required for different open space uses within local parks. It also identifies the minimum host open space areas i.e. the minimum area of the whole park given the uses, which includes pathways and other landscaping. Table 5 summarises the minimum open space area required for different open space uses to be incorporated.

TABLE 5: MINIMUM LAND AREAS FOR DIFFERENT OPEN SPACE USES IN LOCAL PARKS

Open Space use	Minimum area	Minimum host site area
Local play for the very young(0 -5 year olds):	50 sq m	1,500 sq m
Local children's play (5-12y olds):	100 sq m	1,500 sq m that is fenced
Local recreation area	500 sq m	1,500 sq m
Older childrens' activity space	1,000 sq m	5,000 sq m
Fitness and exercise space	Variable	5,000 sq m
Dog off leash area	400 sq m	5,000 sq m

Source: Draft Greener Places Guidelines, DPE 2017

### Sites between 1,500 square metres and 5,000 square metres

For parks under 5,000 square metres, a limited number of open space uses can occur. These include local play grounds and local recreation areas. The primary elements that can be that can be included in open spaces within this size range are listed below:

- inclusive play space
- seats,
- water
- fencing if located near a roads or hazards
- At least 50% shade across the site and 80% over play areas
- Pram friendly and connected to active transport network
- High visibility and passive surveillance
- Play spaces suited to 0-5 year olds can be nature-based, structured or landscape play sculpture
- Play spaces suitable for 5-12 year olds include natural bush play, adventure play, structure play and water play.

### Sites greater than 5,000 square metres

For sites greater than 5,000 square metres, a more diverse range of open space uses is possible. In addition to the uses listed above, the following open space uses may also be incorporated

- 40 x 60 m informal sports field
- Access to toilets
- Fitness and exercise stations
- Dog off leash areas

## 4.3 Key findings

In high density areas, the Greener Places Manual recommends most houses should be located within 200 metres of open space, and that the minimum size for a local open spaces is 1,500 square metres. Open spaces that are only 1,500 square metres provide a relatively limited range of open space opportunities.

There are more diverse recommended uses for sites between 1,500 and 5,000 square metres which allows for better quality open space opportunities: a wider range of play opportunities, more effective path networks, and the ability to program multiple uses within the same space.

Sites greater than 5,000 square metres open up possibilities for use that cannot occur on smaller open spaces, including small informal fields for active recreation and dog play areas.

At 7,765 square metres, there are various options for new open space to be provided on site, depending on the size, and, the configuration of the open space.

# 5. COMMUNITY PROFILE

This section describes the profile of the local community and the community and open space infrastructure they require

## 5.1 Census data analysis

A demographic analysis was undertaken which looked at the community profile of Wolli Creek compared to the City of Bayside and Metropolitan Sydney

1. Age profile
2. Cultural profile
3. Housing mix – dwelling type
4. Household types

Figure 8 shows the location of the study site in relation to Wolli Creek and the City of Bayside.

FIGURE 8 COMMUNITY PROFILE GEOGRAPHIES

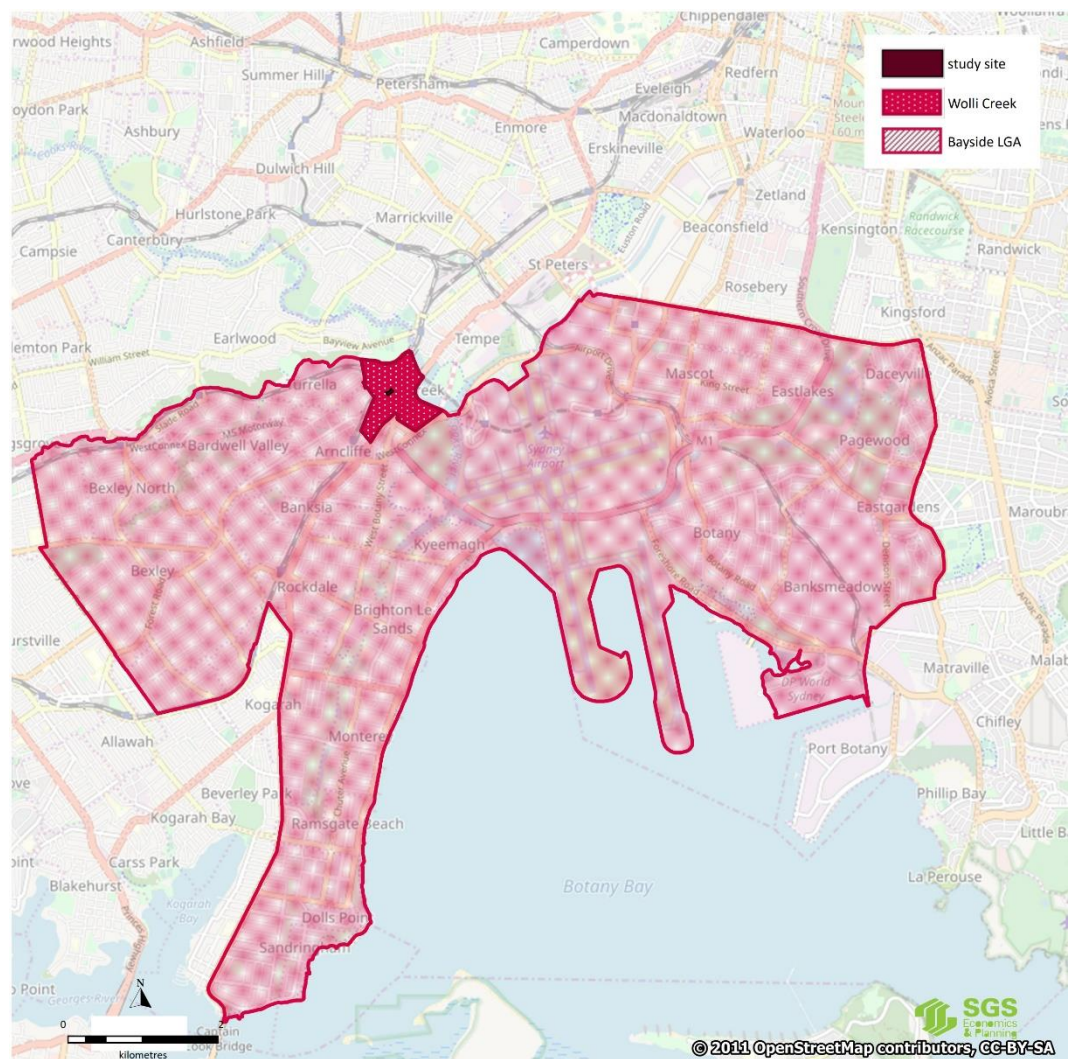


TABLE 6: AGE GROUPS

Geography	0-4 years	5-9 years	10-19	20-64	65+	Total
Wolli Creek	318	108	268	5,559	146	6,399
Bayside LGA	9,547	8,423	15,489	99,757	22,834	156,050
Greater Sydney	310,170	309,234	569,251	2,962,772	672,561	4,823,988
Wolli Creek	5%	2%	4%	87%	2%	100%
Bayside LGA	6%	5%	10%	64%	15%	100%
Greater Sydney	6%	6%	12%	61%	14%	100%

Source: ABS Census 2016

TABLE 7: UNEMPLOYMENT RATE

Geography	Employed (full and part time)	Unemployed (full and part time)	Unemployment rate
Wolli Creek	3,858	280	7%
Bayside LGA	75,788	4,859	6%
Greater Sydney	2,272,715	146,187	6%

Source: ABS Census 2016

TABLE 8: HOUSEHOLD COMPOSITION

Geography	Couple with no children	Couple with children	Lone person household	One parent family	Other family	Group household	Total
Wolli Creek	950	375	535	125	66	432	2,483
Bayside LGA	13,281	18,304	12,502	5,840	1,060	3,391	54,378
Greater Sydney	385,865	607,342	351,418	179,463	22,991	76,791	1,623,870
Wolli Creek	38%	15%	22%	5%	3%	17%	100%
Bayside LGA	24%	34%	23%	11%	2%	6%	100%
Greater Sydney	24%	37%	22%	11%	1%	5%	100%

Source: ABS Census 2016

TABLE 9: COUNTRY OF BIRTH

Rank	Wolli Creek	Persons	%	Bayside LGA	Persons	%	Greater Sydney	Persons	%
1	China (excludes SARs and Taiwan)	1,572	27%	Australia	73,318	51%	Australia	2,752,123	61%
2	Australia	1,386	24%	China (excludes SARs and Taiwan)	11,147	8%	China (excludes SARs and Taiwan)	224,682	5%
3	Mongolia	317	5%	Nepal	3,903	3%	England	151,617	3%
4	Brazil	272	5%	Greece	3,882	3%	India	130,579	3%
5	Indonesia	208	4%	Bangladesh	3,251	2%	New Zealand	86,522	2%
6	India	185	3%	Philippines	3,093	2%	Vietnam	81,041	2%
7	Thailand	139	2%	Indonesia	2,912	2%	Philippines	75,478	2%
8	Philippines	138	2%	Lebanon	2,896	2%	Lebanon	55,980	1%
9	Hong Kong (SAR of China)	106	2%	The former Yugoslav Republic of Macedonia	2,849	2%	Korea, Republic of (South)	49,511	1%
10	Malaysia	101	2%	India	2,589	2%	Hong Kong (SAR of China)	40,579	1%
	Other	1,366	24%	Other	35,332	24%	Other	877,570	19%
<b>Total</b>		<b>5,790</b>	<b>100%</b>		<b>145,172</b>	<b>100%</b>		<b>4,525,682</b>	<b>100%</b>

Source: ABS Census, 2016

TABLE 10: HOUSING TYPES

Geography	Separate house	Townhouse and unit	Apartment	Other	Total
Wolli Creek	41	11	2,823	0	2,875
Bayside LGA	23,786	8,587	28,728	602	61,703
Greater Sydney	1,021,147	259,601	553,441	13,539	1,847,728
Wolli Creek	1%	0%	98%	0%	100%
Bayside LGA	39%	14%	47%	1%	100%
Greater Sydney	55%	14%	30%	1%	100%

Source: ABS Census, 2016

## Key demographic findings

The demographic profile of Wolli Creek shows

- Lower numbers of children
- High numbers of people living in apartments
- Culturally diverse community
- Higher than average unemployment

## 5.2 Community open space needs

The Draft Greener Places: Open Space for Recreation Manual links demographic characteristics with open space and recreation demands. These are summarised in Table 11.

TABLE 11: INFERRED DEMANDS FOR RECREATION SPACE

Demographic characteristics	Open space recreation demands
Children	Playground and play spaces
Young people and adults	Adventure play facilities, sporting fields, sports courts, bike tracks
Older adults	Walking and cycling tracks, sports courts
Diverse cultures	Places with picnic and barbeque facilities for gatherings of family and friends
Apartment dwellers	Park close to home, community gardens, gathering spaces
Small households	Meeting places
Below average employment or income	Range of free or low cost sporting and recreation opportunities
Below average vehicle ownership	Open space and recreation facilities located close to home or on public transport network

Source: Holroyd Open Space and Recreation Study (Parkland Planners, 2013) cited in Draft Greener Places manual page 23

## 5.3 Priorities for open space provision

Based on the local demographics and the inferred demand for recreation space based on demographics, the priorities for local and neighbourhood parks are

- Meeting places
- Gathering places with picnic and barbeque facilities
- Low cost sporting and recreation opportunities: eg gym facilities
- Community gardens

Although there are lower numbers of children in the local area, the high density of the area means that provision of diverse play spaces is an important consideration. Given a number of playgrounds in Wolli Creek are located within perimeter block developments (discussed in section 1) that provide the same types of facilities and are not accessible to residents out of the individual development means that a greater variety of play spaces need to be provided to children and young people in the area.

## 6. SITE ASSESSMENT

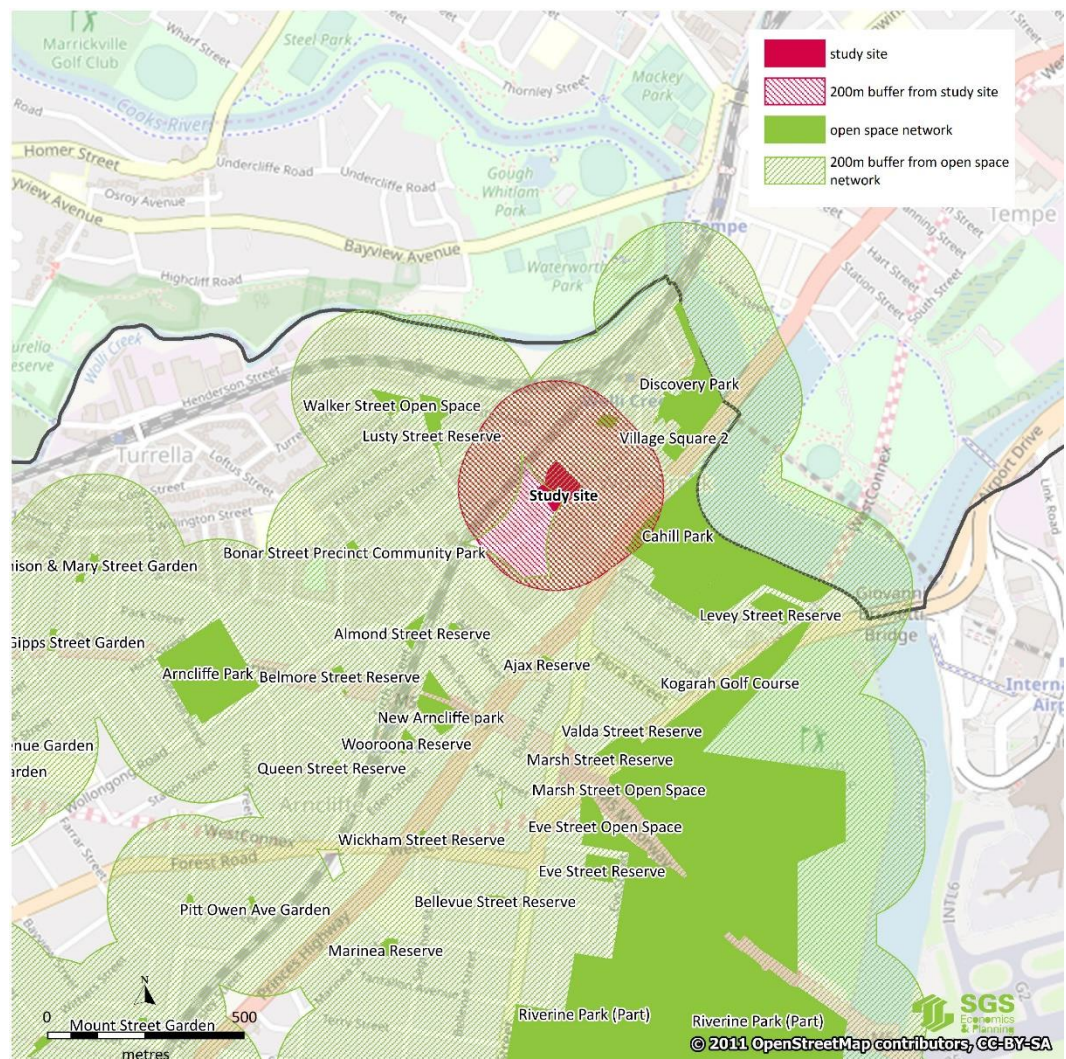
This section identifies areas that have access to open space within 200m. This is to understand whether the local community's access to open space is consistent with the Greener Places Guidelines.

### 6.1 Open space accessibility

#### Local open spaces

Figure 9 shows the location of open space in the area surrounding the Guess Avenue Site, and shows the local areas that are within 200m of open space<sup>2</sup>.

FIGURE 9 EXISTING OPEN SPACE NETWORK (INCLUDING PROPOSED LUSTY STREET RESERVE AND ARNCLIFFE STATION OPEN SPACE)



Source: SGS Economics and Planning, 2019

<sup>2</sup> These are determined based on 'as the crow flies' distances, so the areas with access using the road and pedestrian network will be smaller.

It includes the proposed park 'Lusty Street Reserve' and two of the open spaces protected by positive covenants- the Village Square 2 Park (urban plaza) at Discovery Point and Discovery Park. It does not include Village Square Park located directly to the north of the site due to the previously identified barriers to access.

It also includes the Guess Avenue site (red) and shows the area that is within 200metres of it. Figure 9 highlights the important role of the Guess Avenue site in providing local open space to people living immediately to the south. This area currently does not have access to local open space within 200 metres, however, the provision of open space at Guess Avenue will ensure that they do.

Cahill Park is critical in enabling areas to the south and east of the Guess Avenue site meet the 200m access standard. However, this park is over the very busy Princes Highway, which represents a major physical barrier.

This further highlights the importance of the Guess Avenue site in meeting the open space needs of residents in its immediate vicinity.

### District level parks

A number of district level parks exist within 2 kilometres of the Guess avenue site. These provide opportunities for active recreation, with large fields, tennis courts and extensive walking and cycling trails. While these are located in good proximity, there are constraints for pedestrian access.

## 6.2 Key findings

In order to meet the standard in the Greater Sydney Regional Plan and the draft Greener Places Guidelines, where most houses in high density areas should have access to open space within 200 metres, the Guess Avenue site would be required to provide open space opportunities.

The difficulty faced by residents in accessing parks on the eastern side of the Princes highway further reinforces the need to ensure open space is provided at the Guess Avenue site.

## 7. OPTIONS FOR OPEN SPACE

---

This section reflects on the findings of the preceding sections and discusses the three options for providing open space at the Guess Avenue site.

In a high density context like Wolli Creek, a high quality park can provide a relief from the urban environment and a place to gather where private space (both open and interior) is limited. Three options for providing open space are presented. The first is providing 1,500 square metres of open space incorporated into a mixed use development. The second is providing 4,000 square metres of open space (the approximate size of the parcel of land at 4 Guess Avenue, but includes part of 2 Guess Avenue). The third is dedicating the entire 7,765 square metres to a new open space and includes both 2 and 4 Guess Avenue.

In addition to the range of uses possible on different sized open space is a discussion on how community facilities could be integrated, and, how the site could be integrated with the surrounding open space network.

### 7.1 Options for open space provision

#### Use of only part of the site for open space (1,500 square metres public open space)

A 1,500 square metre park is the minimum size possible and would allow for a more limited range of activities to occur. This would be slightly more than the 15 per cent landscaped area specified as the minimum in the Rockdale Development control Plan 2011, which would require 1,165 square metres of landscaped area.

The inclusion of seats and shade trees could encourage people to stay in the park, while small playgrounds encourage families to use the park. Paths that link into the street network mean that the park is integrated with the broader public open space network. It would be more challenging to integrate the parks internal path network with the broader street network due to the limiting size. This means that through connections to the existing street network will need particular consideration.

Co-located with a community facility such as a childcare centre or community hall would foster greater use of the park.

Due to the limited number of opportunities afforded in a small local park, it would be particularly important to consider costly new connections across Wolli Creek to district level open space at Waterworth Park and the Cooks River corridor, or enhanced connections across the Princes Highway to Cahill Park and the Tempe Recreation Reserve.

#### Use of northern site for open space (approx. 4,000 square metres)

An open space of 4,000 square metres would increase the open space offering in the local area in a meaningful way as it could include more diverse open space uses. This area comprises all of 4 Guess Avenue and a portion of 2 Guess Avenue (approx 10% which is an appropriate level of provision of public open space for a site of this size).

Beyond the basic elements that are possible within a 1,500 square metre park, a 4,000 square metre park would open up the possibility to provide new play experiences, such as nature play. This would complement existing traditional playgrounds that exist in both private developments (that are only accessible to residents) and in nearby district parks.

Community gardens could also be incorporated in the design. Siting of the open space and the path network will be critical to ensure these linkages are effective. Importantly, an open space of 4,000 square metres would also allow greater scope for effective pedestrian links and visual links through the site.

Existing local open spaces that are within 200 metres of Guess Avenue are small scale and are constrained in their ability to provide diverse open space experiences. A 4,000 square metre park, if appropriately programmed, would increase the diversity of local public open spaces in the area. In order for this diversity of experience to occur, the 4,000 square metres of open space should not be fragmented across the Guess Avenue site, but be provided as a whole in one part of the site.

While it has limited scope for active recreation, small facilities such as outdoor gyms or half basketball courts could be integrated into a master plan. This means it would still be important to consider how to improve the connections to district level open spaces in Cahill Park and across the Cookes River to ensure residents have access to active recreation opportunities.

### Use of entire site for open space

The Guess Avenue site is over 7,000 square metres, which if fully utilised for open space would allow for the broadest range of activities to occur.

At over 7,000 square metres, the site would diversify the open space offering within the Wolli Creek precinct. At present, there is limited diversity in open spaces with almost all pocket and neighbourhood parks providing just passive recreation opportunities.

In addition to the uses outlined for 4,000 square metre open spaces, facilities such as large gathering places (with shelters and bbq facilities), informal playing fields, dog off leash areas, and exercise infrastructure are possible in a site this size become feasible. These uses are associated with district level open spaces, and there is already adequate access to district open spaces in the area. However, pedestrian access to district open spaces need to be improved. These facilities would all work to improve the offering of active recreation opportunities within Wolli Creek.

## 7.2 Community facilities

A series of case studies were undertaken to identify how community facilities and open spaces were provided in higher density developments, both locally and internationally. These are summarised in the appendix.

It is difficult to draw specific comparisons to the Guess Avenue site, however a number of trends existed in the case studies.

A number of case studies incorporated community or communal gardens, which were seen as a way to develop community cohesion. One example included a large child care centre, and another incorporated a community hall.

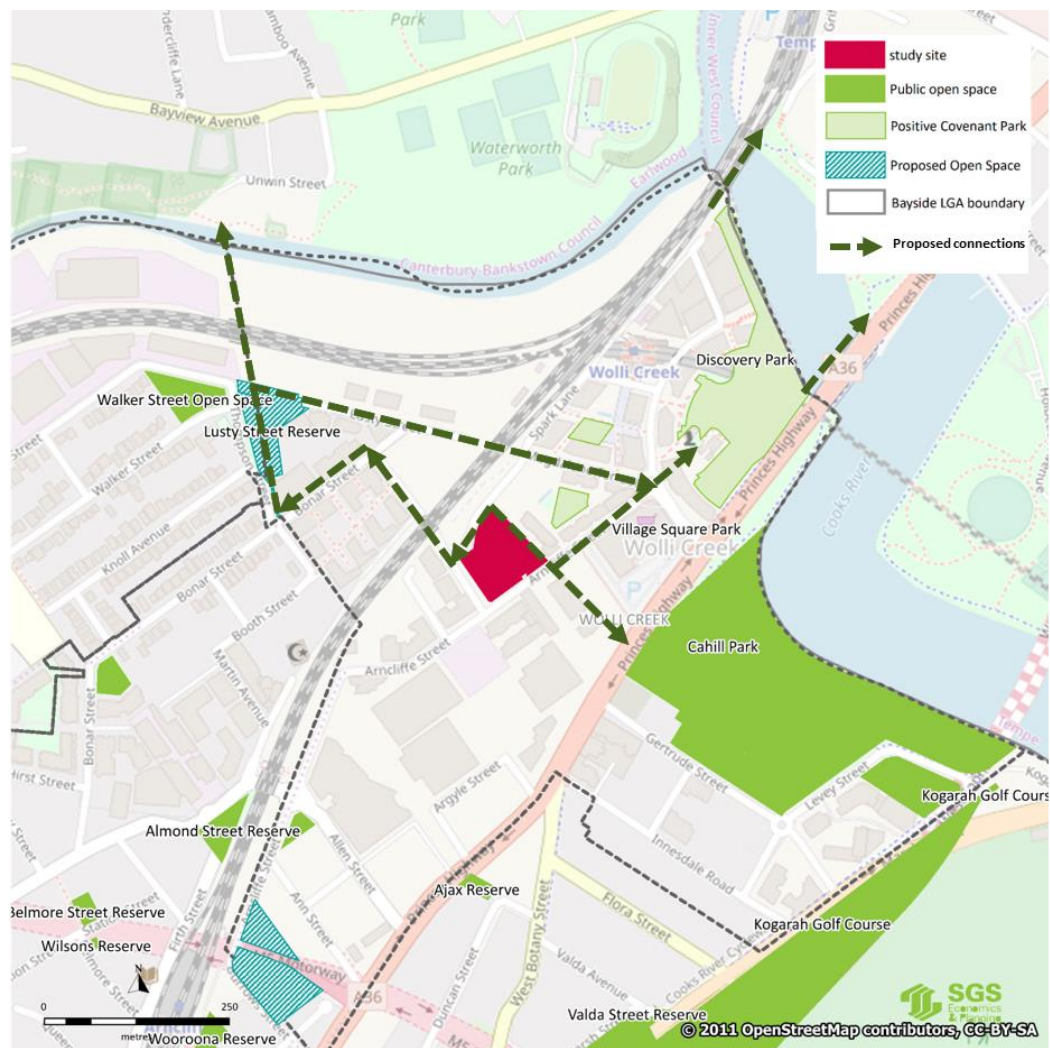
Community gardens could be incorporated into the open space and work to foster a greater sense of local community and to provide residents with opportunities to connect with each other. Since there is limited private open space in the area, community/communal gardens also would give people an opportunity to tend to a garden.

### 7.3 Role of site in broader open space network

Regardless of size, an open space on the site also offers an important opportunity for improving the connectivity of the open space network, which will in turn support greater walking and engagement in the public realm. It's role as a central open space that connects both small and large open spaces in the area is crucial. It will provide access to the proposed Walker Street Reserve to the west, and there are opportunities for linkages to Cahill Park in the east across the Princes Highway, and north to Discovery Park along Arncliffe Street.

The open space network would also benefit from connections to broader regional parks, including a crossing to Kendrick Park across the Cooks river, which could be associated with the Princes Highway or the railway line. A crossing to Waterworth Park would also greatly improve accessibility to open space for the local community.

FIGURE 10 ROLE OF GUESS AVENUE SITE WITHIN BROADER OPEN SPACE NETWORK



Source: SGS Economics and Planning , 2019

## 8. CONCLUDING REMARKS

---

The draft Greener Places guidelines provide clear direction on uses that are possible in open spaces of various sizes, and greater size allows for greater range of recreation opportunities to be delivered on site.

An open space of 4,000 square metres on the Guess Avenue site would mean that there is sufficient area for a large local open space to be provided that significantly diversifies the open space offering in the area. This is greater than the minimum open space area in higher density areas identified by the Greener Places Guidelines of 1,500 square metres.

The site is well located within the broader open space network and offers opportunities to improve local connectivity of open space, and to reinforce the active transport network.

Beyond the site, it will be important to consider access to major regional reserves where access is constrained due to the absence of river crossings and barriers to crossing the Princes Highway as a pedestrian.

Numerous precedents exist where community infrastructure such as childcare or community gardens are co-located with open space within higher density developments. The low provision of childcare and pre-schools within Wolli Creek indicate that this is an opportunity for consideration.

# APPENDIX: CASE STUDIES

This section describes a series of precedents for small public open spaces in high density developments including ones where community facilities are co-located with open space.

## Baugruppen movement examples

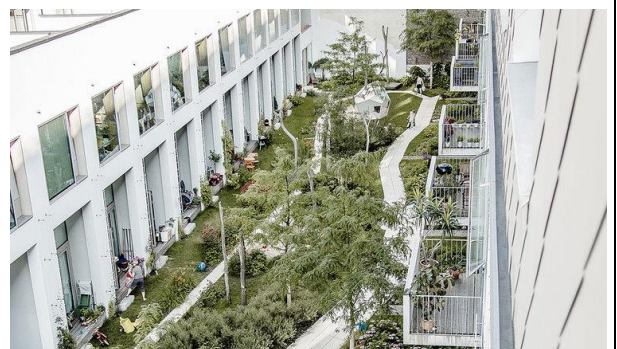
<http://www.baugruppen.com.au/home.html>

The Baugruppen movement is a European housing model that encourages people to come together to develop higher density housing. Community members work together to design shared spaces including community gardens and shared outdoor living.

Wohnhaus Esmarchstraße



Baugruppe in Prenzlauerberg



3xgruen Baugruppen	
--------------------	--

### Drill Hall Community Hub and Housing

	
Client/architect	MGS Architects for Housing Choices Australia (2011)
Location	City of Melbourne
Project value	\$25.7 million
	Air rights above a historic building
Community facilities	Service hub (services to the homeless) and meeting hall
Awards	Winner 2011 Australasian Housing Institute Professional Excellence Awards (Australian and Victorian Leading Housing Solution)



### McIntyre Drive Social Housing

	
Client/architect	MGS Architects/Robert Bird Group and JBA Consulting Engineers for the Department of Human Services (2012)
Location	Altona
Project value	\$15 million
Size	70 units, 4 levels and extensive landscaped frontage.
Community facilities	Communal spaces, community gardens and private open space.
Awards	<p>National AIA Awards 2013: Frederick Romberg Award for Residential Architecture - Multiple Housing</p> <p>Victorian AIA Awards 2013: Best Overend Award for Residential Architecture - Multiple Housing</p>

#### Eva Lane Cove (Hyecorp Property Group)


	
Client/architect	Hyecorp Property Group
Location	Waterview Drive, Lane Cove
Project value	
Size	104 units
Community facilities	Includes ground level child care facilities with capacity for up to sixty children.
Awards	<p>Winner of the Urban Taskforce Medium Rise Apartments Development Excellence Award for 2016</p> <p>Winner of the Urban Taskforce Best Affordable Housing Development Award for 2017</p>

### Clyde Mews, Thornbury

	
Client/architect	Sixdegrees
Location	Thornbury
Project value	-
Size	Medium density, 8 dwellings in total, 1,600 square metre site
Community facilities	Public and private open space, shared central space and communal garden.
Awards	2018 A&D Sustainability Award, Highly Commended Multi-Residential

### Hawke and King Apartments, West Melbourne



 <p>(Internal courtyard)</p>	
Client/architect	Six degrees/ Brunswick group
Location	West Melbourne
Project value	-
Size	82 apartments, community hall/church and retail
Community facilities	Street level community hall/church and retail, shared spaces and community garden.
Awards	Yet to be completed.



## Contact us

### CANBERRA

Level 2, 28-36 Ainslie Place  
Canberra ACT 2601  
+61 2 6257 4525  
[sgsact@sgsep.com.au](mailto:sgsact@sgsep.com.au)

### HOBART

PO Box 123  
Franklin TAS 7113  
+61 421 372 940  
[sgstas@sgsep.com.au](mailto:sgstas@sgsep.com.au)

### MELBOURNE

Level 14, 222 Exhibition St  
Melbourne VIC 3000  
+61 3 8616 0331  
[sgsvic@sgsep.com.au](mailto:sgsvic@sgsep.com.au)

### SYDNEY

209/50 Holt St  
Surry Hills NSW 2010  
+61 2 8307 0121  
[sgsnsw@sgsep.com.au](mailto:sgsnsw@sgsep.com.au)