

# Attachments

Ordinary Council Meeting

Camden Council

Administration Centre

70 Central Avenue

Oran Park

11 July 2023



camden  
council

## ATTACHMENTS

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URBIS

# REQUEST TO AMEND ORAN PARK DEVELOPMENT CONTROL PLAN

531 Cobbitty Road, Cobbitty

Prepared for  
**MIRVAC HOMES NSW**  
13 June 2023

ORD01

Attachment 1

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**We acknowledge, in each of our offices, the Traditional Owners on whose land we stand.**

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# 1. INTRODUCTION

This submission has been prepared by Urbis Pty Ltd (**Urbis**) on behalf of Mirvac Homes NSW (**Mirvac**), for consideration by Camden Council (**Council**) to amend the current *Oran Park Development Control Plan (DCP)* under *State Environmental Planning Policy (Precincts—Western Parkland City) 2021 (Parkland City SEPP)* associated with the Mirvac landholdings associated with the Cobbitty by Mirvac Estate and a portion of the Macarthur Anglican School site.

This formal submission aims to facilitate minor design updates to the DCP and associated Indicative Layout Plan (ILP) for the site of a general design development nature. The design updates may be summarised as follows:

- An update to the northern portion of the site to improve heritage character including:
  - The replacement of the proposed triangular area of open space with a widened heritage boulevard reflecting the Hassall heritage driveway and a 5,000sqm park.
  - Updates to the DCP controls associated with the Denbigh Transition Area.
- Refinements to the riparian corridor and passive open space network, incorporating a range of active and passive spaces and additional pedestrian/cycle connectivity.
- Introduction of a 5,000sqm park within the south east portion of the site
- Detailed design updates to the indicative movement and road network
- Refinements of two school sites (Macarthur Anglican School and the future public primary school) to more accurately reflect educational requirements for the Precinct.
- Introduction of a Precinct specific Integrated Water Management Plan to meet the needs of the Precinct.

Overall, Mirvac aims to deliver an amended design which has considered the unique characteristics of the site.

For ease of reference, the submission has been divided into the following key sections:

- **Section 1** – A description of the site
- **Section 2** – Relevant background
- **Section 3** – Existing planning framework
- **Section 4** – Proposed planning framework
- **Section 5** – Assessment of proposed amendments to planning framework
- **Section 6** – Conclusion



### 1.1. SITE AND LOCALITY

The site is referred to as the Cobbitty by Mirvac Estate which is legally described as:

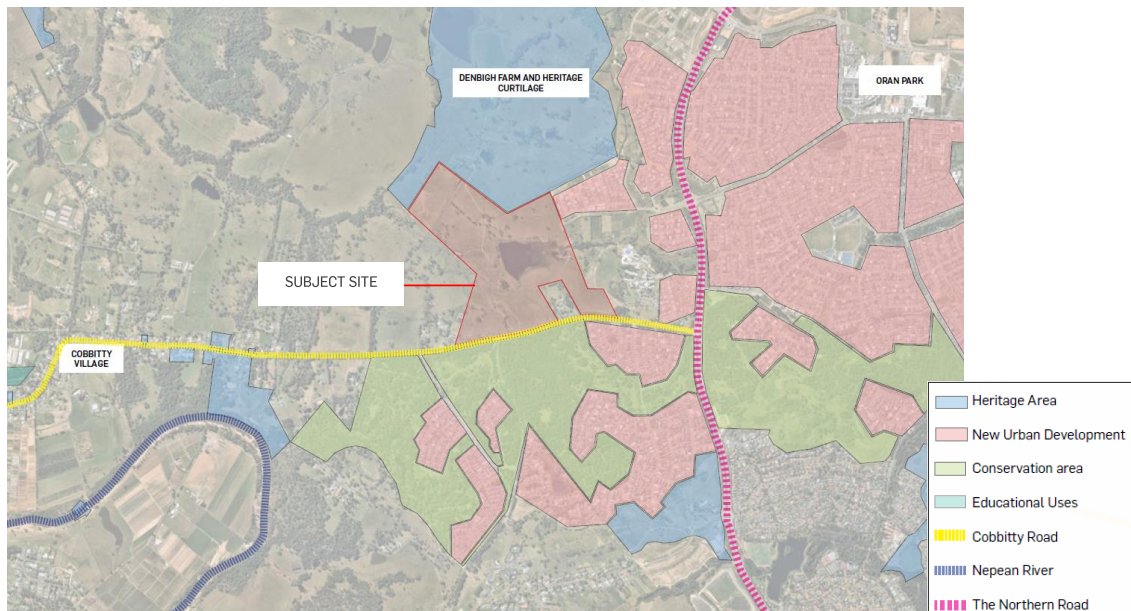
- 499 Cobbitty Road, Cobbitty (Lot 2 DP1276275)
- 501 Cobbitty Road, Cobbitty (Lot 1 DP1276275)
- 585 Cobbitty Road, Cobbitty (Lot 3 DP1276275)
- 589 Cobbitty Road, Cobbitty (Lot 4 DP1276275)
- 591 Cobbitty Road, Cobbitty (Lot 5 DP1276275)

Minor updates are also proposed to Lot 3102 DP1223680 which currently forms part of the Macarthur Anglican School site. The site is located approximately 50km southwest of Sydney CBD within the South West Growth Centre and is located in the Camden Council local government area (LGA). The site has an area of 79.77 Ha and is generally vacant with sheds, concrete pavement tracks and a small dam.

The South West Growth Area is an area transitioning from rural land to general residential. Given this and the sites context on the western periphery of the South West Growth Area, the context of development surrounding the site is best described below:

- West: Land to the west of the site remains in a rural setting with land and is designated for future development of the Outer Sydney Orbital.
- East: Macarthur Anglican School is located on the eastern boundary of the site along Cobbitty Road with the broader context characterised as low-density residential development.
- South: Land to the south is separated by Cobbitty Road, which provides access to the Northern Road to the east and Cobbitty Village to the west. A vegetated corridor is provided on the southern side of Cobbitty Road with residential development located off Macquarie Grove Road.
- North: Denbigh Farm (State Heritage Item SHR01691), also known as the Denbigh Estate is located along the northern edge of the site. A heritage curtilage has been provided as part of the ILP and associated documentation.

Figure 1 Site Context



Source: Urbis



## 2. PLANNING BACKGROUND

### 2.1. CONSULTATION WITH ADJOINING LANDOWNERS

Ongoing discussions have occurred with the adjoining landowners during the preparation of the DCP amendment request. Changes to the design including the earth mound within the Denbigh Transition Area and the design of the Hassall driveway have been undertaken in consultation with representatives of the Denbigh Estate. The results of these discussions are an improved design which better reflects the existing topography of the site and minimises land required on the adjoining property to create the earth mound. Further details are discussed in **Sections 4.1 and 5.3.2.**

### 2.2. CONSULTATION WITH COUNCIL

An initial letter was sent to Council in January 2022 outlining the intention to request changes to the current ILP and DCP associated with the site. Following receipt of this letter, a meeting was held on 28 February 2022 between Council's strategic planning team, Mirvac and Urbis. In this meeting, Mirvac noted that the purpose of the ILP amendment is to update the current ILP to reflect the required infrastructure delivery for the future population within the Precinct.

Following this initial meeting, discussions with members of Council have continued with a key focus on open space and infrastructure requirements. Substantial concept design and consultation has been undertaken to ensure that the overall design for the Precinct meets Council's expectations, in particular how the site can be optimised to improve amenity for residents and improve water management across the site.

To assist with the development of the proposed Water Cycle Management Strategy, consultation was also undertaken between Camden Councils Floodplain Management Team and Camden Council's external expert consultant for the Nepean River Tributaries Study. Modelling methodologies and calibration requirements were clarified during this consultation process to ensure the strategy and supporting electronic data is suitable for assessment, review and endorsement by Council.

Overall, Mirvac aim to deliver an ILP with well designed open space and activated riparian corridors.

### 2.3. RELATIONSHIP WITH FUTURE PLANNING APPLICATIONS

As discussed with Council officers, following the demonstration of strategic merit of the changes to the DCP and associated ILP proposed in this report, a SEPP amendment will also be lodged seeking refinement of the current C4 Environmental Living zone and R1 General Resident zone boundary along the Denbigh Transition Area. This amendment will respond to the revised footprint of the future public primary school. It is anticipated this application will be substantially similar to the SEPP amendment lodged by the neighbouring developer to the east.



## 3. EXISTING PLANNING FRAMEWORK

### 3.1. STRATEGIC PLANNING FRAMEWORK

#### 3.1.1. Greater Sydney Region Plan: A Metropolis of Three Cities

The *Greater Sydney Region Plan (Region Plan)* is a strategy prepared by the Greater Sydney Commission (GSC) for managing growth and change to guide integrated land use planning and infrastructure delivery for Greater Sydney to 2056. The Region Plan is built on a vision of three cities where most residents live within 30 minutes of their jobs, education and health facilities, services and great places. The vision brings new thinking to land use and transport patterns to boost Greater Sydney's liveability, productivity and sustainability by spreading the benefits of growth.

The South West Growth Area is an identified area for anticipated growth and acceleration of housing growth. The Region Plan also identifies that development along the spine of South Creek and its tributaries will 're-imagine liveability and sustainability, providing new cool and green neighbourhoods and centres with generous open space in a parkland setting.'

The proposed DCP amendments will further support the achievement of the following objectives in the Region Plan:

- Infrastructure supports the three cities (Objective 1)
- Infrastructure aligns with forecast growth (Objective 2)
- Infrastructure adapts to meet future needs (Objective 3)
- Services and infrastructure meet communities' changing needs (Objective 6)
- Communities are healthy, resilient and socially connected (Objective 7)
- Greater housing supply (Objective 10)
- Great places that bring people together (Objective 12)
- Public open space is accessible, protected and enhanced (Objective 31)
- The Green Grid links parks, open spaces, bushland and walking and cycling paths (Objective 32)

An assessment of the proposed design updates relative to the above-mentioned objectives is provided in **Section 5.1** of this report.

#### 3.1.2. Western City District Plan

Five District Plans were also prepared by the GSC as guides for implementing the Region Plan at a District level. Each plan is structured around priorities in relation to infrastructure and collaboration, liveability, productivity, sustainability and implementation. The site is located within the Western City District.

The greatest increase in population in the Western District is expected in Camden Local Government Area, mostly in the South West Growth Area and strong growth across all age groups.

The proposed DCP amendments will further support the following objectives in the Western City District Plan as outlined in **Section 5.1** of this report:

- Providing services and social infrastructure to meet people's changing needs (Planning Priority W3)
- Fostering healthy, creative, culturally rich and socially connected communities (Planning Priority W4)
- Providing housing supply, choice and affordability with access to jobs, services and public transport (Planning Priority W5)
- Creating and renewing great places and local centres, and respecting the District's heritage (Planning Priority W6)
- Protecting and improving the health and enjoyment of the District's waterways (Planning Priority W12)
- Delivering high quality open space (Planning Priority W18)

- Adapting to the impacts of urban and natural hazards and climate change (Planning Priority W20)

An assessment of the proposed design updates relative to the above-mentioned objectives is again provided in **Section 5.1** of this report.

### 3.1.3. Camden Local Strategic Planning Statement

The Camden Local Strategic Planning Statement (**LSPS**) was endorsed by the Greater Sydney Commission in March 2021. The LSPS identifies the vision for land use planning over the next 20 years.

The overall vision for Camden is underpinned by four key themes: infrastructure and collaboration, liveability, productivity and sustainability. These mirror the priorities of the Region Plan and District Plan and are critical to how Camden will grow and evolve.

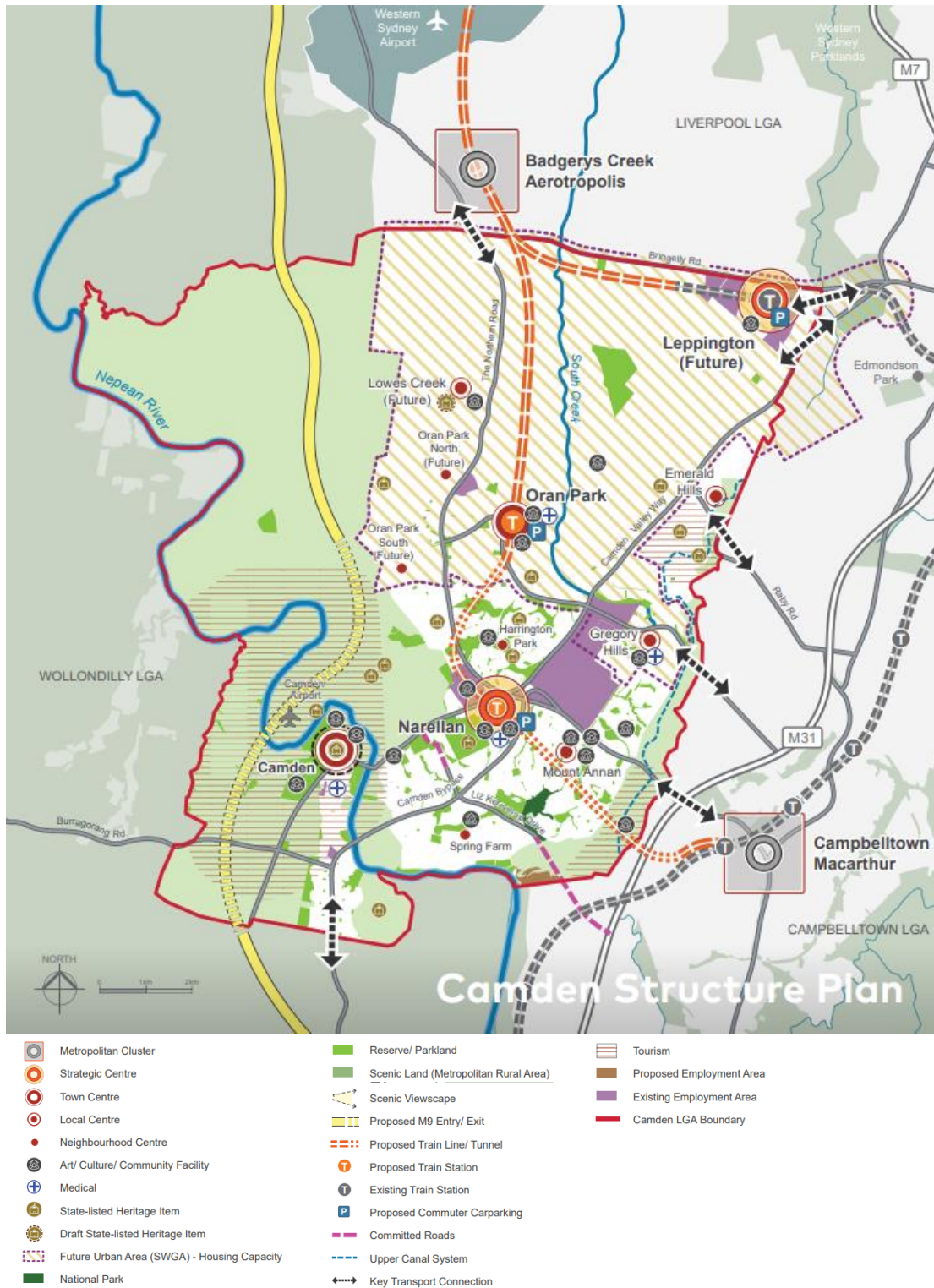
The Camden LGA contains the Nepean River which connects to other catchment areas and there are also metropolitan rural areas at the western expanse of the LGA. Planned new infrastructure within and surrounding the LGA is anticipated to create new jobs closer to homes, with an anticipated population growth of 140,000 people by 2040. New transport connections including the North-South Rail Link and M9 will unlock further opportunities for the creation of new places.

The LSPS Structure Plan identifies a significant portion of the northern part of Camden including Oran Park for future urban development (refer to **Figure 3**). This area is expected to account for majority of residential growth with associated infrastructure required to be delivered in this area.

The proposed DCP amendments will further support the following objectives in the LSPS as outlined in **Section 5.1** of this report:

- Aligning infrastructure delivery with growth (Local Priority I1)
- Working in partnership to deliver a more liveable, productive and sustainable Camden (Local Priority I4)
- Providing housing choice and affordability for Camden's growing and changing population (Local Priority L1)
- Celebrating and respecting Camden's proud heritage (Local Priority L2)
- Providing services and facilities to foster a healthy and socially connected community (Local Priority L3)
- Improving the accessibility and connectivity of Camden's Green and Blue Grid and delivering high quality open space (Local Priority S1)
- Protecting and enhancing the health of Camden's waterways, and strengthening the role and prominence of the Nepean River (Local Priority S2)
- Protecting Camden's rural land (Local Priority S3)
- Protecting and restoring environmentally sensitive land and enhancing biodiversity (Local Priority S4)

Figure 3 LSPS Structure Plan



Source: Camden Council



### 3.1.4. Camden Local Housing Strategy

The Camden Local Housing Strategy (LHS) was endorsed by Camden Council in December 2021 and was prepared in response to the region, district and local planning policy objectives to establish an evidence-based plan for housing in the Camden LGA over the next 10 and 20 years.

Over the next 20 years, the LGA is forecasted to have the largest housing growth of any metropolitan Sydney council with a forecast demand for an additional 49,625 dwellings with most residential growth set to occur in the SWGA. Oran Park is identified as an establishing Town Centre that will continue to grow and evolve with a developing retail offering, civic precinct and emerging office floorspace.

The site is identified in the 'New Urban North' Precinct which includes growing and evolving land release precincts. Housing within this precinct comprises mainly of detached housing and dual occupancies.

The LHS comprises five Priorities that underpin Council's vision for housing in the Camden LGA over the next 10 and 20 years. The five Priorities are:

1. Providing housing capacity and coordinating growth with infrastructure;
2. Delivering resilient, healthy and connected communities;
3. Delivering the right housing in the right location;
4. Increasing housing choice and diversity; and
5. Addressing housing affordability.

### 3.1.5. Spaces and Places Strategy

Between 2016 and 2036 the population of Camden Council is expected to nearly triple in size, from 80,477 to 233,299. In response to this growth, the Camden Spaces and Places Strategy provides benchmarks for open space, play spaces and community facilities to meet the needs of the current and future community.

The benchmarks of the Spaces and Places Strategy are considered as part of the Open Space Analysis prepared by Urbis enclosed in **Appendix B**.

## 3.2. STATUTORY PLANNING FRAMEWORK

### 3.2.1. Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979 (EP&A Act)* provides the principal legislative framework for environmental planning in NSW and include provisions to ensure that proposals that have the potential to impact the environment are subject to detailed assessment and provide opportunity for public involvement.

All development for the site will be assessed in accordance with the matters of consideration listed in Section 4.15 of the EP&A Act.

Section 9.1 Directions of the EP&A Act require Councils to address a range of matters when seeking to rezone land with an LEP. There is no statutory requirement for the Directions to be considered during Precinct Planning or amendments to an existing ILP. Nevertheless, the amended DCP and ILP updates and associated documentation are found to be consistent with the relevant directions effectively providing residential land and associated uses within an identified growth area.

### 3.2.2. Environment Protection and Biodiversity Conservation Act 1999

*Environment Protection and Biodiversity Conservation Act 1999* is the Commonwealth's central framework for the protection of the Australian environment. It provides for the conservation and protection of biodiversity and natural and cultural places and heritage. It further promotes principles for ecologically sustainable development which will be considered as part of the ongoing development of the Oran Park and Turner Road Precinct. The DCP updates do not trigger any assessment/referral requirements under this Act.

### 3.2.3. Biodiversity Conservation Act 2016 No. 63

*Biodiversity Conservation Act 2016 (BC Act)* is the NSW Governments principal framework for environmental protection across NSW. It provides for the protection and conservation of biodiversity and ecosystems in NSW and promotes the use of the ecologically sustainable development principles. The Draft ILP has been designed in accordance with mapped Native Vegetation to ensure that areas of important biodiversity are enhanced and retained wherever possible. Under the Act, the areas of the site zoned for residential uses are biodiversity certified. The DCP updates again do not trigger any assessment/referral requirements under this Act

### 3.2.4. State Environmental Planning Policy (Precincts—Western Parkland City) 2021

*State Environmental Planning Policy (Precincts—Western Parkland City) 2021 (Parkland City SEPP)* is the principal Environmental Planning Instrument that guides development within Oran Park and Turner Road. Appendix 2 of the Parkland City SEPP provides the localised framework for the implementation of Oran Park and Turner Road Precinct.

The aims of the Parkland City SEPP are:

- *Co-ordinate the release of land for residential, employment and other urban development in the North-West Growth Centre, the South West Growth Centre, the Wilton Growth Area and the Greater Macarthur Growth Area,*
- *To enable the Minister from time to time to designate land in growth centres as ready for release for development,*
- *To provide for comprehensive planning for growth centres,*
- *To enable the establishment of vibrant, sustainable and liveable neighbourhoods that provide for community well-being and high-quality local amenity,*
- *To provide controls for the sustainability of land in growth centres that has conservation value,*
- *To provide for the orderly and economic provision of infrastructure in and to growth centres,*
- *To provide development controls in order to protect the health of the waterways in growth centres,*

- To protect and enhance land with natural and cultural heritage value,
- To provide land use and development controls that will contribute to the conservation of biodiversity.

Overall, the proposed DCP updates reflect the intentions of the original Planning Proposal and will continue to provide approximately 900 to 950 residential dwellings, playing fields and associated infrastructure, local neighbourhood centre, a school and open parkland. The aims of the Parkland City SEPP continue to be achieved.

**3.2.4.1. Development Standards**

The following sections set out the relevant development standards under the SEPP in detail. The DCP updates remain entirely consistent with the established development standards for the site.

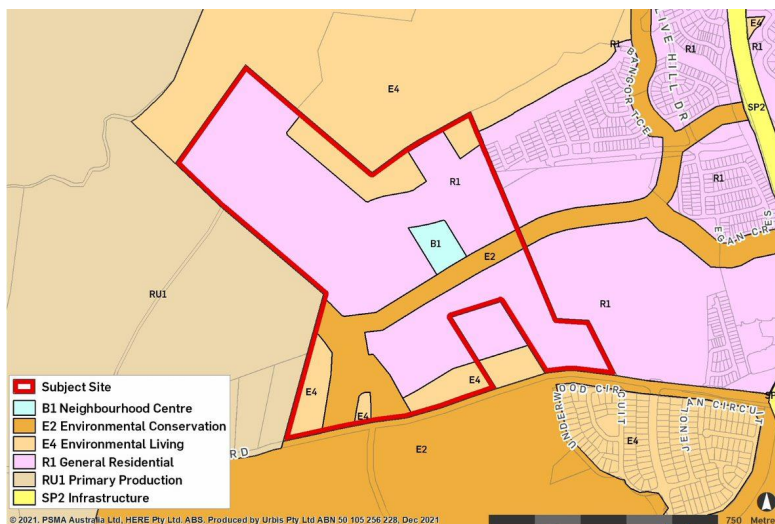
**Land Use Zoning**

A range of zones are located within the subject site as summarised in **Table 1** below.

Table 1 Summary of Land Uses

Land Zone	Permitted Uses (with consent)
R1 General Residential	Any other development not specified in item 2 or 4
B1 Neighbourhood Centre	(ie. Dwelling houses, residential accommodation, roads, educational establishments (a full list of permissible uses is included in Appendix 2 of the Precincts SEPP)
C2 Environmental Conservation <i>(Formerly E2 Environmental Conservation)</i>	Drainage; Earthworks; Environmental facilities; Environmental protection works; Flood mitigation works; Recreation areas; Roads; Sewage reticulation systems; Water recycling facilities; Water supply systems; Waterbodies (natural)
C4 Environmental Living <i>(Formerly E4 Environmental Conservation)</i>	Bed and breakfast accommodation; Drainage; Dwelling houses; Earthworks; Electricity generating works; Environmental facilities; Environmental protection works; Exhibition homes; Exhibition villages; Flood mitigation works; Group homes; Health consulting rooms; Home businesses; Home industries; Horticulture; Recreation areas; Recreation facilities (outdoor); Roads; Telecommunications facilities; Temporary structures; Water recreation structures; Water recycling facilities; Waterbodies (artificial)

Figure 4 Land Zoning Map



Source: Urbis

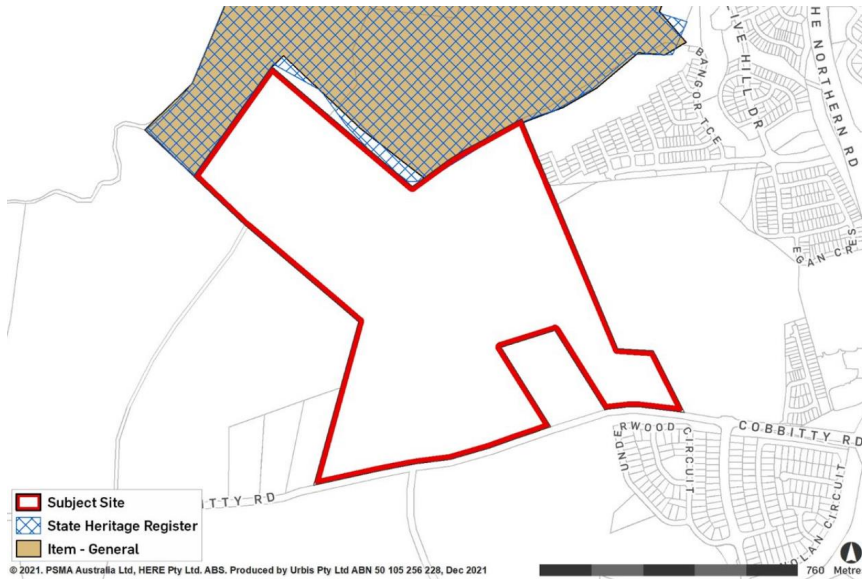
**Heritage**

The site itself is not identified as a local or state heritage item. It is noted however that the Denbigh Estate along the northern site boundary (421 The Northern Road, Cobbitty) is identified as a State Heritage listed item (SH01691) within Appendix 2 of the Precincts SEPP (refer to **Figure 5**). The item is described as:

*Denbigh (including homestead, grounds and gardens, slab outbuildings, coach house, stable, dairy and sheds).*

While the site does not incorporate a heritage listed item, current development controls for the site within the DCP have considered the close proximity of the site to a State Heritage Item.

Figure 5 Heritage Map



Source: Urbis

**Minimum Lot Size**

The site includes a range of minimum lot sizes including:

- 125sqm within the General Residential zone and Neighbourhood Centre
- 1000sqm within the Denbigh Transitional Area, Environmental Conservation and Environmental Living zones

**Height of Buildings**

The site includes a range of height of buildings including:

- 6 metres within the Denbigh Transitional Area
- 9 – 12 metres within the Environmental Conservation and Environmental Living zones
- 16 metres within the General Residential zone
- 18 metres within the Neighbourhood Centre

**Floor Space Ratio**

There is no applicable FSR provision for the site.

**Flood Prone Land**

A portion of the site is identified as flood prone land (refer to **Figure 6**). An Integrated Water Management Strategy has been prepared by Orion Consulting (**Appendix C**) and is further assessed in **Section 5.3.3**.

### Riparian Corridors

A riparian corridor is located within the southern portion of the site and is within the E2 Environmental Conservation zone (refer to **Figure 6**). This has been considered as part of the Integrated Water Management Strategy prepared by Orion Consulting (**Appendix C**) and is further assessed in **Section 5.3.3**.

Figure 6 Flood Prone Land and Riparian Corridors

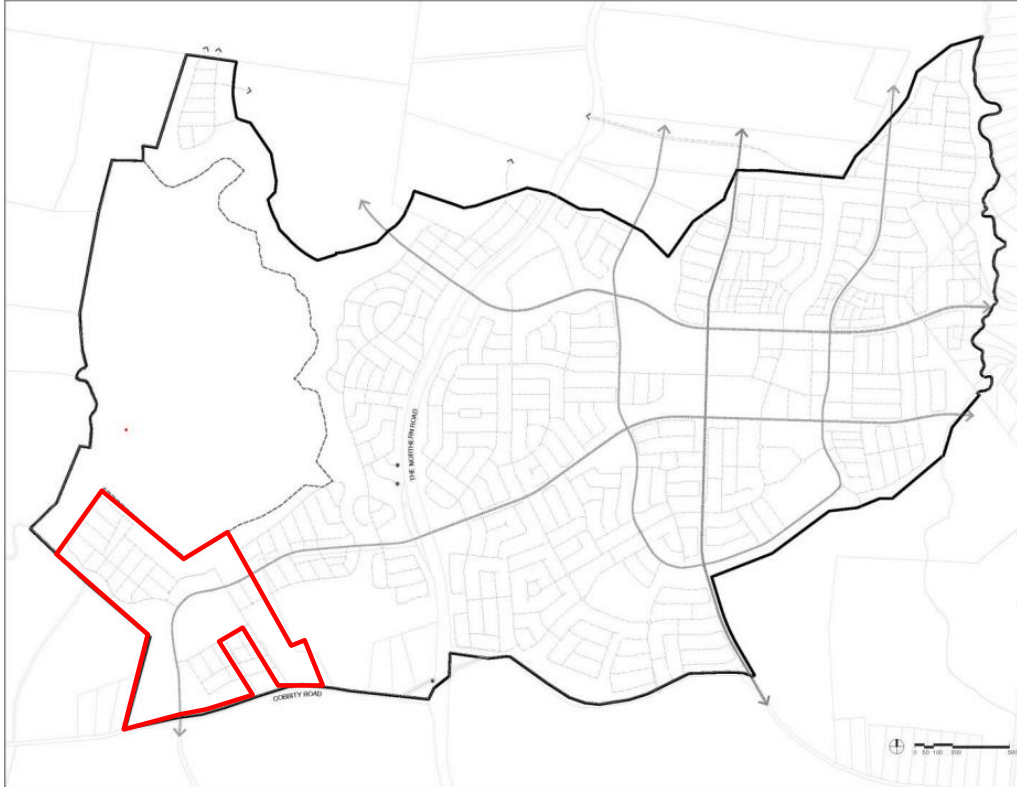


Source: Urbis

### 3.2.5. Oran Park Development Control Plan

The Oran Park Development Control Plan (the **DCP**) is a detailed guideline to support the applicable planning controls and permissible land uses for land subject to Appendix 2 Oran Park and Turner Road Precinct Plan of the Parkland City SEPP. This DCP applies to all development on the land shown in **Figure 7** below.

Figure 7 Oran Park Precinct with subject site identified in red



Source: Camden Council

It is noted in the DCP that refinement to the DCP may be required to ensure that the overall objectives for the Oran Park Precinct continue to be met. The latest amendment to the DCP occurred in April 2017 including:

*Amendment to Part A of the DCP to ILP and DCP Figures including changes to road hierarchy, layout and intersection arrangements and Transit Boulevard cross-section; review of provision of open space, community facility, school site and indicative child care centre locations; minor changes to child care centre controls; and relocation of planned medium density areas around the Oran Park Town Centre.*

While the site does not incorporate a heritage listed item, current development controls for the site have considered the close proximity of the site to a State Heritage Item. A portion of the lot is also identified within the 'Denbigh Transition Area' (refer to **Figure 8**) and the 'Southern Viewscape Precinct' (refer to **Figure 9**). Specific Controls for the Denbigh Transition Area are outlined in Part B3 of the DCP to facilitate development sensitive to the curtilage of the Denbigh Estate.

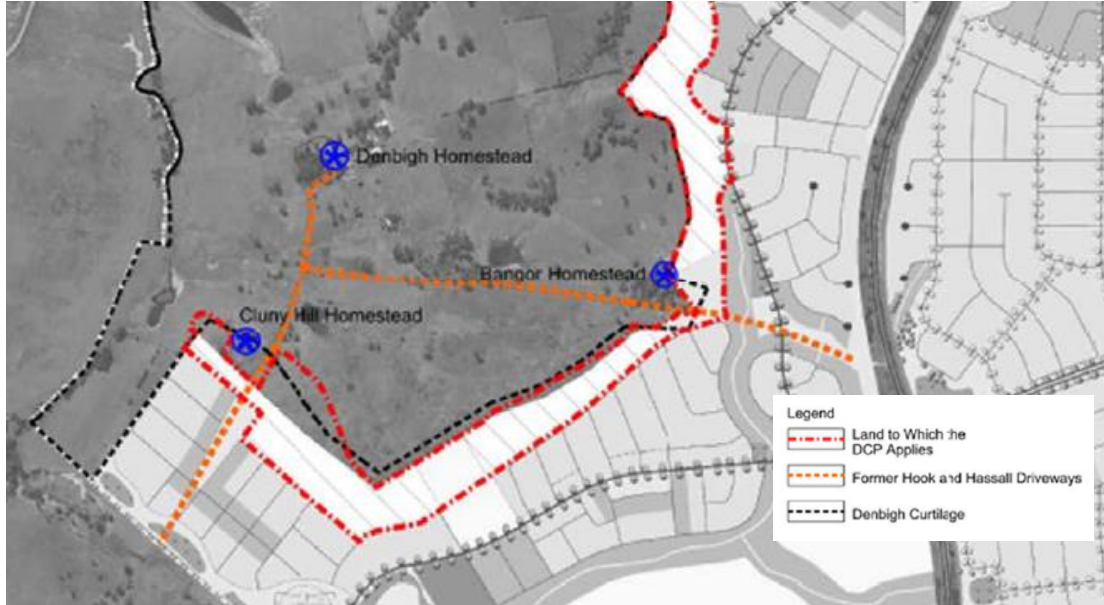
The Southern Viewscape Precinct is situated along the southern boundary of the Denbigh curtilage. In this area, the existing ridgeline encompasses more gently sloping land than the Northern and Central Viewscape Precincts, and the ridgeline falls within the Transition Area and the Denbigh curtilage.

The existing ridgeline location and height within this area does not provide complete screening of residential development within the Transition Area. To obscure the visual impact of residential development, whilst



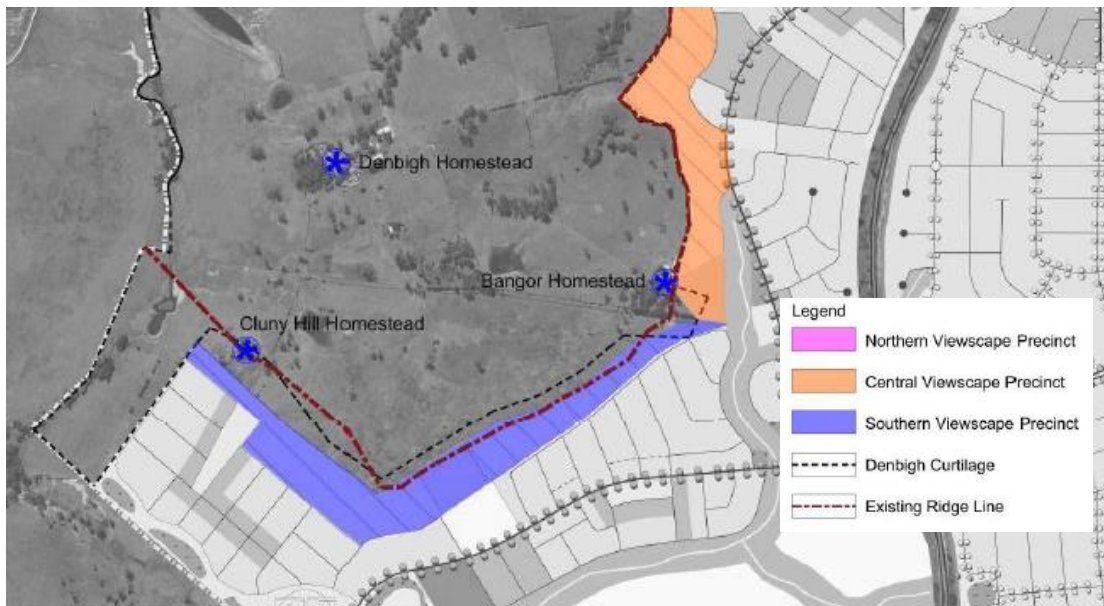
facilitating suitable development, the DCP notes that the topography of the ridgeline may require modification. **Figure 8** also identifies that the Former Hassall Driveway runs through the site and is currently located in an irregular shaped open space area.

Figure 8 Denbigh Transition Area



Source: Camden Council

Figure 9 Denbigh Transition Area



Source: Camden Council



# 4. PROPOSED PLANNING FRAMEWORK

The proposed DCP amendments reflect an updated site-wide masterplan layout prepared by Paterson Design Studio (PDS) illustrated in Figure 8. The proposed masterplan will inform an updated ILP for the Oran Park Precinct and facilitate future development approvals for approximately 900 to 950 residential dwellings, playing fields and associated infrastructure, local neighbourhood centre, a school and open parkland. An amended ILP is provided in Figure 9 below.

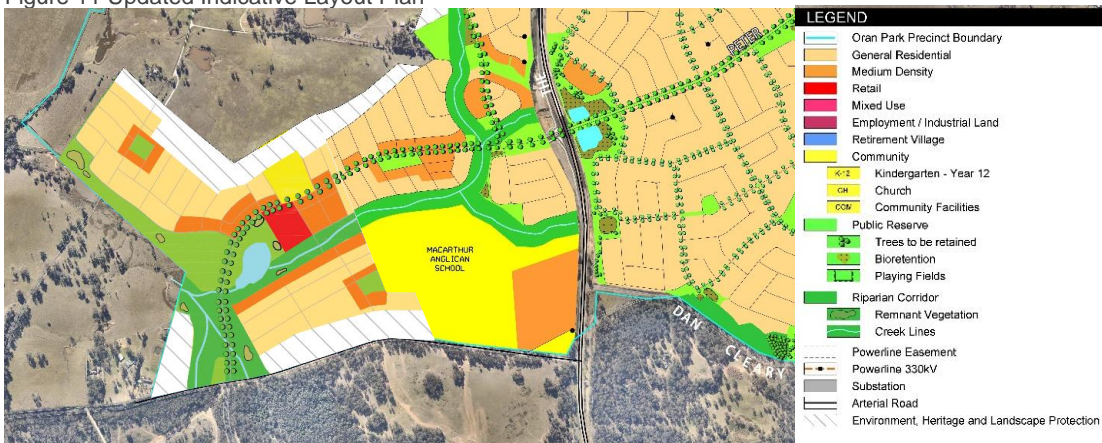
The proposed updates are summarised overleaf.

Figure 10 Indicative Masterplan



Source: PDS

Figure 11 Updated Indicative Layout Plan



Source: Camden Council and Urbis

## 4.1. DESIGN UPDATES

### 1. Introduction of Hassall heritage boulevard

The current ILP provides a linear open space along in the north-west portion of the site to reflect the previous Hassall driveway associated with the Denbigh Estate (refer to **Figure 8**). In consultation with Design 5 Architects and PDS, an amended design is proposed to provide a widened tree lined boulevard with widened verges facilitating planting and growth of larger trees and providing a share path to enhance connectivity and movement through the estate to reflect the previous use of the road as a secondary access point to the Denbigh Estate and replaces an irregular shaped open space. A 3,500sqm pocket park remains in the general location of the linear park to maintain opportunity for passive recreation for residents in the north-west of the Cobbitty Estate.

### 2. Refinements to the Denbigh Transition Area

A portion of the site is located within the Denbigh Transition Area as identified in **Figure 8**. The provision of an earth mound is introduced within Part B3 of the DCP associated with the Denbigh curtilage ridgeline and the Transition Area to provide adequate visual screening along this portion of the ridge line.

The earth mound is primarily located on the adjacent lot to the north which forms part of the Denbigh Estate landholdings. The proposed height identified in the DCP ranges from zero to 4.5 metres above the existing topography on site. Through consultation with the neighbouring land owner, it was deemed preferential that the earth mound was realigned to the mutual boundary to minimise the impact on farming activities within the Denbigh Estate. Following this realignment, an initial assessment against the current controls, has identified that a compliant earth mound would not result in the intended outcome of the development and would not provide adequate screening between the site and Denbigh Estate.

Updates are required to the current design identified in the DCP to avoid adverse visual impacts of future developments on the rural setting of the Denbigh Estate and on the views from the Denbigh homestead and heritage curtilage. Details of the earth mound have been prepared by Orion Consulting in consultation with Design 5 Architects and are enclosed in **Appendix F**.

### 3. Refinements to the riparian corridor and passive open space

Updates are proposed to the existing riparian corridor and passive open space to improve connections within the site.

Proposed updates have been prepared in consultation with PDS and Orion Consulting to ensure the open spaces unique to this site provide the best opportunity for use and connectivity. The open space design offers areas and uses which cater to a broad cross section of the community and can be active through varying times of the day and year. An extensive network of paths is proposed through the open space and additional share paths are proposed through the subdivision to maximise the opportunity for activity and connectivity, and to integrate the open spaces into the community.

The design has also been coordinated from a flooding and water sensitive urban design (**WSUD**) perspective to ensure the spaces provided are functional and do not compromise the effective management of stormwater on the site. In response to the Integrated Water Management Plan prepared by Orion Consulting, the amended ILP reduces the amount of open space outside the core riparian corridor required to be dedicated to water cycle management infrastructure. This frees up land previously required to perform drainage functions to be used as open space.

In summary, the amended design incorporates:

- Two additional pocket parks;
- A range of passive open spaces adjacent to riparian corridors;
- Reconfiguration of sport fields precinct making it capable of providing unstructured active opportunities;
- Interconnected dual use pathways running through the precinct connecting through the open spaces and into and through the estate;
- An active frontage to the lake, with seating areas and pathways; and
- Multiple seating areas across the site.

Overall, the proposed design refinements aim to create a connected network of open space across the site which provides more useable space and better connections to riparian corridors to allow residents and visitors to appreciate the semi-rural setting of the site.

#### 4. Refinements to the interface with the Metropolitan Rural Area

The Mirvac landholdings are located on the most western part of the Oran Park Precinct and are directly adjacent to the Metropolitan Rural Area. While no changes are proposed to the residential areas currently identified in the ILP, Council has requested further mitigation measures are investigated to deliver an appropriate transition. While no changes are proposed to the ILP, controls have been introduced to ensure appropriate landscaping is considered at both the northern and southern interface along the western site boundary. Further details are provided in **Appendix J**.

#### 5. Updates to the indicative movement network

To reflect the proposed changes, minor changes are proposed to the current indicative movement network as described below and illustrated in **Figure 12**.

Figure 12 Oran Park ILP with proposed road network upgrades



#### 4.1 Removal of the proposed road (bridge) that runs north-south across the riparian corridor (between Road No. 01 and Charles McIntosh Parkway)

The removal of the road bridge aims to improve the hierarchy of connected streets by removing a potential rat run. The bridge was classified as a local street but could attract high levels of traffic as drivers seek access between Cobbitty Road to the south and The Northern Road to the east.

It is proposed to maintain this connection as a pedestrian bridge that would enable greater engagement with the public domain by pedestrians and cyclists as they no longer conflict with vehicles. It would enable higher quality water sensitive urban design measures by reducing the intrusion of a road into the riparian corridor. The bridge provides a valuable link across the riparian corridor that makes walking and cycling more attractive, particularly with reduced conflicts with vehicles.

The pedestrian and cyclist link will provide direct and safe connection for local residents to access the public school and local centre, without the need to drive and reducing the reliance on vehicular travel within the precinct.

#### 4.2 Downgrading of collector road next to the local centre to a local street (north of the riparian corridor)

The southern collector road next to the local centre was designated as a collector road despite there being very little catchment identified in previous studies. The proposed subdivision layout allows residents to access Charles McIntosh Parkway directly via north-south local streets, rather than using the collector road to the south. Therefore, the collector road is unlikely to collect high volumes of local traffic and would not function as a collector road. Similar downgrades have been proposed in surrounding estates including Wainright Drive within the Oxley Ridge estate which has been delivered as a local road. Hence, we propose this road north of the riparian corridor to be delivered as a local road.

#### 4.3 Reclassification of the collector road (Road No.01) adjoining the riparian corridor as a collector road

The revised collector road is a direct and convenient east-west connection. By avoiding a collector function road that cuts through the centre of the residential subdivision, higher traffic volumes will run around the periphery of the precinct, improving opportunities to cross for pedestrians and improving attractiveness for cycling. The revised collector road retains its connection with Charles McIntosh Parkway at the roundabout south of the riparian corridor.

The proposed layout also avoids the collector road passing through a separately owned property (Lot 1 DP 1014583) meaning it can be delivered by one developer (the proponent) and provide access to potential future lots to the east of this subdivision, which would otherwise be reliant on local streets. This would improve road functioning during staged delivery of the precinct.

### **6. Designation of land previously dedicated for Macarthur Anglican School for residential development**

Land to the west of Macarthur Anglican School was previously designated for future growth of the school. Based on going discussions with the school, this area is not required for future growth and is recommended to provide additional residential development within the Precinct reflecting the underlying Residential R1 zone. This area will also improve connections between the school and facilities within the site, by providing new pedestrian connections along the eastern site boundary. Along the Cobbitty Road interface, it is intended the residential accommodation will reflect the larger lot residential via controls implemented using an 88B instrument. To provide further certainty for Council, Macarthur Anglican School have provided a letter (enclosed in **Appendix G**) confirming that the school has no intention of purchasing that land from the owner of Lot 2005 DP1162239 or for the expansion of Macarthur Anglican School in this area.

The introduction of large lot residential development along Cobbitty Road has been designed to reflect E4 lots currently proposed further west. The proposal will ensure a vegetated buffer is maintained which has been informed by a Visual Impact Assessment undertaken by Urbis (refer to **Appendix H**).

### **7. Refinement of the location and size of the public primary school**

In accordance with requirements of the Department of Education (**DoE**) and Schools Infrastructure NSW (**SINSW**) changes are proposed to the public primary school along the northern boundary including a reduction of size to 2 hectares. To provide further certainty for Council, SINSW have provided a letter (enclosed in **Appendix I**) outlining their intent to use the site for a future educational establishment.

## **4.2. DCP UPDATES**

As the ILP forms an integral part of the applicable Development Control Plan (**DCP**), corresponding minor amendments are requested to the current DCP. These updates are assessed in **Section 5.2** of this report with a mark up of the DCP enclosed in **Appendix J**.



## 5. ASSESSMENT OF KEY MATTERS

### 5.1. STRATEGIC PLANNING

This area is established in Appendix 2 of the Parkland City SEPP and is referred to as the **Oran Park and Turner Road Precinct**. A number of Environmental Planning Instruments have been assessed as part of the proposed ILP amendments, as outlined in **Table 2** below.

Table 2 Overview of the Statutory Policy Framework

Aims Relevant to DCP Amendment	Strategic Alignment
<b>A Metropolis of Three Cities: Greater Sydney Region Plan (Region Plan)</b>	
<p><b>Infrastructure and Collaboration</b></p> <ul style="list-style-type: none"> <li>▪ <b>Objective 1:</b> Infrastructure supports the three cities</li> <li>▪ <b>Objective 2:</b> Infrastructure aligns with forecast growth</li> <li>▪ <b>Objective 3:</b> Infrastructure adapts to meet future needs</li> </ul>	<p>The proposed DCP amendments seek to enhance and optimise the use of the Precinct which is strategically positioned within the South West Growth Centre.</p> <p>The proposed updates have resulted from ongoing development of the precinct and aims to align anticipated growth with infrastructure requirements.</p>
<p><b>Liveability</b></p> <ul style="list-style-type: none"> <li>▪ <b>Objective 6:</b> Services and infrastructure meet communities' changing needs</li> <li>▪ <b>Objective 7:</b> Communities are healthy, resilient and socially connected</li> <li>▪ <b>Objective 10:</b> Greater housing supply</li> <li>▪ <b>Objective 12:</b> Great places that bring people together</li> </ul>	<p>The Regional Plan acknowledges that significant land release development is still to occur within the South West Growth Centre. The proposed amendments result in improvements to the Precinct which increase residential supply in an existing release area and provides services expected of a new community.</p>
<p><b>Sustainability</b></p> <ul style="list-style-type: none"> <li>▪ <b>Objective 31:</b> Public open space is accessible, protected and enhanced</li> <li>▪ <b>Objective 32:</b> The Green Grid links parks, open spaces, bushland and walking and cycling paths</li> </ul>	<p>The updated Masterplan prepared by PDS provides a range of open spaces and new green links throughout the site. The expansive network of revegetated riparian corridors and interconnected paths throughout the precinct will promote increased connectivity between the neighbourhoods as well as providing additional open space areas which can support gathering spaces, informal play areas and spaces for relaxation and gatherings.</p>
<b>Western City District Plan</b>	
<ul style="list-style-type: none"> <li>▪ <b>Planning Priority W3:</b> Providing services and social infrastructure to meet people's changing needs</li> </ul>	<p>The Western City District is expected to accommodate, 464,450 new residents, 370,200 jobs and 184,500 dwellings by 2036. The District Plan seeks to accommodate and support this growth through economic corridors, growth areas and infrastructure links and connections between strategic and metropolitan clusters</p>

Aims Relevant to DCP Amendment	Strategic Alignment
<ul style="list-style-type: none"> <li>▪ <b>Planning Priority W4:</b> Fostering healthy, creative, culturally rich and socially connected communities</li> <li>▪ <b>Planning Priority W5:</b> Providing housing supply, choice and affordability with access to jobs, services and public transport</li> <li>▪ <b>Planning Priority W6:</b> Creating and renewing great places and local centres, and respecting the District's heritage</li> <li>▪ <b>Planning Priority W12:</b> Protecting and improving the health and enjoyment of the District's waterways</li> <li>▪ <b>Planning Priority W18:</b> Delivering high quality open space</li> <li>▪ <b>Planning Priority W20:</b> Adapting to the impacts of urban and natural hazards and climate change</li> </ul>	<p>and centres. Land release areas such as Oran Park and Turner Road remain key to ensuring housing supply and securing economic development for the region which is assisted by the proposed DCP amendments.</p>
<b>Camden Local Strategic Planning Statement</b>	
<p><b>Infrastructure</b></p> <ul style="list-style-type: none"> <li>▪ <b>Local Priority I1:</b> Aligning infrastructure delivery with growth</li> <li>▪ <b>Local Priority I4:</b> Working in partnership to deliver a more liveable, productive and sustainable Camden</li> </ul>	<p>The LSPS Structure Plan identifies a significant portion of the northern part of Camden including Oran Park for future urban development. This area is expected to account for majority of residential growth with associated infrastructure required to be delivered in this area.</p>
<p>Liveability</p> <ul style="list-style-type: none"> <li>▪ <b>Local Priority L1:</b> Providing housing choice and affordability for Camden's growing and changing population</li> <li>▪ <b>Local Priority L2:</b> Celebrating and respecting Camden's proud heritage</li> <li>▪ <b>Local Priority L3:</b> Providing services and facilities to foster a healthy and socially connected community</li> </ul>	<p>The proposed amendments provide additional housing including large lot residential in a desirable location. The additional residential land does not impact on the State Heritage listed Denbigh Estate to the north.</p> <p>Amended controls are proposed to the current DCP to ensure the required earth mound results in a suitable outcome for the site.</p>
<p>Sustainability</p> <ul style="list-style-type: none"> <li>▪ <b>Local Priority S1:</b> Improving the accessibility and connectivity of Camden's Green and Blue Grid and delivering high quality open space</li> </ul>	<p>The updated masterplan aims to improve residents and visitors experience within the site by providing a range of open spaces which connect and restore the existing riparian corridors within the site.</p>

Aims Relevant to DCP Amendment	Strategic Alignment
<ul style="list-style-type: none"> <li>▪ <b>Local Priority S2:</b> Protecting and enhancing the health of Camden's waterways, and strengthening the role and prominence of the Nepean River</li> <li>▪ <b>Local Priority S3:</b> Protecting Camden's rural land</li> <li>▪ <b>Local Priority S4:</b> Protecting and restoring environmentally sensitive land and enhancing biodiversity</li> </ul>	<p>The refined design is consistent with the overall intent for the site and does not seek to encroach on existing rural land in the surrounding areas.</p>
<b>Camden Local Housing Strategy</b>	
<ul style="list-style-type: none"> <li>▪ <b>Priority 1:</b> Providing housing capacity and coordinating growth with infrastructure</li> <li>▪ <b>Priority 2:</b> Delivering resilient, healthy and connected communities</li> <li>▪ <b>Priority 3:</b> Delivering the right housing in the right location</li> <li>▪ <b>Priority 4:</b> Increasing housing choice and diversity</li> <li>▪ <b>Priority 5:</b> Addressing housing affordability</li> </ul>	<p>The proposed DCP amendments are reflective of the key priorities of the Camden Housing Strategy.</p> <p>The overall design aims to protect Camden LGA's Rural Lands by providing additional housing supply within an existing area identified for residential development, this ensures that housing is strategically located to activate town centres, promote walkability and optimise infrastructure.</p>

The proposed design updates have been considered against both the aims and requirements of the different strategic policies and guidelines set out above. The proposed design updates to the ILP and future subdivision of land for residential purposes, with associated infrastructure, remains consistent with the SEPPs.

ORD01

Attachment 1

## 5.2. STATUTORY PLANNING

### 5.2.1. State Environmental Planning Policy (Precincts—Western Parkland City) 2021

Development Standard	Consistency with DCP amendment
<p><b>Land Use Zoning</b></p> <p>A range of zones are located within the subject site including:</p> <ul style="list-style-type: none"> <li>▪ R1 General Residential which allows for housing, parks and roads.</li> <li>▪ B1 Neighbourhood Centre</li> <li>▪ C2 Environmental Conservation</li> <li>▪ C4 Environmental Living</li> </ul>	<p>The proposed DCP amendments do not result in any additional land zones.</p> <p>The proposed amendments will result in additional residential land which will remain consistent with the controls proposed for existing residential land on site while providing additional residential accommodation within an identified area for housing supply.</p>
<p><b>Heritage Conservation</b></p> <p>The site is within close proximity to the Denbigh Estate (Item 1691), which is a state listed heritage item located at 421 The Northern Road, Cobbitty.</p>	<p>Overall, the proposal DCP amendments aim to improve the relationship between future residential development and the Denbigh Estate. The overall heritage impacts of the proposed DCP updates are addressed in <b>Section 5.3.2</b> of this report.</p>
<p><b>Minimum Lot Size</b></p> <p>The site includes a range of minimum lot sizes including:</p> <ul style="list-style-type: none"> <li>▪ 1000sqm within the Denbigh Transitional Area, Environmental Conservation and Environmental Living zones</li> <li>▪ 125sqm within the General Residential zone and Neighbourhood Centre</li> </ul>	<p>No change is proposed to the minimum lot sizes proposed for the site.</p> <p>On the additional residential lots proposed along Cobbitty Road, lot sizes will be reflective of the adjacent environmental zone.</p> <p>Changes to the LEP mapping with lot sizes anticipated to be restricted by 88B instruments.</p>
<p><b>Height of Buildings</b></p> <p>The site includes a range of height of buildings including:</p> <ul style="list-style-type: none"> <li>▪ 6 metres within the Denbigh Transitional Area</li> <li>▪ 9 – 12 metres within the Environmental Conservation and Environmental Living zones</li> <li>▪ 16 metres within the General Residential zone</li> <li>▪ 18 metres within the Neighbourhood Centre</li> </ul>	<p>No change is required to the height of buildings proposed for the site.</p>



Development Standard	Consistency with DCP amendment
<b>Floor Space Ratio</b> There is no FSR provision for the site.	No change is required as no current development standard is applicable to the site.
<b>Flood Prone Land</b> A portion of the site is identified as flood prone land.	No changes are proposed to the area identified as flood prone land. Consideration of flood prone land has forms
<b>Riparian Corridors</b> A riparian corridor is located within the southern portion of the site and is within the E2 Environmental Conservation zone	

### 5.2.2. Oran Park Development Control Plan

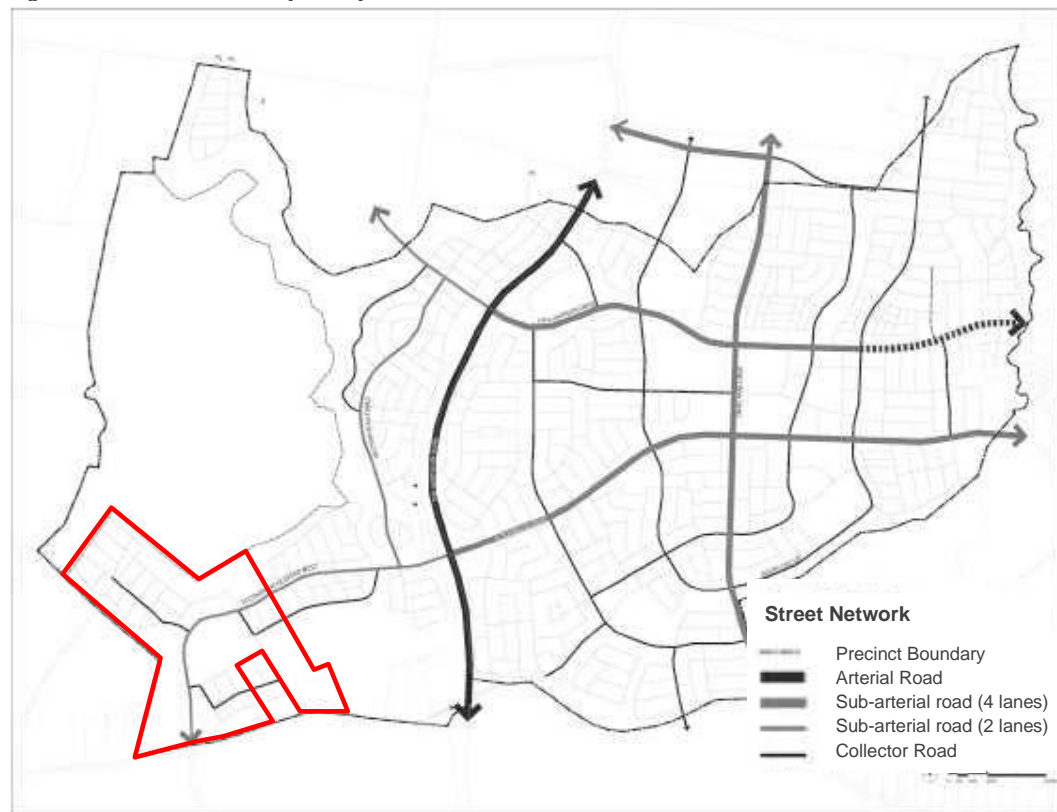
A summary of proposed changes to Part A of the DCP is included in the table below.

Table 3 Part A DCP Assessment

Section	Control	Comment
2. Oran Park Precinct		
2.1 Indicative Layout Plan	All development is to be undertaken generally in accordance with the Indicative Layout Plan identified in <b>Figure 2</b> . Where variation from the ILP is proposed, the applicant is to demonstrate that the proposed development is consistent with the Vision and Development Objectives for the precinct set out in Section 2.2.	Given the range of changes proposed, it is anticipated, the ILP (and in turn DCP) will require updating.
2.2 Vision and Development Objectives	An ILP update will need to demonstrate that the amended proposal is consistent with the Vision and Development Objectives for the precinct set out in Section 2.2 and the Objectives and Controls at Sections 2.3 – 2.5 of this DCP.	<b>No updates or refinements are required to the DCP.</b> The amended ILP will remain consistent with the existing Vision and Development Objectives for Oran Park.
2.3 Residential Density Targets	The residential dwelling target for the Oran Park Precinct is 7,540.  Subject to the agreement of Council and consultation with relevant landowners, dwelling yield may be 'traded' between sub-precincts as long as it meets the overall targets and objectives of the DCP and ILP.  As this is a minimum dwelling yield, it is anticipated the ILP will exceed yield requirements.	<b>No updates or refinements are required to the DCP.</b> The proposed amendments to the ILP will remain consistent with the minimum dwelling target establish for the Oran Park Precinct.

Section	Control	Comment
2.4 Infrastructure Delivery and Development Staging	Core infrastructure, services and facilities are to be established at the early stages of development consistent with the Special Infrastructure Contributions Practice Note and the <i>Oran Park and Turner Road Section 94 Contributions Plan</i> .	<b>No updates or refinements are required to the DCP.</b> Core infrastructure, services and facility requirements for the precinct have been considered and provided within the updated design.
2.5 Hierarchy of Centres and Employment Areas	As identified <b>Figure 9</b> , the Southern Neighbourhood Centre is located within the subject site.	<b>No updates or refinements are required to the DCP.</b> No change is proposed to the current centre hierarchy.
<b>3. Access and Movement</b>		
3.1 Street Network Layout and Design	<p>The street network is to be provided generally in accordance with the ILP and the Street Network Plan. Where any variation to the residential street network is proposed, the alternative street network is to be designed to achieve the following principles:</p> <ul style="list-style-type: none"> <li>▪ establish a permeable network that is based on a modified grid system,</li> <li>▪ encourage walking and cycling and reduce travel distances,</li> <li>▪ maximise connectivity between residential areas and community facilities, open space and centres,</li> <li>▪ take account of topography and accommodate significant vegetation,</li> <li>▪ optimise solar access opportunities for dwellings,</li> <li>▪ provide frontage to and maximise surveillance of open space and riparian corridors,</li> <li>▪ provide views and vistas to landscape features and visual connections to nodal points and centres,</li> <li>▪ maximise the use of water sensitive urban design measures, and</li> <li>▪ minimise the use of cul-de-sacs. If required, the maximum number of dwellings to be served by the head of a cul-de-sac is 6.</li> </ul>	<p>The DCP prescribes Charles McIntosh Parkway as a 2-lane sub-arterial, that connects between The Northern Road and Cobbitty Road. In addition, there are three collector roads proposed within the site.</p> <p>Updates are proposed to two of the collectors roads. As such, refinements are required to the current Street Network Plan. Nevertheless, all streets and roundabouts are to be designed and constructed in accordance with the minimum requirements set out in the <i>Camden Council Engineering Design and Construction Specifications</i> and the indicative layouts/cross sections for:</p> <ul style="list-style-type: none"> <li>▪ Transit Boulevards</li> <li>▪ Sub-Arterial Roads (two and four lane)</li> <li>▪ Collector Roads</li> <li>▪ Local Streets</li> <li>▪ Laneways</li> </ul> <p>While changes to the street network are proposed, the proposed updates aim to improve the ability of the estate to satisfy the objectives set out in the DCP and maintain consistency with Section 3.1 of the DCP.</p> <p>An assessment of the proposed changes to the street network is included in <b>Section 5.3.5</b>.</p>

Figure 13 Pedestrian and Cycleway Network



3.2 Pedestrian and Cycle Network

Key pedestrian and cycleway routes are to be provided generally in accordance with **Figure 9**.

The design of cycleways located within the road reserve is to be in accordance with Council standards. The minimum width of off-street shared cycle and pedestrian pathways is to be 2.5m.

All pedestrian and cycleway routes and facilities are to be consistent with *the Planning Guidelines for Walking and Cycling (DoP and RTA 2004)* and Council's *Pedestrian Access and Mobility Plan 2003*.

**No updates or refinements are required to the DCP.**

The proposed master plan remains consistent with the Pedestrian and Cycle Network. Additional connections are proposed which are not currently identified in **Figure 9** including:

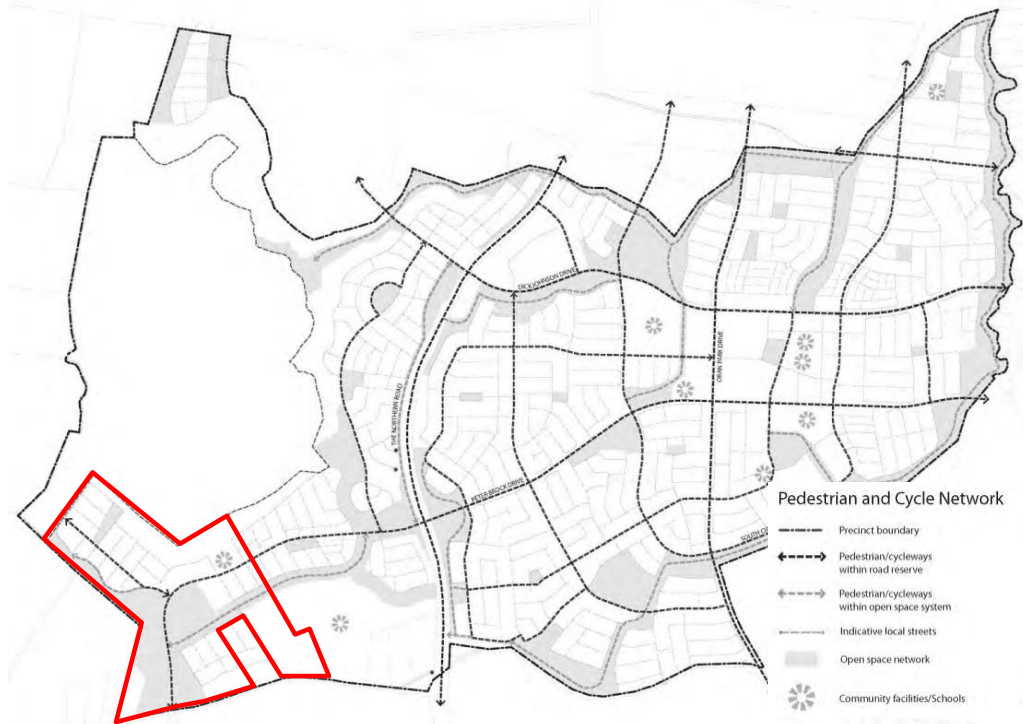
- Improved connections to the Macarthur Anglican College site
- Additional pedestrian and cycle paths within residential areas
- Increased connection within riparian and open space areas.

The pedestrian and cycling network will be generally in accordance with the principles and requirements set out in the DCP.

An assessment of the proposed changes to the street network and open space is included in **Section 5.3**. Further assessment of open space

is enclosed in the analysis prepared by Urbis (**Appendix B**).

Figure 14 Pedestrian and Cycleway Network



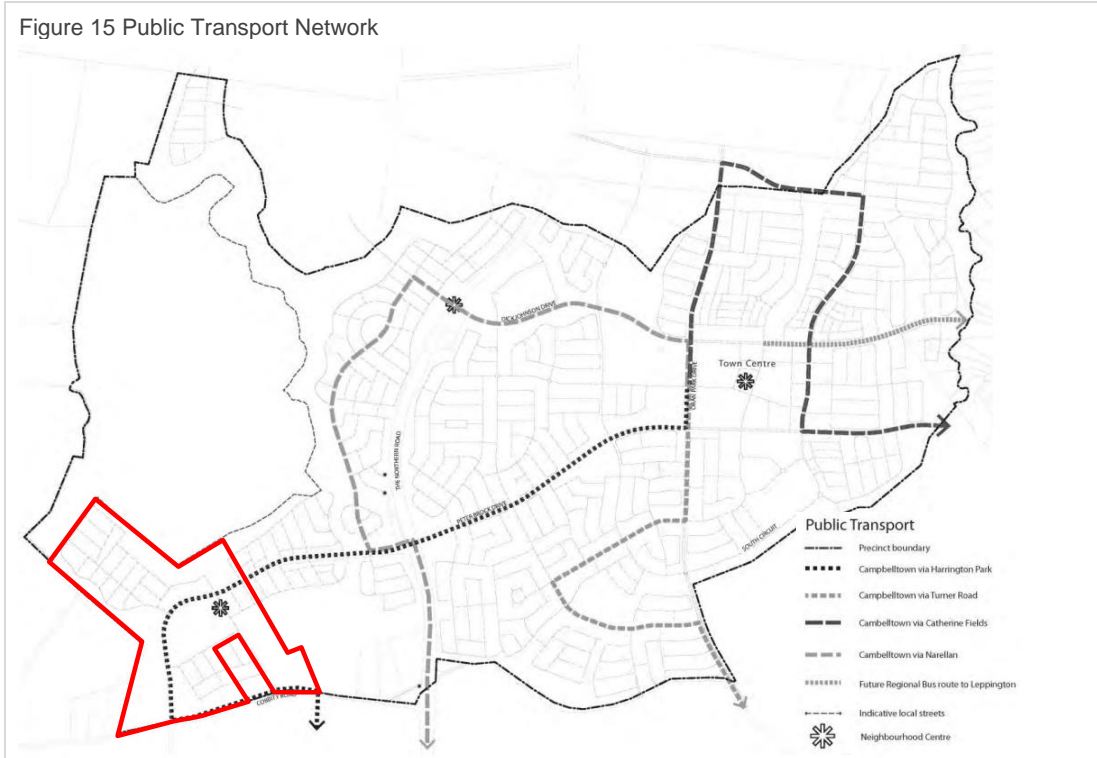
3.3 Public Transport Network

Bus routes are to be provided generally in accordance with **Figure 10** and, where the bus route is known, be indicated on the subdivision DA drawings. The final location of bus stops will be determined by Council's Local Traffic Committee.

A minimum travel-way width of 3.5m is to be provided along all bus routes. Roundabouts on bus routes are to be designed to accommodate bus manoeuvrability.

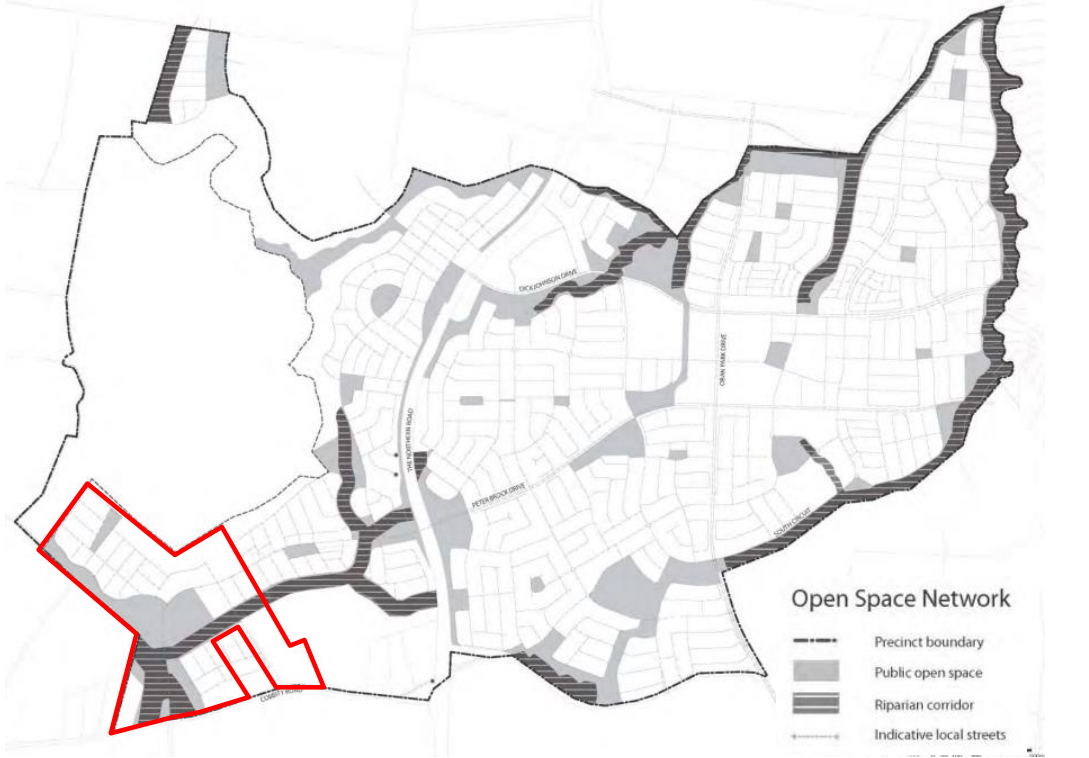
**No updates or refinements are required to the DCP.**

It is not anticipated any changes will occur to the existing public transport network as the bus routes proposed follow the sub-arterial road which is not being modified as part of the ILP amendment.



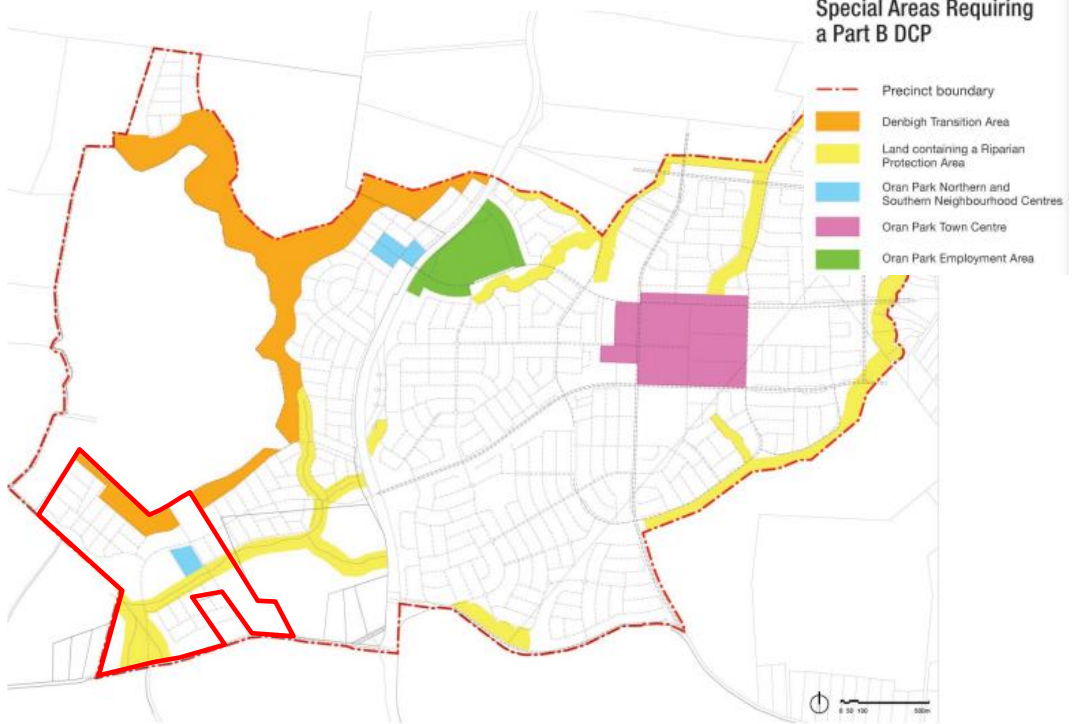
4. Open Space and Community Facilities		
4.1 Public Parks and Landscape Strategy	<p>Public parks (local and district open space), other open space areas (i.e. riparian corridors) and areas with landscape value are to be provided generally in accordance with <b>Figure 12</b>.</p> <p>The minimum provision of open space and facilities including embellishment is to be consistent with the <i>Oran Park and Turner Road Section 94 Contributions Plan</i>.</p>	<p>The current Open Space Network plan will require updates to reflect the masterplan prepared by PDS (<b>Appendix A</b>).</p> <p>Assessment of open space is included in <b>Section 5.3</b> with further analysis of the Open Space prepared by Urbis is enclosed in <b>Appendix B</b>.</p>

Figure 16 Open Space Network



5. Special Area Design Principles

Figure 17 Special Areas





5.1 Oran Park Town Centre	N/A	Does not fall within the subject site.
5.2 Neighbourhood Centres	<p>The neighbourhood centres are to be consistent with the DCP principles including:</p> <ul style="list-style-type: none"> <li>▪ Function and uses</li> <li>▪ Layout</li> <li>▪ Built form</li> <li>▪ Pedestrian amenity</li> <li>▪ Public domain</li> <li>▪ Parking and Access</li> </ul>	<p><b>No updates or refinements are required to the DCP.</b></p> <p>No changes are proposed to Southern Neighbourhood Centre as part of the DCP amendment and associated ILP updates.</p>
5.3 Oran Park Employment Area	N/A	Does not fall within the subject site.
5.4 Denbigh Transition Area	<p>Council shall not grant consent for any development within the Denbigh Transition Area (except for the land adjacent to Cobbitty Road), unless the development is for the purposes of remediation, environmental landscape works or other minor works that, in the opinion of Council, do not predetermine an outcome on the land covered by the Part B amendment. Council may grant consent if it is satisfied that appropriate development controls are in force in the form of a Part B DCP.</p>	<p>Updates are required to the current DCP controls to ensure that the earth mound required to meet the vision and objectives of Part B of the DCP can be provided on site. Details of the earth mound have been prepared by Orion Consulting and are enclosed in <b>Appendix F</b> and assessed as part of the Heritage Impact Study prepared by Design 5 Architects enclosed in <b>Appendix D</b>.</p>
	<p>The Part B DCP must be prepared in consultation with the NSW Heritage Council.</p>	<p><b>No updates or refinements are required to the DCP.</b> Note changes are proposed to the Part B DCP as noted in <b>Table 4</b>.</p>
	<p>Future development within the Denbigh Transition Area is to be consistent with the following principles:</p> <ul style="list-style-type: none"> <li>▪ residential subdivision is to be in the form of large lots to reflect the rural character of the area,</li> <li>▪ the ridgeline is to be revegetated with appropriate endemic species so as to provide a dense visual buffer,</li> <li>▪ retention and enhancement of vegetation identified on Figure 27, where possible,</li> <li>▪ existing significant trees, in particular large hollow bearing Eucalypts, are to be retained,</li> <li>▪ riparian corridors are to be protected and revegetated,</li> <li>▪ ridge top areas that are subject to landslip are to be protected from</li> </ul>	<p><b>No updates or refinements are required to the DCP.</b></p> <p>Figure 27 of the DCP does not identify any vegetation required for retention within the subject site.</p>

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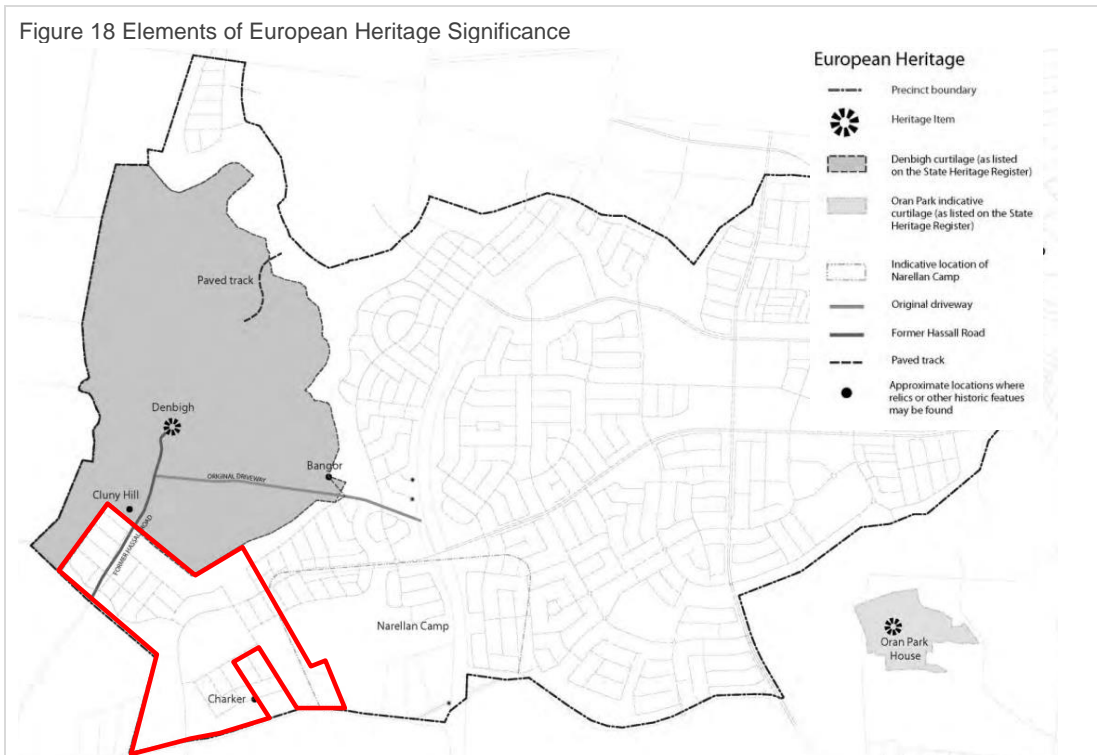
	<p>development. Subject to detailed design, areas of soil creep are to be restricted from development. All areas of landslip and soil creep are to be revegetated,</p> <ul style="list-style-type: none"> <li>▪ ongoing management of any Aboriginal archaeological conservation areas,</li> <li>▪ bush fire hazard is to be minimised and APZs and fire trails provided where necessary, and</li> <li>▪ roads and cuttings are to be minimised.</li> </ul>	
	<p>The visual impact of dwelling houses within the Transition Area is to be minimised through appropriate siting, landscaping, and the use of materials and colours sympathetic to a rural environment.</p>	<p><b>No updates or refinements are required to the DCP.</b> Updates to the earth mound within the Denbigh Transition Area are anticipated to improve the visual relationship between the Denbigh Estate and future development.</p>
	<p>Subdivision DAs within the Transition Area are to be accompanied by a Vegetation Management Plan. The Plan is to address weed removal, proposed revegetation and ongoing tenure and maintenance of the ridgeline vegetation buffer.</p>	<p><b>No updates or refinements are required to the DCP.</b> Future DAs will still require a Vegetation Management Plan.</p>
	<p>A landscape buffer shall be provided on both sides of the original alignment of the entrance driveway to the Denbigh Homestead (i.e. from The Northern Road). The buffer is to be a total of 40m wide and at least 10m on any one side (measured from the edge of the existing road alignment to any new adjacent road reserve alignment). The buffer shall be appropriately landscaped to reflect the rural landscape character of the approach to the Homestead. Uses or activities within this buffer, and any development immediately adjacent to this buffer, are to respond to the heritage values of the entrance driveway alignment.</p>	<p><b>No updates or refinements are required to the DCP.</b> Does not relate to the subject site.</p>
	<p>A landscape corridor (min 20m) shall be provided along the alignment of the Former Hassall Road (i.e. entrance from Cobbitty Road) to ensure that this historic connection to the Denbigh Homestead is not compromised. Alternative means of satisfying this principle may be considered by Council.</p>	<p>While the current control does allow for alternative means such as the landscape boulevard associated with the Hassall driveway, it is recommended this control is updated to reflect the design incorporated in the amended ILP</p>

		development by PDS in consultation with Design 5 Architects.
5.5 The Northern Road and Cobbitty Road Interface	<p>Any DA proposing the subdivision of land for residential lots with lots fronting either side of The Northern Road and Cobbitty Road is to include:</p> <ul style="list-style-type: none"> <li>▪ the means by which it is proposed to ensure that the visual impact of development when viewed from the road is appropriately managed, and</li> <li>▪ a report prepared by a suitably qualified acoustic consultant that makes recommendations as to what, if any, acoustic treatment will be required to ensure appropriate internal and external acoustic amenity for future residents.</li> </ul>	<p>The landscape buffer along Cobbitty Road has been considered as part of this DCP amendment with the frontage to Cobbitty Road in the reclaimed section of residential land adjacent to Macarthur Anglican School intended to be managed in a manner similar to the rest of the frontage.</p> <p>Updated controls are proposed to provide adequate transition for residential development along Cobbitty Road as well as the transition to the Metropolitan Rural Areas to the west. Further analysis is included in <b>Section 5.3</b> of this report.</p>
6. Environmental Management		
6.1 Riparian Corridors	<p>Riparian corridors are to be provided in accordance with the <i>Oran Park and Turner Road Waterfront Land Strategy 2009</i>.</p> <p>Development in and adjoining riparian corridors shall be consistent with Part B2 of this DCP. In the event of any inconsistency between this DCP and the Waterfront Land Strategy, the Waterfront Land Strategy prevails.</p>	<p>Further analysis of the flood impacts associated with the proposed ILP amendments is included in <b>Section 5.3</b> of this report.</p>
6.2 Flooding and Watercycle Management	<p>No residential allotments are to be located at a level lower than the 1% Annual Exceedance Probability (AEP) flood level plus a freeboard of 500mm (i.e. within the 'flood planning area').</p> <p>Pedestrian and cycle pathways and open space may extend within the 1% AEP flood level, provided that the safe access criteria contained in the NSW Floodplain Manual are met.</p> <p>Management of 'minor' flows using piped systems for the 20% AEP (residential land use) and 10% AEP (commercial land use) shall be in accordance with Camden Council's Engineering Design Specification – Subdivision and Development Works'.</p>	<p>An Integrated Water Cycle Management Report has been prepared by Orion Consulting (<b>Appendix C</b>) which confirms that the proposed updates remain consistent with the relevant controls of Section 6.2 of the DCP.</p> <p>Data provided within the Integrated Water Cycle Management Report demonstrates that the health of local tributaries is being protected by management of low flows with SEI significantly lower than target and approaching ideal.</p> <p>Specific consideration has been given to the DCP control that 'the developed 1% AEP peak flow is to be reduced to pre-development</p>

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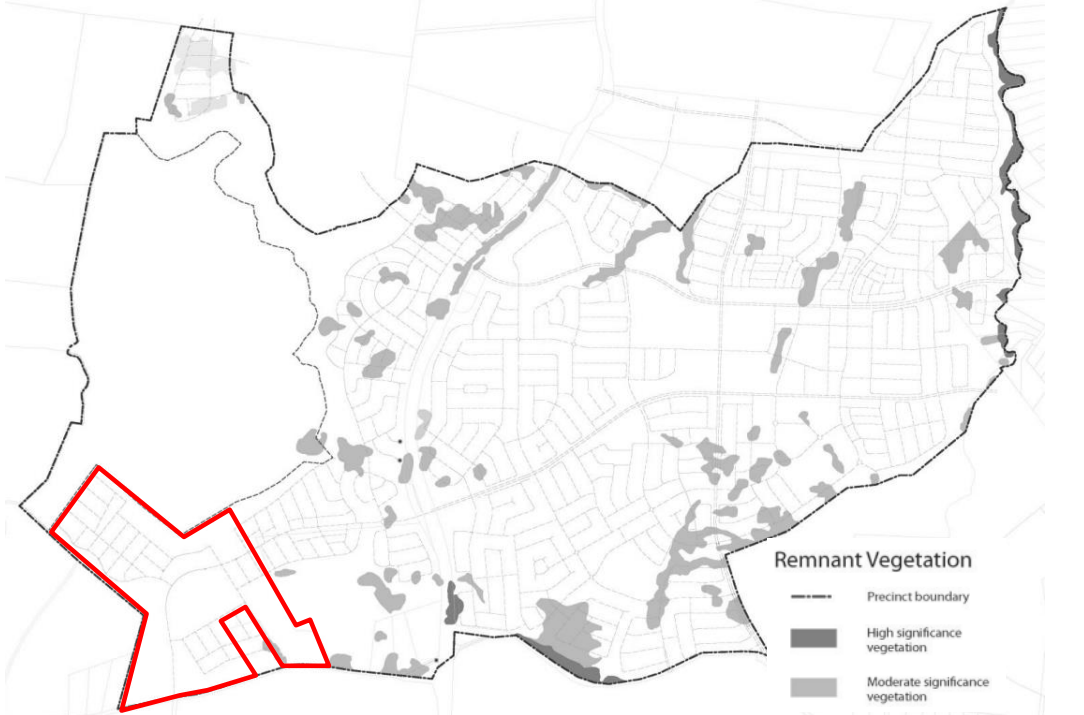
		<p>flows through the incorporation of stormwater detention and management devices.' To meet this control, online management of stormwater quantity is required for the site. The existing farm dam provides significant active storage and flood attenuation to the catchment which cannot be offset by detention of the developed catchment due to the size of the upstream catchment dwarfing the developed catchment.</p> <p>Further assessment of flooding and stormwater is also included in <b>Section 5.3.3</b> of this report</p>
6.3 Salinity and Soil Management	All development must incorporate soil conservation measures to minimise soil erosion and siltation during construction and following completion of development.	<p><b>No updates or refinements are required to the DCP.</b></p> <p>Salinity and soil management will be addressed in future DAs. No further work is required as part of this DCP amendment.</p>
6.4 Aboriginal Heritage	Aboriginal Archaeological Conservation Areas are identified in the DCP. Development shall not proceed within these areas without appropriate investigation and consultation with the relevant local Aboriginal groups and until a Plan of Management has been prepared that addresses the ongoing management of any archaeological deposits within the Conservation Areas.	<p><b>No updates or refinements are required to the DCP.</b></p> <p>Appropriate consultation and reporting has been undertaken and the site is covered by an AHIP permitting development activities.</p>
6.4 European Heritage	Items of European heritage significance are shown in <b>Figure 14</b> . Prior to any development that affects these items, an assessment of heritage significance is to be undertaken.	<p><b>No updates or refinements are required to the DCP.</b></p> <p>A full heritage assessment in relation to Denbigh Estate will be prepared as part of future development applications for the site.</p> <p>Nevertheless, heritage considerations associated with the DCP amendment have been further considered in <b>Section 5.3</b> of this report.</p>



<p>6.5 Bushfire Hazard Management</p>	<p>Subject to detailed design at DA stage, the indicative location and widths of APZs are to be provided generally in accordance with the DCP.</p>	<p><b>No updates or refinements are required to the DCP.</b> Given changes are occurring to open space, it is anticipated that APZs will be required to be updated. Detailed analysis will be addressed in future DAs for this site.</p>
<p>6.6 Tree Retention and Biodiversity</p>	<p>All high significance vegetation identified in the Areas of Significant Remnant Vegetation Plan is to be retained within open space. The moderate significance vegetation identified in the Areas of Significant Remnant Vegetation Plan is to be retained where possible.</p>	<p><b>No updates or refinements are required to the DCP.</b> It is anticipated that no changes will occur to the identified areas of highly significant remnant vegetation in the DCP. A small pocket of remnant vegetation is identified adjacent the reclaimed section of the southern precinct. Any impact on vegetation will be assessed and appropriately considered in future development applications for all stages.</p>

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Figure 19 Areas of Significant Remnant Vegetation



<p>6.7 Contamination Management</p>	<p>DAs for development in Areas of Environmental Concern (AEC) as identified at Figure 28 shall be accompanied by a Stage 2 Detailed Environmental Site Investigation prepared in accordance with Council's Policy – Management of Contaminated Lands.</p>	<p><b>No updates or refinements are required to the DCP.</b> Contamination will be addressed in future DAs.</p>
<p>6.8 Odour</p>	<p>Controls do not relate to subject site.</p>	<p><b>No updates or refinements are required to the DCP.</b></p>
<p>6.9 Acoustics</p>	<p>Residential development shall be designed to comply with Council's <i>Environmental Noise Policy</i> that incorporates DECC's <i>Environmental Criteria for Road Traffic Noise</i>.</p>	<p><b>No updates or refinements are required to the DCP.</b> Acoustics will be addressed in future DAs.</p>
<p><b>7. Development in Residential Areas</b> Section 7 of the DCP relates to the design of future residential dwellings on site and has no impact on the proposed ILP amendments.</p>		



**Part B DCP provides specific controls relating to the Denbigh Transition Area.** A summary of proposed changes to Part B of the DCP is included in the table below.

Table 4 Part B DCP Assessment

Section	Control	Comment
2. Vision & development objectives		
2.1. Vision for the Transition Area	<p>The vision for development within the Denbigh Transition Area is to achieve a site responsive transition between residential development and the existing heritage curtilage of the Denbigh homestead. The Transition Area will be developed in a manner which respects the cultural significance of the homestead curtilage and seeks to retain its rural context and setting.</p> <p>Residential homes will be of a character which provides a transition between the areas of residential development to the south and the rural context of the Denbigh curtilage.</p>	<p><b>No updates or refinements are required to the DCP.</b></p> <p>The amended ILP aims to provide an amended design which improves the vision of the Denbigh Transition Area.</p>
2.2 Development Objectives	<p>The objectives of this part are to:</p> <p>To respect the heritage curtilage of Denbigh.</p> <p>To obscure the visual impact of development within the Denbigh Transition Area when viewed from the Denbigh homestead and associated rural outbuildings.</p> <p>To retain and respect the rural context and setting of the Denbigh homestead.</p>	<p><b>No updates or refinements are required to the DCP.</b></p> <p>The amended ILP will remain consistent with the existing development objectives for Oran Park and will protect the heritage curtilage of the Denbigh Estate and obscure the visual impact of development.</p>
3.0 Denbigh Viewscape Precincts		
3.3 Southern Viewscape Precinct	<p>The Southern Viewscape Precinct is situated along the southern boundary of the Denbigh curtilage. In this area, the existing ridgeline encompasses more gently sloping land than the Northern and Central Viewscape Precincts, and the ridgeline falls within the Transition Area and the Denbigh curtilage.</p> <p>The ridgeline location and height within this area do not provide complete screening of residential development within the Transition Area.</p> <p>To obscure the visual impact of residential development, whilst facilitating suitable development, the topography of the ridgeline may require modification.</p> <p>The provision of an earth mound within</p>	<p><b>No updates or refinements are required to the DCP.</b></p> <p>Landforming strategies of fill and cut to modify the ridgeline are permissible within the DCP to achieve desired screening of future development.</p>

Section	Control	Comment
	<p>the Denbigh curtilage and the Transition area, in conjunction with some site re-grading in the Transition Area and adjacent Residential Area, will provide adequate visual screening along this portion of the ridge line.</p> <p>Further detail relating to the height and location of an earth mound along the ridgeline are provided in the following sections of this Part B DCP. The provision of this earth mound to screen housing and better define the ridgeline is also referred to as land forming in this document and is considered to be environmental landscape works under Section 5.4 of the Part A DCP.</p>	
<b>4.0 Subdivision Works</b>		
4.1 Southern Ridgeline Treatment	Residential subdivision is to be in the form of large lots to reflect the rural character of the area.	<b>No updates or refinements are required to the DCP.</b>
	<p>A Development Application incorporating a land forming strategy which provides a landscaped earth mound along the ridgeline is to be prepared either prior to, or in conjunction with, the first Development Application for school buildings or for subdivision to create residential allotments within the Transition Area adjoining the Southern Viewscape Precinct area.</p> <p>The strategy must include view lines and detailed cross sections from the Denbigh homestead and associated rural outbuildings demonstrating that houses in the Transition Area will not be visible above the top of the mound.</p>	<p><b>No updates or refinements are required to the DCP.</b></p> <p>It is intended a DA will be lodged for the landscaped earth mound reflecting this control.</p>
	Land forming within the Southern Viewscape Precinct may provide for a landscaped earth mound, with a maximum height of 4.5m. A total screening height of building pads of 6m is to be achieved through a combination of earth mounding and cut / retaining walls on the residential side of the ridge line (Refer Figure 4a and Figure 4b of the DCP).	<p>Amendments are requested to this control to update the current figures to reflect the proposed earth mound design prepared by Orion Consulting (<b>Appendix F</b>).</p> <p>The proposed design generally includes the tapered transition at its base as stated in the DCP and shown in section in Figures 4a, 4b, 5a and 5b of the DCP.</p>

Section	Control	Comment
	<p>Figure 3 identifies the indicative location of earth mounding along the ridgeline.</p> <p>The maximum slope of the northern batter of the earth mound is to be 1:8 at the foot of the batter and 1:5 at the ridgeline.</p> <p>The earth mound is to be formed generally in accordance with the cross sections shown in Figure 4a and Figure 4b.</p>	<p>A gradual slope of 1:6 to 1:5 is proposed for the ridgeline, and the slope at the foot of the batter ranges from 1:5 to 1:8.</p> <p>The mound is envisioned to “match smoothly with the existing levels.”</p>
	<p>Any development consent for the landscaped earth mound along the ridgeline, referred to in Controls (2) and (3), should include:</p> <ul style="list-style-type: none"> <li>▪ a detailed as-built survey to be undertaken upon completion of the earth mound to confirm that the combination of earth mounding and cut / retaining walls on the residential side of the ridgeline achieves a total minimum screening height of 6.0m,</li> <li>▪ the determination, using cross sections of view lines projected from the Denbigh homestead over the top of the completed earth mound, of lots requiring the imposition of a height control to ensure that no part of the building on the lot will be higher than the relevant projected view line,</li> <li>▪ the calculation, using the projected view lines, of the maximum height of a building on each and every lot requiring a height control, expressed as a Relative Level (RL) based on Australian Height Datum (AHD), and</li> <li>▪ the creation of a ‘restriction as to user’ in a S.88B instrument on each and every lot which is subject to a height control, specifying as a RL the calculated maximum height of a building on the lot.</li> </ul>	<p><b>No updates or refinements are required to the DCP.</b></p> <p>It is intended a DA will be lodged for the landscaped earth mound reflecting this control.</p>
	<p>Any land forming or mounding is not to obstruct the Hook and Hassall driveway alignments.</p>	<p>It is recommended this control is removed as the proposal incorporates an improved heritage outcome for the Hassall driveway. The alignment of the driveway is anticipated to be interpreted through planting while</p>

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Section	Control	Comment
		ensuring visual impacts of the future subdivision works are mitigated as noted in the Heritage Impact Study prepared by Design 5 Architects ( <b>Appendix D</b> ).
	<p>Any Development Application which incorporates the ridgeline earth mound, whether or not including residential allotments in the Transition Area, is to include the following, prepared by suitably qualified and experienced consultants:</p> <ul style="list-style-type: none"> <li>▪ a Concept Landscape Plan for the ridgeline mound which demonstrates the intended ridgeline landscaping treatment, utilising a random natural planting of the ridgeline vegetation buffer</li> <li>▪ a Maintenance Manual which demonstrates the manner in which the Denbigh side of the mound is managed for a two (2) year establishment period, to ensure a consistent visual buffer and rural outlook is achieved when viewed from the Denbigh homestead and associated rural outbuildings.</li> </ul>	<b>No updates or refinements are required to the DCP.</b> It is intended a DA will be lodged for the landscaped earth mound reflecting this control.
	<p>The Concept Landscape Plan in (6)(a) above must propose the revegetation of the ridgeline mound with appropriate species to achieve a natural visual buffer. Details of proposed species to be used must be included in landscaping plans. Landscaping of the mound must utilise endemic species and be of an appropriate density and mix of grasses, groundcovers, shrubs and trees to present as a wooded ridgeline screening views from Denbigh and associated rural outbuildings to new houses beyond. Planting must be undertaken as part of the earth mound works and completed prior to the occupation erection of any dwellings.</p>	<b>No updates or refinements are required to the DCP.</b> It is intended a DA will be lodged for the landscaped earth mound reflecting this control.
	<p>The Maintenance Manual in (6)(b) above should include details on stock control, weed removal, replacement of sick or dead plants, and fence repair, as well as</p>	<b>No updates or refinements are required to the DCP.</b>

Section	Control	Comment
	appropriate procedures for certification at completion and handover to the Denbigh owners.	It is intended a DA will be lodged for the landscaped earth mound reflecting this control.
	Landscaping works are to incorporate a timber post and rail open rural style fence with stock / dogproof wire netting, minimum height 1.35m and maximum 1.5m, along the property boundary or top of the ridgeline earth mound compatible with existing rural fencing on the Denbigh curtilage. No other fence style is permitted, including solid timber, metal or masonry fencing. Timber fencing is to be maintained in a natural timber colour and not painted white or similar colour.	<b>No updates or refinements are required to the DCP.</b> It is intended a DA will be lodged for the landscaped earth mound reflecting this control.
	Where possible, areas of significant vegetation along the Denbigh curtilage ridgeline as shown in Section 6.6 Figure 24 of the Oran Park DCP must be retained and enhanced.	<b>No updates or refinements are required to the DCP.</b> No significant vegetation is identified within the subject site.
	Despite Control 1, land forming may not be required if the development application for subdivision demonstrates that appropriate land forming exists on adjoining land to adequately meet the objectives of this clause. Appropriate cross sections are to be included with the development application to support any argument that land forming is not required on the subject site.	<b>No updates or refinements are required to the DCP.</b>
	No sheds, gazebos or other outbuildings or structures are permitted to be constructed on the Denbigh side of the mound.	<b>No updates or refinements are required to the DCP.</b>
<b>5.0 Residential Development</b>		
5.1 Building Height Controls	Dwellings within the Transition Area as shown in Figure 3, must be designed to ensure that the roof line of the dwelling does not protrude above the height of the adjoining ridgeline / earth mound. Dwellings directly backing on to the ridge line in the Southern Viewscape Precinct must be constructed to maintain the appearance of a single storey dwelling when viewed from the rear of that property	<b>No updates or refinements are required to the DCP.</b> The amended earth mound design aims to ensure this control can be met and one storey dwellings remain below the ridgeline/ earth mound.

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Section	Control	Comment
5.2 Dwelling Design	Dwellings which have a frontage to a ridgeline interface road and which directly back on to the Denbigh curtilage boundary, are to be designed consistent with the dwelling siting controls specified in this section.	<b>No updates or refinements are required to the DCP.</b>
5.3 Fencing	Fencing details must be submitted with the Development Application for the erection of a dwelling.	<b>No updates or refinements are required to the DCP.</b>
5.4 Residential Cut and Fill	The maximum amount of cut and fill on a residential allotment adjoining the Denbigh curtilage ridgeline is generally limited to 2m (excluding basement garages). A variation to the retaining wall heights can be considered with supporting justification.	<b>No updates or refinements are required to the DCP.</b> The proposed DCP amendments do not impact the ability of future residential development to meet this control.
6.0 Former Hook and Hassall Driveways		
Controls	<p>1. Any development application for subdivision which includes the Former Hook and Hassall Driveways must be accompanied by:</p> <p>An assessment of heritage significance with corresponding management measures (such as a Heritage Assessment / Heritage Impact Statement prepared by a suitably qualified and experienced heritage consultant / heritage landscape consultant) in accordance with Clause 6.4 of the Oran Park DCP 2007,</p> <p>A Landscape and Visual Analysis identifying the key landscape and visual qualities of the Former Hook and Hassall Driveways alignment and any measures proposed to protect and enhance the qualities of the alignment through appropriate landscape design, species selection, development setbacks or other measures, and</p> <p>A detailed Landscape Plan, prepared by a suitably qualified and experienced heritage consultant / heritage landscape consultant, for the Former Hook and Hassall Driveway corridor indicating proposed species, planting densities and maturity of stock.</p>	<b>No updates or refinements are required to the DCP.</b>

Section	Control	Comment
	Residential development adjoining the alignment of the Former Hook and Hassall Driveway must be appropriately setback in accordance with the recommendations of the reports referred to in Control 1 above.	<b>No updates or refinements are required to the DCP.</b>
	The Former Hook and Hassall Driveway must be landscaped with appropriate species to preserve and enhance its heritage qualities, in accordance with the Conservation Management Plan for Denbigh and the Heritage Curtilage Study by Design 5 Architects, and the assessment of heritage significance and landscape and visual analysis required under this Clause.	<b>No updates or refinements are required to the DCP.</b>

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## 5.3. ENVIRONMENTAL IMPACT

### 5.3.1. Open Space

The amended ILP includes 9.15ha of public open space. The Open Space Analysis has been prepared by Urbis (enclosed in **Appendix B**) which provides a quantitative and qualitative assessment of the suitability of the proposed open space for the intended population of the site.

#### Quantitative Assessment

Council's key planning documents for open space relevant to the site use a population based approach to quantifying public open space provision. It is currently estimated the proposed amended ILP will result in a total population of 2,977 people within the site and the neighbouring site to the south (Lot 1 DP 1014583).

The current Council Contributions Plan and Camden Councils' *Spaces and Places Strategy* applies a 2.83ha per 1,000 people benchmark for open space requirements. Based on the estimated population, the site requires 8.48ha of open space. Using the population based benchmarks embedded in Council's planning documents, the public open space proposed in the amended ILP is therefore of a sufficient quantity to provide for the needs of incoming residents of the site and the neighbouring site.

Consideration has also been undertaken of the recreation benchmarks provided in the Spaces and Places Strategy. Four separate benchmarks are provided by Council as follows:

- 1 playground per 2,000 people
- 1 multisport court per 3,000 people
- 1 sports court per 2,000 people
- 1 sports field per 1,850 people.

A review of the Spaces and Places Strategy indicates that the benchmarks relating to outdoor courts are applied inconsistently. The Strategy refers to "sports court/multisport court" as "1 court: 2,000 people" (7:2020). This benchmark is contradicted further in the strategy where a "multisport court" is benchmarked as "1 court per 3,000 people" and a "sports court" is benchmarked as "1 per 2,000 people (66:2020)". The provision of 1 sports court per 2,000 people is also consistent with Council's contribution plan.

Considering this, a benchmark range has been applied for the purposes of this amended ILP. Preference has been given to multi-functional spaces, aligned to Council's strategy and emerging best practice provision trends.

Benchmark	Requirement based on ILP	Proposal
1 playground per 2000 people	1 playground	There is sufficient capacity with plans to provide 2 playgrounds across the Precinct. This is indicated in the Landscape Plans prepared by PDS and will be captured in future DAs across the precinct. It does not require any change to the ILP.
1 multisport court per 2,000 – 3,000 people	1 – 2 outdoor multi courts	There is sufficient capacity with plans to provide 1 – 2 outdoor multi-courts across the Precinct. This is indicated in the Landscape Plans prepared by PDS and will be captured in future DAs across the precinct.. It does not require any change to the ILP.
1 sports field per 1,850 people	1 – 2 sports fields	Aligned to Council direction and feedback, contributions will be made to an offsite recreation facility.

The overall intent of the proposed amendments are to improve connections across the precinct and to provide high quality amenities for which will result in physical and mental health benefits through the promotion of passive uses including walking and cycling.

In summary, the amended ILP meets the identified benchmarks of the Spaces and Places strategy and reflects priorities of the Camden LSPS by:

- Improving the connectivity between open spaces and waterways;
- Providing the community better access to the natural environment and greener urban places; and
- Delivering high quality and accessible open spaces.

#### Qualitative Assessment

The indicative concept design demonstrates that the masterplan can deliver a range of facilities including several large open areas able to be used for a range of unstructured recreation activities. Detailed flood modelling undertaken by Orion Consulting also shows that the proposed spaces will rarely be affected by flood impacts.

In accordance with the DCP and draft Greener Places Design Guide, the concept design takes an integrated approach to the design of open spaces and riparian corridors. It provides a range of open space experiences, including areas for structured and unstructured recreation and spaces for quiet enjoyment and reflection. The design maximises accessibility to neighbouring residential areas and creates an interconnected network of dual use paths.

The inclusion of embellishment details, such as playgrounds and exercise equipment, at detailed design phase will further demonstrate the ways in which the open space will meet the needs of future residents of all age groups.

### 5.3.2. Heritage Conservation

A Heritage Impact Assessment has been prepared by Design5 (**Appendix D**) to assess the heritage impacts of the proposed updates to the master plan and associated DCP updates.

#### Transitional Earth Mound

The current DCP identified a landscaped earth mound is essential to avoid adverse visual impacts of future developments on the rural setting of the Denbigh Estate and on the views from the Denbigh homestead and outbuildings group (core curtilage). The refined masterplan maintains the integrity of Denbigh's heritage curtilage as it results in improvements to the heritage curtilage by providing a more responsive earth mound to reflect the topography of the site. The proposed design also reduces the amount of land required on the adjacent Denbigh Estate.

The refined design remains consistent with the vision of the Oran Park DCP in particular the specific controls set out in Part B of the DCP relating to the Denbigh Viewscape Precincts. The proposed earthworks aim to balance the objectives of the DCP, Conservation Management Plan and the Curtilage Study for the 'Denbigh Transition Area' in anticipation of future development of the subject site. To ensure the future development of the earth mound meets the objectives of the DCP, deviations from the current planning controls have been proposed. These deviations include updates to the extent of cut and fill within the ridgeline to reduce the extent of the earth mound on the adjoining landowner.

Despite the proposed modifications, the earth mound design includes the design features as required in the DCP. These include:

- A gradual integration of the batter with the adjoining rural pastures at the foot of the earth mound. A gradual slope of 1:6 to 1:5 is proposed for the ridgeline, and the slope at the foot of the batter ranges from 1:5 to 1:8.
- A landscaped mound with a combination of scale and type of native species planted to ameliorate potentially negative visual impacts of the height of the earth mound.

The extent of cut and fill proposed achieves a minimum screening height of 6 metres for the future development. The proposed design eliminates future possibility of roof lines, streetlights or car headlights being visible from the Denbigh core curtilage and reflects the broad aims and objectives of the DCP by providing visual screening and protecting Denbigh's rural heritage. The proposed DCP amendments also

maintain the current controls for residential development within the Transition Area to ensure that dwellings do not protrude above the ridgeline and are constructed to maintain the appearance of a single storey dwelling when viewed from the rear.

#### Heritage boulevard

The amended design for the Hassall driveway is considered to interpret the existing rural character of the site and is supported from a heritage perspective. The interpretation plan suggests appropriate species to be planted within the wide verges. Further assessment of the boulevard will be assessed as part of a future development to align with the controls of Part B of the DCP.

In summary, the proposed DCP amendments support the original objectives of the DCP and protect the significance and setting of the Denbigh Estate.

### 5.3.3. Flooding and Stormwater

An Integrated Water Cycle Management Report has been prepared by Orion Consulting (**Appendix C**) to assess the flooding impacts of the proposed master plan and identify the appropriate stormwater quantity and quality management controls required. The current report has considered the following key studies provided by Camden Council for the site:

- *Integrated Water Cycle Management Study*, Ecological Engineering (2007)
- *Stormwater Quantity Management and Flooding*, Brown Consulting (2007)
- *Nepean River Tributaries Study*, Cardo (2022)

The report has identified that amendments are required to the existing supporting water cycle management documentation which currently supports the DCP as post development flows identified in the current controls cannot be managed without consideration of online storage within the Precinct. This is due to the existing large farm dam on site and the attenuation it provides in the existing development scenario.

Overall, the amended masterplan recommends a water management strategy that focuses on the recreation of the existing farm dam into a new man-made lake which remains online to the same creek the existing farm dam connects with.

The Integrated Water Cycle Management Report provides a TUFLOW Flood Assessment of the pre and post developed scenarios for the site. The assessment demonstrates that the proposed concept design adequately meets the required performance objectives for water quantity management.

### 5.3.4. Water Quality

The water quality or Water Sensitive Urban Design (WSUD) strategy for the proposed development has been determined through the adoption and implementation of a MUSIC model assessed in the Integrated Water Cycle Management Report prepared by Orion Consulting (**Appendix C**). The following water quality control assets are proposed for implementation as part of the updated design:

- Gross pollutant traps (GPT) - for removal of coarse sediment and large debris reducing maintenance obligations and pollutant load on the tertiary treatment controls.
- Bioretention systems - capture finer sediments and nutrients (proprietary solution nominated to maximise public amenity and long term water quality control effectiveness).
- Rainwater tanks - generally required in order to meet BASIX requirements and provides a starting point for pollutant capture and removal as well as reduction in runoff from the site.

As noted in **Section 5.2**, the proposed design adequately addresses Council's water quality management objectives.

In order to maximise recreational land use and promote more efficient use of materials for long duration maintenance cycles, the proposed WSUD design features the use of proprietary high-flow bioretention systems. Overall, the proposed refinements to WSUD on site allow for:

- Significantly increased treatment rates thus significantly reducing required infrastructure to manage the site; and

- Increased native vegetation to increase the overall resilience of the site to drought conditions and protection of riparian corridors from siltation and clogging.

### 5.3.5. Traffic Generation

A Traffic Impact Assessment has been prepared by SCT Consulting (**Appendix E**) to assess the impacts of the future transport network for the Precinct.

The potential traffic impacts associated with the proposed DCP amendments on the surrounding critical road network have been considered as a result of the proposed master plan update. It is noted that the proposed residential dwellings satisfies the minimum yield dwelling target of 414 as suggested in the ILP.

- Based on a trip generation rate of 0.99 and 0.95 (AM peak and PM peak) vehicle trips associated with additional residential dwellings would be expected to generate up to 894 vehicle trips during the peak hours.
- Based on a trip generation rate of 0.67 for AM peak hour vehicle trips for a metropolitan public school, the proposed 2ha school site with up to 1,000 students would be expected to generate up to 670 vehicle trips during the AM peak hours. It is not anticipated the school would generate any traffic during the PM commuter peak hour.
- Based on a trip generation rate of 5.9 and 12.3 (AM peak and PM peak) vehicle trips per 100m<sup>2</sup> of retail, the updated master plan would be expected to generate up to 633 vehicle trips during the PM peak hours.

The proposed trip generation associated with the updated master plan are distributed to the surrounding road network. Based on these assumptions outlined in *The Northern Road upgrade, The Old Northern Road to Peter Brock Drive Review of Environment Factors – Traffic and Transport Assessment* (2036) 20-30% of the additional trips to be generated as part of the updated master plan would originate / destine towards Cobbitty Road via the completed Charles McIntosh Parkway and 70-80% of the additional trips to be generated as part of the updated master plan would originate / destine towards The Northern Road via the completed Charles McIntosh Parkway.

To address additional trip generation, SIDRA modelling was undertaken at two critical intersections – The Northern Road / Charles McIntosh Parkway and Cobbitty Road / Charles McIntosh Parkway. The SIDRA analysis confirmed that both intersections are forecast to operate at Level of Service (LoS) D during the peak hours in 2036, which is considered to be acceptable as a performance requirement.

Overall, the proposed updates to the road network aim to improve the overall traffic network for the Oran Park precinct and result in positive benefits in relation to site accessibility and road network permeability. The proposed updates also aim to improve pedestrian and active transport connections by moving connector roads to the periphery of the site and creating improve connections to public facilities and riparian corridors.

### 5.3.6. Additional Residential Land

It is anticipated that lots will reflect the adjacent E4 Environmental Living zone with development restricted to a minimum lot size of 1,000sqm and a maximum height of buildings of 9 metres. As noted above, a Visual Assessment Report was prepared by Urbis refer to **Appendix H**) to inform DCP controls to mitigate visual impacts of residential development along to the Cobbitty Road interface to meet the objectives of Part 5.5 of the current DCP.

The current controls do not specify a landscape buffer is required along Cobbitty Road but require that any DA proposing the subdivision of land for residential lots fronting Cobbitty Road must include *the means by which it is proposed to ensure that the visual impact of development when viewed from the road is appropriately managed*. While this would be achievable at DA stage, a Visual Assessment Report was prepared by Urbis (to inform the necessary mitigation measures along the Cobbitty Road interface).

The Visual Assessment Report has identified that the visual curtilage of Cobbitty Road is limited to intermittent and filtered views through vegetation for a viewer from moving viewing situations, where views are predominantly constrained to the road corridor by the presence of understory vegetation and canopy trees located within the road reserve. The analysis concluded that the character of the road is defined by the mature trees which line the street. The planted buffer can be retained in part to minimise presence of built form when viewed from Cobbitty Road, but only 7m of this buffer is required to achieve this result.

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In summary, the amended controls have been informed by detailed visual analysis based on the existing character of Cobbitty Road and result in an acceptable outcome from an urban design and visual impact perspective.

Overall, the proposed residential development will align with the intent to deliver large lots for land in the South West Growth Centre. The large lots provide a suitable transition and reflect the sites rural setting.

Attachment 1

## 6. CONCLUSION

This Planning Submission has outlined the proposed concept and background to the proposed amendment to the current ILP and DCP associated with Oran Park.

The minor amendments to reflect ongoing design development align with the strategic direction for the site to create additional housing and employment opportunities within the Camden LGA. The key planning issues have been satisfactorily addresses as outlined in detail within this report and as summarised below:

- **The proposed amendments are consistent with State and local strategic planning policies:** The proposed refinements prepare the site for desired future development required within the locality and remains consistent with the recent rezoning of the site and intentions of the South West Growth Centre.
- **The proposed amendments will avoid unacceptable environmental impacts and provide social and economic benefits:** the amendments have considered both the heritage significance of the Denbigh Estate as well as the open space needs of future residents. Updates to the DCP have been proposed where necessary to ensure that the final development does not result in unacceptable impacts.
- **The proposed amendments are suitable for the site:** The proposed refinements are consistent with vision and objectives of the current ILP and DCP with minor changes proposed to improve connections within the site and reflect ongoing discussions with Camden Council.
- **The proposed amendments are in the public interest:** the refined design facilitates future development that is consistent with the site and surrounding locality, compatible with existing and likely future development and has been designed to avoid unacceptable impacts and optimise its potential benefits. Accordingly, the proposal is considered to be in the public interest.

Having considered all relevant matters, the proposal represents a sound development outcome that fulfils the vision to develop the Oran Park Precinct into a high-quality master planned community in Western Sydney.

Mirvac look forward to the implementation of the proposed ILP and DCP amendments and the benefits associated with increased the proposed changes.

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# APPENDIX A

# LANDSCAPE MASTERPLAN

ORD01

Attachment 1

ORD01

## APPENDIX B

## OPEN SPACE ANALYSIS

Attachment 1

# APPENDIX C

# INTEGRATED WATER MANAGEMENT STRATEGY

ORD01

Attachment 1

ORD01

## APPENDIX D

## HERITAGE IMPACT STUDY

Attachment 1

# APPENDIX E

# TRAFFIC IMPACT STATEMENT

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## APPENDIX F

## INDICATIVE EARTH MOUND DESIGN

# APPENDIX G

# MACARTHUR ANGLICAN LETTER

ORD01

Attachment 1



ORD01

Attachment 1

## APPENDIX H

## VISUAL IMPACT ASSESSMENT

# APPENDIX I

# SINSW LETTER

ORD01

Attachment 1

ORD01

**APPENDIX J**

**MARKUP OF PROPOSED UPDATES TO  
THE ORAN PARK DEVELOPMENT  
CONTROL PLAN**

Attachment 1



**ORD01**

**Attachment 1**

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ORD01

Attachment 2

URBIS

# OPEN SPACE ANALYSIS

531 Cobbitty Road, Cobbitty

Prepared for  
**MIRVAC HOMES (NSW) PTY LIMITED**  
14 June 2023

**ORD01**

**Attachment 2**

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INTRODUCTION 1



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**Attachment 2**

# 1. INTRODUCTION

This Open Space Analysis has been prepared by Urbis Pty Ltd (Urbis) on behalf of Mirvac Homes NSW (Mircac), for consideration by Camden Council (Council) to amend the current Oran Park Development Control Plan (DCP) under State Environmental Planning Policy (Precincts—Western Parkland City) 2021 (Parkland City SEPP) associated with the Mirvac landholdings associated with the Cobbitty by Mirvac Estate and a portion of the Macarthur Anglican School site.

The submission aims to facilitate minor design updates to the DCP and associated Indicative Layout Plan (ILP) for the site of a general design development nature. The DCP amendment report (prepared by Urbis) should be referred to for complete details on the submission.

## 1.1. SITE

The site is referred to as the Cobbitty by Mirvac Estate. It is located within the Camden local government area (LGA) on the western edge of the South West Growth Area and is approximately 80ha in area. The site currently consists of vacant rural land, which is accessible from a driveway at Cobbitty Road. A farm dam is located towards the eastern side of the site, in addition to a portion of Cobbitty Creek which runs through the southern end of the site.

The site is bounded by rural lands to the north and west and heavily vegetated land to the south. To the east of the site is Macarthur Anglican School, a co-education private school for students from pre-kindergarten to Year 12. Residential uses comprising of one to two storey detached dwellings are concentrated further to the east of the site in Cobbitty and Oran Park.

Oran Park (approximately 3.7km away) and Narellan (approximately 4.2km away) are the closest town centres to the site and are accessible via The Northern Road. Camden is also situated approximately 7.0km from the site and is accessible via Macquarie Grove Road. The three centres provide a range of services and infrastructure for the broader Camden LGA. Most residents drive or use the bus network to travel between centres. Macarthur Station (approximately 12.8km away) and Leppington Station (approximately 15.7km away) are the closest train stations to the site and provide access to the Greater Sydney area.

Figure 1 Immediate site context



Source: Urbis

### 1.2. INDICATIVE CONCEPT DESIGN

The proposed DCP amendments reflect an updated site-wide masterplan layout prepared by Paterson Design Studio (PDS) illustrated in Figure 2.

The design updates are summarised as follows:

- An update to the northern portion of the site to improve heritage character including:
  - The replacement of the proposed triangular area of open space with a widened heritage boulevard reflecting the Hassall heritage driveway and a 5,000sqm park.
  - Updates to the DCP controls associated with the Denbigh Transition Area.
- Refinements to the riparian corridor and passive open space network, incorporating a range of active and passive spaces and additional pedestrian/cycle connectivity.
- Introduction of a 5,000sqm park within the south east portion of the site
- Detailed design updates to the indicative movement and road network
- Refinements of two school sites (Macarthur Anglican School and the future public primary school) to more accurately reflect educational requirements for the Precinct.
- Introduction of a Precinct specific Integrated Water Management Plan to meet the needs of the Precinct.

Details on the quantity and quality of open space proposed are provided in Sections 3 and 4.

Figure 2 Indicative open space concept design



Source: Paterson Design Studio and Mirvac

### 1.3. EXPECTED DWELLING MIX

The number of dwellings currently expected to be delivered on the site is as follows:

- Attached (medium density) = 182 dwellings
- Single (low density) = 674 dwellings
- Rural residential (very low density) = 79 dwellings.

In addition, it is expected that future residents of the area indicated with an asterisk in Figure 2 will also use the public open space provided by Mirvac within the site. For completeness, the needs of these residents will also be considered in this analysis.

It is currently expected that this area will deliver additional dwellings as follows:

- Attached (medium density) = 0 dwellings
- Single (low density) = 65 dwellings
- Rural residential (very low density) = 10 dwellings.

In total, the development of the site and the area indicated with an asterisk are expected to result in the following dwelling yield and mix:

- Attached (medium density) = 182 dwellings
- Single (low density) = 739 dwellings
- Rural residential (very low density) = 89 dwellings.

### 1.4. EXPECTED POPULATION

Section 3.2 of the Oran Park and Turner Road Precincts Section 94 Contributions Plan (2008) specifies the average household sizes on which the plan was based, being 3.3 persons per dwelling for low density dwellings and 2.4 persons per dwelling for medium density dwellings. These occupancy rates are based on analysis of 2001 Census data and do not reflect current household occupancy trends in the Oran Park Precinct.

Council's Local Housing Strategy (2021) provides average household sizes from the 2016 Census of 3.16 persons per dwelling for separate houses and 2.04 persons per attached dwelling. The table below applies these more up to date occupancy rates to the expected dwelling mix. A slightly higher average occupancy rate of 3.30 is applied to large lot rural residential dwellings.

As shown in Table 1, this analysis results in an expected population of 3,000 people for the combined development area. This population size may be at the high end, as according to id. Community projections prepared for Camden Council, average household sizes in the LGA and in the Oran Park Precinct are expected to trend down between 2016 and 2041 (from 3.12 to 2.96 in the LGA and from 3.20 to 2.80 in Oran Park Precinct).

Table 1 Total expected population of the site and neighbouring area

Dwelling type	Expected dwelling no.	Expected occupancy rate	Expected population
Attached (medium density)	182	2.04	371
Single (low density)	739	3.16	2,335
Rural residential (very low density)	89	3.30	294
<b>Total</b>	<b>1,010</b>	<b>-</b>	<b>3,000</b>



## 2. RELEVANT DIRECTIONS ON OPEN SPACE PLANNING

There has been a range of planning and guidance for open space relevant to the site over the past 15 years. This section introduces the relevant documents, two of which were released in 2007-2008 and three of which were released in 2020-2021.

Section 2.1 introduces the documents and their key definitions, principles and open space hierarchies, while Section 2.2 compares the numeric standards contained within four of the five documents.

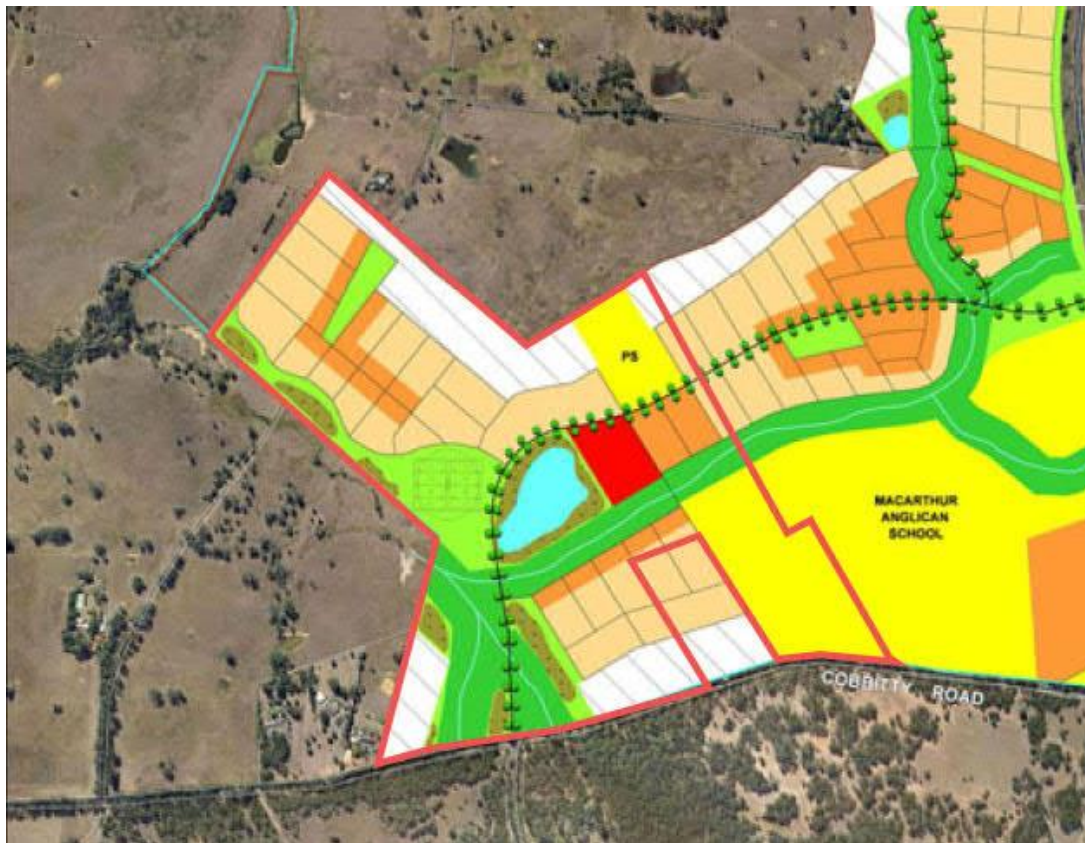
### 2.1. PRINCIPLES AND HIERARCHIES

#### Oran Park Precinct Development Control Plan 2007, republished in 2017 (DCP)

The DCP was prepared pursuant to the provisions of Section 74C of the *Environmental Planning and Assessment Act 1979*. It contains objectives and controls for open space, which apply to the site. The DCP was prepared in 2007 and republished in 2017.

Section 2.1 of the DCP contains the ILP for the Oran Park Precinct. The ILP shows development outcomes for the precinct, including open space and riparian corridors. The site's positioning within the ILP is shown in Figure 3 below.

Figure 3 Oran Park Precinct ILP



Source: Oran Park Precinct Development Control Plan and Mirvac

Section 4.1 of the DCP specifies the controls relating to planning for public parks, which are defined as including local and district open space and riparian corridors. The following principles are to be taken into consideration in the location of public parks:

- Parks are to be located as focal points within residential neighbourhoods

- Where possible, parks should be co-located with community and education facilities, be highly accessible and linked by pedestrian and/or cycle routes
- Parks should be located and designed to accommodate remnant vegetation and where appropriate, should be linked to and integrated with riparian corridors
- Parks should be generally bordered by streets on all sides with houses oriented towards them for surveillance.

Other relevant non-numeric controls include directions relating to the design and use of riparian corridors and the detailed design of public parks. In particular, the DCP (2017: 45) directs that:

Where riparian corridors are to be in public ownership, they are to provide opportunities for pedestrian and cycleways, fitness trails and additional open space in a manner that maintains the environmental significance of these areas. A range of themed elements such as boardwalks, ecopathways, and educational tracks should be incorporated in appropriate locations (i.e. within the 10m riparian corridor buffer)

As discussed later in this report, this direction has been considered in preparing an indicative concept plan for the proposed open space within the site.

### **Oran Park and Turner Road Precincts Section 94 Contributions Plan 2008**

Under the *Environmental Planning and Assessment Act 1979* (EPA Act), a condition requiring the payment of a monetary contribution or the dedication of land free of cost, or both, towards the provision of public services can be imposed on a development by a council.

In the Oran Park Precinct, a development contribution may only be allowed by and determined in accordance with the Oran Park and Turner Road Precincts Section 94 Contributions Plan (Contributions Plan). This plan was informed by a Needs Assessment prepared by Elton Consulting in 2007, using Australian Bureau of Statistics (ABS) Census data from 2001.

The Contributions Plan includes principles for planning for open space and recreation facilities. Principles which are relevant for this stage of planning for the site include:

- Recognition that riparian corridors and other conservation areas provide some passive open space opportunities
- Locating different open space and recreation facilities together and in central locations
- Flexibility in use of open space areas and recreation facilities.

The Contributions Plan also identifies specific open space and recreation facilities planned for the Oran Park Precinct. The open space types which are relevant to the subject site are:

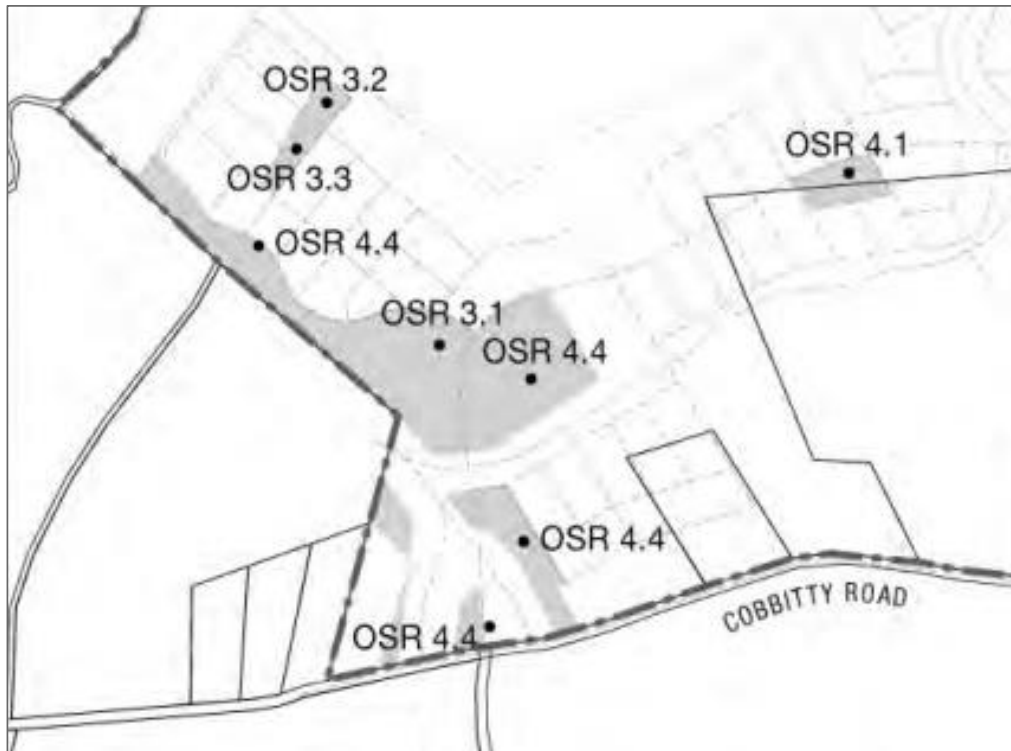
- Playing fields (OSR 3.1)
- Children's playground (OSR 3.2)
- Play spaces (OSR 3.3)
- Other passive open space (riparian style embellishment) (OSR4.4).

These spaces are shown in Figure 4 on the following page. Note that OSR 4.1, which is shown in this figure, is located to the east of the subject site and does not form part of the proposed ILP amendment area.

Also of note is the inclusion of riparian areas within the sites identified for acquisition for open space and recreation. This includes the area shown in the ILP as a lake (see Figure 3).

The amended ILP aligns with the items identified within the Contributions Plan.

Figure 4 Except from open space and recreation facilities map, showing land identified for acquisition



Source: Contributions Plan (2008: 74).

#### **Draft Greener Places Design Guide (2020)**

The draft Greener Places Design Guide was prepared by the Government Architect NSW (GANSW) to support the implementation of the adopted Greener Places Policy.

It introduced a performance based approach to planning for better quality, easily accessible open space for recreation across NSW.

The document uses six performance criteria to guide planning and design of open space for recreation: accessibility and connectivity; distribution; size and shape; quantity; quality; and diversity. Some of these criteria, such as accessibility and size, are supported with numeric benchmarks.

The draft Greener Places Design Guide does not contain numeric standards for the quantity of open space to be provided in an area.

#### **Spaces and Places Strategy (2020)**

The Spaces and Places Strategy was prepared by Camden Council. It aims to identify gaps in the provision of open space, project future demands, establish best practice benchmarks and provide a strategic framework and action plan to meet the needs of the current and future population of the LGA.

The strategy describes five types of open space:

- **Natural areas**, which allow for recreation while protecting local ecological and biodiversity values
- **Passive open space**, which provides for passive recreation and unstructured physical activity, such as parks, gardens and linear corridors
- **Active open space**, which has a primary purpose enabling formal outdoor sports for the community, such as playing fields
- **Riparian areas**, which are the interaction between aquatic and terrestrial environments



- **Encumbered land**, the use of which is constrained due to infrastructure easements, flooding, heritage or other controls.

Planning for open space is guided by a three tier hierarchy, being regional, local and neighbourhood space.

#### **Draft Urban Design Guide (2021)**

The draft Urban Design Guide (UDG) was released by the Department of Planning, Industry and Environment in December 2021 as part of a large package of material supporting the draft Design and Place State Environmental Planning Policy (SEPP).

The draft UDG contained design criteria and guidance to assist with improving the planning and design of public open space across NSW. The primary objective relating to open space was that 'Public open space is high-quality, varied and adaptable'.

It took a broad definition of public open space, defining it as being 'active and passive spaces including parks, gardens, playgrounds, public beaches, riverbanks and waterfronts, outdoor playing fields and courts, and publicly accessible bushland' (2021: 12). The UDG also introduced a hierarchy of small, local, district and linear parks, each with their own numeric standards.

The draft SEPP was exhibited by the former Minister for Planning and then withdrawn by the current Minister.

The current Minister has indicated that some elements of the exhibited package will be progressed without the SEPP. It is not expected that the UDG will be progressed outside the SEPP context.

However, there are indications that some of the elements of the draft UDG relating to open space may be incorporated into a final version of the Greener Places Design Guide. In particular, some of the proposed numeric standards for open space quantity may be added to the final guide.

## 2.2. NUMERIC STANDARDS

As discussed in Section 2.1, the documents currently guiding the planning and design of open space in the site contain differing numeric standards. These standards are summarised in the table below.

Table 2 Comparison of numeric standards in relevant open space planning documents

	Quantity	Hierarchy and minimum sizes	Accessibility
<b>DCP</b>	Consistent with Open Space Network Plan	<b>Public parks</b> >0.2ha	<400m from dwellings
<b>Contributions Plan</b>	Public open space 3.64ha per 1,000 people*	<b>Community parks and green spaces</b> >0.5ha	Does not include accessibility benchmarks
	Open space and recreation 2.83ha per 1,000 people*	<b>Play spaces</b> >0.3ha	
	1 play space per 500 children aged 0-4 years	<b>Parks with playing fields</b> >2.7ha	
	1 play space per 500 children aged 5-12 years		
<b>Spaces and Places Strategy</b>	2.83ha per 1,000 people	<b>Neighbourhood</b> 0.5-1.5ha	Does not include accessibility benchmarks
	1 playground per 2,000 people	<b>Local</b> 1.5-10ha	
	1 court per 2,000 people		
	1 field per 1,850 people		
	<b>Regional</b> 10ha+		
<b>Draft Urban Design Guide, elements of which may be incorporated into the final Greener Places Design Guide</b>	>15% of NDL as freely accessible public open space, with majority as dedicated RE1 zoned land  Excludes regional space	<b>Small</b> Minimum size 0.15ha Median size 0.45ha	<b>Small</b> 200m walk from dwellings
		<b>Local</b> Minimum size 0.5ha Median size 2.5ha	<b>Local</b> 400m walk from dwellings
		<b>District</b> Minimum size 5ha Median size 10ha	<b>District</b> 1.6km walk from dwellings
		<b>Green corridors and linear parks</b> >15m width >400m length	<b>Green corridors and linear parks</b> 400m walk from dwellings
		<b>Regional</b> Not provided	<b>Regional</b> 5km cycling, driving or public transport distance

Source: Urbis

\* The Contributions Plan includes two open space quantity provision standards. It does not specify which was used in the preparation of the plan.

### 3. EXISTING AND PROPOSED OPEN SPACE PROVISION

#### Comparison to existing ILP

The existing DCP and associated ILP was prepared in 2007. Since this time, Camden Council have released the Spaces and Places Strategy (2020) to guide the provision of open space across the LGA. This Strategy states that, in addition to Council's Dedication of Constrained Land Policy P4.0253.1, Council will not accept areas of open space which are:

- Less than 30 metres in width
- Is provided for a non-recreational purpose including noise attenuation buffers, estate entrances
- Has more than 30% of the open space area encumbered by a secondary use function, such as drainage, environmental protection, heritage, infrastructure easements or flood prone land (1:100 ARI).

Appendix A outlines the open spaces areas proposed under the existing ILP. Using Council's definition of encumbered land under the Spaces and Places Strategy, 13.6ha of the open space in the existing ILP is considered encumbered and only 0.68ha is unencumbered. Of the encumbered open space, this includes 4.96ha of land for basins and 8.64ha of land which is either less than 30 meters in width or has 30% more of the area on flood prone land (1:100 ARI).

#### Addressing potential encumbered land

Applying the encumbered land definition in Council's Spaces and Places Strategy would therefore preclude significant areas of open space in both the existing and amended ILP to be considered for open space use due to land being impacted during a 1 in 100 flood event. This is particularly considered unsuitable for the site given that:

- A one-in-100-year flood has a 1 per cent chance of occurring any year and is generally used to identify safe locations for housing rather than open space. Given the severity of a 1 in 100 year event, it cannot be expected that open spaces will be used by the community during the event. However, open spaces should be capable of supporting recreation uses immediately afterwards. The Integrated Water Management Plan prepared by Orion Consulting for the amended ILP demonstrates that all waterbodies will drain within hours of the event passing, enabling the open spaces to be free from standing water.
- Recent direction from state government highlights the need to provide for more efficient land uses to control open space costs. This includes a willingness by the state to consider open space approaches which integrate local drainage and open space, provided approaches are still underpinned by performance based outcomes. This is outlined by the NSW Productivity Review (2020) commissioned by the Minister for Planning and Public Spaces, which states that the dual use of drainage lands can be used to support more efficient land costs. In particular, when discussing performance principles and dual use, the review noted "For example, in greenfield areas, passive recreation areas could be on land that is also part of the stormwater management system" (118: 2020).

Section 5 provides a qualitative analysis of the open spaces proposed within the amended ILP which demonstrates that the proposed masterplan implements a performance based approach which maximises recreation outcomes and community benefits. In light of this and the above directions, there should be broader consideration of dual use in the masterplan to help support improved open space outcomes.

For completeness, a comparison of encumbered land against Council's Spaces and Places Strategy was undertaken for the existing ILP and amended ILP. This is shown in Table 3.

The existing ILP contained 8.29ha of open space land considered as unencumbered land by Council. This included a mix of land as water management areas (basins) and areas which may be impacted by flooding. The basins areas are not accessible or usable for any form of open space for recreation use (passive or active).

The amended ILP reduces the amount of basin areas while still maintaining the overall function and management of stormwater on the site. This frees up land previously required to perform drainage functions under the existing ILP to be used as open space areas for recreation. The end outcome is a proposed ILP which maintains a similar amount of open space for recreation with an improved recreational quality. The recreational quality of these spaces is discussed in detailed in Section 4.

Table 3 Existing open space area summary

Open space for recreation breakdown	Existing ILP	Amended ILP	Change
Total open space	8.97ha	1.86ha	+0.18ha
Total unencumbered open space	0.68ha	6.74ha	+1.77ha
Total encumbered open space*	8.29ha	9.2ha	-1.59ha

\*Encumbered land is aligned to Council's definition in the Spaces and Places Strategy (2020) and Dedication of Constrained Lands Policy. It does not include the core riparian corridor

### Open space for recreation

Considering the removal of basin areas, the amended ILP includes 9.2ha of public open space for recreation purposes. These open spaces areas are indicated in Figure 6 and summarised in Table 4 below. The areas of open space for recreation do not include the lake or core riparian corridors.

Table 4 Open space for recreation breakdown

Open space legend	Size (sqm)
3A	5,000
3B	34,250
3C	5,000
3D	2,100
3E	3,450
4A	24,855
4B	15,700
4C	1,620
<b>TOTAL</b>	<b>91,975 sqm</b> <b>9.2ha</b>

In addition, the amended ILP proposes significant use of the riparian corridors for recreation purposes, with the concept design (Figure 2) taking an integrated approach to the design of open spaces and riparian corridors. This ensures that the open space areas detailed above (Table 4) are not provided in isolation and supports additional areas of open space which can be used by the public for recreation. This includes:

- A large area of open space immediately south of 3B, providing areas for relaxation and supporting walkable access to the broader open space network
- Open space areas to the south east of the lake and core riparian corridor, supporting a central spine of open space through the site.

The qualitative details of the integrated approach to open space and riparian area design are discussed in Section 4.

ORD01

Attachment 2

Figure 5 Breakdown of open space for recreation on the amended ILP



Source: Orion Consulting. Plan reference: 04.024.03

## 4. QUANTITATIVE ANALYSIS OF PROPOSED OPEN SPACE

There are two ways to consider whether the quantity of open space is appropriate to meet the needs of a future community. These are the population based approach and the proportion based approach.

### 4.1. POPULATION BASED APPROACH

Council's key planning documents for open space relevant to the site use a population based approach to quantifying public open space provision.

As discussed in Section 1.4, it is currently estimated the proposed amended ILP will result in a total population of 3,000 people within the site and the neighbouring site at the south. Applying the 2.83ha per 1,000 people benchmark in the Contributions Plan and Spaces and Places Strategy to this population results in a projected need for 8.49ha of open space.

The amended ILP proposes 9.2ha of designated publicly accessible open space on the site. Based on these benchmarks, the proposal could therefore support a slightly larger population of up to 3,250 people.

Using the population based benchmarks embedded in Council's planning documents, the public open space proposed in the amended ILP is therefore of a sufficient quantity to provide for the needs of incoming residents of the site and the neighbouring site.

### 4.2. PROPORTION BASED APPROACH

The draft UDG took a proportion based approach to assessing the quantity of public open space to be provided in a development. This approach is used by states including South Australian, Victoria and Western Australia. In these states, the proportions of developable or subdividable land required to be set aside for open space ranges between 10% and 12.5%, with some variations in the ways the proportion is calculated.

In NSW, the draft UDG proposed a minimum of 15% of net developable land (NDL) to be provided as freely accessible public open space.

The proportion of the site proposed to be provided as accessible public open space in the amended ILP (excluding riparian areas) is shown in Table 3. This shows the proposed proportion of open space exceeds the 15% benchmark suggested in the draft UDG, excluding the riparian corridor space which is also recognised as being designed for unstructured recreation.

Table 5 Provision of public open space by proportion of NDL

Net developable land	56.1 ha
Public open space	9.2 ha
<b>Public open space for recreation</b>	<b>16.4%</b>

Source: Urbis

## 5. QUALITATIVE ANALYSIS OF PROPOSED OPEN SPACE

The indicative concept design at Figure 2 for the open space in the amended ILP has been provided to demonstrate the intended uses and usability of spaces, as well as the type and quality of embellishment which may be provided. Further details on the design of open spaces proposed in the site are provided in the Landscape Masterplan provided at Appendix A to the DCP amended report.

In accordance with the DCP, detailed landscape plans for the design of open spaces will be prepared and submitted at the time of subdivision of the adjoining residential area.

The indicative concept design demonstrates that the masterplan can deliver:

- Several large open areas able to be used for a range of unstructured recreation activities, including junior play areas, all ages kick about spaces and a community green for larger gatherings
- An amenities building to match the intensity of use envisaged for the village green, expected to include toilets, and storage areas
- Interconnected dual use pathways which interlink and encircle the core of the development to enable walkability throughout the site
- An active frontage to the lake, with seating areas and pathways offering a variety of open space outcomes around the one focal waterbody.
- Multiple crossings points of bioretention areas to ensure seamless integration of water infrastructure into the broader open space network.
- Capacity to delivery 1 – 2 outdoor multi-courts
- Multiple seating areas.

In accordance with the DCP and draft Greener Places Design Guide, the concept design takes an integrated approach to the design of open spaces and riparian corridors. It provides a range of open space experiences, including areas for structured and unstructured recreation and spaces for quiet enjoyment and reflection. The design maximises accessibility to neighbouring residential areas and creates an interconnected network of dual use paths. The popout spaces and pedestrian bridge in the eastern part of the riparian corridor also activate this area and provide good pedestrian connectivity to the future neighbourhood centre. The inclusion of these embellishment details at detailed design phase will further demonstrate the ways in which the open space will meet the needs of future residents of all age groups.

Detailed flood modelling undertaken by Orion Consulting aims to maximise amenity of open spaces by concentrating areas of more frequent inundation (five year ARI) to locally within the immediate lake foreshore area. The open spaces to the west of Charles McIntosh Parkway have been designed to only act as flood storage for the large intermediate and rare storm events (50 year ARI or greater).

### Pocket Parks

The design of the open space will include two key pocket parks; one of approximately 5,000 sqm in the north west and one of approximately 5,000 sqm in the south east. These parks were designed from an end user design perspective, considering the likely needs of the incoming population based on the expected demographic profile and social trends in greenfield areas.

Given the likely high rate of families and homebuilders, PDS have designed the parks to include a variety of play areas for juniors, young children and teenagers. The parks also include areas for social gatherings, providing opportunities for social connection and respite from the urban environment outside of the home, a key inclusion for the development of any new community.

The design of the pocket parks can be viewed in full within the Landscape Masterplan provided at Appendix A to the DCP amended report..

## 6. SUMMARY

This report has assessed the open space proposed in the amended ILP for 531 Cobbitty Road, Cobbitty. It has found that:

- The open space for recreation proposed in the amended ILP exceeds the quantitative open space requirements using both population and a proportion based approach to analysis, excluding the inclusion of the riparian corridor space which is designed for unstructured recreation.
- The indicative concept design prepared by Paterson Design Studio takes an integrated approach to the design of open spaces and riparian corridors. It provides a wide range of open space experiences and enables a diverse range of structured and unstructured recreation opportunities. This approach aligns with good practices principles for open space planning and design, including those in the DCP, Council's Spaces and Places Strategy and the GANSW's draft Greener Places Design Guide.

It is therefore expected that the quality and quantity of open space proposed in the amended ILP will meet the needs of the future community of the site.

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Attachment 2



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## APPENDIX A EXISTING ILP

Attachment 2

## DISCLAIMER

This report is dated 14 June 2023 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd (**Urbis**) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Mirvac (**Instructing Party**) for the purpose of Open Space Analysis (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

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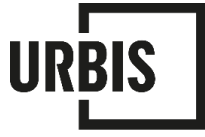
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Attachment 2

**ORD01**



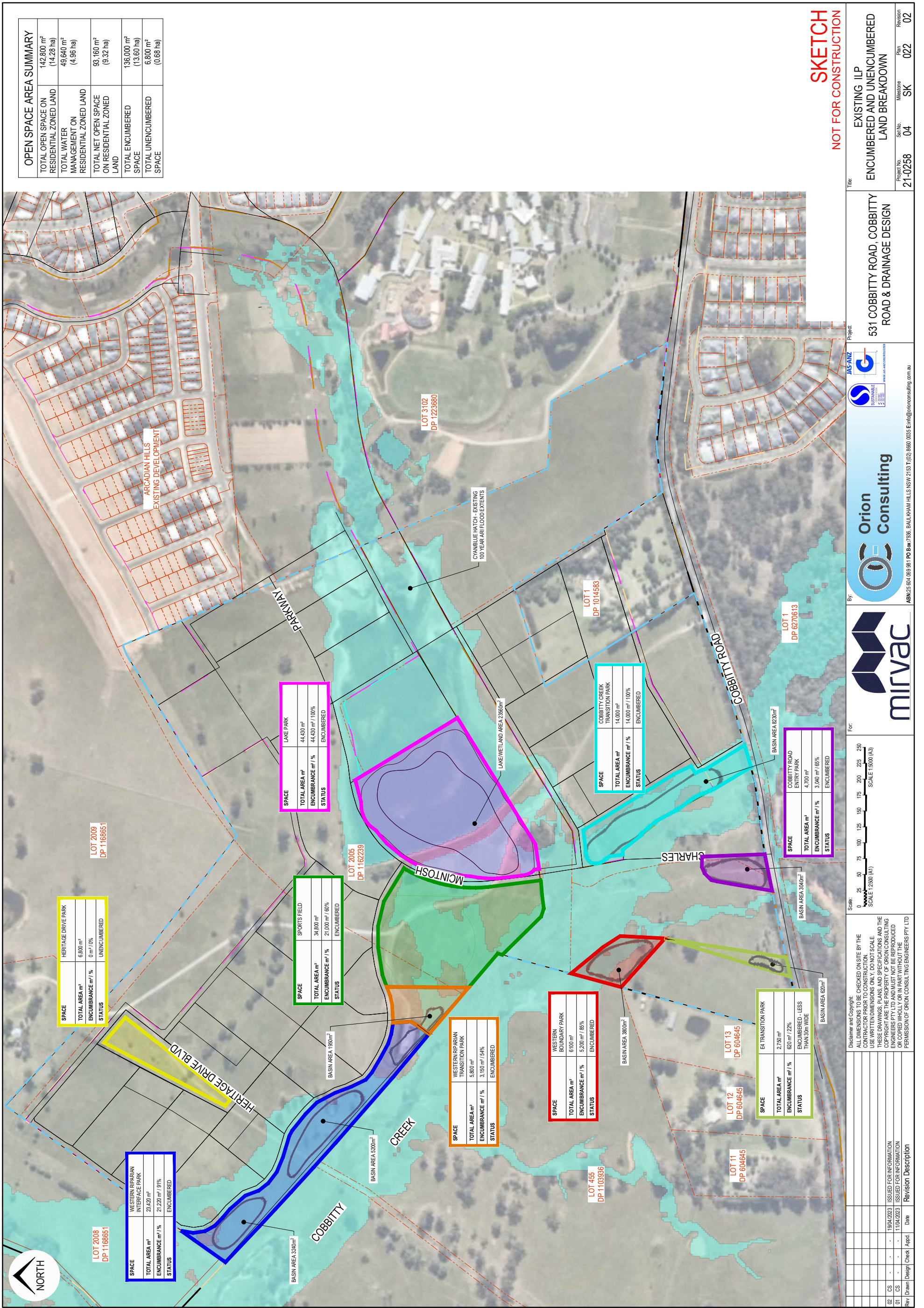
**Attachment 2**

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OPEN SPACE AREA SUMMARY	
TOTAL OPEN SPACE ON RESIDENTIAL ZONED LAND	142,800 m <sup>2</sup> (14.28 ha)
TOTAL WATER MANAGEMENT ON RESIDENTIAL ZONED LAND	49,640 m <sup>2</sup> (4.96 ha)
TOTAL NET OPEN SPACE ON RESIDENTIAL ZONED LAND	93,160 m <sup>2</sup> (9.32 ha)
TOTAL ENCUMBERED SPACE	136,000 m <sup>2</sup> (13.60 ha)
TOTAL UNENCUMBERED SPACE	6,800 m <sup>2</sup> (0.68 ha)

**SKETCH**  
NOT FOR CONSTRUCTION

Title		EXISTING ILP ENCUMBERED AND UNENCUMBERED LAND BREAKDOWN
Project No.	21-0258	04
Site No.	SK	022
Milestone	SK	022
Revision		02

Project		531 COBBITTY ROAD, COBBITTY ROAD & DRAINAGE DESIGN
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By: **Orion Consulting**  
 ABN25 604 093 881 PO Box 7536, BALI KHAM HILLS NSW 2113 T: (02) 8660 0036 E: info@orionconsulting.com.au

**mirvac**

Scale:	0 25 50 75 100 125 150 175 200 225 250
Scale:	0 25 50 75 100 125 150 175 200 225 250

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Rev	Drawn	Check	Appd.	Date	Revision Description
02	CS	-	-	19/04/2023	ISSUED FOR INFORMATION
01	CS	-	-	11/04/2023	ISSUED FOR INFORMATION



## Placeholder for Attachment 3

**ORD01**

Cobbitty Road, Cobbitty - Oran Park DCP Amendment  
(Pre Public Exhibition)

Mirvac Cobbitty DCP Amendment - Appendix C -  
Integrated Water Management Plan - Under separate  
cover

**Attachment 3**





Our Ref: 59916092 Var28: BCP/bcp  
Contact: Dr Brett C. Phillips

13<sup>th</sup> February 2023

The Team Leader, Floodplain Management,  
Camden Council  
PO Box 183,  
**CAMDEN NSW 2570**

Attention: Maria Pinto

Stantec Australia Pty Ltd  
ABN 17 007 820 322

Level 9  
The Forum  
203 Pacific Highway  
St Leonards NSW 2065  
Australia

**Phone: 61 2 9496 7700**  
Fax: 61 2 9439 5170

Dear Maria,

**PEER REVIEW OF A PLANNING PROPOSAL FOR 531 COBBITTY ROAD,  
COBBITTY**

Camden Council has commissioned a peer review of flood modelling undertaken as part of a Water Cycle Master Plan for 531 Cobbitty Road, Cobbitty. The primary aim of the peer review was to review the flood model prepared by Orion Consulting in comparison to flood modelling adopted by Council as part of the Nepean River FRMSP.

As described, in part, by Orion Consulting, 2022<sup>1</sup>:

*Orion Consulting has been engaged by Mirvac Homes (NSW) to prepare this Masterplan Integrated Water Cycle Management Study (IWCMS) and Plan in support of the proposed amendment of the Oran Park Development Control Plan (DCP) to support the development of the site known as No. 531 Cobbitty Road, Cobbitty.*

*The need to amend the existing supporting water cycle management documentation which supports the DCP was crystallised by the determination that post development flows could not be managed to existing levels without consideration of online storage. This is due to the existing large farm dam and the attenuation it provides in the existing case. In addition to contemplating online storage, this new plan needs to address continuity with the latest flood planning information available for the greater Nepean River catchment.*

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<sup>1</sup> Orion Consulting (2022) "Mirvac Residential – Cobbitty Masterplan Lot 2005 in DP 1162239, No. 531 Cobbitty Road, Cobbitty", *Integrated Water Cycle Management Report*, prepared for Mirvac, June.

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## SUMMARY

### Context

The following is noted from the attached extracts of various Figures in Appendix B of the 2019 FRMS Report (refer **Attachment A**).

- A large farm dam is a major feature within the Masterplan study area;
- The Masterplan study area is
  - Beyond the extent of the 1% AEP flood in the Nepean River ie. flooding of the Masterplan study area is associated with catchment runoff only
  - The downstream boundary of the Masterplan study area is just at the extent of the 0.2% AEP flood in the Nepean River
  - The lower reach of the Masterplan study area up to around the confluence of the two primary watercourse is controlled by the PMF level in the Nepean River
- The 1% AEP flood depths within the Masterplan study area are generally < 1 m deep
- The depth of floodwaters increases as the severity of the flood event increases
- The Masterplan study area is not subject to overland flow flooding;
- Within the Masterplan study area it:
  - Is almost all mapped as Floodway in the 1% AEP flood
  - has areas of mapped H1 – H5 hazard categories
  - is primarily mapped as 1% AEP True Low Hazard with pockets of 1% AEP True High Hazard including the large farm dam.
  - Is mapped as Low, Medium and High Risk Precincts

### Hydrology

In the 2019 FRMS hydrological modelling of Cobbitty Creek was undertaken as part of hydrological modelling of a reach of the Nepean River and of its tributaries. It was undertaken using XP-RAFTS. The Cobbitty Creek catchment was subdivided into three (3) subcatchments only (refer Figure 1). Rain on Grid modelling was also undertaken in the Tributary catchments.

In the 2022 IWCM study:

- ARR1987 IFD was adopted and is consistent with the 2019 study
- Pervious area rainfall loss rates are consistent with the with the 2019 study
- *For standard rural catchments (grass, farmland) a default Manning's 'n' of 0.05 was applied as per the Nepean River Tributaries hydrological modelling. Sub catchment topography and land coverage was assessed via current and historical aerial imagery with surface roughness's adjusted to a Manning's 'n' of 0.1 for catchments with woodland or dense vegetation.*
- The 2019 XP-RAFTS model adopted lag times between subcatchment outlets whereas in the 2022 model *an idealised 1D overland flow cross section with defined channel and overbank profiles was constructed in DRAINS to simulate the ephemeral creek lines that links the sub catchments.*

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- The existing farm dams were not included in the 2019 XP-RAFTS model. The 2022 hydrological model included the active storage in the farm dam within the masterplan study area.

Prior to assessing the impact of increased discretisation and inclusion off the farm dam on peak flows, a DRAINS-RAFTS model that replicated the Cobbitty Creek discretisation adopted in 2019 was assembled. It is concluded that there is good agreement for 20 yr ARI peak flows and very good agreement for 100 yr ARI peak flows.

A comparison was then undertaken for the full 2022 hydrological model and the 2019 XP-RAFTS model at the COBBITTY B location. The comparison given in Table 3 found differences of between 30.5% (100 yr ARI) and 49.3% (5 yr ARI) in the estimated peak flows. It is concluded that the differences between the peak flows is associated with:

- The very large difference between the 2019 and 2022 levels of subcatchment discretisation;
- The refined representation of flow travel times (lag times) in the 2022 model; and in particular;
- The values of the topographically calculated sub-catchment slope which in turn is influenced by the level of discretisation.

As advised, in part, by Orion Consulting, 2022:

*OSD performance has been measured for the 5, 20, and 100 Year ARI critical duration events at a number of locations within the subject site. The 540 minute duration storm was found to be critical at all key locations for pre-vs-post assessment.*

## Hydraulics

### Survey

The 2019 floodplain model is based on LiDAR collected in 2011. The 2022 IWCM floodplain model is based on LiDAR collected in 2019.

Notwithstanding the 2022 ground levels are in MGA2020 and the 2019 ground levels are in GDA94 a ground level difference plot is mapped in **Figure 7**. It was noted from this comparison that the creek lines are shadowed by ground level reductions and increases – this suggest that there is a slight difference between MGA2020 and GDA94 that has slightly displaced the creek lines in the two DEMs;

As disclosed in Table 7 below, at the reference locations CC1 to CC8, the 2022 IWCM ground level is lower than the 2019 floodplain model ground level in all but one location.

### Grid Size

The cell size in the 2022 floodplain model is 3m x 3m which is finer than the cell size adopted for the Nepean Tributary floodplain model (8m x 8m).

### Roughness

The only difference between the two floodplain models is that the urban area roughness adopted for by the 2022 model is higher than adopted in the 2019 model.

### Boundary Conditions

The results presented in the 2019 study have adopted an envelope approach whereby the worst case flooding condition from the Nepean River and tributary modes is combined into a single flood envelope.

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The 2022 IWCM study adopted downstream flood levels assessed by the Tributary flood modelling.

#### *Pre-Development Conditions*

Table 5 compares the peak discharges and flood levels at Location F1 (see Figure YY). Notwithstanding the differences in the peak flows at Location F1 the flood levels estimated for the 20 yr ARI and 100 yr ARI events are in close agreement.

A comparison of the 1% AEP flood extents between the 2022 study and the 2019 study is given in **Figure 12**. It is noted from **Figure 12** that:

- The 2022 flood mapping identifies additional areas subject to 1% AEP inundation – this is attributed primarily to the difference in the adopted depth filters. The 2022 IWCM adopts a depth filter of 0.05 m while the 2019 study adopts a depth filter of 0.15 m; and
- A number of the small lateral drainage lines mapped in the 2022 IWCM have been mapped in the 2019 study as overland flow.

#### *Post-Development Conditions*

The 2022 IWCM addresses the presence of existing ephemeral streams and the active flood storage component of the existing farm dam. As described, in part, by Orion Consulting, 2022:

*... the proposed concept Masterplan.*

- *Re-creation of the active flood storage component of the existing farm dam by utilising the area above the proposed lake.*
- *Maximisation of public amenity for the public open spaces by concentrating areas of inundation locally within the immediate lake foreshore area.*
- *Dual use of the Sports Fields for both active open space and additional flood storage that triggers for major events only. Additional storage is required over the sports field for the Major events to keep road and earthworks import levels for Charles McIntosh Parkway as low as possible.*
- *Achieve practical, low maintenance hydraulic structures for outlet control from the Lake.*
- *Provides a balance between no-net negative design that is achieved for the critical duration 5 Year ARI, 20 Year ARI and 100 Year ARI and free outfall for low flows in accordance with NRAR objectives.*

**Table 6** provides a comparison of pre-development and post-development peak flows at the three locations:

Notwithstanding a small impact of the 100 yr ARI peak flow at Location F3, it is concluded that the IWCM scheme limits peak flows under post-development conditions to no greater than peak flows pre-development conditions.

#### *Comparison of 2019 and 2022 1% AEP Flood Levels and Depths*

A comparison of ground levels and 1% AEP flood levels and depths was undertaken at eight (8) reference locations which are identified in Attachment B. These data are presented in Table 7.

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It is noted from Table 5 that the reported 2019 1% AEP flood level is 64.15 m AHD whereas Table 7 reports a 2019 1% AEP flood level of 65.36 m AHD. The difference between these levels appears to be due to the envelope approach to the mapping of 1% AEP flood levels ie. the downstream boundary level in the 2022 IWCM study does not align with the 2019 flood levels mapped in Appendix B of the 2019 FRMS report.

As disclosed in Table 7 is also variability between the 2019 1% AEP flood levels and the 2022 1% AEP flood levels in the vicinity of the Cobbitty Masterplan area. This is attributed to:

- Differences between the LiDAR data collected in 2011 adopted for the 2019 study and the 2019 LiDAR data collected in 2019;
- Differences in the resolution of the 2019 DEM based on an 8m x 8m grid and the 2022 DEM based on a 3m x 3m grid;
- Difference in the level of discretisation of subcatchments between the 2019 and 2022 studies;
- Differences in the application of runoff in the 2019 TUFLOW model and the 2022 TUFLOW model;

At the eight reference locations the 2019 1% AEP flood levels are all higher than the 2022 1% AEP flood levels

#### *2022 Flood Level Differences*

Figure 13 is a composite plot of the 1% AEP flood level differences between Pre-development and Post-development conditions. The maximum flood level differences at three locations are also marked in **Figure 13**.

The adopted criteria for adverse impacts of agricultural lands are also set out in **Table 8**. It is noted that:

- The maximum 1% AEP flood level difference on land adjacent to the Masterplan area is less than the adopted criterion, namely, a maximum allowable increase in flood level of 0.2 m;
- The compliance with the flood velocity impact criterion could not be assessed because velocity difference plots were not included in the 2022 IWCM,
- Similarly the flow duration criterion was also not assessed.

#### **Conclusions**

It is concluded from this peer review that:

- Notwithstanding a small impact of the 100 yr ARI peak flow at Location F3, the IWCM scheme limits peak flows under post-development conditions to no greater than peak flows pre-development conditions;
- The maximum 1% AEP flood level difference on land adjacent to the Masterplan area is less than the adopted criterion, namely, a maximum allowable increase in flood level of 0.2 m;
- While the assessed impact on the 1% AEP flood levels is within the adopted criterion for agricultural lands and that any future development opposite the assessed zones of impact could accommodate the changed 1% AEP flood level, it would be of interest to understand the cause of the impacts on the watercourses and if modest modification of the masterplan could reduce the assessed impacts.
- At the eight reference location Council's 2019 1% AEP flood levels are all higher (to varying degrees) than estimated in the 2022 assessment and should be retained for planning purposes until such time that an update the Cobbitty Creek hydrology and ground levels (based on 2019 LiDAR) provides Council with updated design flood levels.

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1. BACKGROUND

1.1 2015 Nepean River Flood Study

As described in part by Worley Parsons, 2015<sup>2</sup>:

Hydrology

Hydrological modelling for the Study Area was undertaken using XP-RAFTS. The hydrology of the wider catchment was modelled by the previously constructed RORB model from the Upper Nepean River Flood Study (1995). The RORB model generated an inflow at Menangle Weir at the upstream extent of the Study Area, with the XP-RAFTS model defining the hydrology within the Study Area. ....

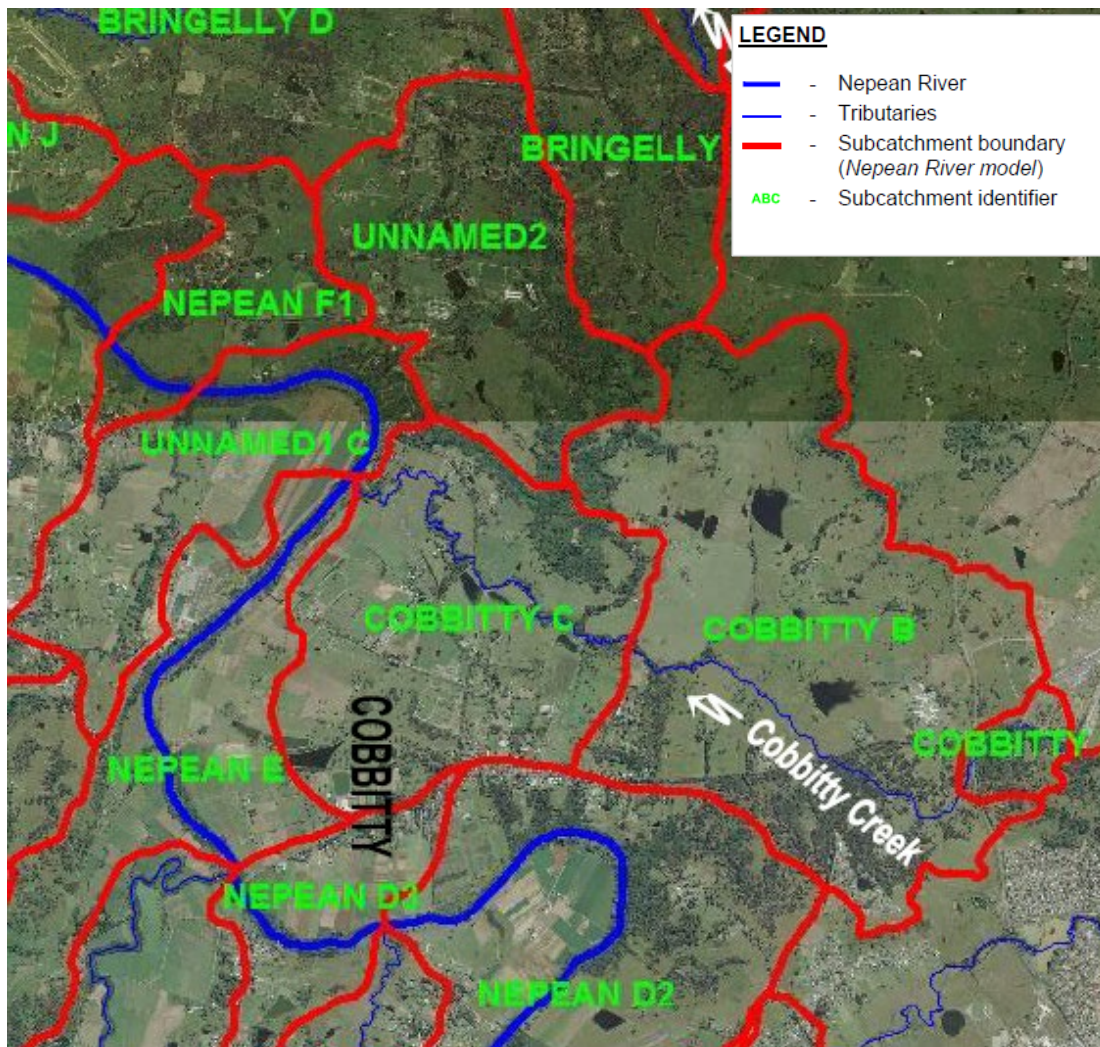


Figure 1 Subcatchment Discretisation after Figure 5-2, Worley Parsons, 2015

<sup>2</sup> Worley Parsons (2015) Nepean River Flood Study.

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*Subcatchments were defined from the LGA wide LIDAR data and refined using high resolution drainage line data where available.*

*The hydrological model was calibrated to three historical events from 1978, 1988 and 1990 for which sufficient data was available. The recurrence interval of these events was approximately 12 years (8% AEP), 7 years (13.3 % AEP) and 3 years (28.3% AEP) respectively. The calibration led to the adoption of initial and continuing losses of 15 mm/hr and 2.5 mm/hr respectively.*

*The hydrological model was used to generate sub catchment hydrographs that were then applied to the hydraulic model.*

#### *Adopted XP-RAFTS Model Structure*

*The XP-RAFTS model was developed by superimposing the model over the subcatchment break-up shown in Figure 5.2 (See **Figure 1**) The node and link arrangement was created to provide the pathways for rainfall excess to be "routed" through each of the tributary subcatchments. Details of the parameters adopted for each model node, including lag times for floodwater distribution between nodes, is contained in Appendix B.*

#### *Design Flood Simulations*

*The XP-RAFTS hydrologic model described in Section 5 was used to simulate runoff from the subcatchments downstream of Menangle for design storm conditions. The design storm conditions were based on rainfall intensities and temporal patterns for the study area, which were derived using standard procedures outlined in 'Australian Rainfall and Runoff – A Guide to Flood Estimation' (1987) (ARR 87). The design storm rainfall data was generated by applying the principles of rainfall intensity estimation described in Chapter 2 of ARR 87. Upstream inflows at Menangle Weir were again derived from the RORB model developed during the Upper Nepean Flood Study (1995).*

*Accordingly, it was decided that the most conservative approach was to continue to adopt the IFD data and temporal patterns from the ARR 87 documentation and adopt the same ARF factors as those used in the RORB model developed during the Upper Nepean Flood Study (1995) and used to define flows upstream of Menangle Weir.*

## **1.2 2019 Final Draft Nepean River Floodplain Risk Management Study**

Cardno were commissioned by Camden Council to undertake a Floodplain Risk Management Study (FRMS) and prepare a Floodplain Risk Management Draft Plan (FRMP) for the Nepean River catchment. (Cardno, 2019<sup>3</sup>). The 2019 FRMS has been undertaken to define the existing flooding behaviour and associated hazards, and to investigate possible mitigation options to reduce flood damages and risks.

The Nepean River Flood Study (2015) and Update of Narellan Creek Flood Study (2017b) formed the basis for this Floodplain Risk Management Study. The Narellan Creek Flood Study (2017b) has been updated as part of this study including the flood mapping. The Nepean River catchment is subject to mainstream riverine flooding, local catchment tributary flooding and overland flows. Details on the existing flood behaviour is provided in Section 5 of this Floodplain Risk Management Study.

<sup>3</sup> Cardno (2019) "Final Draft Floodplain Risk Management Study and Plan", prepared for Camden Council, September.

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### Tributary Flood Study

The tributaries in the Nepean River flood model currently extend only as far as the Nepean River backwater effect. As part of this study, a tributary flooding investigation was undertaken which involved extension of the tributaries in the flood model to either the LGA boundary or the catchment extent, whichever was closer.

In addition to mainstream flooding, overland flows have also been assessed for the Nepean River and Narellan Creek catchment. A rainfall on grid model was developed across the study area to identify flowpaths for the entire catchment.

The investigation included:

- Updating the XP-RAFTS model to determine the critical duration of the tributaries;
- Updating the TUFLOW model to ensure that the full tributary reaches are included in the model;
- Running the TUFLOW model for the full range of design events to define tributary flooding, with Nepean River baseflow and without Nepean River baseflow; and
- Preparing a rainfall on grid version of the model to define overland flowpaths.

To determine whether the flooding is mainstream or overland flow, the stream order classification approach was adopted. Sections of stream identified as Stream Order 1 were defined as overland flooding, and Stream Order 2 or greater were defined as mainstream flooding. It should be noted that only the Stream orders 2 to 5 were identified as shown in **Figure 2**. The remainder upper reaches flood extents were classified as overland flows.

The model was rerun for the 2 year ARI, 20%, 5%, 1%, 0.5%, 0.2% AEP and the PMF events.

The flood results and mapping have been updated based on the new runs and include:

- Flood Extents;
- Peak Water Levels and Contours;
- Peak Depth and Velocity;
- Hydraulic Category Mapping;
- Provisional Hazard Mapping based on NSW Floodplain Development Manual;
- Provisional Hazard Mapping based on the ARR2016 hazard categorisation; and
- True Hazard Mapping.

The Nepean River has a number of tributaries within the Study Area, the largest of which is Narellan Creek. These systems also experience flooding as a result of local rainfall. Critical durations are much shorter, in the order of two (2) to nine (9) hours.

Local catchment rainfall also results in the activation of overland flow paths within the Council Study Area. These flowpaths are typically of shallower depths and are the cause of nuisance flooding of a number of properties in the Council Study Area.

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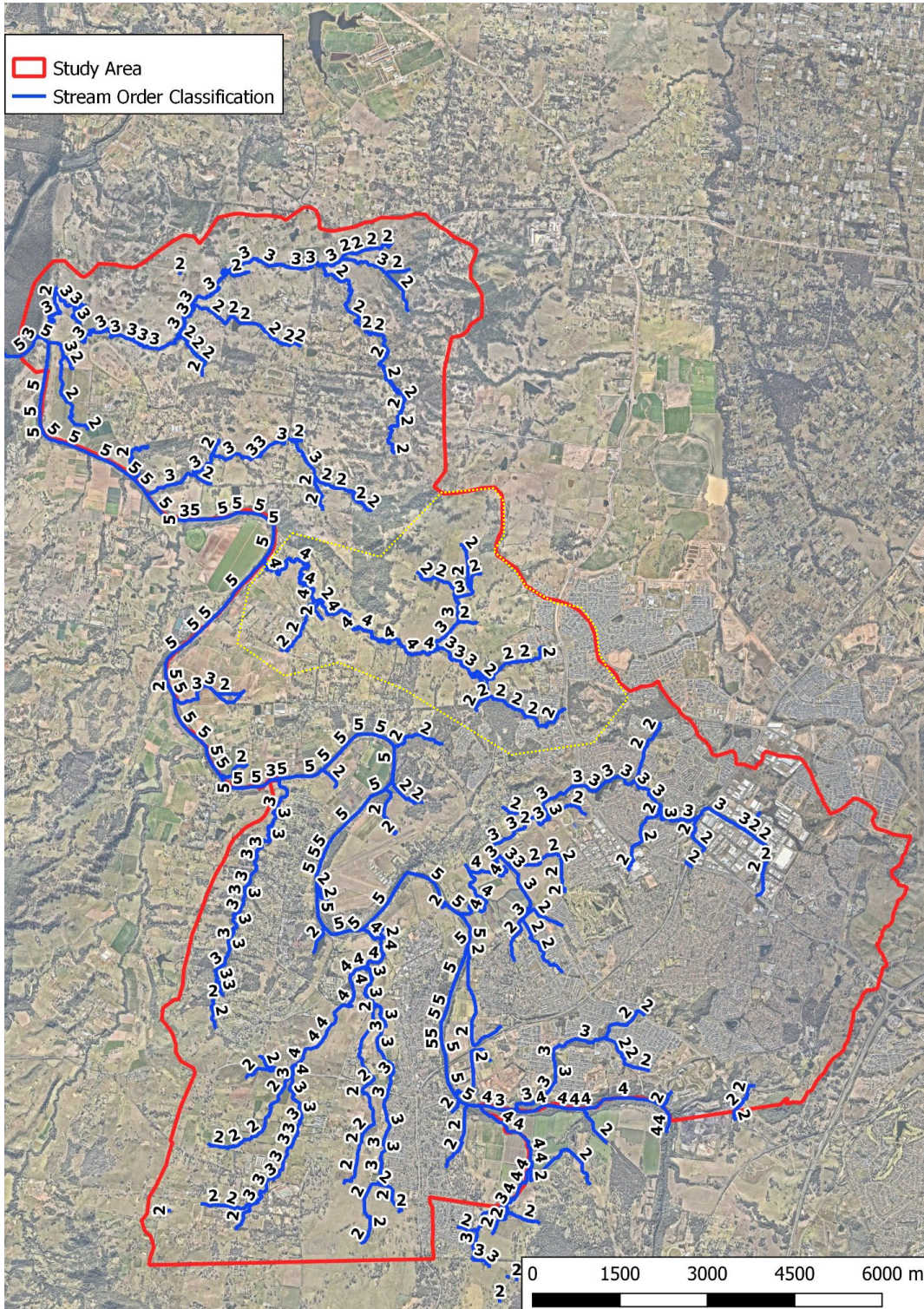


Figure 2 Stream Order Classification (NSW Government, 2018)

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The results presented in this study have adopted an envelope approach whereby the worst case flooding condition from each of these modes is combined into a single flood envelope

The following is noted from the attached extracts of various Figures in Appendix B of the 2019 FRMS Report (refer **Attachment A**).

- A large farm dam is a major feature within the Masterplan study area;
- The Masterplan study area is
  - Beyond the extent of the 1% AEP flood in the Nepean River ie. flooding of the Masterplan study area is associated with catchment runoff only
  - The downstream boundary of the Masterplan study area is just at the extent of the 0.2% AEP flood in the Nepean River
  - The lower reach of the Masterplan study area up to around the confluence of the two primary watercourse is controlled by the PMF level in the Nepean River
- The 1% AEP flood depths within the Masterplan study area are generally < 1 m deep
- The depth of floodwaters increases as the severity of the flood event increases
- The Masterplan study area is not subject to overland flow flooding;
- Within the Masterplan study area it:
  - Is almost all mapped as Floodway in the 1% AEP flood
  - has areas of mapped H1 – H5 hazard categories
  - is primarily mapped as 1% AEP True Low Hazard with pockets of 1% AEP True High Hazard including the large farm dam.
  - Is mapped as Low, Medium and High Risk Precincts

### 1.3 2022 Integrated Water Cycle Management Study

As described, in part, by Orion Consulting, 2022:

*Orion Consulting has been engaged by Mirvac Homes (NSW) to prepare this Masterplan Integrated Water Cycle Management Study (IWCMS) and Plan in support of the proposed amendment of the Oran Park Development Control Plan (DCP) to support the development of the site known as No. 531 Cobbitty Road, Cobbitty.*

*The need to amend the existing supporting water cycle management documentation which supports the DCP was crystallised by the determination that post development flows could not be managed to existing levels without consideration of online storage. This is due to the existing large farm dam and the attenuation it provides in the existing case. In addition to contemplating online storage, this new plan needs to address continuity with the latest flood planning information available for the greater Nepean River catchment.*

*This study presents a water management strategy that focuses on the re-creation of the existing farm dam into a new man-made lake, on-line to the same creek the existing farm dam sits on. This facilitates the dual use of land and achieves both water management and open space objectives for the site.*

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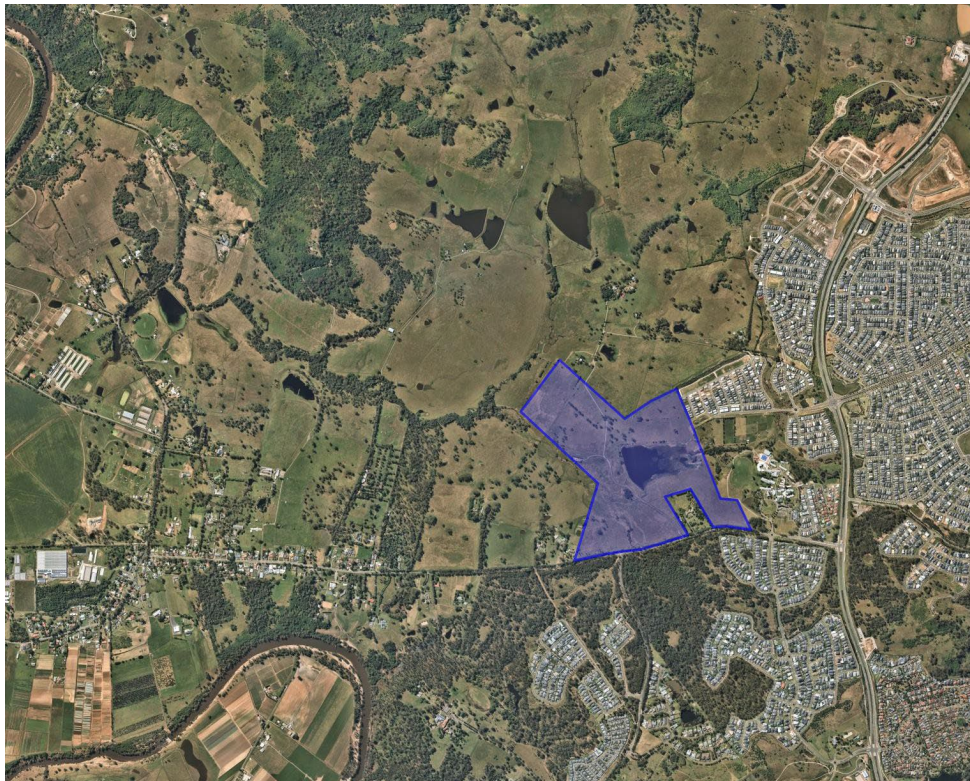


*Prior to the development of this study, consultation was held between Camden Councils Floodplain Management Team and Camden Council's external expert consultant for the Nepean River Tributaries Study. Modelling methodologies and calibration requirements were classified during this consultation process to ensure this IWCM study and supporting electronic data is suitable for assessment, review and endorsement. The latest Nepean River Tributaries Study electronic modelling information was provided under licence agreement. This report presents information and extracts from both the Hydrologic and Hydraulic modelling undertaken in this study and demonstrates that calibration objectives to the Nepean River Tributaries Study were achieved with consideration to the latest data available for the site.*

*For water quantity and floodplain management the proposed Masterplan features active storage above the proposed lake and sports fields that attenuates all combined post developed flows back to pre-developed flows achieved by the existing farm dam. Two smaller on-site stormwater detention basins are proposed to treat other independent urban catchment flows, offline to the main creek lines. Combined, these water quantity facilities adequately ensure that the proposed masterplan does not adversely impact adjoining properties.*

*All urban catchments will feature primary and secondary water quality controls in the form of gross pollutant traps and biofiltration systems that adequately address Camden Councils water quality management objectives*

*The site extents are shown in the figure below.*



**Figure 3 Site Extents (Imagery courtesy of nearmap ©) (Source: Orion Consulting, 2022)**

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As a part of this proposed Masterplan Mirvac are aiming to (refer Figure 3):

- Provide an updated site-wide masterplan layout and supporting documentation for the site that will facilitate future development approvals.
- Facilitate the development of approximately 900 residential dwellings, playing fields and associated infrastructure, local neighbourhood centre, a school and open parkland.
- Demonstrate that with the new proposal, development objectives around open space, ecology and riparian management, road infrastructure and water management can be adequately achieved.



**Figure 4 Masterplan Layout Extract (Paterson Design Studio)**

(Source: Orion Consulting, 2022)

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### **Water Quantity Methodology**

The water quantity methodology was adopted as follows:

- Development of overall catchment plans encompassing the whole study area with clear structure for a suitable rainfall-runoff-routing hydrologic model.
- Development of a RAFTS rainfall-runoff hydrological model for both pre-developed and post-developed scenarios for assessment. ARR87 methodologies have been adopted in consultation with Camden Council to maintain continuity between historical and current studies currently in progress for the Nepean River and adjacent Tributaries.
- Development of a masterplan scale civil design surface model of the site to inform road grades and levels, particularly around critical sag points and the interface with the existing and new riparian corridors, the proposed lake and public open space.
- Development of a 2D TUFLOW hydraulic model for both predeveloped and post developed scenarios for detailed hydraulic assessment to validate the RAFTS pre and post developed model scenarios. The 2D TUFLOW model is set-up within 12D model software to combine both GIS and civil design information in a coordinated environment.

Calibration and validation of the Predeveloped (existing scenario) hydrologic and hydraulic model against the latest Nepean River Tributaries modelling information provided by Camden Council under licence agreement.

### **Survey**

Original detailed survey data was provided by Geolyse (now Premise Pty Ltd) and dated 20<sup>th</sup> December 2018. This data has since been translated to GDA2020 and validated by Orion. The scope of this survey incorporated all lands within the subject site and survey works over portions of Cobbitty Road and levels upstream of the existing farm dam.

For areas of the study outside the scope of the detailed survey data, Aerial Laser or LiDAR Scanning data was obtained from the ELVIS - Elevation and Depth Foundation Spatial Data website. The following ALS data has been adopted:

- 1m DEM (digital elevation model) data as published by NSW Land Registry Services (ex LPI) and dated July 2019.

## **2. HYDROLOGY**

### **2.1 2019 Nepean River FRMS**

As outlined above the hydrological modelling of Cobbitty Creek was undertaken as part of hydrological modelling of a reach of the Nepean River and of its tributaries. It was undertaken using XP-RAFTS. The Cobbitty Creek catchment was subdivided into three (3) subcatchments only (refer **Figure 1**). Rain on Grid modelling was also undertaken in the Tributary catchments.

The 1% AEP peak flows estimated at the COBBITTY A, COBBITTY B and COBBITTY C for storm burst durations from 1 hour to 36 hours is summarised in **Table 1**.

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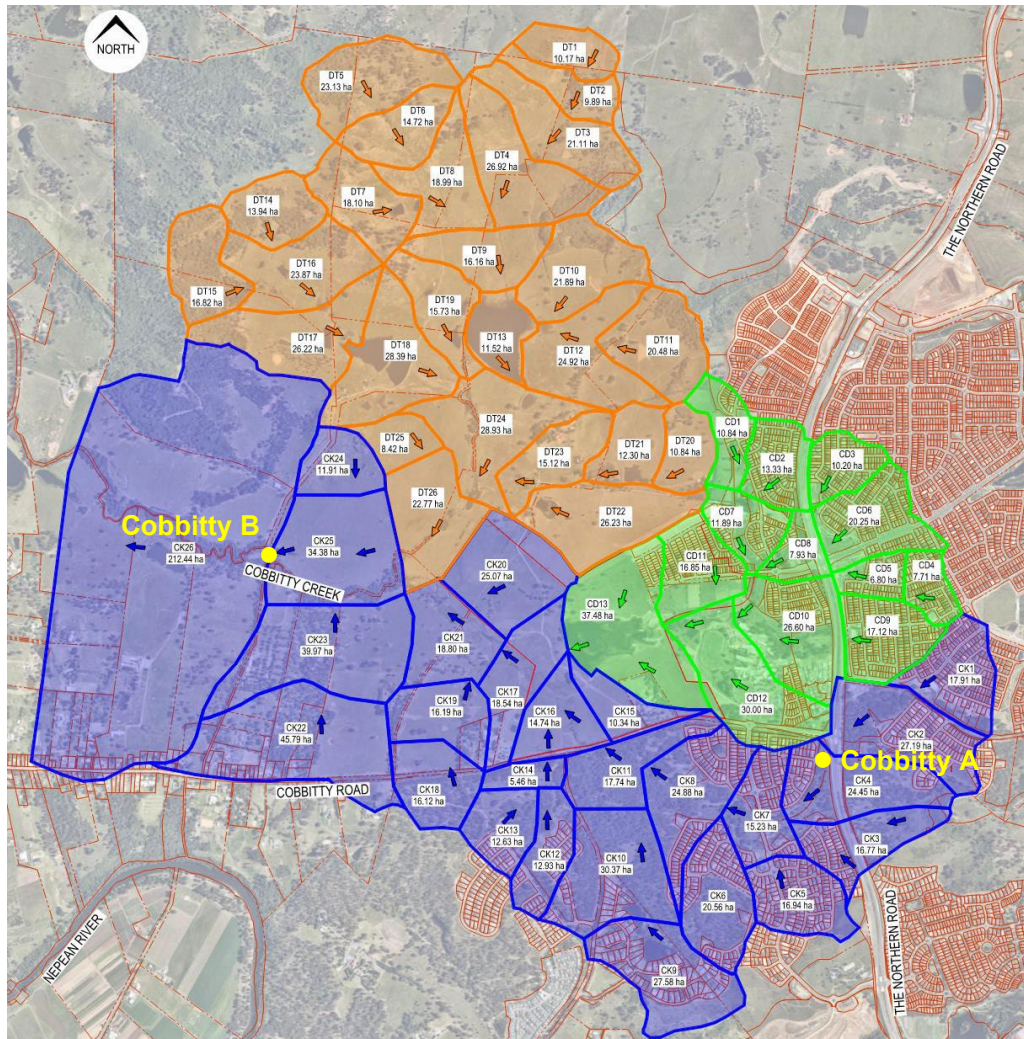
**Table 1 Summary of 1% AEP Peak Flows in Cobbitty Creek Catchment**

	Storm Burst Duration (hrs)						
	1	2	3	6	9	12	36
COBBITTY A	5.64	6.70	6.34	6.80	6.47	6.13	4.32
COBBITTY B	35.34	52.95	62.18	68.95	79.71	69.12	67.21
COBBITTY C	49.67	75.05	88.46	103.36	116.24	105.63	103.46

Difference in Peak flow due to adopting 9 hr storm burst	
COBBITTY A	-4.8%
COBBITTY B	0%
COBBITTY C	0%

It is noted that the adoption of the 9 hour storm burst gave a < 5% underestimation of the 1% AEP peak flow at COBBITTY A.



**Figure 5 Pre-Developed Scenario Catchment Plan((Source: Orion Consulting, 2022)**

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2.2 2022 Cobbitty Masterplan IWCM

As described, in part, by Orion Consulting, 2022:

...The pre-developed 'existing' catchment plan as prepared by Brown Consulting (2007) was adopted as a base and adjusted to suit base off the latest surface data and future hydraulic modelling considerations

.... For the post developed scenario the pre-developed scenario catchment delineation is adjusted to suite the proposed masterplan strategy. The figure below shows an extract of the post developed scenario catchment plan and can be found in full in Appendix A. Like the pre-developed scenario catchment plan, post-developed catchment delineation has been prepared with consideration of the hydrologic and hydraulic modelling steps to follow.

The subcatchment discretisation under pre-development and post-development conditions is plotted respectively in Figures 5 and 6. The locations of COBBITTY A and COBBITTY B are also marked in Figure 5.

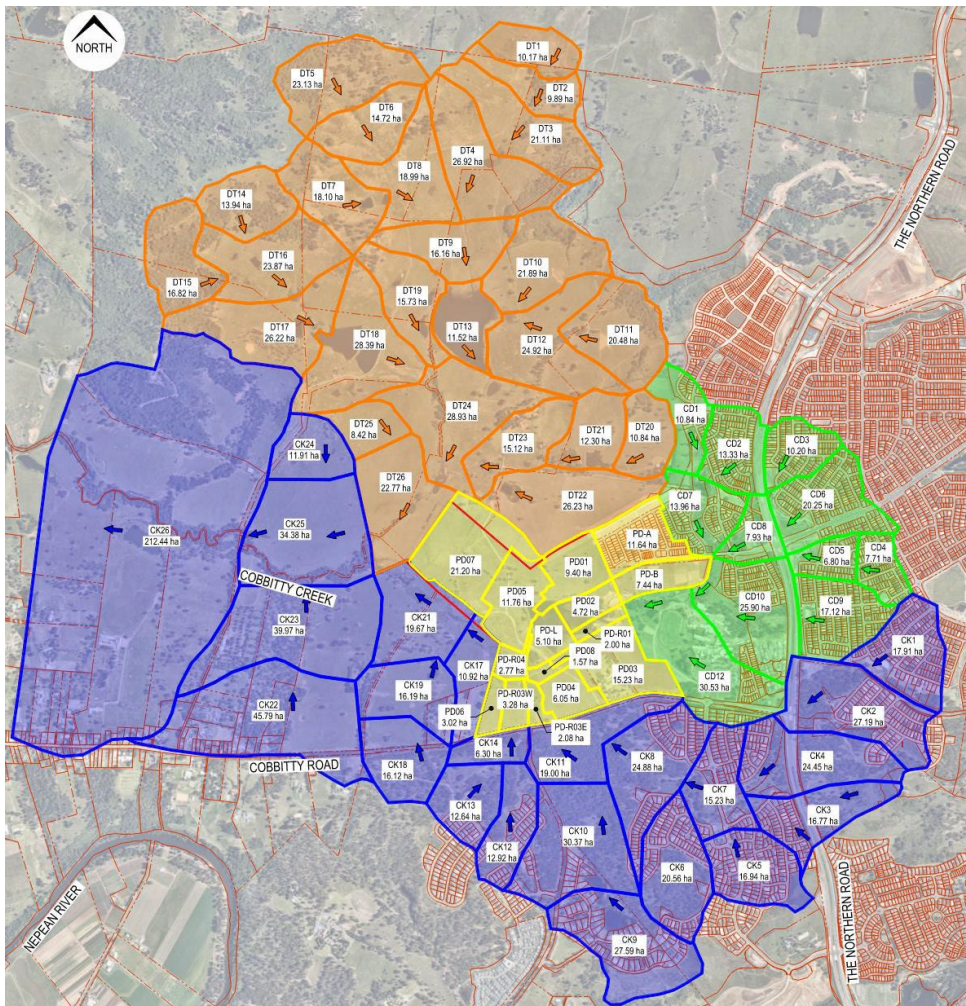


Figure 6 Post-Developed Scenario Catchment Plan((Source: Orion Consulting, 2022)

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### 2.3 Modelling Parameters

A comparison of modelling parameters is summarised as follows:

- ARR1987 IFD was adopted and is consistent with the 2019 study
- Pervious area rainfall loss rates are consistent with the with the 2019 study
- *For standard rural catchments (grass, farmland) a default Manning's 'n' of 0.05 was applied as per the Nepean River Tributaries hydrological modelling. Sub catchment topography and land coverage was assessed via current and historical aerial imagery with surface roughness's adjusted to a Manning's 'n' of 0.1 for catchments with woodland or dense vegetation.*
- The 2019 XP-RAFTS model adopted lag times between subcatchment outlets whereas in the 2022 model an idealised 1D overland flow cross section with defined channel and overbank profiles was constructed in DRAINS to simulate the ephemeral creek lines that links the sub catchments.
- The existing farm dams were not included in the 2019 XP-RAFTS model. The 2022 hydrological model included the active storage in the farm dam within the masterplan study area.

### 2.4 Pre-Development Comparisons

Prior to assessing the impact of increased discretisation and inclusion off the farm dam on peak flows, a DRAINS-RAFTS model that replicated the Cobbitty Creek discretisation adopted in 2019 was assembled. The comparison of the local peak flows from each subcatchment is given in **Table 2** for the adopted 9 hour storm burst.

**Table 2 Comparison of 20 yr ARI and 100 yr ARI Peak Flows (m3/s) for the Same Catchment Discretisation**

	20 yr ARI Peak Flows (m3/s)			100 yr ARI Peak Flows (m3/s)		
	2019 Study	2022 Study	Difference	2019 Study	2022 Study	Difference
COBBITTY A	4.89	4.99	2.0%	6.43	6.54	1.7%
COBBITTY B	50.45	51.90	2.9%	73.10	74.50	1.9%
COBBITTY C	26.88	27.90	3.8%	40.56	41.30	1.8%

It is concluded that there is good agreement for 20 yr ARI peak flows and very good agreement for 100 yr ARI peak flows.

**Table 3 Comparison of 5 yr ARI, 20 yr ARI and 100 yr ARI Peak Flows at COBBITTY B**

	2019 Study	2022 Study	Difference
5 yr ARI Peak Flows (m3/s)			
COBBITTY B	35.3	52.7	49.3%
20 yr ARI Peak Flows (m3/s)			
COBBITTY B	55.2	77	39.5%
100 yr ARI Peak Flows (m3/s)			
COBBITTY B	79.7	104	30.5%

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A comparison was then undertaken for the full 2022 hydrological model and the 2019 XP-RAFTS model at the COBBITTY B location. This comparison is given in **Table 3**.

Sensitivity testing of the slope values was also undertaken and it was found that *that peak flow is sensitive to the topographically calculated sub-catchment slope*.

It is concluded that the differences between the peak flows is associated with:

- The very large difference between the 2019 and 2022 levels of subcatchment discretisation;
- The refined representation of flow travel times (lag times) in the 2022 model; and in particular;
- The values of the topographically calculated sub-catchment slope which in turn is influenced by the level of discretisation.

**2.5 Post-Development Conditions**

As advised, in part, by Orion Consulting, 2022:

*The on-site stormwater detention (OSD) strategy has been designed to manage post developed flows at the following locations:*

*Table 7 – Proposed On-Site Stormwater Detention Facilities*

<b>Outlet / Catchment</b>	<b>Comments</b>
PD04	Dry OSD Basin offline to Cobbitty Creek servicing the local urban sub-catchment upstream.
PD-L	Active flood storage above new lake. Flood storage and outlet configuration set to replicate flood attenuation characteristics the existing farm dam currently provides coming from Oran Park. Storage is kept on-line to the Riparian Corridor, equal to the existing farm dam. The dead storage component of the lake is to be considered full at the start of any storm simulation.
PDR04	Dual use of the sports field as dry OSD basin for additional major storm (50 Year ARI or greater) flood storage overflowing from the lake active flood storage component. Required to achieve flow attenuation in the (critical) long duration major event to replicate flood attenuation characteristics of the existing farm dam. Designed to not be used for frequent and intermediate events (Less than the 50 Year ARI). Storage is offline to Cobbitty Creek.
PD07	Dry OSD Basin offline to Cobbitty Creek servicing the local urban sub-catchment upstream.

**Bypass Catchments**

*Due to the performance of the proposed On-Site Stormwater Detention facilities,.....  
Catchments PDR-03 (East and West), PD05 and PD06 have been designed to bypass local water quantity management controls.*

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#### *Post Developed Catchment Parameters*

*All urban design catchments under the scope of this Masterplan were modelled as 85% Impervious with a Manning's 'n' value of 0.025 to account for accelerated catchment runoff times. Riparian Areas were modelled with a variable impervious fraction of between 25% and 50% as a conservative estimate subject to anticipated land use for passive and active open space activation for public amenity.*

#### *Hydrological Model On-Site Stormwater Detention Performance*

*OSD performance has been measured for the 5, 20, and 100 Year ARI critical duration events at a number of locations within the subject site. The 540 minute duration storm was found to be critical at all key locations for pre-vs-post assessment.*

### **3. HYDRAULICS**

#### **3.1 2019 Nepean River FRMS**

As outlined above, the tributaries in the 2015 Nepean River flood model extended only as far as the Nepean River backwater. As part of the 2019 study, a tributary flooding investigation was undertaken which involved the extension of the tributaries in the flood model to either the LGA boundary or the catchment extent, whichever was closer.

In addition to mainstream flooding, overland flows were assessed for the Nepean River and Narellan Creek catchment. A rainfall on grid model was developed across the study area to identify flowpaths for the entire catchment.

The investigation included, in part,:

- Updating the XP-RAFTS model to determine the critical duration of the tributaries;
- Updating the TUFLOW model to ensure that the full tributary reaches are included in the model;
- Running the TUFLOW model for the full range of design events to define tributary flooding, with Nepean River baseflow and without Nepean River baseflow
- Preparing a rainfall on grid version of the model to define overland flowpaths.

As noted above from the attached extracts of various Figures in Appendix B of the 2019 FRMS Report:

- A large farm dam is a major feature within the Masterplan study area;
- The Masterplan study area is:
  - Beyond the extent of the 1% AEP flood in the Nepean River ie. flooding of the Masterplan study area is associated with catchment runoff only,
  - The downstream boundary of the Masterplan study area is just at the extent of the 0.2% AEP flood in the Nepean River, and
  - The lower reach of the Masterplan study area up to around the confluence of the two primary watercourse is controlled by the PMF level in the Nepean River
- The 1% AEP flood depths within the Masterplan study area are generally < 1 m deep,
- The depth of floodwaters increases as the severity of the flood event increases,

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- **The Masterplan study area is not subject to overland flow flooding;**
- Within the Masterplan study area it:
  - is almost all mapped as Floodway in the 1% AEP flood,
  - has areas of mapped H1 – H5 hazard categories,
  - is primarily mapped as 1% AEP True Low Hazard with pockets of 1% AEP True High Hazard including the large farm dam, and
  - Is mapped as Low, Medium and High Risk Precincts

### 3.2 2022 Cobbitty Masterplan IWCM

As described, in part, by Orion Consulting, 2022:

- *Development of a 2D TUFLOW hydraulic model for both predeveloped and post developed scenarios for detailed hydraulic assessment to validate the RAFTS pre and post developed model scenarios. The 2D TUFLOW model is set-up within 12D model software to combine both GIS and civil design information in a coordinated environment.*

*Calibration and validation of the Predeveloped (existing scenario) hydrologic and hydraulic model against the latest Nepean River Tributaries modelling information provided by Camden Council under licence agreement.*

### 3.3 Survey

As described in part by Worley Parsons, 2015:

*Between 25th February 2011 and 23rd March 2011, an aerial laser survey was undertaken across a large area of land in that encompasses Camden Shire and the study area upstream and downstream of Council's boundaries.*

*The processed LiDAR data was provided as spot elevations in a grid with a spacing of one metre across all terrestrial sections of the study area. Available documentation from those responsible for procurement of the data indicates that spot elevations have a vertical accuracy of 0.3 metres and a horizontal accuracy of 0.8 metres. ....*

*Analysis of the tributaries of the Nepean River indicated that the channels contained low volumes of water during the capture period of the aerial laser survey data. As such, it was deemed appropriate to assume that the LiDAR data could be used to adequately represent the hydrographic topography along these tributaries.*

As described, in part, by Orion Consulting, 2022:

*Original detailed survey data was provided by Geolyse (now Premise Pty Ltd) and dated 20th December 2018. This data has since been translated to GDA2020 and validated by Orion.*

*The scope of this survey incorporated all lands within the subject site and survey works over portions of Cobbitty Road and levels upstream of the existing farm dam.*

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For areas of the study outside the scope of the detailed survey data, Aerial Laser or LiDAR Scanning data was obtained from the ELVIS - Elevation and Depth Foundation Spatial Data website. The following ALS data has been adopted:

- 1m DEM (digital elevation model) data as published by NSW Land Registry Services (ex LPI) and dated July 2019.

The cell size in the 2022 floodplain model is 3m x 3m which is finer than the cell size adopted for the Nepean Tributary floodplain model (8m x 8m).

Notwithstanding the 2022 ground levels are in MGA2020 and the 2019 ground levels are in GDA94 a ground level difference plot is mapped in **Figure 7**.

It was noted from this comparison that:

- The creek lines are shadowed by ground level reductions and increases – this suggest that there is a slight difference between MGA2020 and GDA94 that has slightly displaced the creek lines in the two DEMs;

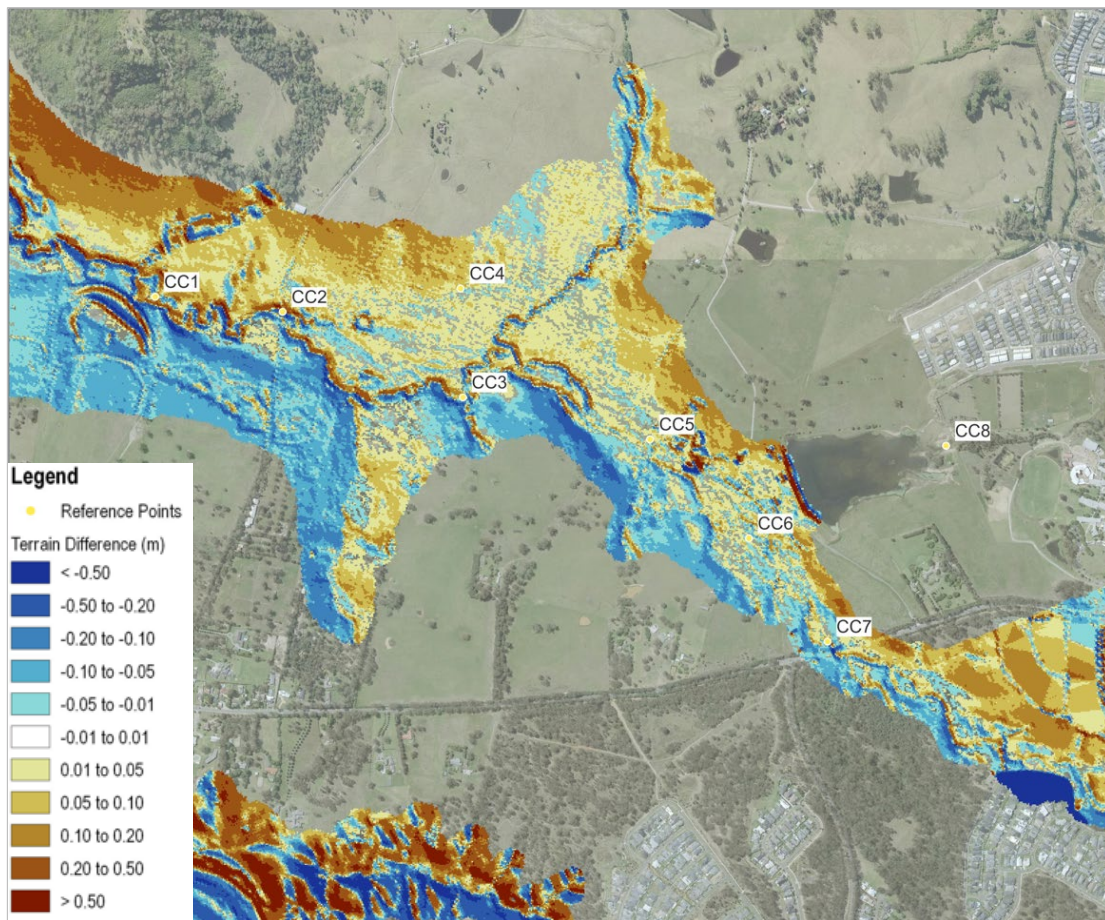


Figure 7 Ground Level Differences (2022 Model – 2019 Model)

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- There are generally reductions in ground levels south of Cobbitty Creek and generally increases north of Cobbitty Creek – it is unclear if this is due to differences in vegetation at the times the LiDAR was collected; and
- At the western end of the comparison new urban development appears to have occurred during the period between 2011 and 2019.

As disclosed in Table 7 below, at the reference locations CC1 to CC8) the 2022 IWCM ground level is consistently lower than the 2019 floodplain model ground level.

### 3.4 Roughness values

As described in part by Worley Parsons, 2015:

*Calibration of the model was achieved by adjusting floodplain roughness parameters within acceptable limits to obtain the best 'fit' between simulated and recorded peak flood levels*

A comparison of the roughness values adopted in the 2019 and 2022 floodplain models is given in **Table 4**.

**Table 4 Comparison of Roughness Values**

2015 Nepean River Flood Study		IWCM, 2022	
Material	n Value	Material	n Value
Urban Areas	0.08	Urban Areas	0.15
Open Watercourses	0.04	Watercourses	0.04
Heavily Vegetated Creeks	0.06	Heavily Vegetated Creeks	0.06
Grass / Pasture / Brush	0.06	Pasture (Default)	0.06
Forested Areas	0.1	Forested Woodland	0.1
Roads	0.02	Roads	0.02

The only difference between the two floodplain models is that the urban area roughness adopted for by the 2022 model is higher than adopted in the 2019 model.

It was noted that under the 2022 Post-Developed Scenario most of the development area is modelled with a relatively low roughness (n= 0.02), instead of the Urban Area roughness of n=0.15. However these areas are outside the flood extent and therefore it is expected that the low roughness will not affect the estimated flood levels.

The roughness zones adopted in the 2019 study and under pre-development and post-development conditions for the 2022 IWCM study and mapped respectively in Figures 8, 9 and 10.





Figure 8 2019 Floodplain Roughness Zones

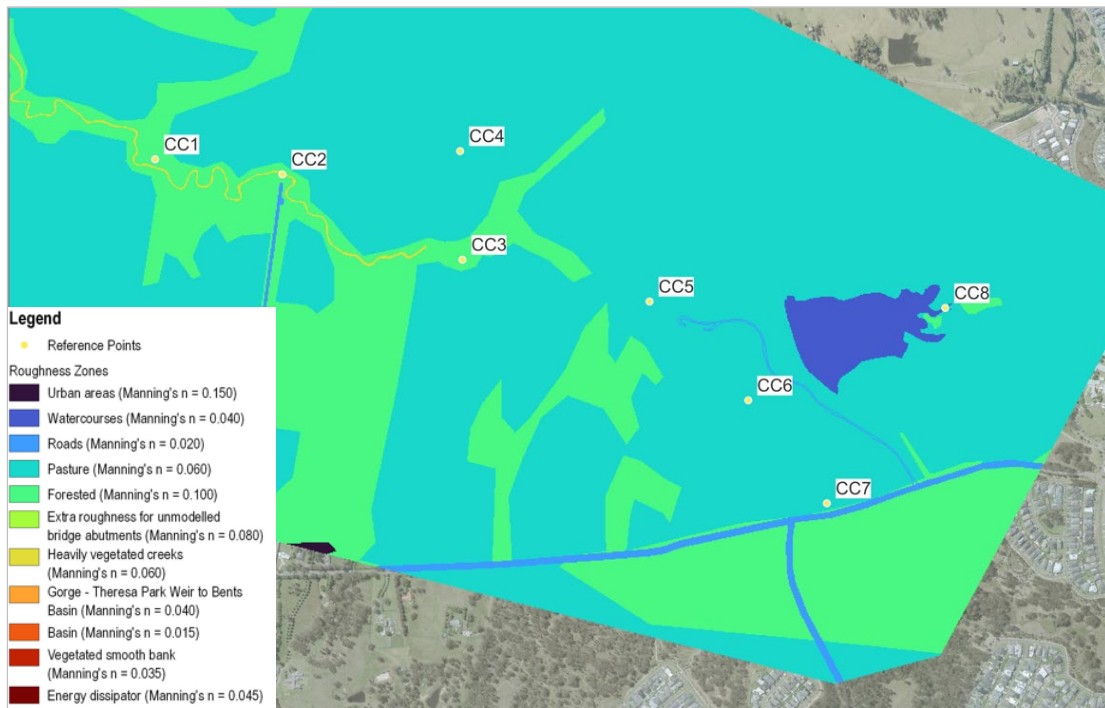


Figure 9 2022 Floodplain Roughness Zones – Pre-Development

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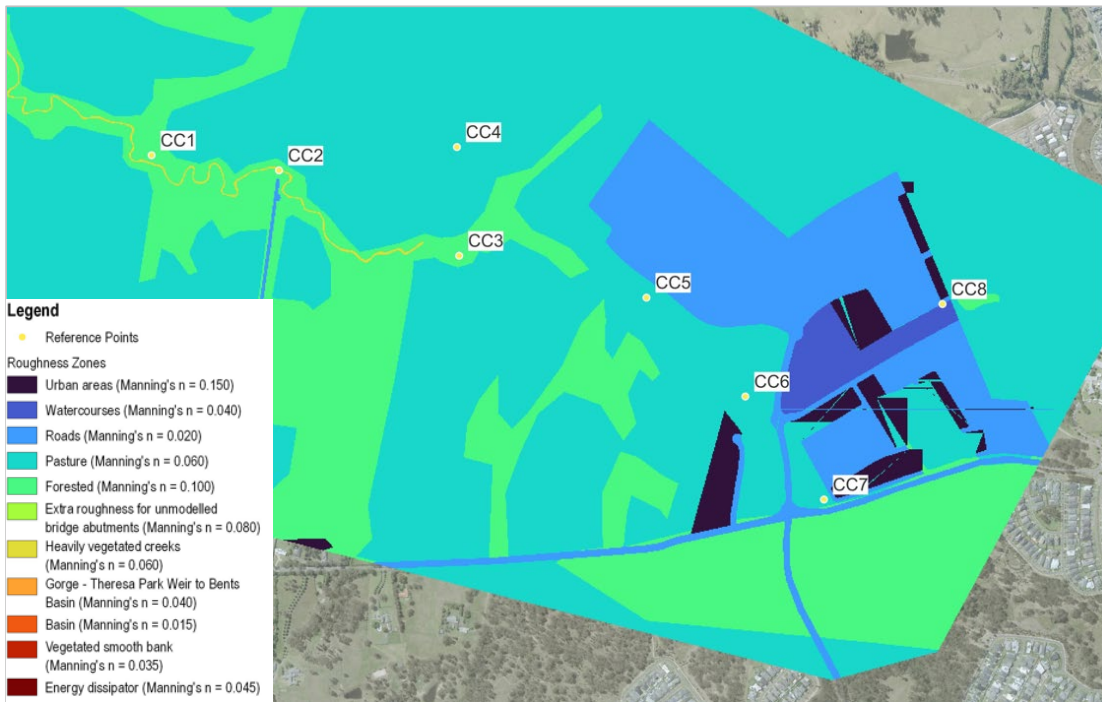


Figure 10 2022 Floodplain Roughness Zones – Post-Development

3.5 Boundary Conditions

As discussed above, the Nepean River has a number of tributaries which experience flooding as a result of local rainfall. Critical durations are much shorter. In the case of Cobbitty Creek the nine (9) hour storm burst is critical under current conditions.

The results presented in the 2019 study have adopted an envelope approach whereby the worst case flooding condition from the Nepean River and tributary modes is combined into a single flood envelope.

As described, in part, by Orion Consulting, 2022:

*Downstream tailwater levels for each respective event have been extracted from the Nepean River Tributaries Study as inserted into the model as a static tailwater level. The tailwater control is set sufficiently downstream (≈1km downstream) from calibration and pre-vs-post measurement points as to not influence modelling results. For the 100 Year ARI, 9 Hour event tailwater levels were tested both with and without baseflow.*

3.6 Model Health Check

The following health checks were undertaken on the TUFLOW model parameters and outputs:

- **Timestep:** The adopted 2D timestep is 1 second which matches the 1D timestep. This is within the recommended 2D timestep range and therefore acceptable.

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- **Model mass errors:** The model mass errors for the 5 yr ARI, 20 yr ARI, 100 yr ARI and PMF events are less than 1% and are hence within the recommended range. However the 10 yr ARI and 50yr ARI events have mass errors higher than the recommended range, which indicate that the model can be unstable or unhealthy in these events. It couldn't be identified if the issue is only happening at the start of a simulation and then settling down or it is related to model instabilities.

### 3.7 Pre-Development Model Calibration

As described, in part, by Orion Consulting, 2022:

*To validate the suitability of the DRAINS-RAFTS hydrologic model and local and total hydrograph inputs into the 2D model the following table below compares modelled peak water levels and flows at the common point immediately downstream of catchment CK25/COBBITTY B. Refer to the key plan within Appendix C for 2D Domain 'PO' flow line locations. (See Figure 11 below)*

Table 5 compares the peak discharges and flood levels at Location F1 (see Figure 11).

**Table 5 Hydraulic Model Comparison and Validation**

Event	2019 Study		2022 Study		Flood Level Difference (m)
	Peak Flow (m3/s)	Flood Level (m AHD)	Peak Flow (m3/s)	Flood Level (m AHD)	
20 Year 9 Hour	42.47	63.90	77.36	63.93	0.03
100 Year 9 Hour	81.10	64.12	108.15	64.17	0.05
100 Year 9 Hour (with BF)	81.04	64.15	108.47	64.17	0.02

As described, in part, by Orion Consulting, 2022:

*Table 5 displays a consistent result between the modelled water surface levels for each of the two independent overland flow Hydraulic Models. ....*

*From the above results it can be observed that the predeveloped or existing scenario Hydrologic and Hydraulic Models accurately calculate floodplain characteristics at the common calibration point. While water surface level continuity has been achieved – peak flows are notably different between the two models which is associated with the application of more detailed and current topographic data and steeper catchment slopes.*

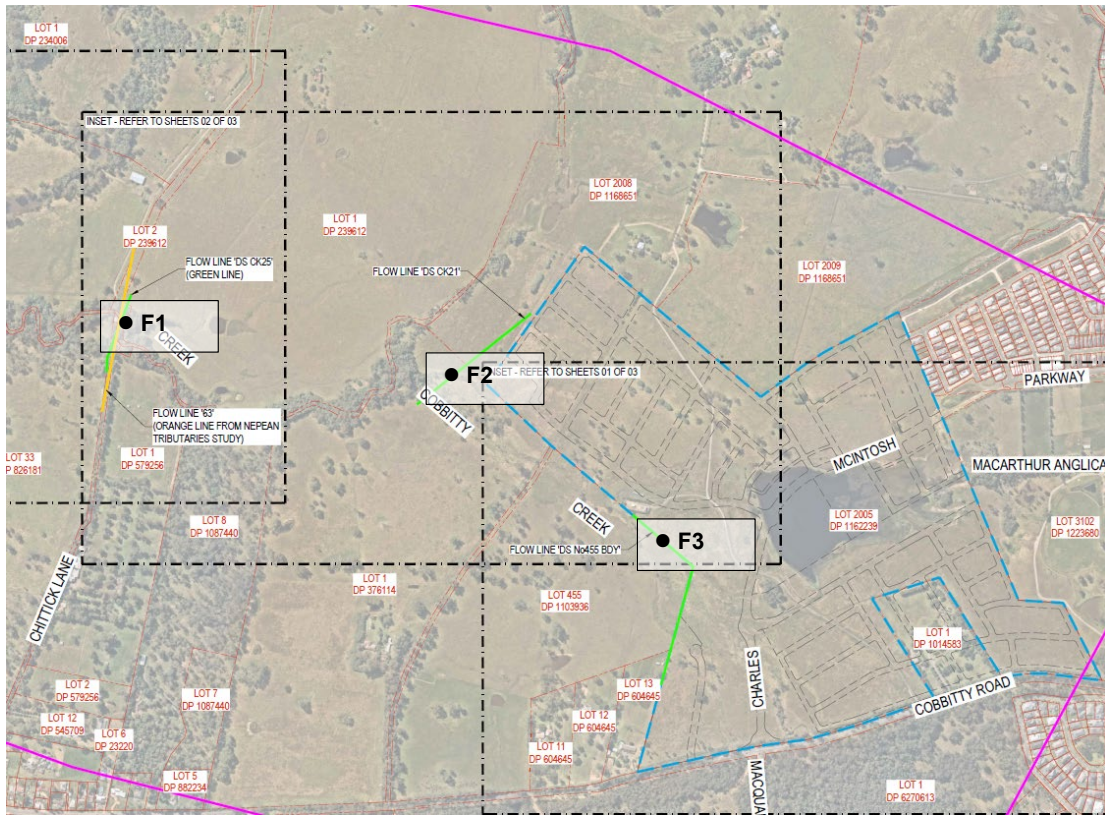
*Given the achieved continuity between modelled water levels, the proposed hydrological and hydraulic modelling submitted with this report is deemed fit for purpose as an accurate representation of the overland flow characteristics of the site .....*

*Other key points observed for the pre-developed scenario include:*

- *Only minor natural channelisation of Cobbitty Creek. Beyond the confluence of the farm dam overflow and Cobbitty Creek, a washout zone and sheet flow regime occurs across the western boundary.*

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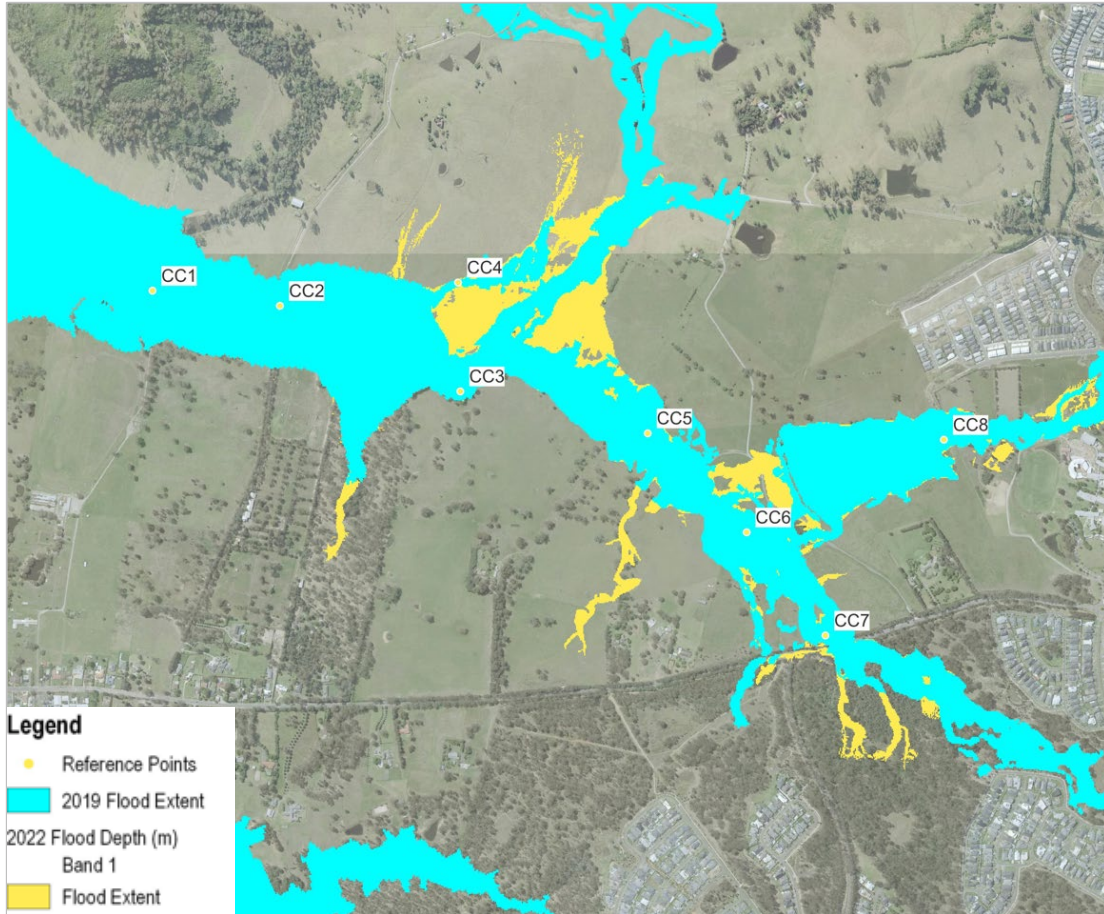
**Figure 11 Locations of PO Lines**

- Localised overbank flooding occurs for both the minor 5 Year ARI and major 100 Year ARI event through the second order Cobbitty Creek (between the washout zone and Cobbitty Road Culvert Crossing).
- The washout zone transitions back into a reasonably well-defined channel with relatively minor (200- 300mm) of overbank flooding witnessed in the minor 5 Year ARI event downstream of the subject site.
- The extent of overbank and sheet flow regimes is generally attributed to the extremely flat (1% and in some areas less than 0.5%) throughout the various defined riparian zones.
- Active flood storage of approximately 90,000 m<sup>3</sup> provided by the existing farm dam for the critical duration 100 Year event

The following results are mapped in Appendix C of the 2022 IWCM Report:

- 5 yr ARI 2 hour depth, velocity, hazard category
- 5 yr ARI 9 hour depth, velocity, hazard category
- 20 yr ARI 2 hour depth, velocity, hazard category
- 20 yr ARI 9 hour depth, velocity, hazard category
- 100 yr ARI 2 hour depth, velocity, hazard category
- 100 yr ARI 9 hour depth, velocity, hazard category

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**Figure 12 Comparison of 2022 and 2019 1% AEP Flood Extent**

A comparison of the 1% AEP flood extents between the 2022 study and the 2019 study is given in **Figure 12**.

It is noted from **Figure 12** that:

- The 2022 flood mapping identifies additional areas subject to 1% AEP inundation – this is attributed primarily to the difference in the adopted depth filters. The 2022 IWCM adopts a depth filter of 0.05 m while the 2019 study adopts a depth filter of 0.15 m; and
- A number of the small lateral drainage lines mapped in the 2022 IWCM have been mapped in the 2019 study as overland flow.

**3.8 Post-Development Conditions**

The 2022 IWCM addresses the presence of existing ephemeral streams and the active flood storage component of the existing farm dam as follows.

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As described, in part, by Orion Consulting, 2022:

.... the proposed concept Masterplan.

- Re-creation of the active flood storage component of the existing farm dam by utilising the area above the proposed lake.
- Maximisation of public amenity for the public open spaces by concentrating areas of inundation locally within the immediate lake foreshore area.
- Dual use of the Sports Fields for both active open space and additional flood storage that triggers for major events only. Additional storage is required over the sports field for the Major events to keep road and earthworks import levels for Charles McIntosh Parkway as low as possible.
- Achieve practical, low maintenance hydraulic structures for outlet control from the Lake.
- Provides a balance between no-net negative design that is achieved for the critical duration 5 Year ARI, 20 Year ARI and 100 Year ARI and free outfall for low flows in accordance with NRAR objectives.

**Table 6** provides a comparison of pre-development and post-development peak flows at the following three locations:

- Location F3 - At the common boundary of No 455 Cobbitty Road (see Figure 11);
- Location F2 - Adjacent to the north-western site boundary within No. 415 Cobbitty Road (Downstream of CK21) (see Figure 11); and
- Location F1 – At the downstream end of sub catchment CK25 (see Figure 11).

**Table 6 Comparison of Pre-Development and Post-Development Peak Flows at Three Locations**

Event	Location F3	Location F2	Location F1	
	Peak Flow (m3/s)	Flood Level (m AHD)	Peak Flow (m3/s)	
5 Year 9 Hour	18.51	22.17	52.03	Pre-Dev
	17.90	21.18	51.77	Post-Dev
	-3.3%	-4.5%	-0.5%	Difference
20 Year 9 Hour	28.70	34.27	77.36	Pre-Dev
	28.59	33.61	76.97	Post-Dev
	-0.4%	-1.9%	-0.5%	Difference
100 Year 9 Hour	41.32	49.39	108.15	Pre-Dev
	41.87	48.94	107.74	Post-Dev
	1.3%	-0.9%	-0.4%	Difference



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As commented, in part, by Orion Consulting, 2022:

*A minor local increase in peak flow is observed occurring across the boundary of No. 455 Cobbitty Road in the 100 Year Major Event. This locally results in a minor water depth increase of approximately 60mm. This local increase does not increase existing floodway affectation (extents or hazard within the existing floodplain) and is attributed to the reduction in available cross sectional area due to Charles McIntosh Parkway and associated Culvert Crossings replacing the existing sheet flow regime. This local increase is minor in nature and does not preclude current, proposed, or future development downstream of the site boundary.*

Notwithstanding a small impact of the 100 yr ARI peak flow at Location F3, it is concluded that the IWCM scheme limits peak flows under post-development conditions to no greater than peak flows pre-development conditions.

The following results are mapped in Appendix D of the 2022 IWCM Report:

- 5 yr ARI 2 hour depth, velocity, hazard category
- 5 yr ARI 9 hour depth, velocity, hazard category
- 20 yr ARI 2 hour depth, velocity, hazard category
- 20 yr ARI 9 hour depth, velocity, hazard category
- 100 yr ARI 2 hour depth, velocity, hazard category
- 100 yr ARI 9 hour depth, velocity, hazard category
- PMF depth, velocity, hazard category

### 3.9 Comparison of 2019 and 2022 1% AEP Flood Levels and Depths

A comparison of ground levels and 1% AEP flood levels and depths was undertaken at eight (8) reference locations which are identified in Attachment B. These data are presented in **Table 7**.

It is noted from **Table 5** that the reported 2019 1% AEP flood level is 64.15 m AHD whereas **Table 7** reports a 2019 1% AEP flood level of 65.36 m AHD. The difference between these levels appears to be due to the envelope approach to the mapping of 1% AEP flood levels ie. the downstream boundary level in the 2022 IWCM study does not align with the 2019 flood levels mapped in Appendix B of the 2019 FRMS report.

As disclosed in **Table 7**, there is also variability between the 2019 1% AEP flood levels and the 2022 flood levels in the vicinity of the Cobbitty Masterplan area. This is attributed to:

- Differences between the LiDAR data collected in 2011 adopted for the 2019 study and the 2019 LiDAR data collected in 2019;
- Differences in the resolution of the 2019 DEM based on an 8m x 8m grid and the 2022 DEM based on a 3m x 3m grid which would be expected to capture local features that may be “stepped over” in the coarser grid model;
- Difference in the level of discretisation of subcatchments between the 2019 and 2022 studies;
- Differences in the application of runoff in the 2019 TUFLOW model and the 2022 TUFLOW model;

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Table 7 Comparison of 1% AEP Flood Levels at Reference Locations.

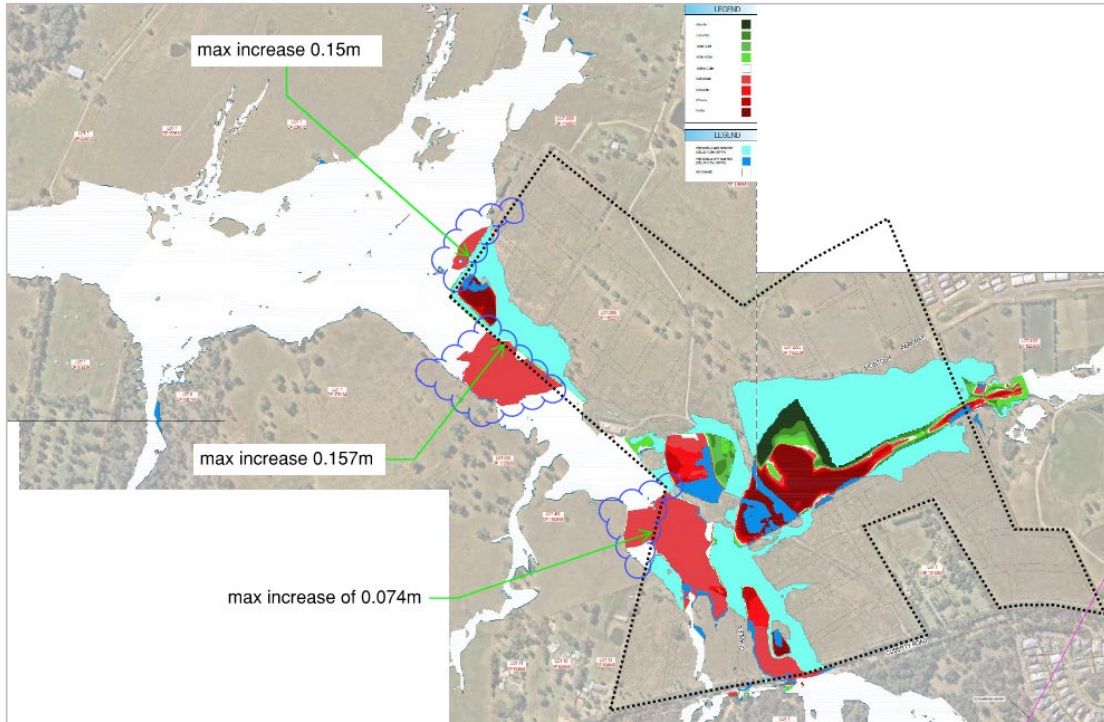
Location	2019 Study	2022 Study	Difference
	(m AHD)	(m AHD)	(m)
	Ground Level		
CC1	60.73	60.50	-0.23
CC2	60.98	61.00	0.02
CC3	64.09	63.58	-0.51
CC4	66.87	66.64	-0.23
CC5	68.29	68.09	-0.20
CC6	70.72	70.00	-0.72
CC7	72.93	72.07	-0.86
CC8		75.14	NA
	1% AEP Flood Level		
	(m AHD)	(m AHD)	(m)
CC1	65.36	62.35	-3.01
CC2	65.36	64.09	-1.27
CC3	66.14	66.37	0.23
CC4		66.96	NA
CC5	68.70	68.73	0.03
CC6	71.02	70.68	-0.34
CC7	73.67	73.62	-0.05
CC8		76.23	NA
	1% AEP Flood Depth		
	(m)	(m)	(m)
CC1	4.63	1.85	-2.78
CC2	4.38	3.09	-1.29
CC3	2.05	2.80	0.75
CC4		0.32	NA
CC5	0.41	0.64	0.23
CC6	0.30	0.68	0.38
CC7	0.74	1.55	0.81
CC8		1.08	NA

### 3.10 2022 Flood Level Differences

The following flood level differences are mapped in Appendix E of the 2022 IWCM Report:

- 5 yr ARI 9 hour flood level differences
- 20 yr ARI 9 hour flood level differences
- 100 yr ARI 9 hour flood level differences

**Figure 13** is a composite plot of the 1% AEP flood level differences between Pre-development and Post-development conditions. The maximum flood level differences at three locations are also marked in **Figure 13**.



**Figure 13 1% AEP Flood Level Differences** (after Orion Consulting, 2022)

The flood impact assessment criteria for agricultural lands adopted for the impact assessment of the Sydney Metro and M12 infrastructure projects are summarised in **Table 8** (refer **Attachment D1 and D2**). The adopted criteria for adverse impacts of agricultural lands are also set out in **Table 8**.

It is noted that:

- The maximum 1% AEP flood level difference on land adjacent to the Masterplan area is less than the adopted criterion, namely, a maximum allowable increase in flood level of 0.2 m;
- The compliance with the flood velocity impact criterion could not be assessed because velocity difference plots were not included in the 2022 IWCM,
- Similarly the flow duration criterion was also not assessed.

**4. CONCLUSIONS**

Orion Consulting, 2022 concluded, in part:

- (i) *The adopted hydrological model and underlying input data has been predominantly based on the Nepean River Tributaries study electronic data received under licence agreement from Camden Council. The combined hydrologic and hydraulic model developed for the existing scenario has been calibrated to this model and achieves congruence with calculated water surface levels when compared against the Nepean River Tributaries study results dataset.*

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Attachment 4

Table 8 Flood Impact Criteria for Agricultural Lands

M12	Sydney Metro	Adopted Criteria
<b>Flood Level</b>		
Generally less than 250 millimetre increase with localised increases of up to 400 millimetre flooding acceptable over small areas (nominally less than five hectares) in the 20 and 100 year ARI flood event. Justification: These lands can accommodate higher flood levels for short periods of time (a few hours) without any substantial increases in land damage or decreased use of the land.	Maximum allowable afflux = 200 mm	Maximum allowable increase in flood level of 0.2 m
<b>Flood Velocity</b>		
Velocity to remain below one metre per second unless currently greater. Where existing velocity is above one metre per second, a maximum 20% increase. Appropriate scour and stability protection should be provided where these criteria cannot be achieved	Velocities are to remain below 1 metre per second (m/s) where they are currently below this figure and that an increase of no more than 20 per cent should result from the project where existing velocities are above 1 m/s.	Velocities are to remain below 1 m/s where they are currently below 1 m/s and that an increase of no more than 20% should result from the project where existing velocities are above 1 m/s.
<b>Flood Duration</b>		
A maximum increase in inundation time of one hour in a 100 year ARI rainfall event must be achieved where the flood affected land is sensitive to flood duration for the commercial sustainability of the property. For practicality of measurement, the inundation duration must be measured when and where the flood depths in floodplains exceed the threshold of high provisional flood hazard, as defined in the NSW Floodplain Development Manual (OEH, 2005)	For events up to and including the 1%AEP it is dependent on the crop	A maximum increase in inundation time of one hour in a 100 year ARI rainfall event must be achieved where the flood affected land is sensitive to flood duration for the commercial sustainability of the property. For practicality of measurement, the inundation duration must be measured when and where the flood depths in floodplains exceed the threshold of high provisional flood hazard, as defined in the NSW Floodplain Development Manual (OEH, 2005)

- (ii) *The proposed hydrologic and hydraulic model demonstrates compliance with no-net-negative design principles for the site and fully accommodates the storage provided by the existing farm dam. The minor local concentration of water immediately downstream of the site is a function of the significant reduction in the existing sheet flow regimes across the boundary but does not increase existing floodplain affectation or hazard.*
- (iii) *The proposed design controls provide a balance between earthworks import requirements, open space activation and amenity and safe water quantity management. This is primarily achieved by retaining the lake and flood storage above it online to the upstream flows from Oran Park – similar to what the existing farm dam currently provides.*



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It is concluded from this peer review that:

- Notwithstanding a small impact of the 100 yr ARI peak flow at Location F3, the IWCM scheme limits peak flows under post-development conditions to no greater than peak flows pre-development conditions;
- The maximum 1% AEP flood level difference on land adjacent to the Masterplan area is less than the adopted criterion, namely, a maximum allowable increase in flood level of 0.2 m;
- While the assessed impact on the 1% AEP flood levels is within the adopted criterion for agricultural lands and that any future development opposite the assessed zones of impact could accommodate the changed 1% AEP flood level, it would be of interest to understand the cause of the impacts on the watercourses and if modest modification of the masterplan could reduce the assessed impacts.
- At the eight reference location Council's 2019 1% AEP flood levels are all higher (to varying degrees) than estimated in the 2022 assessment and should be retained for planning purposes until such time that an update the Cobbitty Creek hydrology and ground levels (based on 2019 LiDAR) provides Council with updated design flood levels.

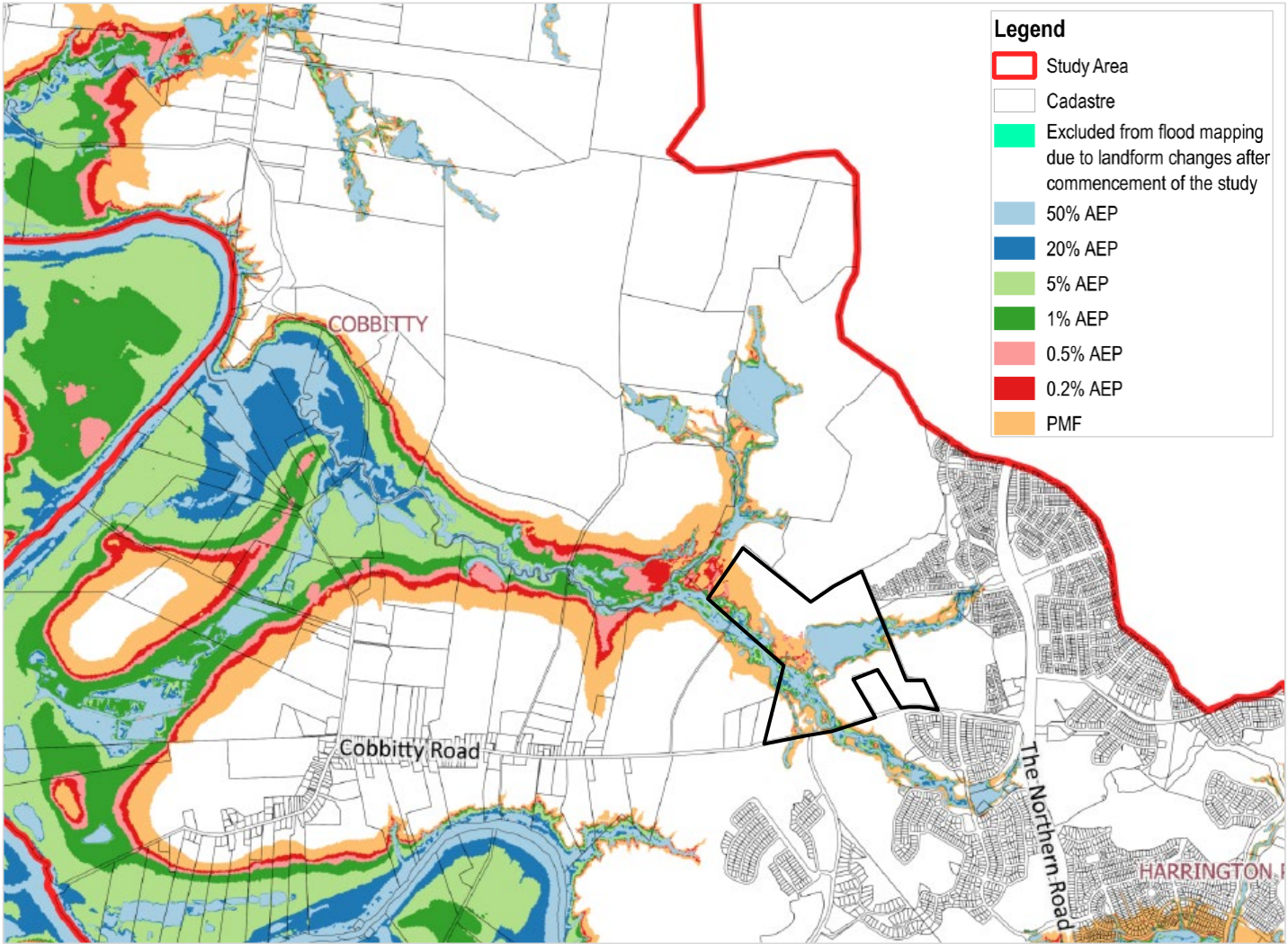
Yours faithfully



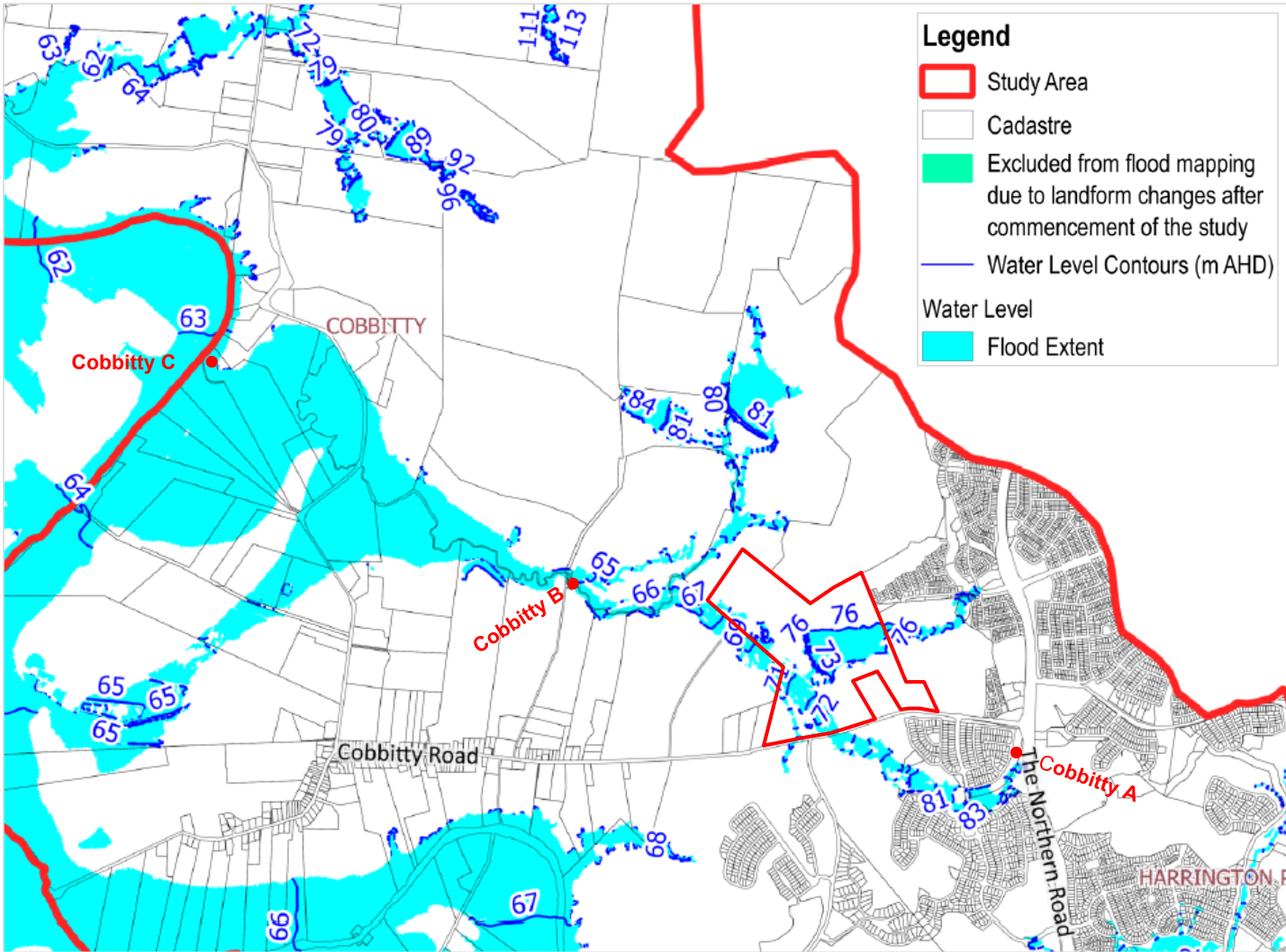
.....  
*Dr Brett C. Phillips*  
*Senior Principal*  
 for **Stantec Australia**

Attachment 4

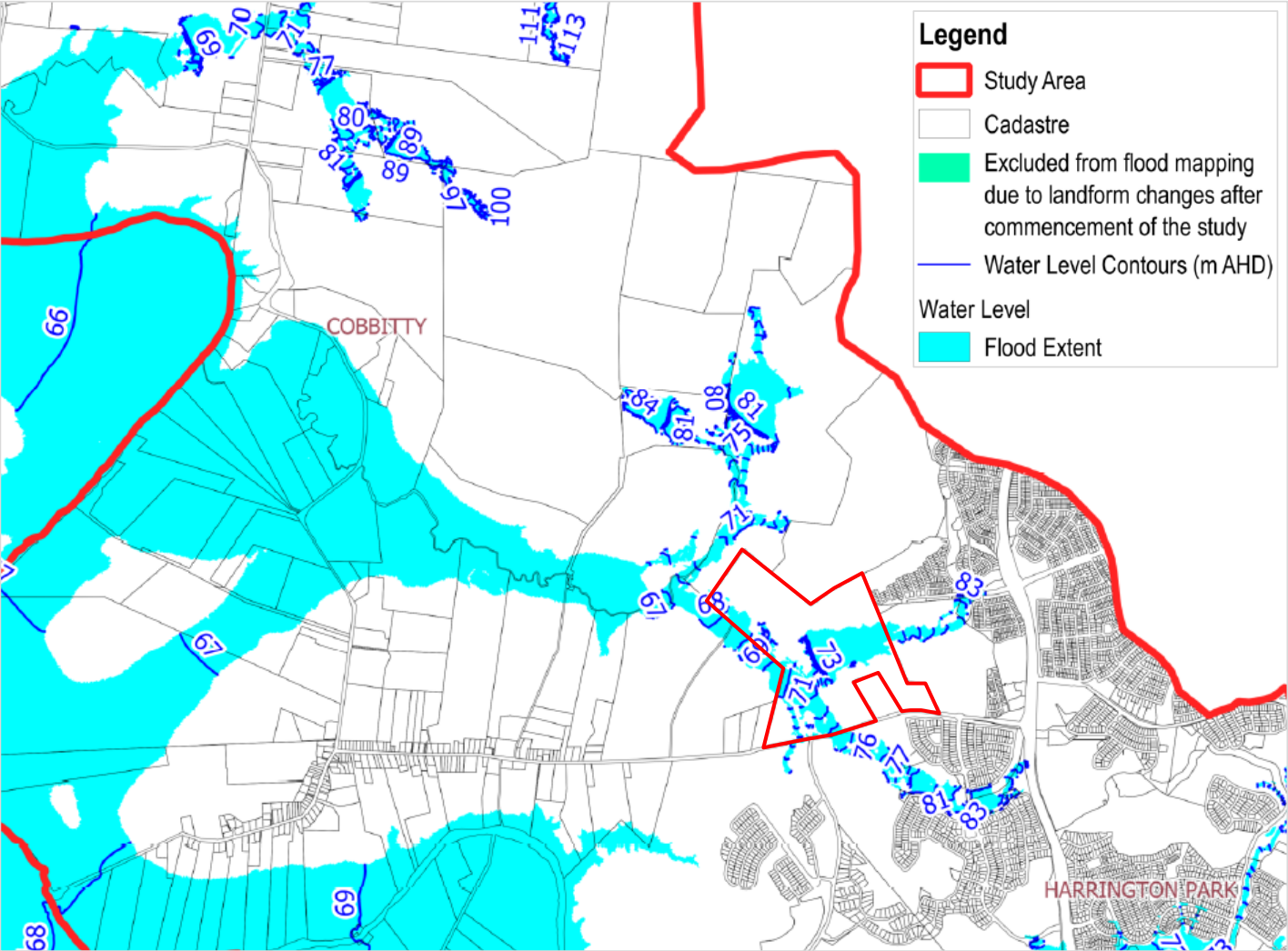
Attachment A



Flood Extents after Figure B-1-B, Cardno, 2019

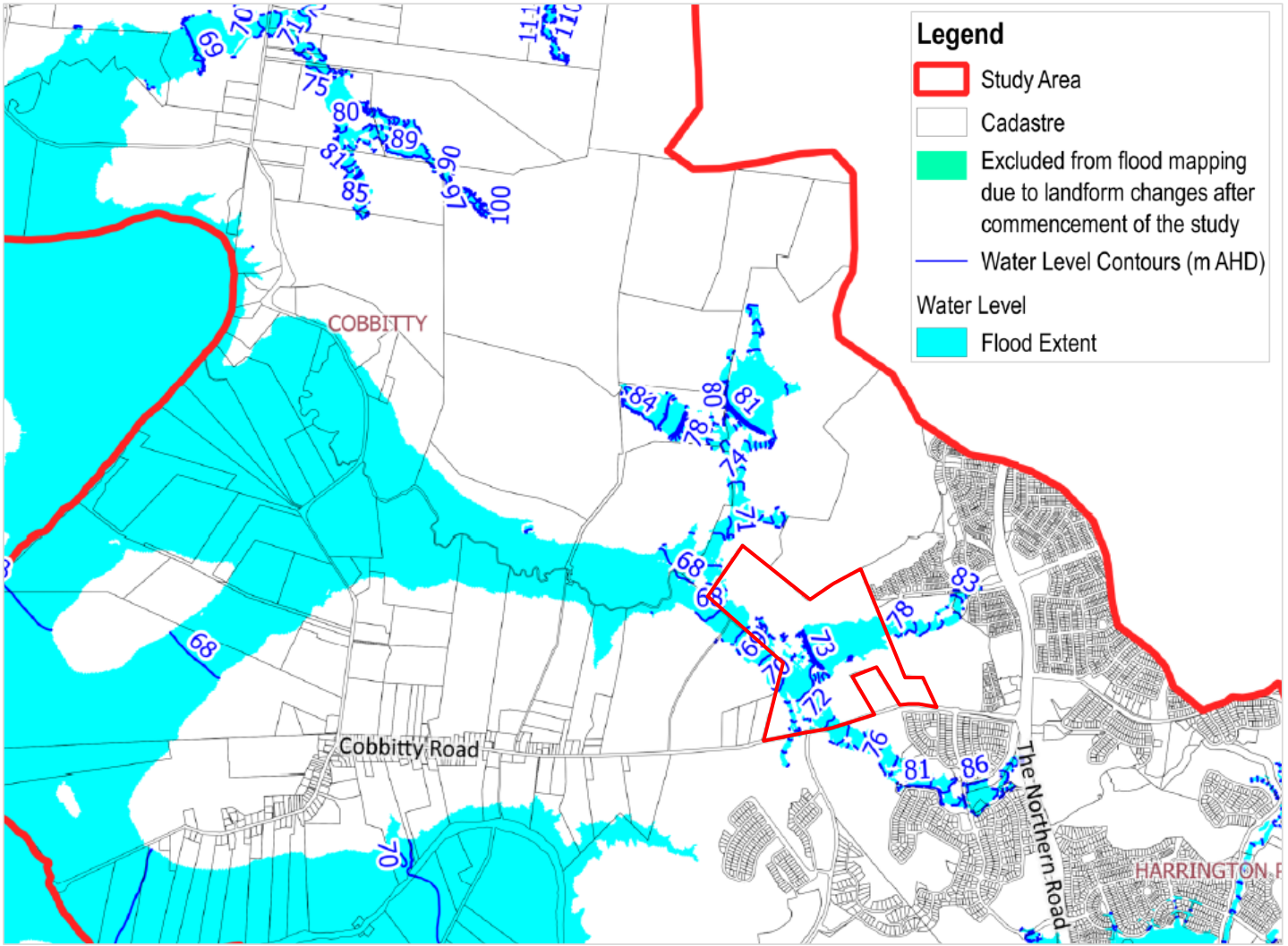


1% AEP Flood Levels after Figure B-5-B, Cardno, 2019

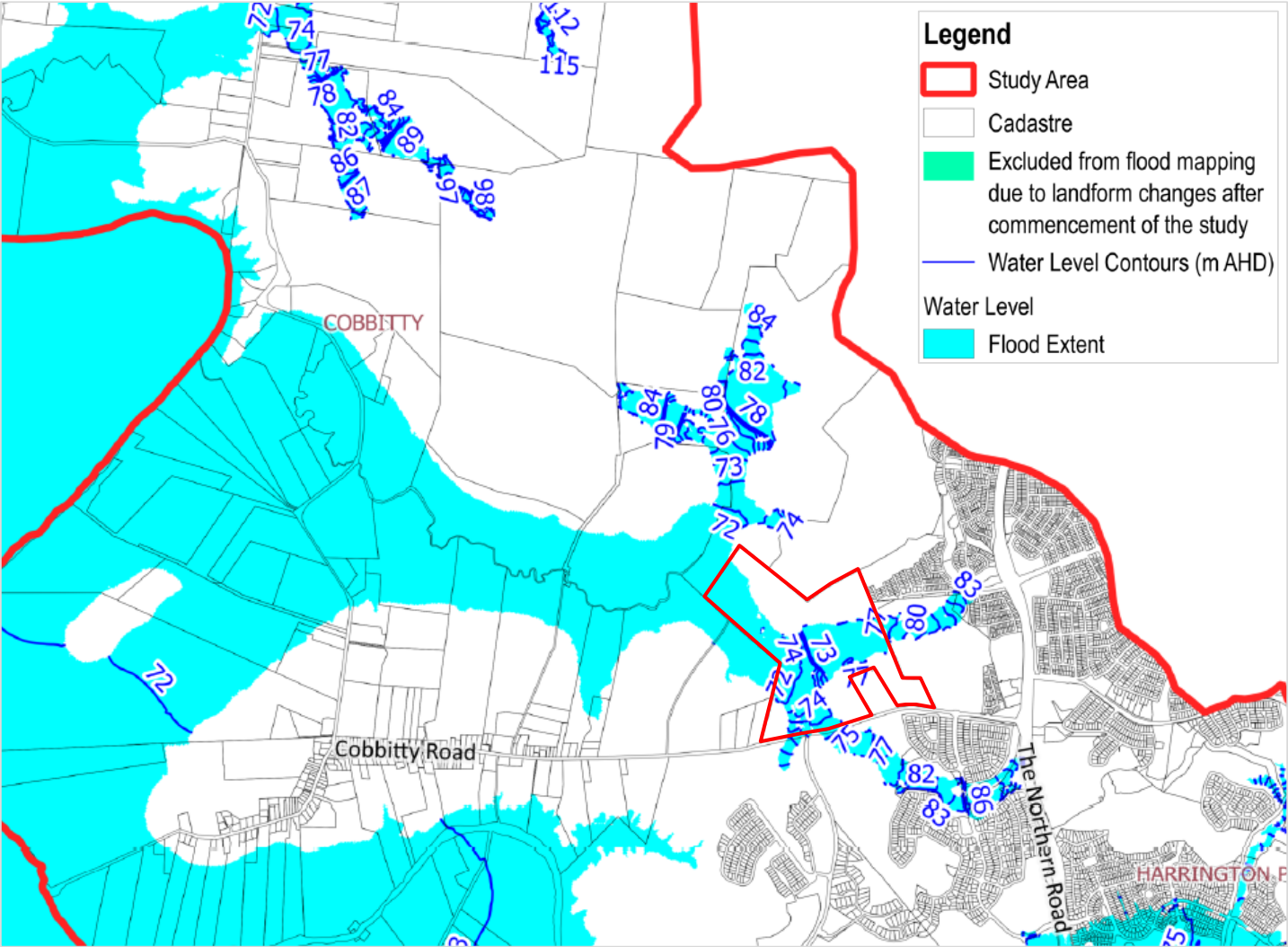


1% AEP + CC (10%) Flood Levels after Figure B-30-B, Cardno, 2019

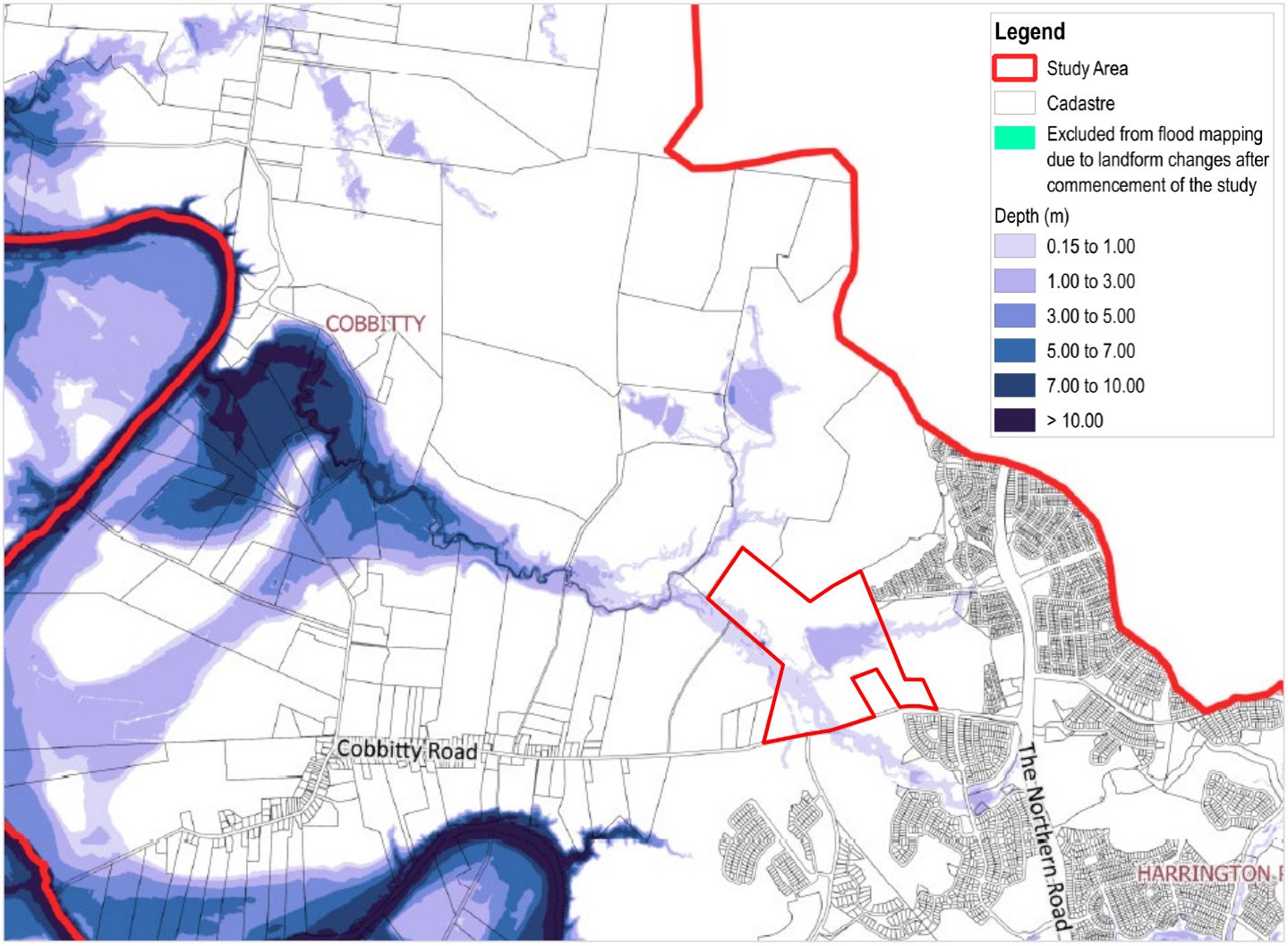




0.2% AEP Flood Levels after Figure B-7-B, Cardno, 2019

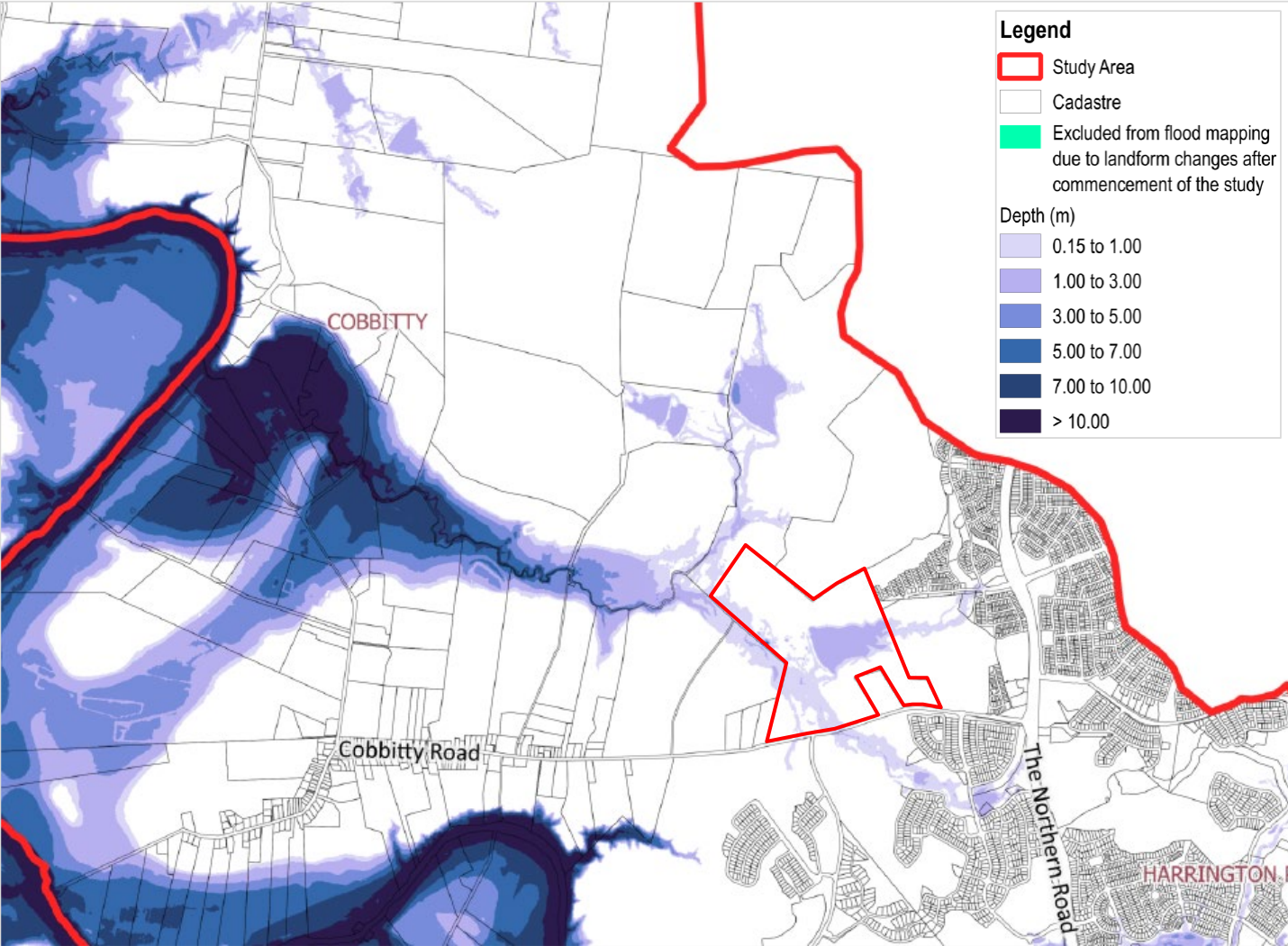


PMF Levels after Figure B-8-B, Cardno, 2019

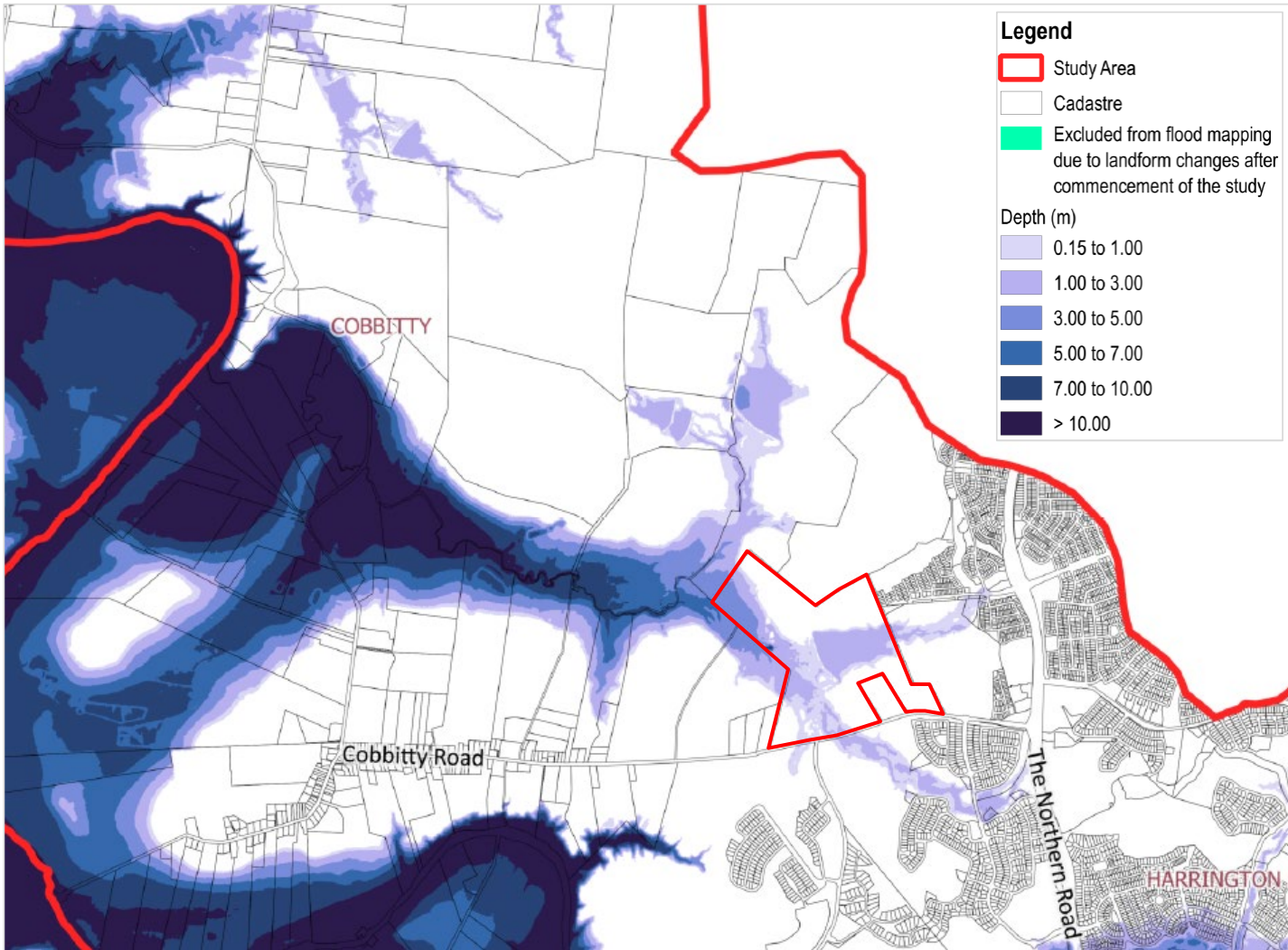


1% AEP Flood Depths after Figure B-12-B, Cardno, 2019



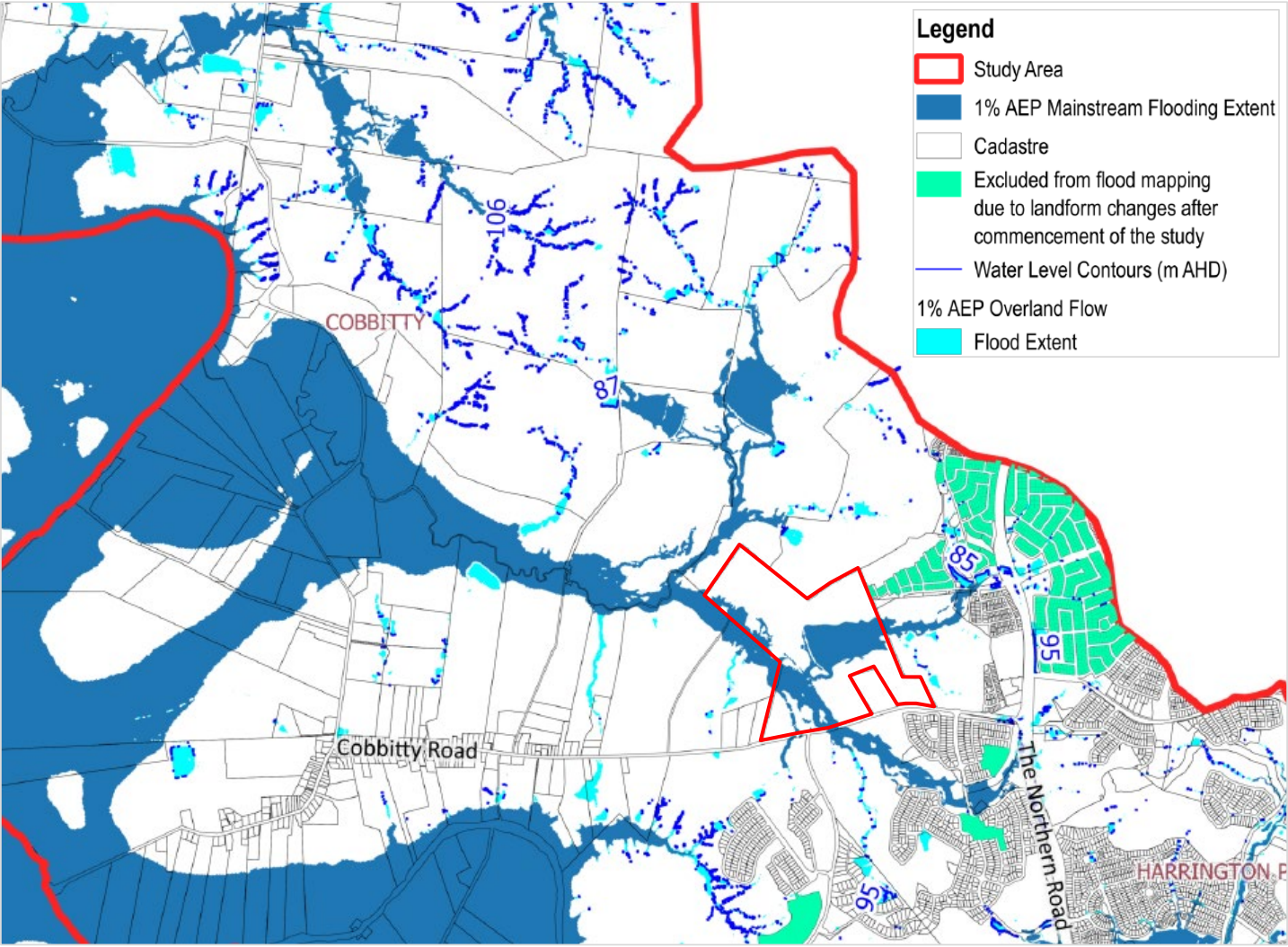


0.2% AEP Flood Depths after Figure B-14-B, Cardno, 2019

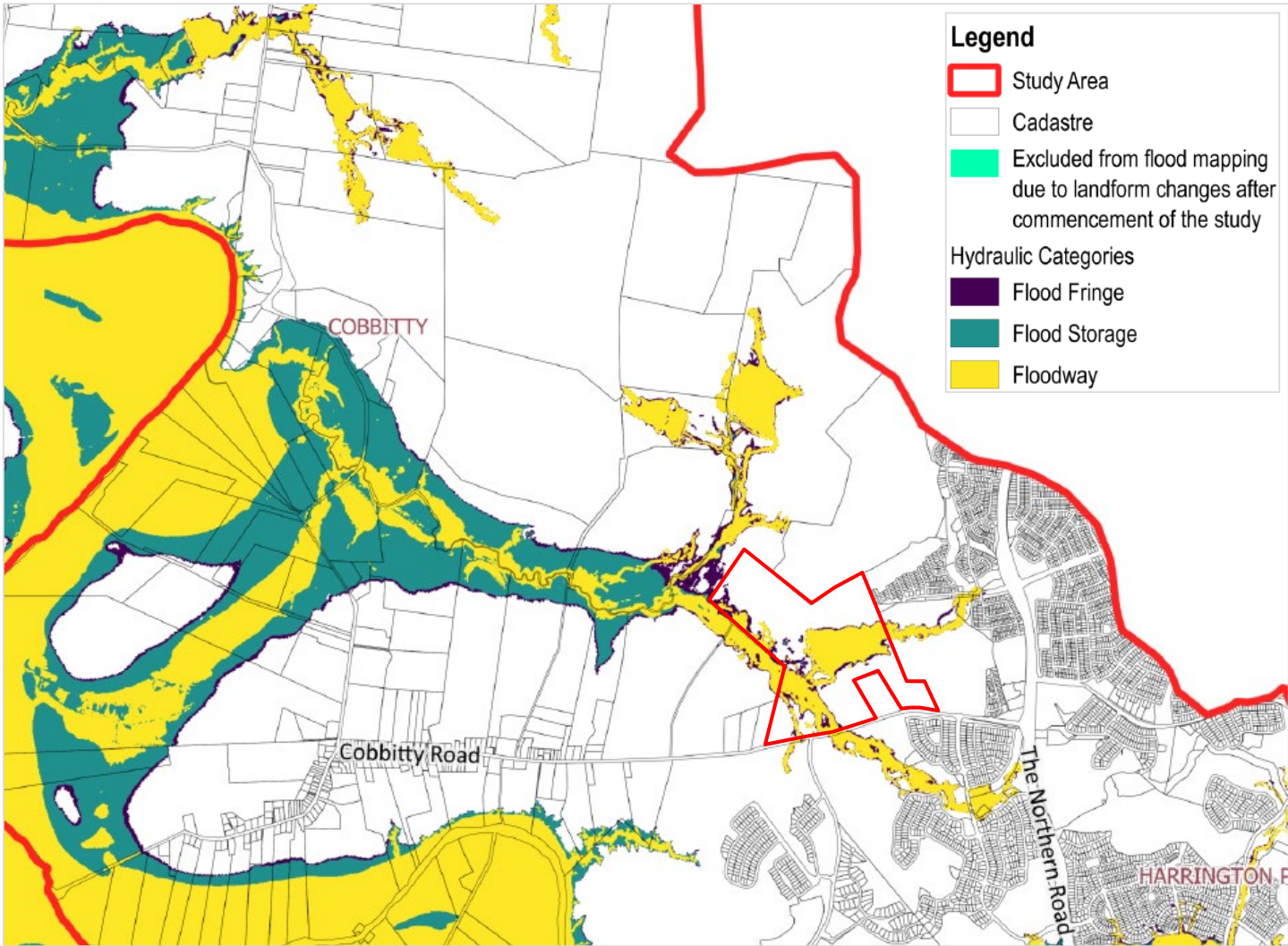


PMF Depths after Figure B-15-B, Cardno, 2019



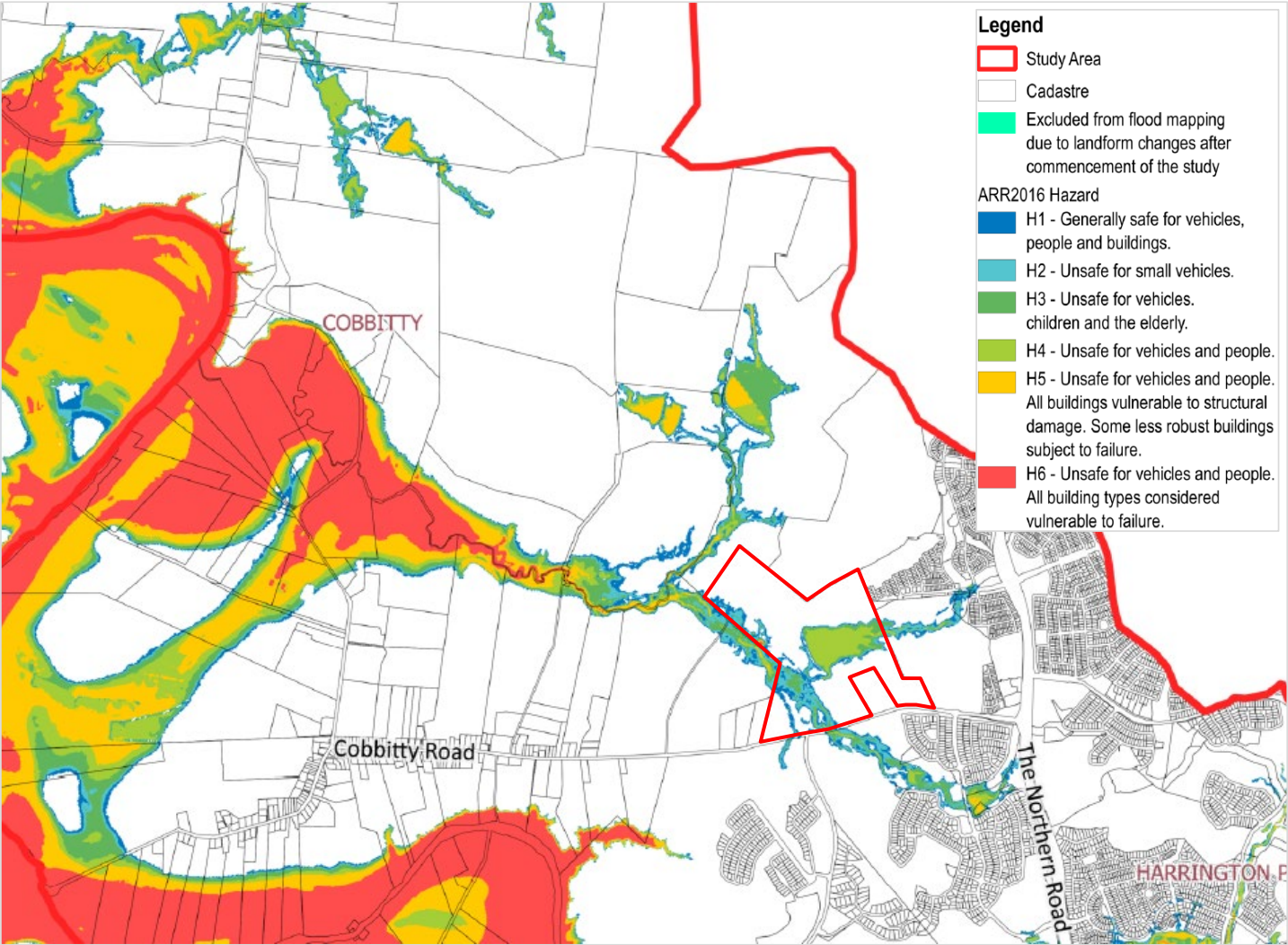


1% AEP Overland Flow Extents after Figure B-24-B, Cardno, 2019

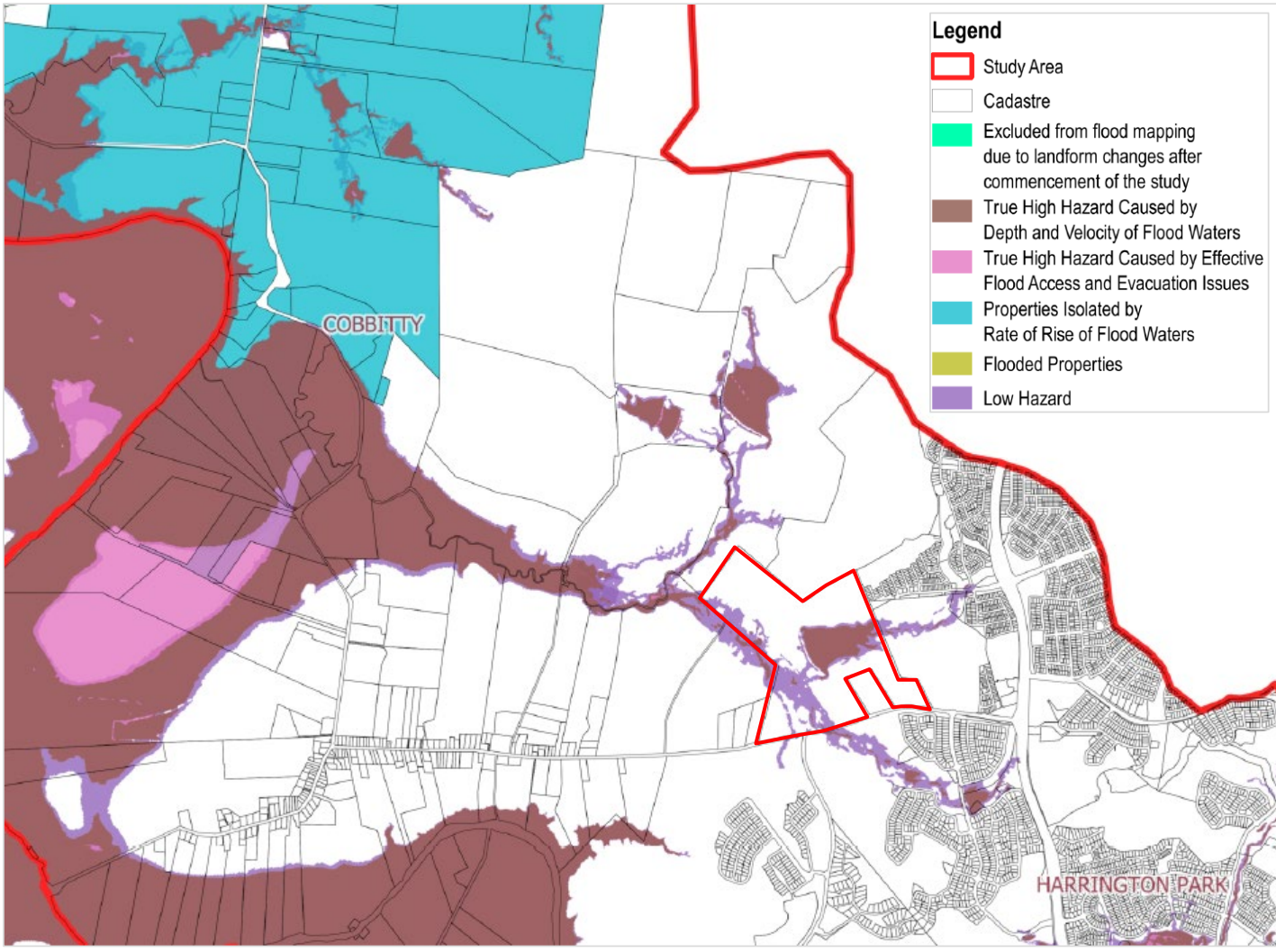


1% AEP Hydraulic Categories after Figure B-37-B, Cardno, 2019



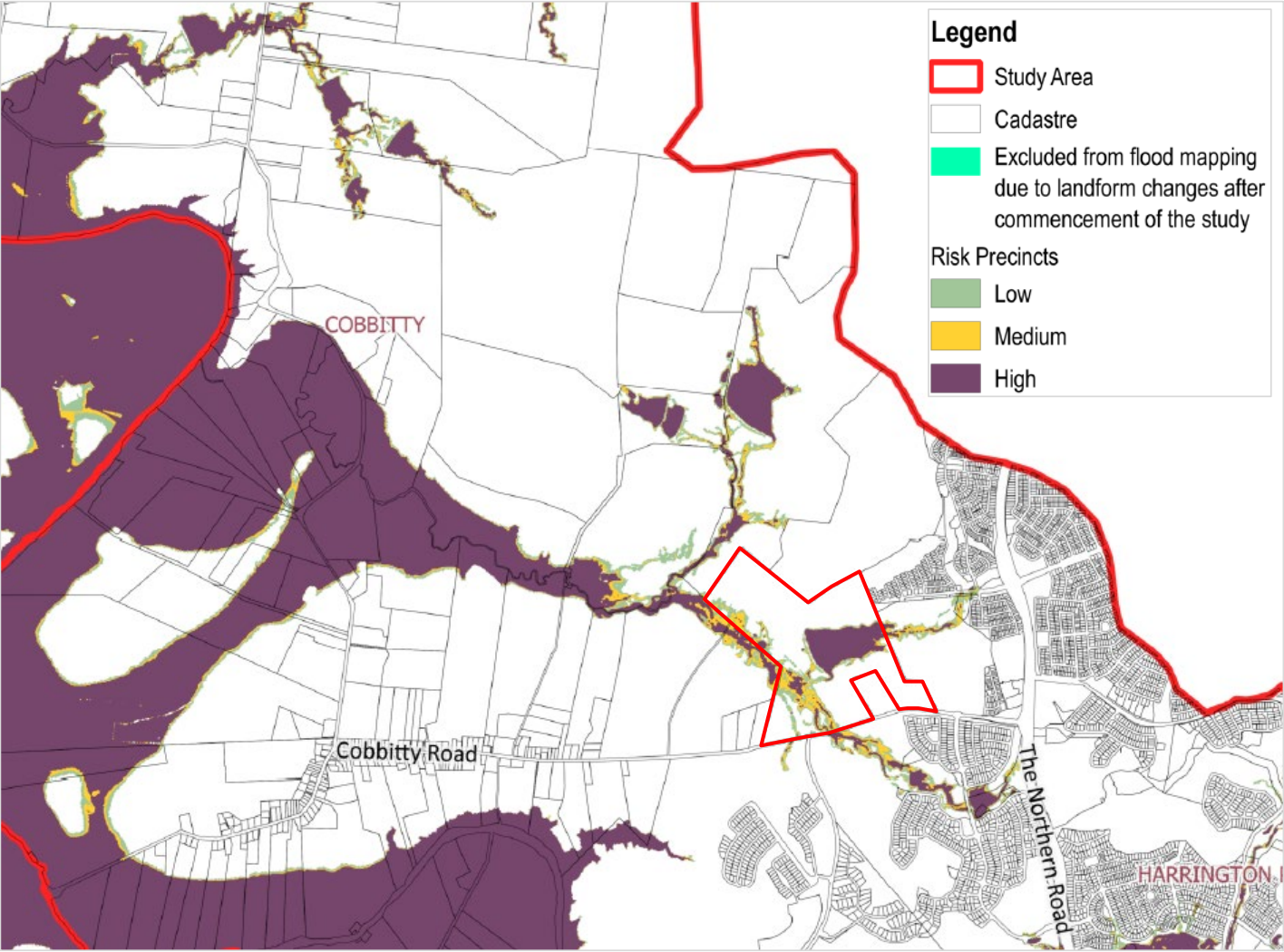


1% AEP Hazard Categories after Figure B-47-B, Cardno, 2019

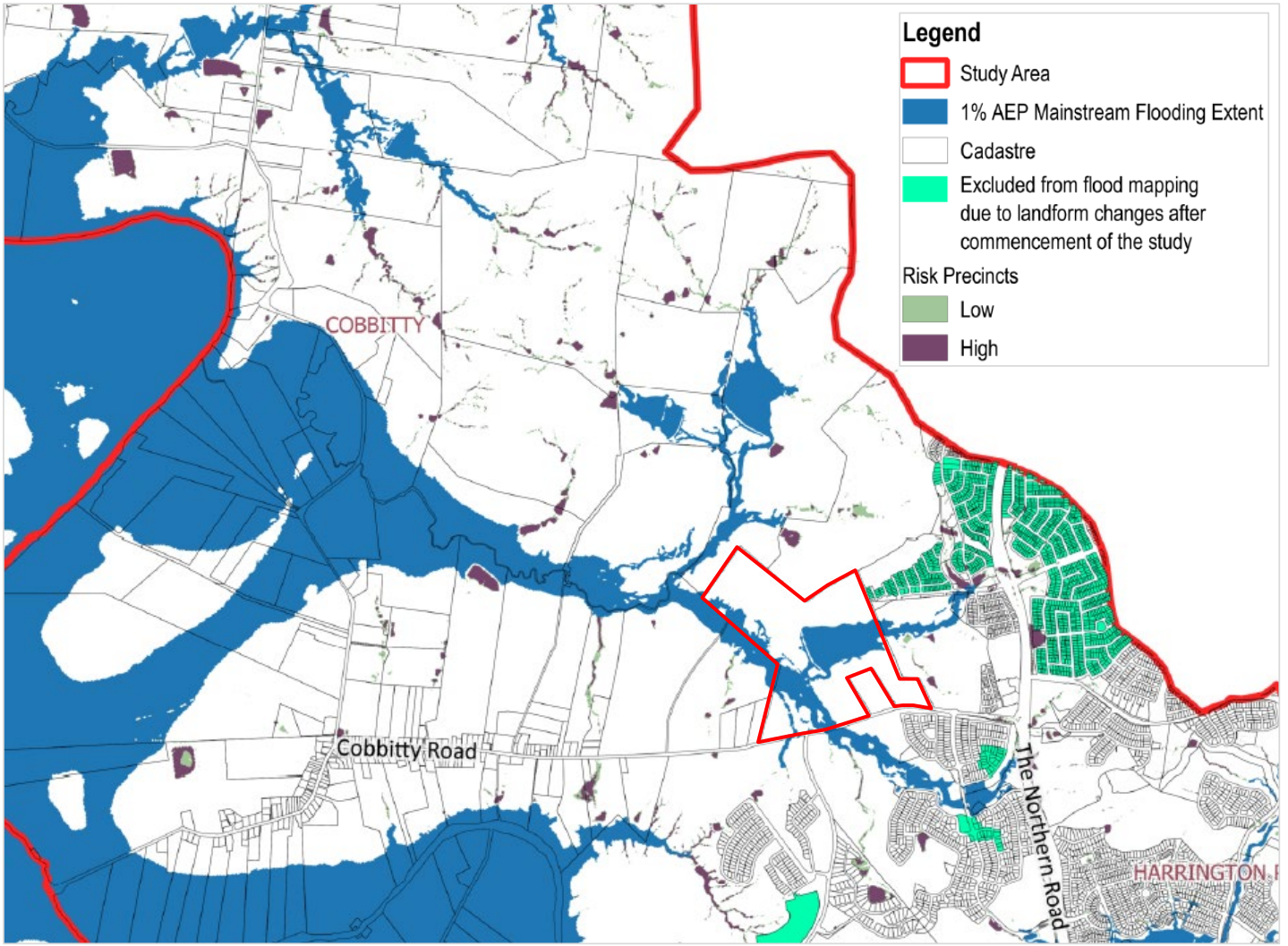


1% AEP True Hazard after Figure B-50-B, Cardno, 2019





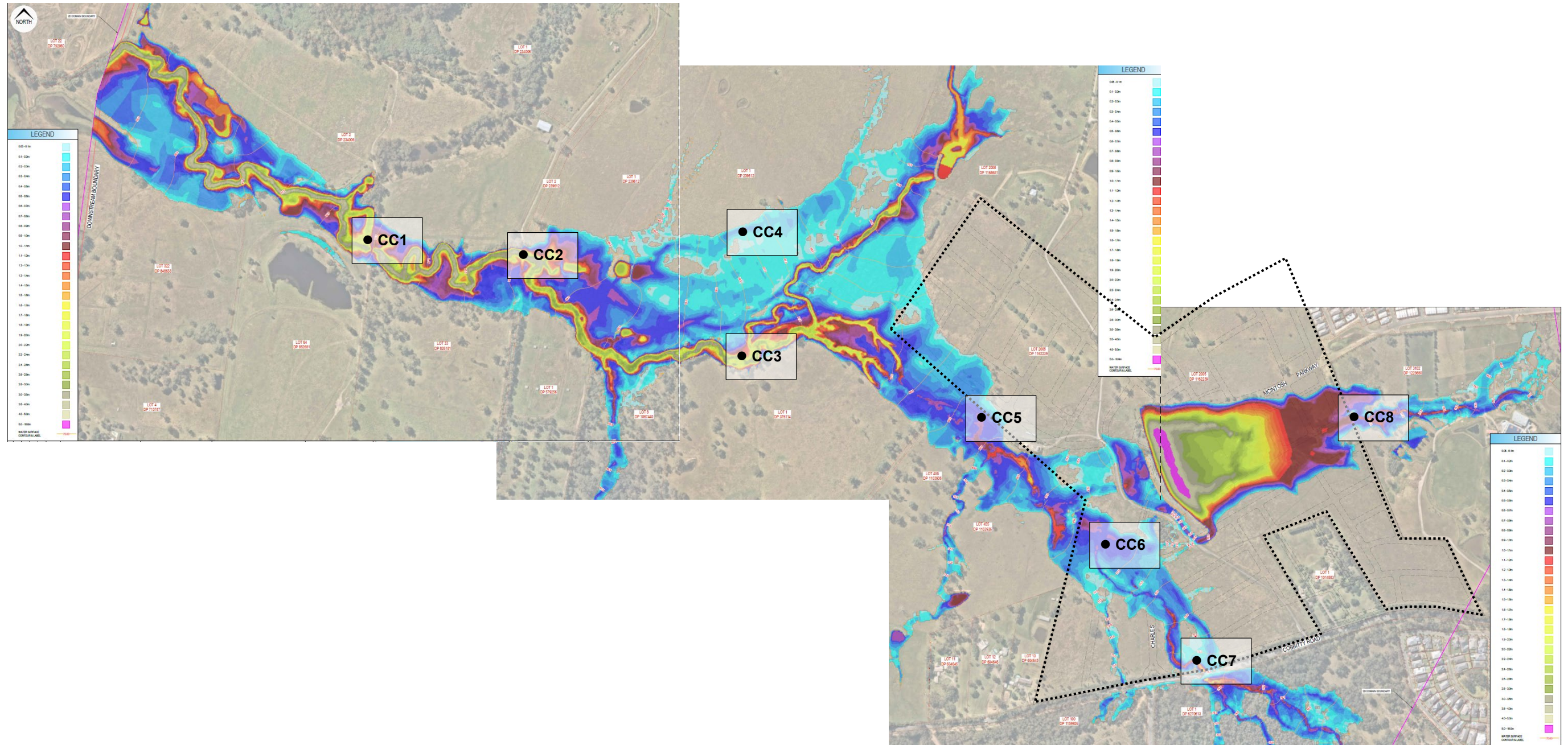
Mainstream Flood Risk Precincts after Figure B-54-B, Cardno, 2019



Overland Flood Risk Precincts after Figure B-55-B, Cardno, 2019



### Attachment B Reference Locations





Attachment C  
100 yr ARI 9 hour Flood Level Differences

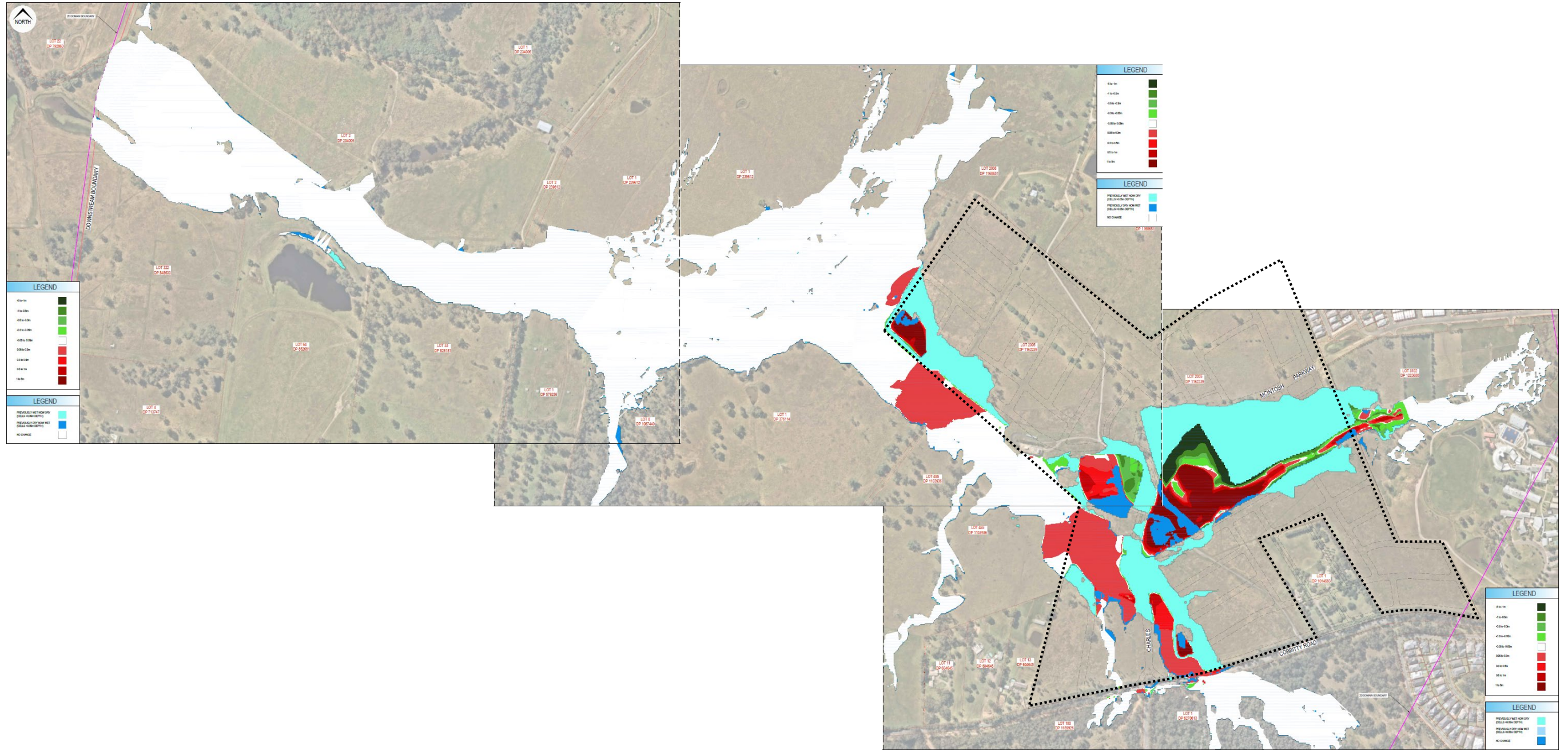


Table 7-126 Flood impact objectives – for fully developed catchment land use conditions

Parameter	Objective		
	Houses, urban and commercial areas	Recreational areas	Agricultural areas
Flood level (height)	Less than 50 millimetre increase for the 20 and 100 year ARI flood events.  Justification: This objective is consistent with other Roads and Maritime projects.	Less than 100 millimetre increase for the 20 and 100 year ARI events.  Justification: An additional 100 millimetre of flood water is unlikely to cause damage or substantially increase the duration of time that recreation areas are unable to be used.	Generally less than 250 millimetre increase with localised increases of up to 400 millimetre flooding acceptable over small areas (nominally less than five hectares) in the 20 and 100 year ARI flood event.  Justification: These lands can accommodate higher flood levels for short periods of time (a few hours) without any substantial increases in land damage or decreased use of the land.
Flood velocity	Velocity-depth to remain in the zone of low hazard for children (ie less than 0.4 m <sup>2</sup> /s) where current flow velocity-depth is currently low hazard.	Velocity to remain below one metre per second unless currently greater. Where existing velocity is above one metre per second, a maximum 20% increase. Appropriate scour and stability protection should be provided where these criteria cannot be achieved.	Velocity to remain below one metre per second unless currently greater. Where existing velocity is above one metre per second, a maximum 20% increase. Appropriate scour and stability protection should be provided where these criteria cannot be achieved.
Flood duration	A maximum increase in inundation time of one hour in a 100 year ARI rainfall event must be achieved where the flood affected land is sensitive to flood duration for the commercial sustainability of the property. For practicality of measurement, the inundation duration must be measured when and where the flood depths in floodplains exceed the threshold of high provisional flood hazard, as defined in the NSW Floodplain Development Manual (OEH, 2005)		

### Future climate change

An assessment of the project's potential future flood impacts under a climate change scenario was based on: An assessment of the project's potential future flood impacts under a climate change scenario was based on:

- Increases in 100 year ARI design rainfall intensities ranging between 10 and 30 per cent in accordance with the NSW Government's Floodplain Risk Management Guideline: Practical Considerations of Climate Change (DECC, 2007c)
- Rises in sea level of 0.4 metres by 2050 and 0.9 metres by 2100 in accordance with the NSW Government's Sea Level Rise Policy Statement (DoP, 2009). Given, the project is situated greater than 30 metres above sea level, sea level rise has had no bearing on the outcomes of the flooding assessment.

The guideline for climate change assessment typically focuses on the 100 year ARI event. However, the 2000 year ARI event had already been assessed because it had been used as a theoretical input for the structural design of the bridges. The 2000 year ARI flows are higher than the 100 year ARI plus climate change flows, therefore the climate change assessment was carried out using the 2000 year ARI flows, and as such this is a conservative assessment.



<b>Key tasks in flood assessment methodology</b>
<p>Sydney International, the design for the project cannot be considered exclusive of Western Sydney International. The base case flood model therefore represents existing catchment conditions as well as incorporation of the Western Sydney International (stage 1) project works. Details of how this was incorporated are provided in Appendix B.</p> <ul style="list-style-type: none"> <li>• A project design scenario which is inclusive of the base case scenario and incorporates the preliminary design surface for the rail alignment and stabling/maintenance facility.</li> </ul> <p>Key assumptions and limitations of the flood model used for this impact assessment are detailed in Appendix B.</p> <p><u>Climate change</u></p> <p>Climate change effects were incorporated in the assessment in accordance with ARR2019 guidelines for rainfall intensity increase predicted for year 2090, which is considered a late century period. The 2090 interim climate change factor based upon a Representative Concentration Pathway (RCP) 8.5 (as recommended by ARR2019) adopts a 19.7% increase in rainfall intensity in the study area. Derivation of runoff for mainstream flooding therefore adopts a 1.197 rainfall intensity multiplier for design flood events in accordance to ARR2019 guidelines.</p> <p>In comparison, the NSW Governments projections for 2060 to 2079 predict an annual increase in rainfall intensity of 8.9% with a maximum for autumn of 13.6%. While there is no data for rainfall intensities, the adopted value of 19.7% is considered a conservative estimate and was adopted to understand the upper bounds of the potential implications of climate change on flooding and flood impacts as a result of the project.</p>
<b>Project Specific Criteria</b>
<p>The desktop review was used to develop a project specific set of criteria. The criteria were then used to inform the design and quantify the impact of the project. Refer to section 3.1.1 for the project specific criteria. Impact criteria for water quality is discussed in Section 3.4.2.</p>
<b>Impact Assessment</b>
<p>The available flood models were utilised to understand the impact of the project on flood behaviour and key criteria discussed in Section 3.1.1. The impact assessment also considered impacts beyond the project boundary including buildings and infrastructure such as roads. Construction impacts were assessed qualitatively using the existing 5%AEP flood behaviour as the basis of the assessment. The cumulative impact assessment has followed a qualitative approach based on a review of major developments proposed in the study area (refer to Section 7.0 for further details).</p>
<b>Proposed Management and Mitigation measures</b>
<p>The design development included design features to minimise impacts, however, where the design could not meet the project Specific Criteria, mitigation measures were developed that set performance measures for the final design and flooding, geomorphologic and water quality management of the project.</p> <p>Management plans are identified through the CEMF and industry guidelines to manage the impacts of the project and to set monitoring programs and have been developed and discussed in Section 8.</p>

**3.1.1 Operational impact flooding criteria**

The operational impact assessment has been undertaken using the flood model as described above and comparisons made between the base case scenario model results and the project design scenario model results. The flooding criteria (refer to Table 3.2) have been established to inform iterations of the design, understand key flood behaviour characteristics for the study area and provide further project specific clarity to the requirements of the SEARs in relation to what is an impact on flood behaviour.

The project specific criteria have been established through a review of other linear infrastructure projects across greenfield sites and Penrith City Councils DCP (2014). These criteria have then been adapted for proposed use on the project. The land use is a mixture of rural agriculture, old urban areas at St Marys and major infrastructure such as the M4 Western Motorway, Great Western Highway and



the Western Sydney International. The criteria are broken down into the following key flood parameters:

- **Afflux** - with reference to flooding, afflux refers to the predicted change, usually in flood levels, between two scenarios. The afflux criteria have been separated into the different land uses and identifies the need to protect existing structures and infrastructure from changes to peak flood levels.
- **Velocity** - this relates to how fast flood waters are moving. Areas subject to high velocities are more prone to scour and erosion.
- **Hazard** - Flood hazard is defined as the potential loss of life, injury and economic loss caused by future flood events. The degree of hazard varies with the severity of flooding and is affected by flood behaviour (extent, depth, velocity, isolation, rate of rise of floodwaters, duration), topography and emergency management (AIDR, 2017).
- The proposed criteria are based on the preliminary flood hazard which is the velocity depth product and provides a preliminary understanding of flood hazard. The true flood hazard assessment considers other aspects including: rate of risk of floodwaters, time of day, effective warning time and isolation or distance to higher ground. The relative degree of flood hazard has implications to management of flood events, including evacuations.
- **Duration** - this refers to the time from start to finish that floodwaters are present on the surface. An understanding of the duration of inundation helps understand the existing flood risk such that the longer the duration of inundation the longer the increase in potential exposure to the flood risk for people, infrastructure, crops and wildlife.

**Table 3.2 Flood impact criteria**

Parameter	Location	Criteria (for events up to and including the 1%AEP)
<b>Afflux</b>	<b>Location</b>	<b>Maximum allowable afflux</b>
	Residential houses, commercial buildings and critical infrastructure	No change (maximum 10 millimetres (mm) increase) to buildings that are flood prone in existing conditions.
		No new above floor flooding
		50 mm at properties where flooding is below floor level
	Roads	50 mm
	Crown land open space, Farming, grazing and cropping land	200 mm
<b>Flood velocity</b>	<b>Location</b>	<b>Criteria</b>
	All areas	Velocities are to remain below 1 metre per second (m/s) where they are currently below this figure and that an increase of no more than 20 per cent should result from the project where existing velocities are above 1 m/s.
<b>Flood hazard</b>	<b>Location</b>	<b>Criteria</b>
	Residential and commercial buildings	No change in flood hazard vulnerability classification limits
	Roads	No change in flood hazard vulnerability classification limits.

Sydney Metro - Western Sydney Airport  
 Technical Paper 6: Flooding, hydrology and water quality

ORD01

Attachment 4

Parameter	Location	Criteria (for events up to and including the 1%AEP)
Flood duration	Location	Design criteria
	Residential and commercial buildings	No increase to duration of above floor flooding
	Roads	No more than 10 per cent increase in flood duration
	Farm cropping	Dependent on the crop

### 3.2 Geomorphology

Geomorphology relates to the form, shape, size and structure (slopes, presence of rocks, locations of ponds, soil types) of watercourses. The geomorphic condition of a watercourse is dependent on the flows, vegetation, soil types, aquatic biodiversity etc and these can be affected by human induced changes to catchments and watercourses. Watercourses in good geomorphic condition are important for overall catchment health.

Geotechnical information, LiDAR data, aerial photographs and site visits have been used to inform the understanding of geomorphic conditions for waterways intersected by the project. A review of stream order classification based on Strahler system and flow paths identified through flood modelling has also informed the assessment. The NSW River Styles mapping (NSW Department of Industry, 2019) has also been used for this assessment. The geomorphic assessment has focussed on locations where the project footprint crosses waterways. Waterways included in this assessment are noted in Section 1.6 above and shown in Figure 1-3.

The geomorphology impact assessment has focused on a review of the flood depth, flood velocity and duration information to understand potential changes to the flows that influence geomorphic condition. The predicted change in hydraulic conditions (based on hydraulic modelling) at and around the waterways and drainage line crossings has also informed the assessment.

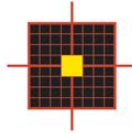
### 3.3 Catchment and watercourse health

To understand the existing hydrologic regime and existing watercourse health across the study area the available rainfall and flow gauge data has been reviewed, the existing geomorphic conditions (as described in Section 4.2) understood, connections to groundwater sources identified (in the Technical Paper 7 (Groundwater)) and existing surface water storages identified.

The project operation and construction water requirements have then been considered to understand the impact of the project on the catchment and waterway health. The flood modelling has also informed the potential changes to the existing hydrologic regime and geomorphic conditions.

### 3.4 Water quality

The following methodology has been used to understand the existing water quality environment in the study area and to assess potential construction phase, operation phase and cumulative water quality impacts. Key steps in the water quality assessment are shown in Figure 3-2.



DESIGN 5

A R C H I T E C T S

Level 3, 79 Myrtle Street, Chippendale NSW 2008  
+61 2 9319 1855 www.design5.com.au  
Design 5 – Architects Pty Ltd ABN 22 090 066 194  
Nominated Architect – Alan Croker, Registration No 4693, Tas Registration No 883  
Matthew Byrnes 8918 Robert Gasparini 7614 Lian Wong 8532

ORD01

**COBBITTY VIEW MOUND  
(Denhigh Curtilage Earthworks)**

531, 531 A & 531 B Cobbitty Road, and 6-54 Squires Avenue, Cobbitty Camden  
Associated with Lots 2005, 2009 and 2008, and Lot 800 (part of former Lot 2006) respectively

**Heritage Impact Statement**



Attachment 5

FINAL  
June 2022

ORD01

Attachment 5

<i>Document Progress</i>	<i>Prepared by</i>	<i>Reviewed by</i>	<i>Issued</i>
Draft Report	Sagar Chauhan	Alan Croker	12 <sup>th</sup> April 2022
Draft Report	Sagar Chauhan	Alan Croker	5 <sup>th</sup> May 2022
Draft Report	Sagar Chauhan	Alan Croker	27 <sup>th</sup> June 2022
Final Report	Sagar Chauhan	Alan Croker	28 <sup>th</sup> June 2022

Cover Photo: A view of the Denbigh Homestead in the distance, as viewed from the crest of the ridge - location of the proposed view mound. (Source: Design 5 Architects)

## 1.1 BACKGROUND

Design 5 – Architects has been engaged by Orion Consulting to prepare an assessment of the Heritage Impact (HIS) of the proposal of the earthworks, located at 531 Cobbitty Road (Lot 2005 DP 1162239), 531 A Cobbitty Road (Lot 2008, DP 1168651) and 531 B Cobbitty Road (Lot 2009, DP 1168651) in Camden. The proposal is part of a masterplan for future urban development on Lot 2005. This HIS assesses the impacts of the proposal on the significance and landscape setting of the Denbigh estate. This will inform a proposed amendment to the Oran Park Precinct DCP that should not compromise the cultural significance of the Denbigh estate.

The report has been prepared by Sagar Chauhan, with assistance from and review by Alan Croker, both from Design 5 – Architects.

Design 5 have been providing architectural and heritage services with regard to the Denbigh property for over 17 years and are familiar with its setting and exceptionally significant rural complex. This has included guidance with ongoing repair and maintenance of significant structures. In 2006 we completed a Curtilage Study for the property and in 2008 completed a Conservation Management Plan including policies to guide and assist the management and future development of the property, while retaining and respecting its remarkable cultural heritage values. The policies and guidelines of Curtilage Study and the CMP formed the basis for Oran Park Precinct DCP Part B3: Denbigh Transition Area.

This Heritage Impact Statement is prepared in order to assist the approval authorities in their assessment of the proposal. It is based on information and policies from the 2008 CMP and the 2006 Curtilage Study, and uses these as a basis for the assessment.

## 1.2 STRUCTURE OF THE REPORT

The report is set out in the following manner:

- Background to the proposal
- Description of the place
- Brief description of the proposal
- Discussion of the impact of the proposal on the significance of the place
  - Impact against policies included in Conservation Management Plan 2008 & Denbigh Curtilage Study 2006;
  - Impact with regard to planning instruments;
    - State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (SRGC SEPP); and
    - Oran Park Precinct Development Control Plan 2007 (DCP 2007)
- Summary conclusion of the impact of the proposal

## 2.1 DESCRIPTION OF THE SITE

The site of this proposal is located at the shared boundary of Lots 2005, 2008 and 2009, with the Lot 800 (part of former Lot 2006 (since developed)) immediately adjacent to the east. The Lots 2008 and 2009 collectively form the Denbigh estate, a state heritage listed rural property comprising a total of approximately 207 hectares. Lot 2005 lies to the south of the Denbigh estate and will be subject to subdivision for residential purposes as part of a separate future development application. A ridge defines the shared northern boundary of Lot 2005 with adjacent lots. Cluny Hill exists at the high point at the west end of the shallow ridge which rises to the east along the shared boundary of the lots and surrounds the eastern boundary of Lot 2009, visually containing the Denbigh estate to the north and the west.

The core curtilage of the Denbigh estate includes the original Denbigh homestead and outbuildings as well as the later family houses of Bangor and Cluny Hill. The Denbigh estate has been subject to subdivision in the past and part of the former estate is now occupied by residential development (Arcadian Hills) to the south-east of Lot 2009. Part of the subject site exists within the 'Southern



Viewscape Precinct' as identified in the Oran Park DCP 2007. The 'Southern Viewscape Precinct,' in addition to the 'Central Viewscape Precinct' and 'Northern Viewscape Precinct' is part of Denbigh Transition Area. The vision for the Transition Area is to:

*... achieve a site responsive transition between residential development and the existing heritage curtilage of the Denbigh homestead. The Transition Area will be developed in a manner which respects the cultural significance of the homestead curtilage and seeks to retain its rural context and setting.*

*Residential homes will be of a character which provides a transition between the areas of residential development to the south and the rural context of the Denbigh curtilage.*

The Denbigh estate, the project area and 'Transition Area' are marked in the figures 2.1 to 2.4 below.

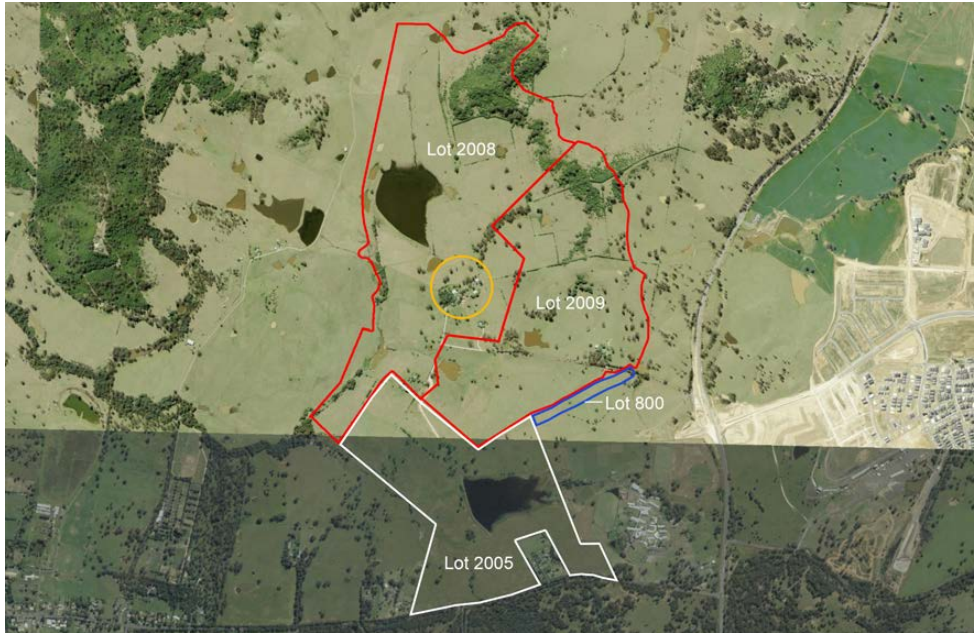


Figure 2.1: Satellite view showing the Lots 2005, and Lots 2008 and 2009 of Denbigh estate. The Denbigh homestead and outbuildings group is outlined within orange circle (Source: SEED Portal, NSW Government)



Figure 2.2: Satellite view showing the site of the proposed view mound outlined in red. The Denbigh homestead and outbuildings group is outlined within the orange circle. (Source: SEED Portal, NSW Government)

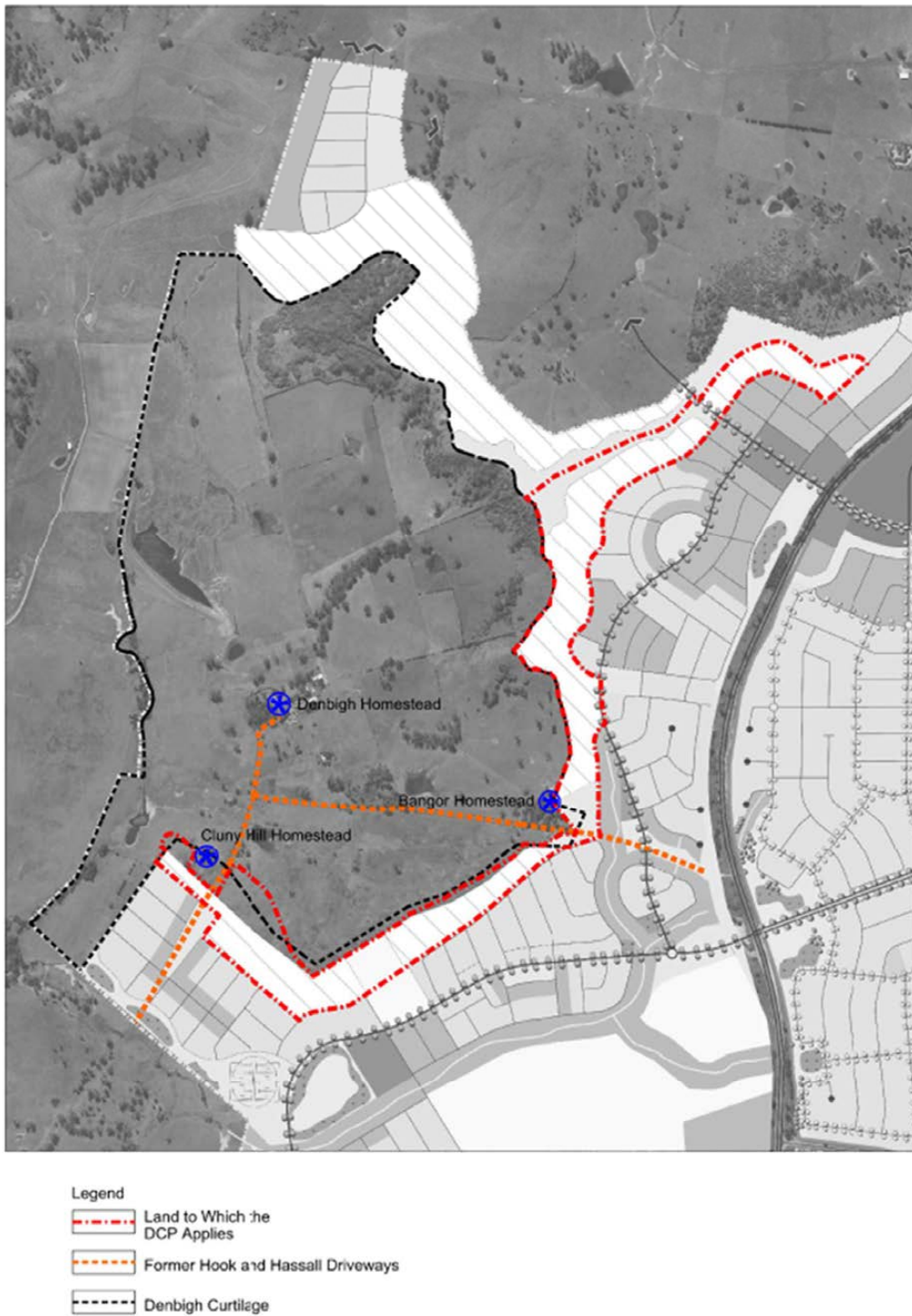


Figure 2.3: Denbigh Transition Area. (Extract from the Part B Oran Park Precinct 2007, Section 3.0: Denbigh Viewscape Precincts.)



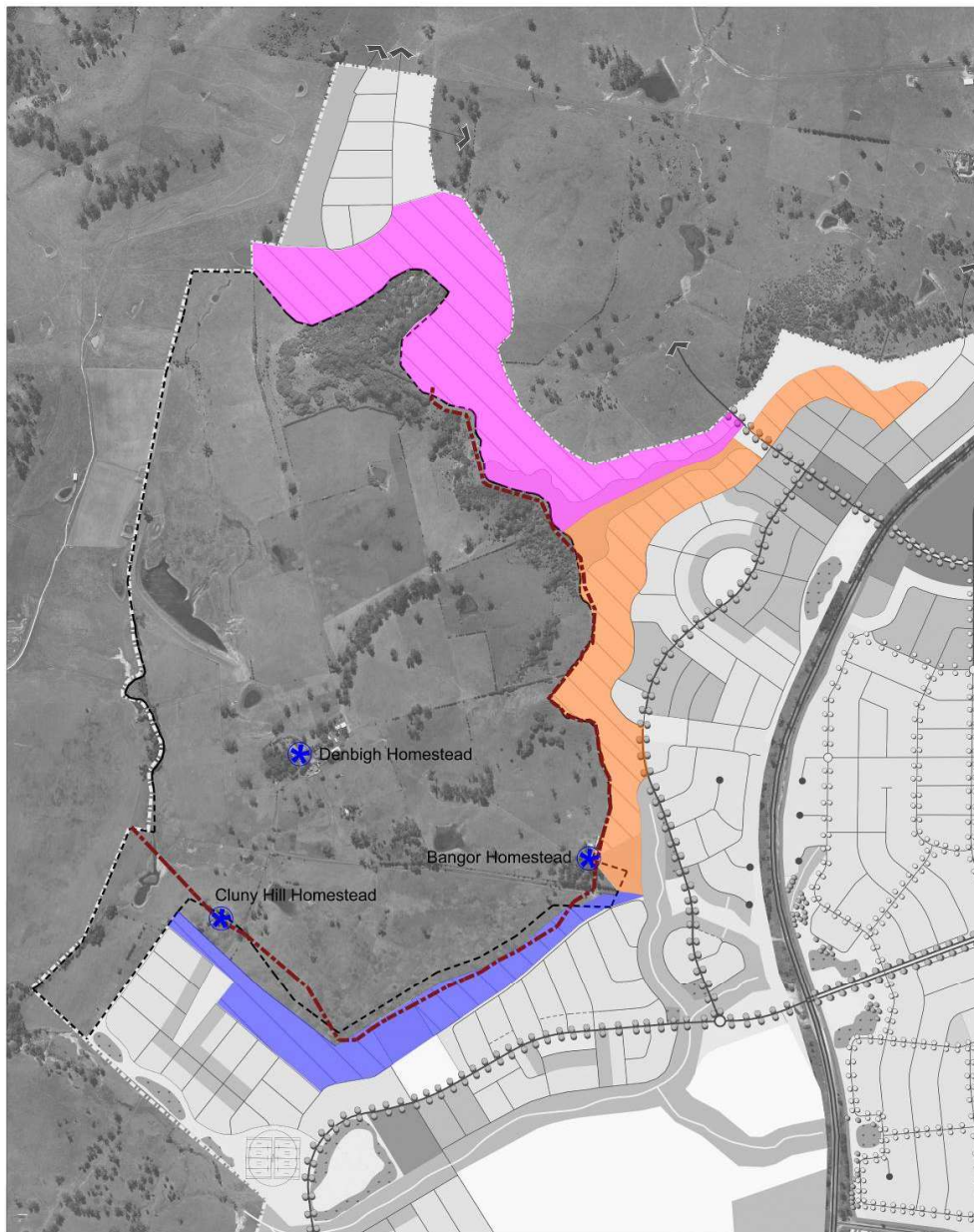
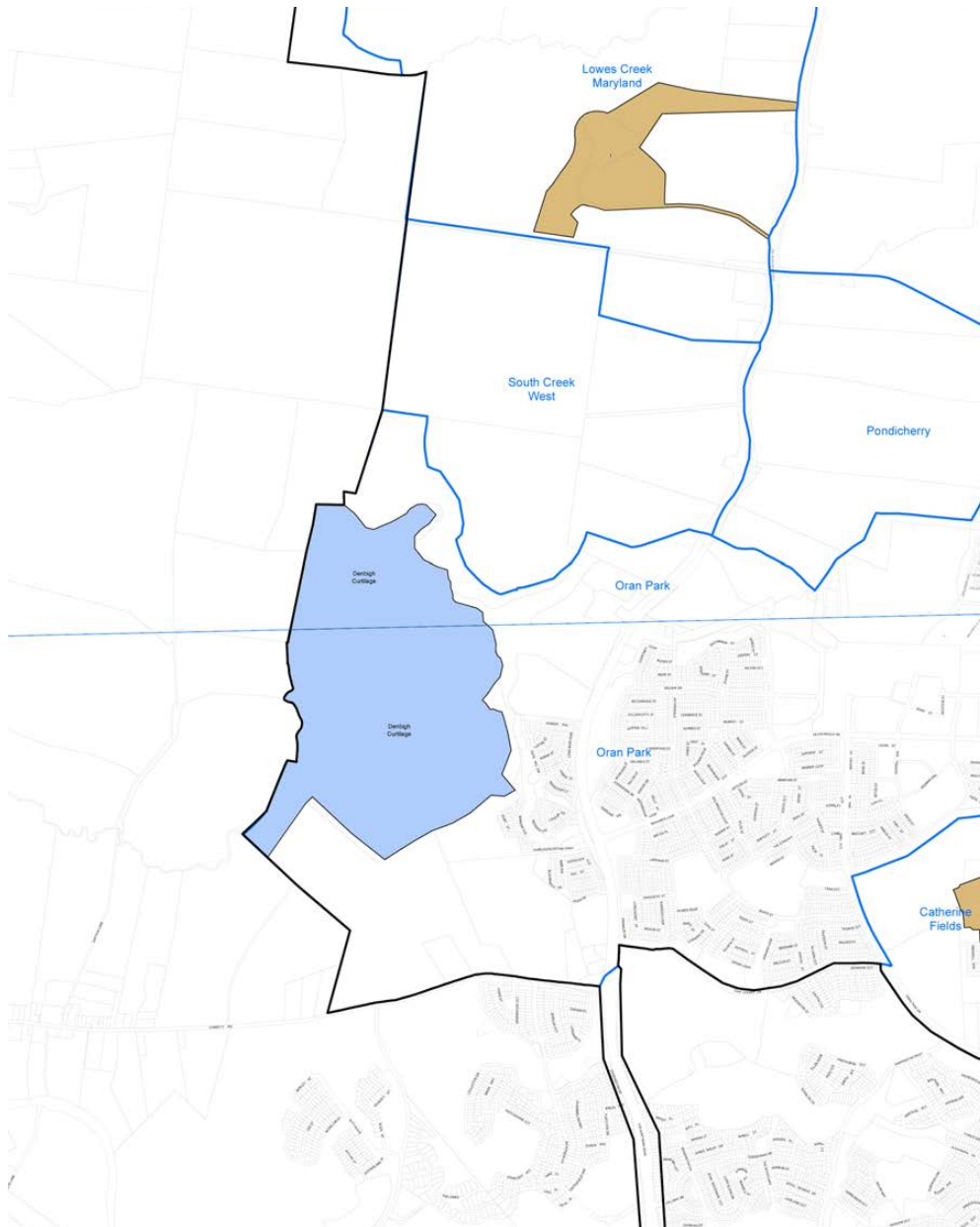


Figure 2.4: Viewscape precincts. (Extract from the Part B Oran Park Precinct 2007, Section 3.0: Denbigh Viewscape Precincts.)

**2.2 HERITAGE LISTINGS**

The Denbigh estate is listed as a heritage item on the NSW State Heritage Register (SHR 01691) and is also a heritage item on the State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (Schedule 5: Environmental Heritage of Appendix 1: Oran Park and Turner Road Precinct). It is of state significance:

- *Denbigh (including homestead, grounds and gardens, slab outbuildings, coach house, stable, dairy and sheds).*



**Figure 2.3:** Extract of the State Environmental Planning Policy (Sydney Region Growth Centres) 2006, showing location of 531 Cobbitty Road, marked in blue. Other heritage items in the area are marked in mustard. (Source: South West Growth Centre Heritage Map, NSW Planning Portal)

### 3.1 BASIS OF ASSESSMENT

This Heritage Impact Statement (HIS) assesses the proposal against the guidelines and policies in the 'Denbigh Conservation Management Plan' (2008), prepared by Design 5 – Architects for the Denbigh estate. (also see section 5.1)

Furthermore, the proposal is assessed against the planning controls outlined in Appendix 1: Oran Park and Turner Road Precinct in the State Environmental Planning Policy (Sydney Region Growth Centres) 2006, and the Oran Park Precinct Development Control Plan 2007 (DCP 2007).

### 3.2 METHODOLOGY

This Heritage Impact Statement has been prepared in accordance with the principles and processes of the *Australia ICOMOS Burra Charter 2013*. The preparation of this Heritage Impact Statement also follows the process and model recommended in the NSW Heritage Manual, specifically the NSW Heritage Office guideline *Statements of Heritage Impact* (revised 2002).

### 3.3 DOCUMENTS REVIEWED

The works considered in this report are as described in the documents prepared by Orion Consulting and Paterson Design Studio. Specifically, the drawings and reports listed below:

<i>Drawing Number</i>	<i>Title</i>	<i>Revision</i>	<i>Date</i>
<b>Orion Consulting</b>			
<i>Preliminaries</i>			
DA 000	<i>Cover Sheet &amp; Plan Index</i>	A	18 <sup>th</sup> May 2022
DA 001	<i>General layout Plan, Notes &amp; Legend</i>	A	18 <sup>th</sup> May 2022
DA 002	<i>Site Regrading Plan</i>	A	18 <sup>th</sup> May 2022
DA 003	<i>Site Regrading Sections Sheet 01 OF 02</i>	A	18 <sup>th</sup> May 2022
DA 004	<i>Site Regrading Sections Sheet 02 OF 02</i>	A	18 <sup>th</sup> May 2022
<i>Engineering</i>			
DA 400	<i>Denbigh Curtilage Line of Sight Ray Plan</i>	A	18 <sup>th</sup> May 2022
DA 401	<i>Denbigh Curtilage Line of Sight Ray Long Sections</i>	A	18 <sup>th</sup> May 2022
DA 500	<i>Maximum Building Height Heat Map</i>	A	18 <sup>th</sup> May 2022
<b>Paterson Design Studio</b>			
<i>Landscape</i>			
LA-2	<i>Landscape Masterplan</i>		11 <sup>th</sup> April 2022
LA-6	<i>Landscape Section</i>		11 <sup>th</sup> April 2022
	<i>Landscape Maintenance Guide and Manual</i>		11 <sup>th</sup> April 2022
	<i>Interpretation of Former Hook and Hassall Driveway Option 1- Plan</i>		26 <sup>th</sup> April 2022



#### 4.1 BRIEF DESCRIPTION OF THE PROPOSAL

The proposal comprises the construction of a mound on the ridgeline along the southern boundary of the Denbigh estate to screen any future development to the south of the mound. The mound is primarily located on the Lots 2008 & 2009, owned by Ian & Susan MacIntosh and Angela Head respectively. The proposed height of the mound exceeds the controls in the DCP and ranges from 0m to more than 8m above the existing topography.

The mound is essential to avoid adverse visual and amenity impacts of future developments on the rural setting and character of the Denbigh Estate and on the views from the Denbigh homestead and outbuildings group (core curtilage). A similar approach was undertaken in the past for the subdivision of Lot 2006 for the Arcadian Hills development which lies to the south-east of Lot 2009. The current proposal to erect a higher mound is in response to the constraints of the existing topography in this Southern Viewscape Precinct of the 'Denbigh Transition Area.'

In addition to the mound and in order to achieve desirable screening height for the future development on Lot 2005, the ground level of allotments to the south of the new ridgeline will be cut into the existing topography to lower their levels by 0m to more than 4.5 m.

#### 5.1 COMPLIANCE WITH DENBIGH CURTILAGE STUDY 2006 & CONSERVATION MANAGEMENT PLAN 2008

The 2006 Curtilage Study and 2008 CMP were used as a guide for the drafting of the Oran Park Precinct DCP Part B3, and their objectives embedded in this document. The policies and guidelines of the CMP and Curtilage Study that overlap with the planning controls of the DCP have not been assessed separately. Only those policies and guidelines that have not been included in the DCP are discussed separately below in section 5.2 and 5.3. The assessment against the DCP is discussed in section 6.2.

#### 5.2 *CMP Section 4* STATEMENT OF CULTURAL SIGNIFICANCE

The following Statement of Significance from the 2008 CMP summarises the significant values of the place. This Statement of Significance is a slightly expanded version of the Statement of Significance included in the 2006 Curtilage Study.

*The Denbigh estate is of exceptional cultural significance for its historical, aesthetic, social and technical values.*

*The homestead and attendant farm buildings are an exceptionally rare and intact group of structures dating from the very early nineteenth century. They demonstrate the aspirations of, and continuous occupation by only three families as well as the continuous evolution of farming and grazing practices over this period. The extant structures, pastoral landscape, associated family and public archives, all combine to make this a very rare and important place in the history and evolution of NSW. This is strengthened by the survival of significant physical and historic links with the surrounding early roads and settlements as well as significant buildings and structures built by the three families, with the changes associated with each phase of ownership still legible. It is one of several important colonial estates in the local area including Maryland, Wivenhoe, Brownlow Hill and Raby.*

*The physical evidence of Aboriginal occupation of the estate, both prior to and after European arrival together with documented evidence of this including ceremonial use, strengthens the integrity and rarity of the continuous physical record of the place. Important named historical Aboriginal figures such as Cannabaygal, a visiting chief from the mountains, are associated with the Denbigh farm, and possibly also Cogy (Cogrewoy) a leader of the 'Cowpastures' Tribe who also acted as guide through the district to Barrallier and Macquarie.*

*The establishment of the Denbigh farm by Charles Hook (1812-1826), its subsequent ownership and development by the well-known local clergyman the Reverend Thomas Hassall (1827-1868), and then by the MacIntosh family to the present time, connects the place with very important figures in the development of this area of NSW.*

*The homestead group, with its main house and two flanking rear wings, retains substantial and intact*

*evidence of the evolution of the complex from c.1818 to the present.*

*The complex retains as its focal point a substantially intact Colonial Indian-styled bungalow, one of the finest and most intact surviving example of its type in the country. The style, form and construction of this building as well as the form, configuration and integrity of the whole complex are of exceptional significance to the state of New South Wales.*

*The outbuildings group behind the homestead group demonstrate the changing technologies and range of activities from the establishment of the property by Charles Hook, then Thomas Hassall, followed by five generations of the McIntosh family (1868 - present). The physical fabric, layout and spatial relationships of the outbuildings, associated paddocks, fences and fence lines strengthen the agricultural/pastoral nature of the property and its significance. As a group, the Denbigh outbuildings are of exceptional significance to the state of New South Wales and this is strengthened by their context and setting which is an essential component of this significance.*

*The associated residences within the estate Bangor, Cluny Hill and Roberts' Cottage retain important associations with the development of the Denbigh estate by the McIntosh family. The significant visual, spatial and physical connections between these properties and the homestead grounds are retained within the Denbigh's core curtilage and the role of Bangor and Cluny Hill as entry markers or 'gatehouses' to the Denbigh estate is of high significance.*

*The fact that the landscape remains as agricultural/pastoral land, retains the sense, both physically and visually of this connection with all of these periods and occupations. This remains a critical underpinning and unifying aspect of Denbigh's significance.*

*The Denbigh farm estate retains a curtilage and setting of exceptional historic and aesthetic significance. Unlike most of its early colonial contemporaries in the Cumberland Plain, it retains this curtilage and setting in a largely uncompromised state, and thus its integrity, from the time of early European occupation.*

*The landscape and setting of the homestead and outbuildings and the views to and from these, provide a very rare and intact early colonial landscape of great beauty and integrity and of exceptional cultural significance to the state of NSW.*

*The grounds of the core of the Denbigh estate are of exceptional cultural significance as they retain many key elements of the formative 19th century estate planning period. These include extensive early plantings of rows of Eucalypts (the extensive survival of which is rare within the Cumberland Plain), an example of an 1830s ornamental garden directly relating to the development of the bungalow, various plantings from the 19th century including an early planting of the more uncommon 'horizontal' form of Roman Cypress and the original entry drive. Two very early estate roads (Northern Road and Cobbitty Road) are retained and remain in use, leading to the outbuildings group and the front of the bungalow.*

*The immediate areas around the building group retain evidence, through planted vegetation and layout, of changing taste and fashion relative to landscape design from the mid-19<sup>th</sup> century to the present.*

*The structures at Denbigh contain very fine and intact examples of early construction techniques, including early timber-framed wattle and daub, timber slab construction, joinery, masonry work and ironwork. They have the ability to demonstrate the evolution of construction from the early 19<sup>th</sup> century through to the 20<sup>th</sup> century.*

#### **Comment**

The proposal generally retains and respects the exceptional cultural significance of the site. The rural landscape with its network of low and high ridges and hills surrounding the valley is an important aspect of the exceptional setting and significance of the Denbigh estate. The proposed view mound is located within areas of exceptional to high aesthetic significance on the southern boundary of this estate. Modification of the existing low broad ridge through the addition of a continuous raised mound will have some impact on the visual integrity of the existing setting of the Denbigh estate, particularly the homestead and outbuildings group (core curtilage). However, this proposed mound aims to protect this setting from proposed adjacent development.

The homestead complex will be preserved in its landscape setting as the centrepiece of the Denbigh property. The mound on the low ridge will generally protect and preserve the rural landscape setting of the place. Impacts on the rural setting in relation to the extent of fill and cut have been addressed in section 6 below. The views to the low ridgeline along the southern boundary of the Denbigh Estate will be altered by the construction of the mound. However, the impact of this proposal will be to protect the significant rural setting and views from the core curtilage as identified in the 2006 Curtilage study.

The proposal effectively flattens out the high and low points in the existing ridge profile to form a relatively continuous and even ridge (see Plan 004 of the proposal). This may make the mound appear less convincing as a 'natural' landform and at odds with the rural character and natural topography that surrounds the Denbigh Estate.

The height of the proposed mound reaches a maximum of approximately 8.92 meters above the natural ground level (see Plan 004 of the proposal). The excavation to the south of the mound reaches more than 4.5 metres at its deepest point (see Plan 002 of the proposal). These modifications should provide the required visual screening of future developments on Lot 2005, south of the Denbigh Estate.

In the following figure, the height of the mound at the ridgeline is 8.91 metres above the existing level. The difference in elevation between the proposed ridge and new ground level to the south of the mound may exceed 8.91 metres (dependent upon the extent of cut on Lot 2005). When viewed from Lot 2005, there is a possibility that the mound may appear as a highly engineered landform.

The design parameters for the future development immediately south of the mound include single-storey dwellings (having an approx. maximum height of 6 metres), and two-storey dwellings (having an approx. maximum height of 8.5 metres) elsewhere. It is proposed the dwellings will be situated according to the 'Maximum Building Height Heat Map,' submitted as part of the proposal. It is envisioned that no development will be visible from the selected viewpoints in the core curtilage. Any retaining walls or fences will also not be visible from the core curtilage.

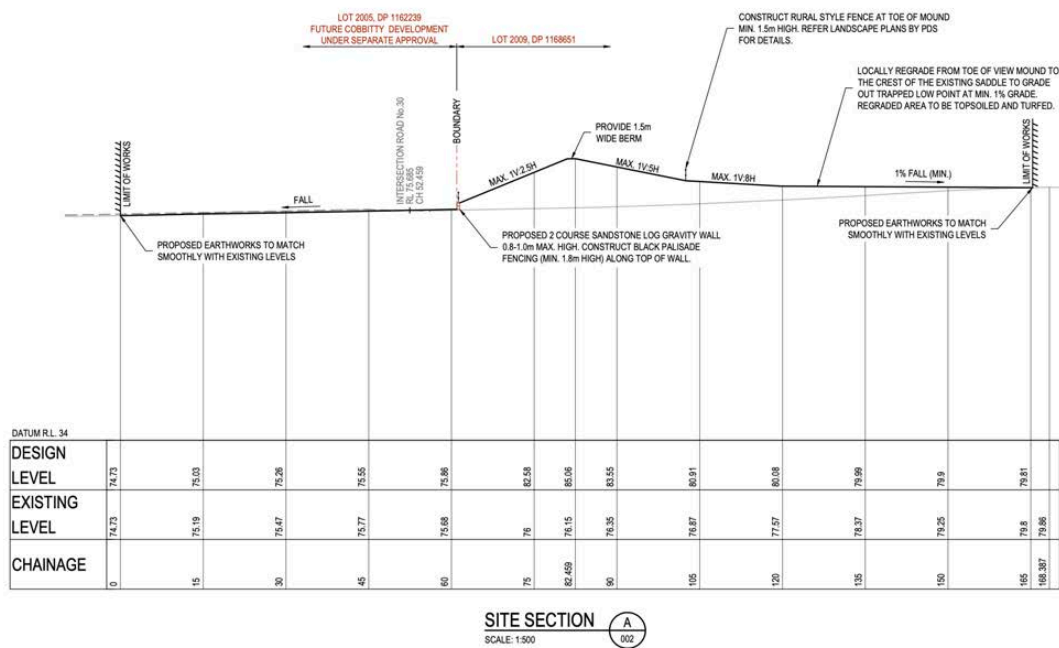


Figure 5.1: Site Section A (Plan 003, Site regrading Sections 01 of 02)

The proposed design has been considered by the owners of Lots 2008 and 2009, the Denbigh Estate and is supported subject to the recommendations in this report.

**5.3 CMP Section 5.2.6 CLUNY HILL**

**Policy 2.6.1**

*The rural context, careful siting as entry marker (or 'gatehouse'), and carefully articulated views and links that Cluny Hill has with its setting and Denbigh must be retained and respected. (Refer Figure 5.1). This should happen regardless of the ownership or occupancy of the respective properties.*

*Of particular importance are the subtle but powerful visual links and associations Cluny Hill has with the Denbigh homestead group. The landscape setting of Cluny Hill plays a key role in this and must be retained and managed to respect these links.*

*Should further linkages be considered, either in terms of tracks, paths or landscape elements, they should where possible, be based on historic precedents.*

**Comment**

The setting of Cluny Hill will be modified to its south and east and it will no longer be perceived as occupying the high point at the end of the ridge since the ridge will be modified with the addition of the mound to extend this high point eastwards. The setting of Cluny Hill on an elevated location acted as a marker / gatehouse on the former Hassall driveway from Cobbitty Road. This will be adversely affected on the southern approach.

**6.1 IMPACTS WITH REGARD TO STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006 (SRGC SEPP)**

<i>SRGC SEPP controls</i>	<i>Assessment</i>
<p><b>Part 1 Preliminary</b></p> <p><b>1.2 Aims of Precinct Plan</b></p> <p>The aims of this Precinct Plan are—</p> <ul style="list-style-type: none"> <li>(a) to make development controls for land in the Oran Park and Turner Road Precincts within the South West Growth Centre that will ensure the creation of quality environments and good design outcomes, and</li> <li>(b) to protect and enhance the environmentally sensitive areas and natural and cultural heritage of those Precincts, and</li> <li>(c) to provide for multifunctional and innovative communities in those Precincts that encourage employment and economic growth, and</li> <li>(d) to promote housing choice and affordability in those Precincts, and</li> <li>(e) to provide for the sustainable development of those Precincts, and</li> <li>(f) to minimise the impact on existing and future communities of the full range of risks posed by natural hazards such as bushfires and flooding.</li> </ul>	<p>The proposal will not have a significant negative impact on the built and landscape heritage of the site. Impacts against the same have been discussed within section 5 and within this section of the report.</p>
<p><b>Part 2 Permitted or prohibited development</b></p> <p><b>2.1 Land use zones</b></p>	

<p><b>2.3 Zone objectives and land use table</b></p> <p>(1) The Land Use Table at the end of this Part specifies for each zone--</p> <ul style="list-style-type: none"> <li>(a) the objectives for development, and</li> <li>(b) development that may be carried out without consent, and</li> <li>(c) development that may be carried out only with consent, and</li> <li>(d) development that is prohibited.</li> </ul>	<p>The project area is zoned R1 and E4 and requires consent for the erection of the view mound.</p> <p>The mound is located within Lots 2008 &amp; 2009. These lots are zoned for Environmental Living.</p> <p>The excavation / cuts are limited to Lot 2005, zoned for General Residential.</p>
<p><b>Part 5 Miscellaneous Provisions</b></p> <p><b>5.10 Heritage conservation</b></p>	
<p><b>(1) Objectives</b></p> <p>The objectives of this clause are—</p> <ul style="list-style-type: none"> <li>(a) to conserve the environmental heritage of the Oran Park Precinct and the Turner Road Precinct, and</li> <li>(b) to conserve the heritage significance of heritage items and heritage conservation areas including associated fabric, settings and views, and</li> <li>(c) to conserve archaeological sites, and</li> <li>(d) to conserve places of Aboriginal heritage significance.</li> </ul> <p><b>(2) Requirement for consent</b></p> <p>Development consent is required for any of the following—</p> <ul style="list-style-type: none"> <li>(a) demolishing or moving a heritage item or a building, work, relic or tree within a heritage conservation area,</li> <li>(b) altering a heritage item or a building, work, relic, tree or place within a heritage conservation area, including (in the case of a building) making changes to the detail, fabric, finish or appearance of its exterior,</li> <li>(c) altering a heritage item that is a building by making structural changes to its interior,</li> <li>(d) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,</li> <li>(e) disturbing or excavating a heritage conservation area that is a place of Aboriginal heritage significance,</li> <li>(f) erecting a building on land on which a heritage item is located or that is within a heritage conservation area,</li> <li>(g) subdividing land on which a heritage item is located or that is within a heritage conservation area.</li> </ul>	<p>The proposal will not have significant negative impacts on the heritage significance of the place. The impacts of the proposal have been assessed against the 2006 Curtilage Study and 2008 CMP.</p> <p>While the proposed mounds will be substantial in themselves and will raise the height of the ridgeline, their purpose to protect and preserve the exceptionally significant setting and character of the Denbigh estate is justified. Impacts in relation to the height and design of the earthworks have been discussed in detail within the sections 5, 6 and 7 of this report.</p>
<p><b>(3) When consent not required</b></p> <p>However, consent under this clause is not required if—</p> <ul style="list-style-type: none"> <li>(a) the applicant has notified the consent authority of the proposed development and the consent authority has advised the applicant in writing before any work is carried out that it is satisfied that the proposed development— <ul style="list-style-type: none"> <li>(i) is of a minor nature, or is for the maintenance of the heritage item, archaeological site, or a building, work, relic, tree or place within a heritage conservation area, and</li> <li>(ii) would not adversely affect the significance of the heritage item, archaeological site or heritage conservation area, or</li> </ul> </li> <li>(b) the development is in a cemetery or burial ground and the proposed development— <ul style="list-style-type: none"> <li>(i) is the creation of a new grave or monument, or excavation or disturbance of land for the purpose of conserving or repairing monuments or grave markers, and</li> <li>(ii) would not cause disturbance to human remains, relics, Aboriginal objects in the form of grave goods, or to a place of Aboriginal heritage significance, or</li> </ul> </li> <li>(c) the development is limited to the removal of a tree or other vegetation that the Council is satisfied is a risk to human life or property, or</li> <li>(d) the development is exempt development.</li> </ul>	<p>The proposal includes erection of a view mound on an item listed in the Schedule 5: Environmental Heritage of the SRGC SEPP and therefore requires consent.</p>



<p><b>(3AA) Effect on heritage significance</b> The consent authority must, before granting consent under this clause, consider the effect of the proposed development on the heritage significance of the heritage item or heritage conservation area concerned. This subclause applies regardless of whether a heritage impact statement is prepared under subclause (4) or a heritage conservation management plan is submitted under subclause (5).</p>	<p>This HIS assesses the impact of the proposal against the 2006 Curtilage Study and 2008 CMP, and against the planning controls in the DCP that have been based upon the policies and guidelines of the Curtilage Study and the CMP. These impacts have been summarised in Section 7: Summary Conclusion of the impact of the proposal.</p>
<p><b>(4) Heritage impact assessment</b> The consent authority may, before granting consent to any development on land— (a) on which a heritage item is situated, or (b) within a heritage conservation area, or (c) within the vicinity of land referred to in paragraph (a) or (b), require a heritage impact statement to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned.</p>	<p>See above.</p>
<p><b>(5) Heritage conservation management plans</b> The consent authority may require, after considering the heritage significance of a heritage item and the extent of change proposed to it, the submission of a heritage conservation management plan before granting consent under this clause.</p>	<p>The 'Denbigh Curtilage Study' 2006 and the 'Denbigh Conservation Management Plan,' 2008 are two primary management documents for Denbigh estate. The 2006 Curtilage Study is submitted with this report. Design 5 are the authors of both management documents and are well acquainted with the conservation issues and policies that are relevant to the current proposal. The planning controls have been based upon the policies and guidelines of the Curtilage Study and the CMP. Assessment of impacts against these has been included within this HIS.</p>
<p><b>(6) Archaeological sites</b> The consent authority must, before granting consent under this clause to the carrying out of development on an archaeological site (other than land listed on the State Heritage Register or to which an interim heritage order under the <i>Heritage Act</i> applies): a) notify the Heritage Council of its intention to grant consent, and b) take into consideration any response received from the Heritage Council within 28 days after the notice is sent.</p>	<p>An 'Aboriginal Heritage Due Diligence Assessment' was prepared by Kelleher Nightingale Consulting in February 2022. The study concludes that no Aboriginal archaeological objects were found within the project area on the Denbigh Estate and that the proposed works to construct a mound can proceed with caution.  If any Aboriginal objects are found during the course of the proposed works, including excavation, they must be recorded, assessed and conserved in accordance with the Heritage Act, and relevant National Parks and Wildlife legislation.</p>
<p><b>(7) Places of Aboriginal heritage significance</b> The consent authority must, before granting consent under this clause to the carrying out of development in a place of Aboriginal heritage significance— (a) consider the effect of the proposed development on the heritage significance of the place and any Aboriginal object known or reasonably likely to be located at the place, and (b) notify the local Aboriginal communities (in such way as it thinks appropriate) about the application and take into consideration any response received within 21 days after the notice is sent, and</p>	<p>The assessment against the relevant policies in the 'Denbigh Curtilage Study,' 2006 and 'Denbigh Conservation Management Plan, 2008 has shown that the proposal would not have significant negative impacts on the significance of the site. The proposal would not have significant adverse impacts on the natural setting of the place and aims to protect the rural character of the place in the wake of future development on Lot 2005.</p>

(c) be satisfied that any necessary consent or permission under the <i>National Parks and Wildlife Act 1974</i> has been granted.	
<p><b>(9) Conservation incentives</b></p> <p>The consent authority may grant development consent to development for any purpose of a building that is a heritage item, or of the land on which such a building is erected, even though development for that purpose would otherwise not be allowed by this Precinct Plan if the consent authority is satisfied that—</p> <ul style="list-style-type: none"> <li>(a) the conservation of the heritage item is facilitated by the granting of consent, and</li> <li>(b) the proposed development is in accordance with a heritage conservation management plan that has been approved by the consent authority, and</li> <li>(c) the consent to the proposed development would require that all necessary conservation work identified in the heritage conservation management plan is carried out, and</li> <li>(d) the proposed development would not adversely affect the heritage significance of the heritage item, including its setting, and</li> <li>(e) the proposed development would not have any significant adverse effect on the amenity of the surrounding area.</li> </ul>	<p>The assessment against the '2006 Curtilage Study and 2008 CMP has shown that the proposal would not have significant negative impacts on the significance of the site.</p>

**6.2 IMPACTS WITH REGARD TO ORAN PARK DEVELOPMENT CONTROL PLAN (DCP 2007)**

<i>DCP controls</i>	<i>Assessment</i>
<b>Part A - Precinct Wide DCP</b>	
<p><b>5. Special Area Design Principles</b>  <b>5.4 Denbigh Transition Area</b></p>	
<p><b>Objectives</b></p> <ul style="list-style-type: none"> <li>a. To protect and enhance the heritage curtilage of the Denbigh Homestead.</li> <li>b. To provide a visual buffer to the Denbigh Homestead and to provide a 'green' backdrop to the residential areas.</li> <li>c. To ensure development within the Transition Area is constructed in an environmentally responsive manner.</li> </ul> <p><b>Controls</b></p> <ol style="list-style-type: none"> <li>1. The Denbigh Transition Area is shown in the figure at Appendix B. Council shall not grant consent for any development within the Denbigh Transition Area (except for the land adjacent to Cobbitty Road), unless the development is for the purposes of remediation, environmental landscape works or other minor works that, in the opinion of Council, do not predetermine an outcome on the land covered by the Part B amendment. Council may grant consent if it is satisfied that appropriate development controls are in force in the form of a Part B DCP.  <i>Note: The exact boundary between the Transition Area and the residential area to the east is to be determined following detailed analysis of slopes and other site constraints.</i></li> <li>2. The Part B DCP must be prepared in consultation with the NSW Heritage Council.</li> <li>3. Future development within the Denbigh Transition Area is to be consistent with the following principles: <ul style="list-style-type: none"> <li>– residential subdivision is to be in the form of large lots to reflect the rural character of the area,</li> <li>– the ridgeline is to be revegetated with appropriate endemic species so as to provide a dense visual buffer,</li> </ul> </li> </ol>	<p>The proposal will generally protect the heritage curtilage of the Denbigh Homestead in response to the future developments on Lot 2005.</p> <p>The construction of a view mound for the purpose of screening new developments to the south of the mound and to provide a green backdrop to the residential areas is permitted within the Part B of the DCP. This is contingent upon the planning controls in the Part B of the DCP relating to the protection and retention of the cultural significance of the Denbigh estate and for subdivision works permitted to the south of the mound. Impacts of the proposal against the same have been discussed below.</p> <p>Subdivision of Lot 2005 and the layout of any new developments are not part of this assessment and will be subject to a separate HIS submitted with the relevant DA.</p> <p>Retention of existing trees as recommended in the DCP may not be viable owing to the location and extent of cut and fill being proposed.</p> <p>Aboriginal archaeological conservation areas do not exist within the project site.</p>

<ul style="list-style-type: none"> <li>- retention and enhancement of vegetation identified on Figure 27, where possible,</li> <li>- existing significant trees, in particular large hollow bearing Eucalypts, are to be retained,</li> <li>- riparian corridors are to be protected and revegetated,</li> <li>- ridge top areas that are subject to landslip are to be protected from development. Subject to detailed design, areas of soil creep are to be restricted from development. All areas of landslip and soil creep are to be revegetated,</li> <li>- ongoing management of any Aboriginal archaeological conservation areas,</li> <li>- bush fire hazard is to be minimised and APZs and fire trails provided where necessary, and</li> <li>- roads and cuttings are to be minimised.</li> </ul> <p>4. The visual impact of dwelling houses within the Transition Area is to be minimised through appropriate siting, landscaping, and the use of materials and colours sympathetic to a rural environment.</p> <p>5. Subdivision DAs within the Transition Area are to be accompanied by a Vegetation Management Plan. The Plan is to address weed removal, proposed revegetation and ongoing tenure and maintenance of the ridgeline vegetation buffer.</p> <p>6. A landscape buffer shall be provided on both sides of the original alignment of the entrance driveway to the Denbigh Homestead (i.e. from The Northern Road). The buffer is to be a total of 40m wide and at least 10m on any one side (measured from the edge of the existing road alignment to any new adjacent road reserve alignment). The buffer shall be appropriately landscaped to reflect the rural landscape character of the approach to the Homestead. Uses or activities within this buffer, and any development immediately adjacent to this buffer, are to respond to the heritage values of the entrance driveway alignment.</p> <p>A landscape corridor (min 20m) shall be provided along the alignment of the Former Hassall Road (i.e. entrance from Cobbitty Road) to ensure that this historic connection to the Denbigh Homestead is not compromised. Alternative means of satisfying this principle may be considered by Council.</p>	<p>The assessment of the design of the dwellings within the Transition area will be subject to a separate HIS in the future.</p> <p>A Maintenance Plan is being submitted with this DA and addresses the maintenance of the revegetated ridge as outlined in the Landscape Masterplan.</p> <p>The mound will obscure the part of the former Hassall driveway that exists within the project site. Design for a feature road pavement with 4m wide verges on either side has been submitted with this proposal. This plan will have a positive impact on the interpretation of the driveway. The final design and alignment of this feature corridor will be part of a future development and its impacts on the cultural significance of the former Hassall driveway should be assessed at that stage.</p>
<p><b>6. Environmental Management</b> <b>6.4 Aboriginal and European Heritage</b></p>	
<p><b>Objectives</b></p> <ol style="list-style-type: none"> <li>1. To protect and manage areas and elements of identified Aboriginal and European archaeological heritage of the precinct.</li> <li>2. To incorporate elements of Aboriginal and European heritage within the redevelopment of the precinct.</li> </ol> <p><b>Controls</b></p> <ol style="list-style-type: none"> <li>1. Aboriginal Archaeological Conservation Areas are identified <b>Figure 24</b>. Development shall not proceed within these areas without appropriate investigation and consultation with the relevant local Aboriginal groups and until a Plan of Management has been prepared that addresses the ongoing management of any archaeological deposits within the Conservation Areas.</li> <li>2. Interpretive signage, that provides information on the history and heritage significance of the sites, is to be provided within the public domain areas.</li> <li>3. Items of European heritage significance are shown at <b>Figure 25</b>. Prior to any development that affects these items, an assessment of heritage significance is to be undertaken which addresses the significance assessment criteria contained in the <i>NSW Heritage Manual</i>. An applicant is to demonstrate to Council how any proposed development responds to identified archaeological constraints. If any relics are to be retained <i>in situ</i>, an applicant is</li> </ol>	<p>The proposal would not have negative impacts on the European heritage of the site. Impacts against the setting of these items have been discussed within section 5 and 6.1 of this report.</p> <p>Aboriginal Archaeological Conservation Areas are located outside the Denbigh estate. The impacts on Aboriginal heritage have been discussed in Section 6.1 of this report.</p>

<p>to outline all management measures to ensure ongoing protection of the relics. <i>Note: A Part B DCP will be required prior to development in the Denbigh Transition Area. See Section 5.4 and Appendix B of this DCP for further details.</i></p> <p>4. Development within the curtilage of the Oran Park House as shown on <b>Figure 25</b> shall be designed having regard to the following:</p> <ul style="list-style-type: none"> <li>- limiting the visibility of the development from the Oran Park House, or</li> <li>- where development will be visible from the Oran Park House, public views are provided to the House and building design and form has regard to the setting and significance of the House and its surrounds.</li> </ul>	
<p><b>Part B: Site Specific DCPS</b> <b>3 - Denbigh Transition Area</b></p>	
<p><b>1.2 The Purpose of this Part</b> The purpose of this part is to outline the vision for the Denbigh Transition Area and facilitate development sensitive to the curtilage of the Denbigh property as shown in Figure 1.</p> <p><b>1.3 Relationship to Oran Park Part A DCP 2007</b> Development in the Denbigh Transition Area should be consistent with the following:</p> <ul style="list-style-type: none"> <li>• - the provisions of this Part B DCP, and</li> <li>• - the relevant sections and clauses of the Oran Park Part A DCP 2007, including, but not limited to, Clauses 5.4 and 6.4 and Section 7.0. Where an inconsistency exists, provisions within a Part B DCP prevail over Part A.</li> </ul>	<p>The Denbigh Transition Area map has been included within Section 1 of this report. The project site is part of the Denbigh Transition Area and the design of the mound should comply with the relevant controls mentioned in the DCP. Compliance issues are discussed in detail within this section.</p>
<p><b>2.1 Vision for the Transition Area</b> The vision for development within the Denbigh Transition Area is to achieve a site responsive transition between residential development and the existing heritage curtilage of the Denbigh homestead. The Transition Area will be developed in a manner which respects the cultural significance of the homestead curtilage and seeks to retain its rural context and setting. Residential homes will be of a character which provides a transition between the areas of residential development to the south and the rural context of the Denbigh curtilage.</p> <p><b>2.2 Development Objectives</b> The objectives of this part are to:</p> <ol style="list-style-type: none"> <li>1. To respect the heritage curtilage of Denbigh.</li> <li>2. To obscure the visual impact of development within the Denbigh Transition Area when viewed from the Denbigh homestead and associated rural outbuildings.</li> <li>3. To retain and respect the rural context and setting of the Denbigh homestead.</li> </ol>	<p>The view mound generally complies with the objectives of the Control 2.1 and 2.2. The mound will obscure potential visual impacts of the future development on the heritage curtilage of Denbigh homestead. It is envisioned that any residential development within the project site will be bound to height controls based upon the heatmap in DA Plan No. 500.</p> <p>The desired character of the residential homes within the project site / transition area and how these achieve a balance with the rural context of the Denbigh curtilage and the future residential developments to the south will have to be assessed within the relevant future DA.</p>
<p><b>3.0 Denbigh Viewscape Precincts</b> The existing Denbigh curtilage is separated from the proposed residential development within the Transition Areas of Oran Park Precinct by a natural ridgeline which extends along the northern, eastern and southern boundaries of the heritage curtilage area, generally creating an amphitheatre setting. The height and boundary relationship of this ridgeline changes along its length, resulting in a number of different visual interface outcomes on the Denbigh homestead and associated rural outbuildings from future development within the Transition Area. In the preparation of this Part B DCP, detailed cross sectional diagrams were prepared along the length of the ridgeline surrounding the Denbigh homestead to understand the relationship with future development in different parts of the Transition Area.</p>	<p>The project site is part of the Southern Viewscape Precinct. Landforming strategies of fill and cut to modify the ridgeline are permissible within the DCP to achieve desired screening of future development.</p> <p>The Viewscape Precinct diagram has been included within Section 1 of this report.</p>

<p>The preparation of these cross sections identified three viewscape precincts along the length of the ridgeline being the northern, central and southern viewscapes. These are discussed in detail below and shown in Figure 2.</p> <p><b>3.3 Southern Viewscape Precinct</b>                  The Southern Viewscape Precinct is situated along the southern boundary of the Denbigh curtilage. In this area, the existing ridgeline encompasses more gently sloping land than the Northern and Central Viewscape Precincts, and the ridgeline falls within the Transition Area and the Denbigh curtilage.                  The ridgeline location and height within this area do not provide complete screening of residential development within the Transition Area.                  To obscure the visual impact of residential development, whilst facilitating suitable development, the topography of the ridgeline may require modification. The provision of an earth mound within the Denbigh curtilage and the Transition area, in conjunction with some site re-grading in the Transition Area and adjacent Residential Area, will provide adequate visual screening along this portion of the ridge line.                  Further detail relating to the height and location of an earth mound along the ridgeline are provided in the following sections of this Part B DCP. The provision of this earthmound to screen housing and better define the ridgeline is also referred to as land forming in this document and is considered to be environmental landscape works under Section 5.4 of the Part A DCP.</p>	
<p><b>4.0 Subdivision Works</b>  <b>4.1 Southern Ridgeline Treatment Objectives</b></p> <ol style="list-style-type: none"> <li>a. To allow modification of the landform, either prior to or in conjunction with the subdivision of the land, within the Denbigh curtilage and the Southern Viewscape Precinct to completely obscure the visual impact of development when viewed from the Denbigh homestead.</li> <li>b. The modifications to the landform are to respond to and strengthen the existing topography and screen views of residential dwellings from the Denbigh homestead and associated rural buildings.</li> <li>c. To provide suitable ridgeline landscaping to enhance the ridgeline.</li> </ol> <p><b>Controls</b></p> <ol style="list-style-type: none"> <li>1. Residential subdivision is to be in the form of large lots to reflect the rural character of the area.</li> <li>2. A Development Application incorporating a land forming strategy which provides a landscaped earth mound along the ridgeline is to be prepared either prior to, or in conjunction with, the first Development Application for school buildings or for subdivision to create residential allotments within the Transition Area adjoining the Southern Viewscape Precinct area (Refer to Figure 3).                  The strategy must include view lines and detailed cross sections from the Denbigh homestead and associated rural outbuildings demonstrating that houses in the Transition Area will not be visible above the top of the mound.</li> <li>3. Land forming within the Southern Viewscape Precinct may provide for a landscaped earth mound, with a maximum height of 4.5m. A total screening height of building pads of 6m is to be achieved through a combination of earth mounding and cut / retaining walls on the residential side of the ridge line (Refer Figure 4a and Figure 4b).</li> <li>4. Figure 3 identifies the indicative location of earth mounding along the ridgeline.                  The maximum slope of the northern batter of the earth mound is</li> </ol>	<p>The purpose of the view mound generally complies with the objectives.</p> <p>The height of the proposed mound reaches a maximum of approximately 8.92 meters above the natural ground level (see Plan 004 of the proposal). The excavation to the south of the mound reaches more than 4.5 metres at its deepest point (see Plan 002 of the proposal). Although these exceed the heights in the DCP, these modifications should provide the required visual screening of future developments on Lot 2005, south of the Denbigh Estate.</p> <p>The design of the mound generally includes the tapered transition at its base as stated in the DCP and shown in section in Figures 4a, 4b, 5a and 5b in the DCP. A gradual slope of 1:6 to 1:5 is proposed for the ridgeline, and the slope at the foot of the batter ranges from 1:5 to 1:8. The mound is envisioned to “match smoothly with the existing levels.”</p> <p>Based upon an analysis of the cross sections in the proposal, a minimum screening height of 6m appears to be achievable.</p> <p>The height restrictions for the future residential development on Lot 2005 are identified in Plan No. 500.</p> <p>The mound will conceal the alignment of the Hassall driveway within the project site. However, its presence should be interpreted in the design and configuration of the plantings on the mound with the original driveway alignment flanked by large red gums.</p>



- to be 1:8 at the foot of the batter and 1:5 at the ridgeline.  
The earth mound is to be formed generally in accordance with the cross sections shown in Figure 4a and Figure 4b.
5. Any development consent for the landscaped earth mound along the ridgeline, referred to in Controls (2) and (3), should include:
    - a. a detailed as-built survey to be undertaken upon completion of the earth mound to confirm that the combination of earth mounding and cut / retaining walls on the residential side of the ridgeline achieves a total minimum screening height of 6.0m,
    - b. the determination, using cross sections of view lines projected from the Denbigh homestead over the top of the completed earth mound, of lots requiring the imposition of a height control to ensure that no part of the building on the lot will be higher than the relevant projected view line,
    - c. the calculation, using the projected view lines, of the maximum height of a building on each and every lot requiring a height control, expressed as a Relative Level (RL) based on Australian Height Datum (AHD), and
    - d. the creation of a 'restriction as to user' in a S.88B instrument on each and every lot which is subject to a height control, specifying as a RL the calculated maximum height of a building on the lot.
  6. Any land forming or mounding is not to obstruct the Hook and Hassall driveway alignments.
  7. Any Development Application which incorporates the ridgeline earth mound, whether or not including residential allotments in the Transition Area, is to include the following, prepared by suitably qualified and experienced consultants:
    - a. a Concept Landscape Plan for the ridgeline mound which demonstrates the intended ridgeline landscaping treatment, utilising a random natural planting of the ridgeline vegetation buffer (refer to Figure 4a, Figure 4b, Figure 5a and Figure 5b), and
    - b. a Maintenance Manual which demonstrates the manner in which the Denbigh side of the mound is managed for a two (2) year establishment period, to ensure a consistent visual buffer and rural outlook is achieved when viewed from the Denbigh homestead and associated rural outbuildings.
  8. The Concept Landscape Plan in (6)(a) above must propose the revegetation of the ridgeline mound with appropriate species to achieve a natural visual buffer. Details of proposed species to be used must be included in landscaping plans.  
Landscaping of the mound must utilise endemic species and be of an appropriate density and mix of grasses, groundcovers, shrubs and trees to present as a wooded ridgeline screening views from Denbigh and associated rural outbuildings to new houses beyond.  
Planting must be undertaken as part of the earth mound works and completed prior to the occupation erection of any dwellings.
  9. The Maintenance Manual in (6)(b) above should include details on stock control, weed removal, replacement of sick or dead plants, and fence repair, as well as appropriate procedures for certification at completion and handover to the Denbigh owners.
  10. Landscaping works are to incorporate a timber post and rail open rural style fence with stock / dog- proof wire netting, minimum height 1.35m and maximum 1.5m, along the property boundary or top of the ridgeline earth mound compatible with existing rural fencing on the Denbigh curtilage. No other fence style is permitted, including solid timber, metal or masonry fencing.  
Timber fencing is to be maintained in a natural timber colour and not painted white or similar colour.

No areas of significant vegetation exist within the project site (which largely excludes the Lot 2005). However, it is recommended that retention of existing mature trees within the project site should be preferred over their removal.

The Landscape Masterplan being submitted as part of the proposal includes revegetation of the ridgeline mound with a combination of grassed areas for use as pasture at the foot of the mound and areas with native shrubs, trees, grasses and groundcovers. This composition of green elements will potentially ameliorate any negative visual impacts that the height of the mound will have on the natural setting of the Denbigh estate. Low native grasses, native evergreen shrubs and groundcovers are proposed to the south of the mound's ridgeline. The overall composition of vegetation will potentially allow better screening of light and sound from the future residential development on Lot 2005. This will be dependent upon the density of screening achieved over the years in accordance with the Final Landscape Masterplan and the Maintenance Manual.

The Maintenance Program lists maintenance tasks and their aims for a two-year establishment period.

According to the Landscape Masterplan, a livestock fence / barrier is proposed at the crest of the mound's ridgeline. The fence and fence lines strengthen the agricultural / pastoral nature of the Denbigh estate. The height and design of the fence depicted in the section on drawing LA-06 should be in accordance with the Control 10 and should respect the cultural significance of the Denbigh estate.

Both the north and south faces of the mound exist wholly within Lots 2008 & 2009, part of the Denbigh estate. This places the control of the mound with the estate owners.

<ol style="list-style-type: none"> <li>11. Where possible, areas of significant vegetation along the Denbigh curtilage ridgeline as shown in Section 6.6 Figure 24 of the Oran Park DCP must be retained and enhanced.</li> <li>12. Despite Control 1, land forming may not be required if the development application for subdivision demonstrates that appropriate land forming exists on adjoining land to adequately meet the objectives of this clause. Appropriate cross sections are to be included with the development application to support any argument that land forming is not required on the subject site.</li> <li>13. No sheds, gazebos or other outbuildings or structures are permitted to be constructed on the Denbigh side of the mound.</li> </ol>	
<p><b>4.2 Road Design Objectives</b></p> <ol style="list-style-type: none"> <li>a. To obscure the visual impact of road design and users on views from the Denbigh homestead and associated rural outbuildings during the day and night.</li> <li>b. To allow for the construction of rural style roadways within the Transition Area.</li> </ol> <p><b>Controls</b></p> <ol style="list-style-type: none"> <li>1. Roadways are to be designed and constructed in a manner which obscures the visual impact of the road and vehicles on views from the Denbigh homestead and associated rural outbuildings.</li> <li>2. Roadways adjacent to the curtilage boundary are to be constructed a minimum of 1.5m below the maximum RL of the ridgeline relevant to the location of the road (either natural or land forming level, whichever is greater), to reduce the impact of headlights from vehicles when viewed from the Denbigh homestead and associated rural outbuildings.</li> <li>3. The ridgeline interface road as shown in Figure 6 is to be designed in accordance with Figure 7.</li> <li>4. Where appropriate, roadways are to be designed to respond to steep topography with road gradings of up to 10% being acceptable.</li> <li>5. Street lighting is to incorporate hoods or other appropriate design treatment to minimise impacts of ambient light haze as much as possible on views from the Denbigh Homestead and associated rural outbuildings (subject to achieving relevant Australian Standards and confirmation from service authorities).</li> </ol>	<p>Any roadways adjacent to the mound are more than 1.5m below the maximum RL of the ridgeline of the mound.</p> <p>It is unlikely that any headlights will be visible from the Denbigh core curtilage since minimum screening heights of 6 metres have been achieved throughout the length of the mound. However, this will be dependent upon proposed subdivision and the extent of regrading on Lot 2005 in future DAs.</p> <p>Controls 3, 4 and 5 should be addressed at the relevant design stages for future developments on Lot 2005.</p>
<p><b>5.0 Residential Development</b>  <b>5.1 Building Height Controls</b>  <b>Objectives</b></p> <ol style="list-style-type: none"> <li>a. To obscure the visual impact of dwellings within the Transition Area when viewed from the Denbigh homestead and associated rural outbuildings.</li> <li>b. To allow housing which responds to the setting and context of the transition land through minimising building heights.</li> </ol> <p><b>Controls</b></p> <ol style="list-style-type: none"> <li>1. Dwellings within the Transition Area as shown in Figure 3, must be designed to ensure that the roof line of the dwelling does not protrude above the height of the adjoining ridgeline / earth mound as demonstrated in Figure 5a and Figure 5b.</li> <li>2. Dwellings directly backing on to the ridge line in the Southern Viewscape Precinct must be constructed to maintain the appearance of a single storey dwelling when viewed from the rear of that property as shown in Figure 4a. Basement garages will be permitted where it can be demonstrated that the dwelling will achieve a single storey design at the rear building setback.</li> </ol>	<p>Future developments within the Transition Area and the rest of Lot 2005 will be subject to height restrictions as presented in the Plan No. 500. According to this map predominantly single storey dwellings will be allowed along the road adjoining the southern face of the mound. The design guidelines outlined in Controls 1 &amp; 2 should continue to be followed as part of any future developments on Lot 2005.</p>

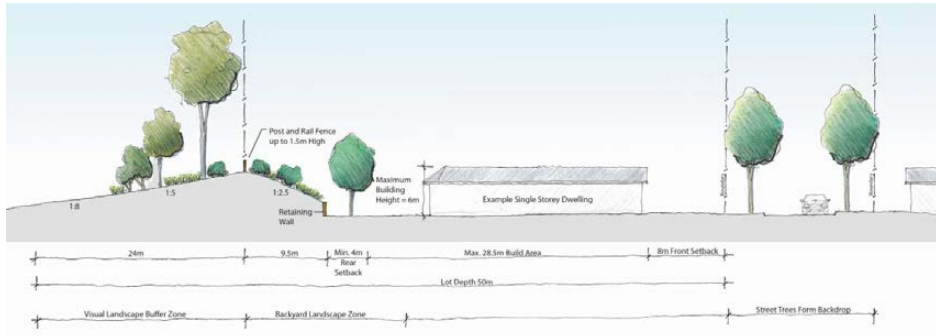


Figure 4a: Indicative Earth Mound Option – Large Lots Backing on to Landscaped Screen Mound

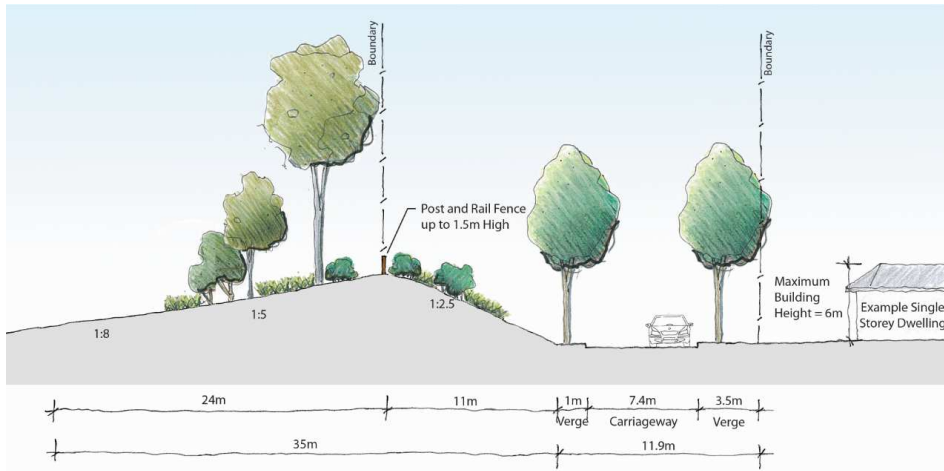


Figure 4b: Indicative Earth Mound Option – Roadway Adjoining Landscaped Screen Mound



Figure 5a: Indicative Earth Mound Elevation (Transparent)



Figure 5b: Indicative Earth Mound Elevation with Landscaping

Figure 6.1: Extract from Oran Park Precinct DCP Part B showing view mound and landscaping options.

**5.4 Residential Cut and Fill****Objectives**

- a. To allow for appropriate and reasonable levels of cut and fill associated with the construction of residential development.
- b. Encourage dwellings to be sensitively located to ensure minimisation of site works during construction.

**Controls**

1. The maximum amount of cut and fill on a residential allotment adjoining the Denbigh curtilage ridgeline is generally limited to 2m (excluding basement garages). A variation to the retaining wall heights can be considered with supporting justification.
2. Any cut or fill must be designed and undertaken in a manner which does not impact on the structural integrity of the earthmound.
3. All retaining walls proposed are to be identified in the development application.
4. All retaining walls and footings are to be wholly contained within the allotment.
5. Retaining walls are to be designed and constructed to allow installation of boundary fencing without impact on the structural integrity of the retaining wall and its footings.

The levels of cut on the allotments (as suggested by the proposal as shown in Plan 002) adjoining the ridge ranges from 0m to more than 4.5m. The extent of the cut differs from what is permissible in the DCP.

However, such a deviation allows greater flexibility in achieving the development objectives for Lot 2005.

**6.0 Former Hook and Hassall Driveways**

This clause is to be read in conjunction with Clause 6.4 of the Oran Park DCP 2007.

**Objectives**

- a. To provide for appropriate conservation and interpretation of the Former Hook and Hassall Driveways.
- b. To minimise the visual impact of development on the alignment of the Former Hook and Hassall Driveways.

**Controls**

1. Any development application for subdivision which includes the Former Hook and Hassall Driveways must be accompanied by:
  - a. An assessment of heritage significance with corresponding management measures (such as a Heritage Assessment / Heritage Impact Statement prepared by a suitably qualified and experienced heritage consultant / heritage landscape consultant) in accordance with Clause 6.4 of the Oran Park DCP 2007,
  - b. A Landscape and Visual Analysis identifying the key landscape and visual qualities of the Former Hook and Hassall Driveways alignment and any measures proposed to protect and enhance the qualities of the alignment through appropriate landscape design, species selection, development setbacks or other measures, and
  - c. A detailed Landscape Plan, prepared by a suitably qualified and experienced heritage consultant / heritage landscape consultant, for the Former Hook and Hassall Driveway corridor indicating proposed species, planting densities and maturity of stock.
2. Residential development adjoining the alignment of the Former Hook and Hassall Driveway must be appropriately setback in accordance with the recommendations of the reports referred to in Control 1 above.

The Former Hook and Hassall Driveway must be landscaped with appropriate species to preserve and enhance its heritage qualities, in accordance with the Conservation Management Plan for Denbigh and the Heritage Curtilage Study by Design 5 Architects, and the assessment of heritage significance and landscape and visual analysis required under this Clause.

The proposed mound will conceal the former Hassall driveway immediately east and south-east of Cluny Hill, but not to the north of the project area where the original Hassall drive descends towards the Denbigh homestead group. However, its presence can be interpreted in the design and configuration of the planting on the mound.

The landscape interpretation of the Hassall Driveway as illustrated in the 'Cobbitty Woodstock – Interpretation of former Hook and Hassall Driveway Option 1 - Plan' (prepared by Paterson Design Studio) will interpret this historic connection to the Denbigh estate.

The interpretation plan suggests appropriate species to be planted within the wide verges. The desired boulevard character for the corridor will interpret the existing rural character of Lot 2005 and is supported.

It is important that this interpretation of the Hassall driveway follows its original alignment. This alignment must be included as part of future development proposals for Lot 2005. The assessment of the final design of the proposed Hassall driveway corridor as part of future developments on Lot 2005 should be assessed at the relevant stage.

## 7.1 SUMMARY CONCLUSION OF THE IMPACT OF THE PROPOSAL

The proposed view mound is generally respectful of the cultural significance of the Denbigh estate and the setting of its core curtilage that includes the Denbigh homestead and outbuildings group. The proposed earthworks are substantial in themselves, but with appropriate design and landscape treatment these have the potential to blend with the existing topography, and be an acceptable addition to the low ridge that forms the southern enclosure of the amphitheatre setting of the Denbigh core curtilage.

The proposed earthworks aim to balance the objectives of the DCP, CMP and the Curtilage Study for the 'Denbigh Transition Area' in anticipation of future development on Lot 2005. To achieve greater flexibility for future developments on Lot 2005, deviations from the planning controls of the DCP have been proposed. These deviations include non-compliances with the extent of cut and fill that the site could be subjected to. However, the mound design includes the design features as required in the DCP. These include:

- A gradual integration of the batter with the adjoining rural pastures at the foot of the mound. A gradual slope of 1:6 to 1:5 is proposed for the ridgeline, and the slope at the foot of the batter ranges from 1:5 to 1:8.
- A landscaped mound with a combination of scale and type of native species planted to ameliorate potentially negative visual impacts of the height of the mound.

The extent of cut and fill proposed appears to achieve a minimum screening height of 6m for the future development. This eliminates future possibility of roof lines, streetlights or car headlights being visible from the Denbigh core curtilage. Height controls as per this proposal allow for predominantly single-storey dwellings within the transition area. Two-storey dwellings will be achievable for the rest of the Lot 2005. This will also be dependent upon the subdivision proposed and the extent of regrading proposed on Lot 2005 as part of any future DAs.

Design 5 recommends the approval of the proposal based upon the following recommendations:

1. In any future DAs, the mound design should be refined such that the mound reinterprets the existing topographic variations and high points. Such an approach will help achieve a more naturalistic ridgeline that retains and respects the significant topographic markers in the setting of Denbigh.
2. The mound should appear as natural as possible and not as a highly engineered landform when viewed from any of the adjacent areas, including Lot 2005. This will be dependent upon the extent of regrading / cut on Lot 2005. This should be addressed as part of any future DAs.
3. The mound will conceal the alignment of the Hassall driveway within the project site. However, its presence should be interpreted in the design and configuration of the plantings on the mound with the original driveway alignment flanked by large red gums.
4. It is noted that excavation shown within the project site may not permit the retention of existing trees. However, wherever possible the retention of existing mature trees should be preferred over their removal as recommended in the DCP.
5. This HIS assesses the impacts of the current design of the view mound and the extent of cut and fill proposed within the project site. The heatmap (Plan 500 of the proposal) is based upon these factors and shows the potential extent of single and two-storey dwellings on Lot 2005. If the height restrictions differ in any future DAs as part of any subdivision proposed on Lot 2005, this should not adversely impact on the cultural significance of the Denbigh Estate.
6. The amendments to the DCP considered in this report are limited to the Southern Viewscapes Precinct as identified in the DCP.

In summary the proposal generally supports the vision of the Oran Park Precinct DCP 2007, the SRGC SEPP 2006 and is generally respectful of the policies and guidelines of the 2006 Curtilage

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Study and 2008 CMP. However, in order to balance the constraints of the existing topography and the objectives for the future development, the design of the mound does not comply with the planning controls of the DCP. The planning controls within the DCP regarding the mound design and permissible extents of cut and fill were specifically designed to preserve the rural landscape setting of the Denbigh Estate, and the deviations in the current proposal generally align with this objective. We support the proposed DCP amendment based upon the recommendations mentioned above as this should support the original objectives of the DCP and protect the significance and setting of the Denbigh Estate.



Alan Croker  
Design 5 – Architects

Attachment 5





ORD01

01 June 2022

Christopher Ephraums  
Senior Development Manager  
Residential Development Mirvac  
Level 28, 200 George Street Sydney  
NSW 2000 Australia

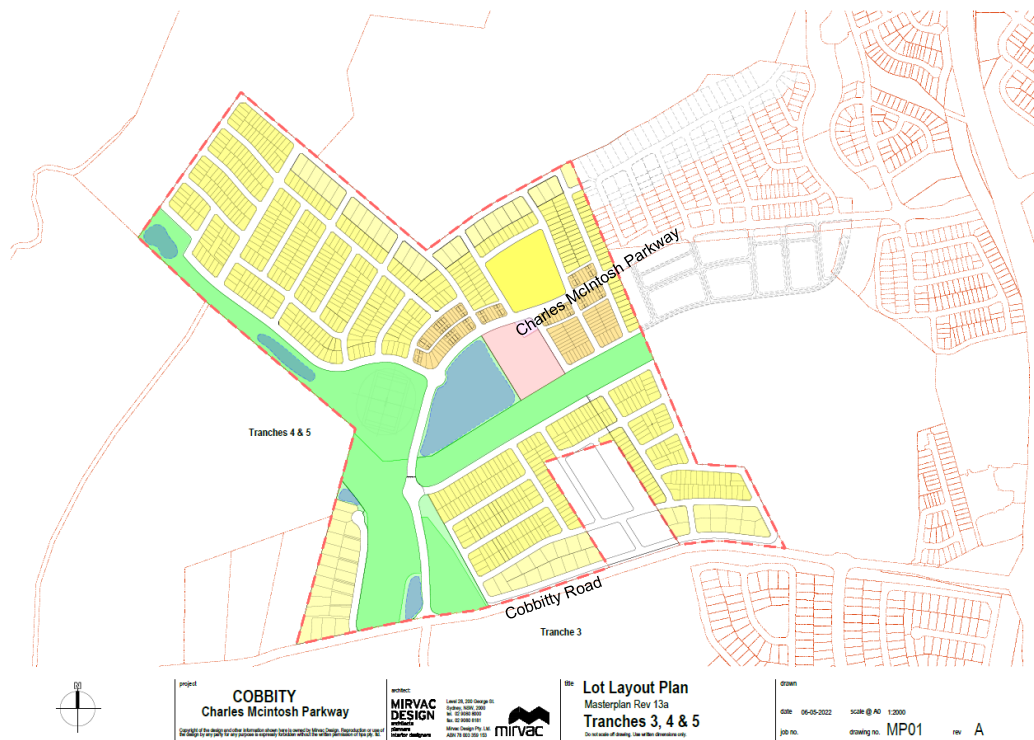
Dear Christopher,

**421 THE NORTHERN ROAD COBBITTY UPDATED MASTERPLAN AND ILP AMENDMENT - TRAFFIC IMPACT ASSESSMENT REPORT**

**Introduction**

This letter has been prepared by SCT Consulting as a traffic impact assessment to support an updated masterplan for a residential subdivision at 421 The Northern Road, Cobbitty (also referred to as Lot 2005 DP 1162239 and the site). The updated master plan is shown in **Figure 1**.

Figure 1 Proposed updated master plan



Source: Mirvac, 2022

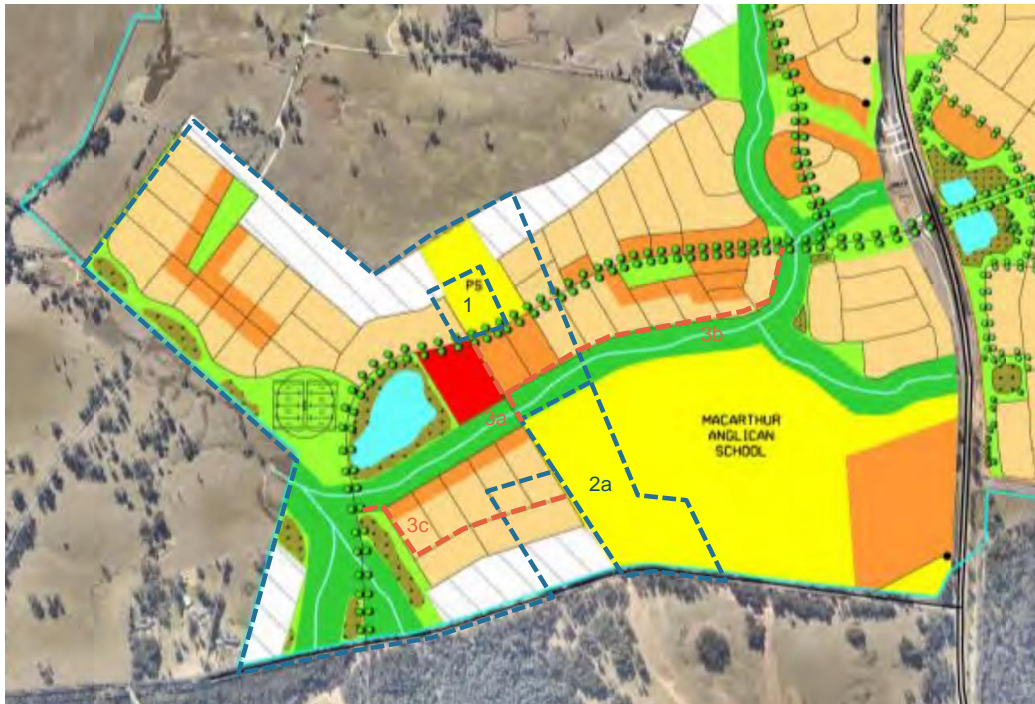
Attachment 6

The updated master plan seeks the following ILP and DCP amendments:

1. Reduction of the public school site from 3.5ha to 2ha site, with a subdivision plan to be provided of in due course
2. Update of the subdivision plan to yield a total of approximately 903 dwellings, including
  - a. the transition of lands to the east of Lot 1 DP 1014583 from community (school) uses to residential uses, yielding approximately 107 residential dwellings
3. Changes in road hierarchies and layout including:
  - a. Removing the proposed road (bridge) that runs north-south over the riparian corridor (i.e. between Road No. 01 and Charles McIntosh Parkway within the Stage 4 subdivision area
  - b. Downgrading of collector road next to the local centre to a local street
  - c. Reclassifying the collector road (Road No.01) adjoining the riparian corridor as a collector road instead of through the middle of the subdivision
4. Changes in open space including:
  - a. Shrinking the passive open spaces adjacent riparian corridors and incorporating the use into the riparian corridor design
  - b. Shrinking the footprint of the sports field precinct but providing the same infrastructure as initially considered per latest design
  - c. Removing the triangle park in the northwest and replacing it with a wide treed boulevard

A summary of the key changes proposed is shown in **Figure 2**.

**Figure 2 Proposed updated master plan**



Source: SCT Consulting, 2022



**Background**

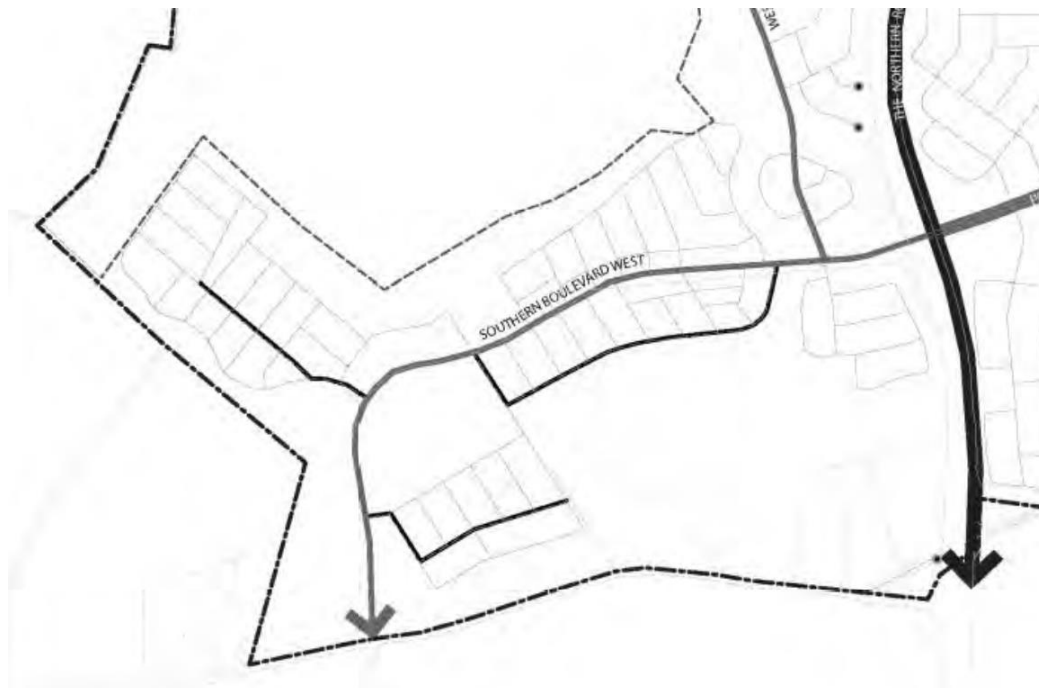
A Traffic and Transport Assessment was prepared for the original Oran Park Precinct ILP, that assessed the likely impacts of the ILP and identified the infrastructure required to support urban development as part of the Oran ILP. The Oran Park Precinct DCP 2007 was also prepared to:

- Communicate the planning, design and environmental objectives and controls against which Camden Council will assess future Development Applications (DAs)
- Consolidate and simplify the planning controls in the Oran Park Precinct
- Provide guidance on the orderly, efficient and environmentally sensitive development of the Oran Park Precinct as envisaged by the South West Sector Structure Plan as refined by the Oran Park Precinct Indicative Layout Plan
- Require the preparation of more detailed planning and design controls for important components of the Oran Park Precinct
- Promote high quality urban design outcomes within the context of environmental, social and economic sustainability.

The DCP 2007 prescribed that the minimum residential dwelling target for the Oran Park Precinct is 7,540. Where variation to the sub-precinct dwelling targets is proposed, an applicant is to demonstrate that the overall dwelling target of 7,540 dwellings for the precinct can still be achieved. Based on the lands within Lot 2005 DP 1162239, it is estimated that the minimum yield of the site is approximately 414 residential dwellings based on the minimum dwelling yield targets of sub-precincts B (part of), D (part of), F (part of) and E.

The DCP also prescribed Charles McIntosh Parkway as a 2-lane sub-arterial, that connects between The Northern Road and Cobbitty Road. In addition, there are three collector street proposed within the site, as shown in **Figure 3** (as extracted from Figure 5 of the DCP).

Figure 3 Street Network Plan (DCP 2007)



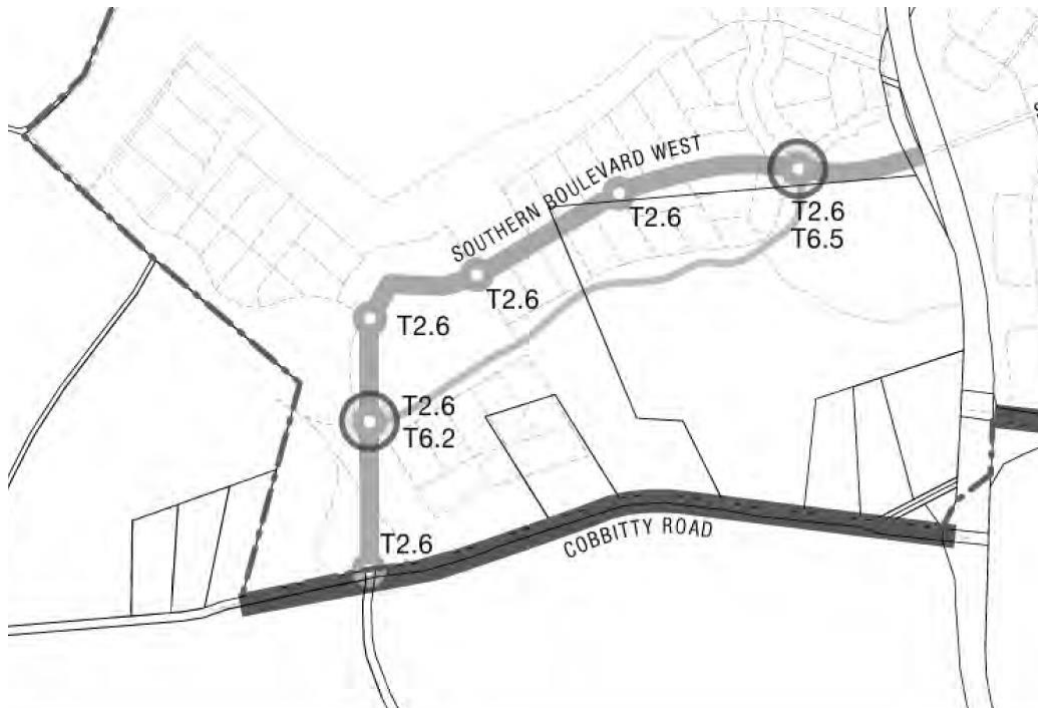
Source: Oran Park Precinct DCP 2007

Subsequently, Council prepared Oran Park Section 94 Contributions Plan that included other works that are considered necessary to meet a demand that arises because of development expected to occur within each Precinct, including works that facilitate connections to surrounding precincts and that have not been identified by the Growth Centres Commission to be provided via special infrastructure contributions. These 'local' works will be provided through the Council placing conditions of development consent on development approvals that occasion the need for the facilities.

These local transport infrastructures that are relevant to the site includes (and shown in **Figure 4**):

- 4 roundabouts along Charles McIntosh Parkway within the site boundary including one at the intersection of Cobbitty Road and Charles McIntosh Parkway (Items T2.6)
- A 2-lane culvert crossing over the riparian corridor (Item T6.2)

**Figure 4 Oran Park S94 Contributions Plan - Transport Management Facilities**



Source: Oran Park and Turner Road Precincts Section 94 Contributions Plan

This traffic impact assessment has been prepared to support the changes proposed as part of the updated master plan and to identify any likely impacts as a result of the proposed changes.

#### Existing conditions

The site is formally known as Lot 2005 in DP 1162239 The Northern Road, Cobbitty. The site forms an irregular shaped parcel of land providing a frontage to Cobbitty Road of approximately 959m. The site is currently used for farming.

The site is located within the Oran Park Precinct as part of the South West Growth Area. The areas surrounding the site primarily comprise a mixture of vacant and rural land (mostly to the north and the west) and residential land uses similar to that proposed within the subject site. Macarthur Anglican School occupies the land to the immediate east.



The proposed site will be accessed from Charles McIntosh Parkway acting as a local collector road connecting The Northern Road and Cobbitty Road at its completion.

Charles McIntosh Parkway is currently constructed between The Northern Road and Wisteria Rise and will ultimately be extended to join Cobbitty Road. It is a 2-lane sub-arterial road acting as a collector and providing connection to all development of this southwestern portion of the Oran Park Precinct. It is planned as a bus capable road and a regional cycleway.

Cobbitty Road is an east-west running collector road to the south of the site. It intersects with The Northern Road to the east and with Werombi Road to the west and provides a connection between the suburbs of Oran Park and Cobbitty. The two-lane undivided road has a signposted speed limit of 80km/h, with a school zone of 40km/h near Macarthur Anglican School.

Macquarie Grove Road intersects with Cobbitty Road to the southwest of the site and forms a T-intersection (which would be upgraded to a roundabout with four legs associated with the subdivision). Macquarie Grove Road has a speed limit of 70km/h and has one lane in each direction.

The Northern Road has been upgraded to a 4-lane divided arterial road, acting as a major road corridor connecting Penrith to the north and Narellan to the south across Western Sydney. It intersects with Charles McIntosh Parkway and Cobbitty Road as traffic signals. Further upgrades to the layout of these traffic signals are intended as the South West Growth Area continues to grow.

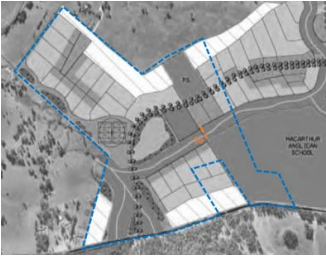
A bus stop is available on Cobbitty Road to the south of the site where bus route 31 operates between Cut Hill Road in Cobbitty and Camden. It provides two services in the morning and one service in the afternoon on school days only.

Given the rural feature, the area where the site is located currently has no dedicated cycling facilities or footpaths. The nearest shared path is on the eastern side of The Northern Road, which is about 1km away from the site.

**Proposed road hierarchy changes from the Oran Park Precinct ILP**


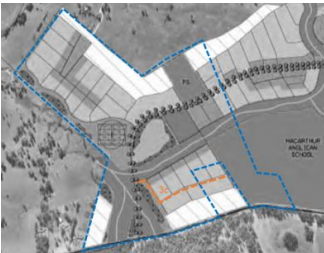
The proposed key network and road hierarchy changes from the ILP and the justifications for the proposed changes are summarised in **Table 1**.

**Table 1 Justification of road network and hierarchy changes**

Proposed changes	Justification of changes
<p>Removing the proposed road (bridge) that runs north-south over the riparian corridor (i.e. between Road No. 01 and Charles McIntosh Parkway within the Stage 4 subdivision area</p> 	<p>The removal of the road bridge would improve the functioning of the hierarchy of connected streets by removing a potential rat run. The bridge was classified as a local street but could attract through traffic as drivers seek to access between Cobbitty Road to the south and The Northern Road to the east.</p> <p>However, we propose to maintain this connection as a pedestrian bridge that would enable greater engagement with the public domain by pedestrians and cyclists as they no longer conflict with vehicles. It would enable higher quality water sensitive urban design measures by reducing the intrusion of a road into this ecological zone.</p> <p>The removal of a road corridor reduces the number of intersections that pedestrians need to cross but retains the permeability of the connection. The bridge provides a valuable link across the riparian corridor that makes walking and cycling more attractive, particularly with reduced conflicts with vehicles.</p> <p>The pedestrian and cyclist link will provide direct and safe connection for local residents to access the public school and local centre, without the need to drive and reducing the reliance on vehicular travel within the precinct.</p>





Proposed changes	Justification of changes
<p>Downgrading of collector road next to the local centre to a local street</p> 	<p>The southern collector road next to the local centre was designated as a collector road despite there being very little catchment for it. The proposed subdivision layout means that most residents would be able to access Charles McIntosh Parkway directly via these north-south local streets, rather than using the collector road to the south of the subdivision to access Charles McIntosh Parkway. Therefore, the collector road is not going to collect the local traffic and would not actually function as a collector road.</p> <p>This is similar to Wainright Drive through BHL's Oxley Ridge estate which ended up being delivered as a local road.</p> <p>Hence, we propose this road north of the riparian corridor to be delivered as a local road.</p>
<p>Reclassifying the collector road (Road No.01) adjoining the riparian corridor as a collector road instead of through the middle of the subdivision</p> 	<p>The revised collector road is a direct and convenient east-west connection. It is less circuitous, so will improve legibility. As it no longer includes intersections with unusual give way priorities (e.g. the north and east being the priority and south giving way), the safety of the road will be improved.</p> <p>By avoiding a collector function road that cuts through the centre of the residential subdivision, higher traffic volumes will run around the periphery of the precinct, improving opportunities to cross for pedestrians and improving attractiveness for cycling.</p> <p>The revised collector road still connects with Charles McIntosh Parkway at the same location – the roundabout just south of the riparian corridor.</p> <p>The proposed layout also avoids the collector road passing through a separately owned property (Lot 1 DP 1014583) meaning it can be delivered by one developer (the proponent) and provide access to potential future lots to the east of this subdivision, which would otherwise be reliant on local streets. This would improve road functioning during staged delivery of the precinct. There is no proposed change to the cross-section for this road type so the variations in the carriageway, variations in carriageway width, on-street parking, incorporation of water sensitive urban design measures, street tree planting, and pedestrian amenities are all achieved in the same way as the ILP design.</p> <p>This change has already been included in the Tranche 3 Stage 1 DA Updated Traffic Report.</p>

**Public Transport Network**

The proposed subdivision is within proximity to bus services (route 31) that currently operate along Cobbitty Road and Macquarie Grove Road. As development continues within the surrounding area and when Charles McIntosh Parkway is completed between The Northern Road and Cobbitty Road, it is expected that Charles McIntosh Parkway would become part of Oran Park's public transport network as per the DCP. Future bus services along Charles McIntosh Parkway will provide more direct public transport services for future residents of this subdivision.

There are no proposed changes in the updated master plan along Charles McIntosh Parkway that would affect / impact on future bus operations.

**Pedestrian and Cycle Network**

The local walking and cycle network proposed as part of the updated master plan will connect into the wider walking and cycle network along Charles McIntosh Parkway, according to the DCP. Overall, the proposed local street network and layout support pedestrian connectivity to the wider precinct through the availability of off-road





pedestrian footpaths on all local streets connecting future residential lots with key infrastructure including public transport routes and public open space.

The pedestrian and cyclist link over the riparian corridor will provide direct and safe connection for local residents to access the public school and local centre, without the need to drive and reducing the reliance on vehicular travel within the precinct.

### Proposed development and yield changes

The updated master plan seeks the following ILP and DCP amendments:

1. Reduction of the public school site from 3.5ha to 2ha site
2. Update of the subdivision plan to yield a total of approximately 903 dwellings, including the transition of lands to the east of Lot 1 DP 1014583 from community (school) uses to residential uses, yielding approximately 107 residential dwellings

A summary of the proposed land use changes and updated yield is provided in **Table 2**. The proposed 903 residential dwelling satisfies the minimum yield dwelling target of 414 as suggested in the ILP.

**Table 2 Proposed land use changes and updated yield**

Area	Proposed changes	Updated master plan yield assumptions
Lands to the east of Lot 1 DP 1014583 (and west of Macarthur Anglican School)	Transition from community (school) uses to residential, to yield 107 dwellings	107 residential dwellings
Public school site	Reduction from 3.5ha to 2ha	1,000 students <sup>1</sup>
Remainder of Lot 2005 DP 1162239	Update of subdivision plan to yield 796 dwellings	796 residential dwellings
	N/A	A local centre of approximately 5,150m <sup>2</sup> (this is not an amendment to be sought in the updated master plan)
<b>Total residential dwellings</b>		<b>903</b>
<b>Total number of students</b>		<b>1,000</b>
<b>Total retail areas</b>		<b>~5,150m<sup>2</sup></b>

### Trip generation and potential traffic impacts

Although the proposed 903 residential dwelling satisfies the minimum yield dwelling target of 414 as suggested in the ILP, the potential traffic impacts on the surrounding critical road network have been considered as a result of the proposed master plan update.

Based on a trip generation rate of 0.99 and 0.95 (AM peak and PM peak) vehicle trips per low-density dwelling from the *Technical Direction TDT 2013/04a*, the updated master plan, with an additional 903 residential dwellings, would be expected to generate up to 894 vehicle trips during the peak hours.

Based on a trip generation rate of 0.67 for AM peak hour vehicle trips for a metropolitan public school from the *TINNSW Guide to Traffic Generating Developments for schools (GTA Consultants, 2014)*, the proposed 2ha school site with up to 1,000 students would be expected to generate up to 670 vehicle trips during the AM peak hours. It is not expected the school would generate any traffic during the PM commuter peak hour.

Based on a trip generation rate of 5.9 and 12.3 (AM peak and PM peak) vehicle trips per 100m<sup>2</sup> of retail from the *Technical Direction TDT 2013/04a*, the updated master plan would be expected to generate up to 633 vehicle trips during the PM peak hours.

<sup>1</sup> Assumption supplied by SINSW for the development of a 2ha school site.



A summary of the updated yield and the associated changes in trip generation is provided in **Table 3**.

**Table 3 Proposed updated yield and associated changes in trip generation**

Land uses	Updated master plan yield	Trip rates		Trip generation	
		AM	PM	AM	PM
Residential	903	0.95 per dwelling	0.99 per dwelling	858	894
School	1,000	0.67 per student	N/A	670	N/A
Local centre	5,150m <sup>2</sup>	5.9 per 100m <sup>2</sup>	12.3 per 100m <sup>2</sup>	304	633
<b>Total</b>				<b>1,832</b>	<b>1,527</b>

The updated master plan is expected to generate up to 1,832 peak hour trips, but not all of these trips would enter or exit externally to the precinct from The Northern Road or Cobbitty Road. For example, we have assumed that only 70 per cent of the student traffic will be generated externally to the precinct, hence 30 per cent of the student traffic would not travel through the Cobbitty Road / Charles McIntosh Parkway roundabout or the Charles McIntosh Parkway / The Northern Road traffic signals. The same principle applies to the trip generation of the local centre where 25 per cent of the traffic would be internal to the precinct and only 75 per cent will be generated externally to the precinct.

The traffic modelling also considered a potential 70 residential dwellings that could be generated from Lot 1 DP1014583.

The proposed trip generation associated with the updated master plan are distributed to the surrounding road network based on 2036 traffic movements forecast in the *The Northern Road upgrade, The Old Northern Road to Peter Brock Drive Review of Environment Factors – Traffic and Transport Assessment*. Based on these assumptions, 20-30% of the additional trips to be generated as part of the updated master plan would originate / destine towards Cobbitty Road via the completed Charles McIntosh Parkway and 70-80% of the additional trips to be generated as part of the updated master plan would originate / destine towards The Northern Road via the completed Charles McIntosh Parkway.

The proposed trip generation associated with the updated master plan are added to the 2022 surveyed traffic volumes on all the movements entering and exiting Charles McIntosh Parkway at the two critical intersections. All the other movements that are not associated with turning in and out of Charles McIntosh Parkway were estimated based on:

- 2036 traffic movements forecast in the *The Northern Road upgrade, The Old Northern Road to Peter Brock Drive Review of Environment Factors – Traffic and Transport Assessment* for the intersection of Charles McIntosh Parkway / The Northern Road.
- Factoring the existing traffic movements by 2.2% p.a. for the intersection of Charles McIntosh Parkway / Cobbitty Road.

The combined forecast turning movements at the two critical intersections of The Northern Road / Charles McIntosh Parkway and Cobbitty Road / Charles McIntosh Parkway are shown in **Figure 5** and **Figure 6** for the 2036 AM and PM commuter peak hours respectively.





Table 4 2036 AM and PM peak hour intersection performance – The Northern Road / Charles McIntosh Parkway

	2036 AM						2036 PM								
	Volumes	Degree of saturation	Average delay (s)	Level of service	95% queue (m)	Volumes	Degree of saturation	Average delay (s)	Level of service	95% queue (m)	Volumes	Degree of saturation	Average delay (s)	Level of service	95% queue (m)
Southern approach – The Northern Road	1,352	0.561	49.9	D	140	2,228	0.731	47.5	D	225					
Eastern approach – Peter Brock Drive	553	0.654	55.4	D	180	637	0.747	59.2	E	96					
Northern approach – The Northern Road	1,738	0.651	41.0	C	200	1,656	0.543	44.9	D	155					
Western approach – Charles McIntosh Parkway	844	0.647	53.1	D	114	491	0.394	34.1	C	84					
<b>Total intersection</b>	<b>4,487</b>	<b>0.654</b>	<b>47.7</b>	<b>D</b>	<b>200</b>	<b>5,012</b>	<b>0.747</b>	<b>46.8</b>	<b>D</b>	<b>225</b>					

Table 5 2036 AM and PM peak hour intersection performance – Cobbitty Road / Charles McIntosh Parkway

	2036 AM						2036 PM								
	Volumes	Degree of saturation	Average delay (s)	Level of service	95% queue (m)	Volumes	Degree of saturation	Average delay (s)	Level of service	95% queue (m)	Volumes	Degree of saturation	Average delay (s)	Level of service	95% queue (m)
Southern approach – Charles McIntosh Parkway	223	0.260	10.0	A	11	222	0.310	11.3	A	14					
Eastern approach – Cobbitty Road	488	0.430	5.9	A	23	861	0.647	5.9	A	48					
Northern approach – Charles McIntosh Parkway	192	0.326	12.3	A	16	110	0.133	8.1	A	5					
Western approach – Cobbitty Road	613	0.586	7.0	A	35	379	0.406	7.3	A	19					
<b>Total intersection</b>	<b>1,526</b>	<b>0.586</b>	<b>7.8</b>	<b>A</b>	<b>35</b>	<b>1,572</b>	<b>0.647</b>	<b>7.2</b>	<b>A</b>	<b>48</b>					

**Conclusion**

The change of the road network and hierarchy from the ILP are justified in this report. They all provide more benefits than what has been suggested in the ILP in terms of site accessibility and road network permeability. It also creates a pedestrian and cyclist-friendly environment for future residents.

SIDRA modelling was undertaken with the total traffic volumes at the two critical intersections, to understand the potential impacts of these trips expected to generate as a result of the updated master plan. The SIDRA analysis confirmed that both intersections are forecast to operate at LoS D during the peak hours in 2036, which is considered to be acceptable as a performance requirement.

Yours sincerely

**Andy Yung**

Director

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URBIS

**COBBITTY ROAD**

# **VISUAL CHARACTER ANALYSIS**

PREPARED FOR MIRVAC  
AUGUST 2022  
FINAL



## URBIS STAFF RESPONSIBLE FOR THIS REPORT:

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## 1.0 INTRODUCTION

### DEFINITIONS RELATING TO ADJACENT VISUAL LANDSCAPE

#### VISUAL CURTILAGE

Visual curtilage is a term used to refer to associated landscapes that are visible within a geographical area or extent of a landholding, heritage item, subject site or road corridor. The visual curtilage of a road corridor or site includes the associated visible landscapes to either side, which in this case are gently undulating pastoral landscapes, rural in-nature characterised by intermittent dwellings and structures of low height and scale and fingers of vegetation often associated with riparian corridors or areas.

#### VISUAL CHARACTER

Visual character is a term which refers to predominant visual features that are present in the landscape.

#### SCENIC QUALITY

Scenic quality relates to the likely expectations of viewers regarding scenic beauty, attractiveness or preferences relating to the visual setting or composition of a view.

#### LANDSCAPE CHARACTER

The distinctive, recognisable and consistent pattern of physical elements within a landscape, which when combined, give a setting its sense of place and make one landscape different from another. Multiple physical elements include terrain, vegetation, bodies of water, cultural modifications and atmospheric conditions.

### PURPOSE OF THIS REPORT

Urbis has been engaged by Mirvac Pty Ltd to assess the existing visual character of Cobbitty Road, Cobbitty in the Camden LGA which directly adjoins Mirvac owned land. The proposed subdivision on the site has significant frontage to Cobbitty Road and therefore both Council and the landowners have requested that the development provide appropriate visual mitigation that limits the impact of the subdivision on Cobbitty Road and its landscape character.

The purpose of the report is to provide Mirvac with objective baseline data regarding the predominant visual character and scenic quality of the road corridor. In particular the analysis identifies sections of the road corridor where the existing visual character changes or has emerged recently.

The purpose of this baseline analysis is to inform all stakeholders as to visual uniqueness and importance of the road corridor and to identify potential visual impacts and mitigation measures which may be appropriate in relation to development adjacent to it.

This study is limited to an analysis of the visual character of the road corridor and its associated visual curtilage and does not conflate visual character or scenic quality with cultural heritage values.

In our opinion this is not required in relation to the potential visual effects of the proposed development.

### SUBJECT SITE AND PROJECT UNDERSTANDING

The site, legally known as 2005/DP1162239 is located at 421 The Northern Road, Cobbitty and is approximately 79.77ha and forms part of the Oran Park Growth Area, which has been rezoned under the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* (Growth Centres SEPP) for future urban development. It is broadly expected that land will accommodate a maximum of 953 residential dwellings, a neighbourhood centre and associated infrastructure including open space.

### SURROUNDING LANDSCAPE CHARACTER

The semi-rural suburb of Cobbitty is located approximately 60km south west of Sydney CBD and is within the South West Priority Growth Area for Sydney. Cobbitty is predominately rural in character.

The surrounding visual landscape is characterised by a mixture of rural landscape, established settlements and urban areas. The rural areas are characterised by pastoral landscapes, farming practices, remnant vegetation and woodland with limited building development that is generally spatially separated from one another.

Established settlement areas (such as Cobbitty Village) are largely comprised of vernacular buildings and layout patterns, with residential dwellings along a central main street ranging in construction periods and generally limited to one to two storeys. The buildings are detached from one another as a result of being on large lot residential parcels of land and are set back from road with front gardens, often allowing for clear views of built form.

More recent urban development is present to the east of the site such as Harrington Park and Oran Park. These areas are characterised by newly established residential suburbs, town centres, infrastructure and employment zones. Built form is clearly visible within these areas, with residential set backs often being limited and with minimal vegetation to the front boundary.

Parts of the visual character adjoining the Cobbitty Road corridor are relevant to this study as they form part of the visual curtilage of the road and add to the overall visual experience for users of the road.



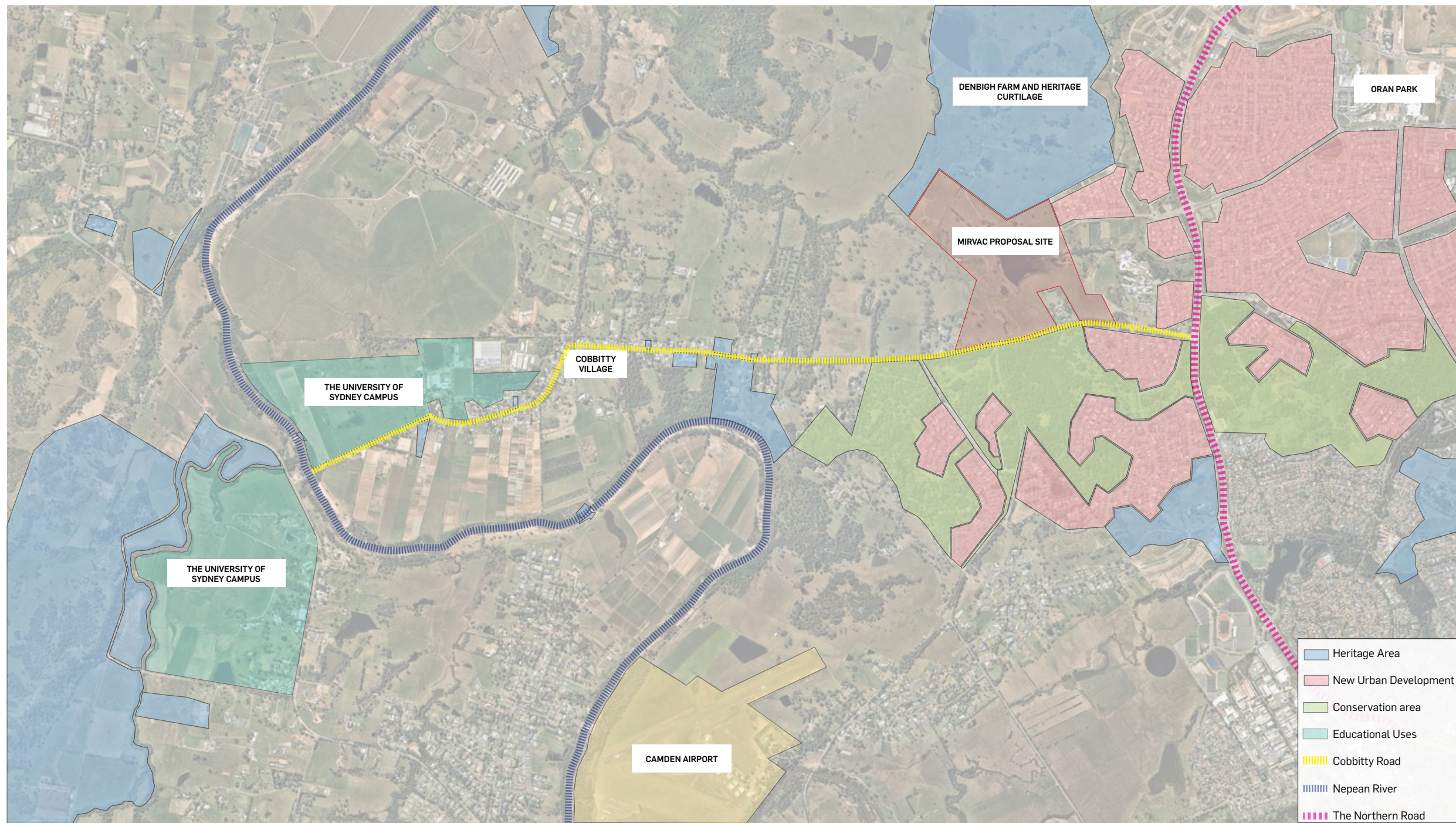


FIGURE 1 SURROUNDING LANDSCAPE CHARACTER AND FEATURES



## 2.0 COBBITTY ROAD CHARACTER ANALYSIS



FIGURE 2 VIEW SOUTH WEST FROM INTERSECTION OF KITTY LANE AND HOOK STREET



FIGURE 3 RURAL STREETScape AND LARGE LOT PARCEL



FIGURE 4 VIEW NORTH WEST OVER RURAL LAND TOWARDS NEW RESIDENTIAL DEVELOPMENT



FIGURE 5 HARRINGTON GROVE RESIDENTIAL DEVELOPMENT



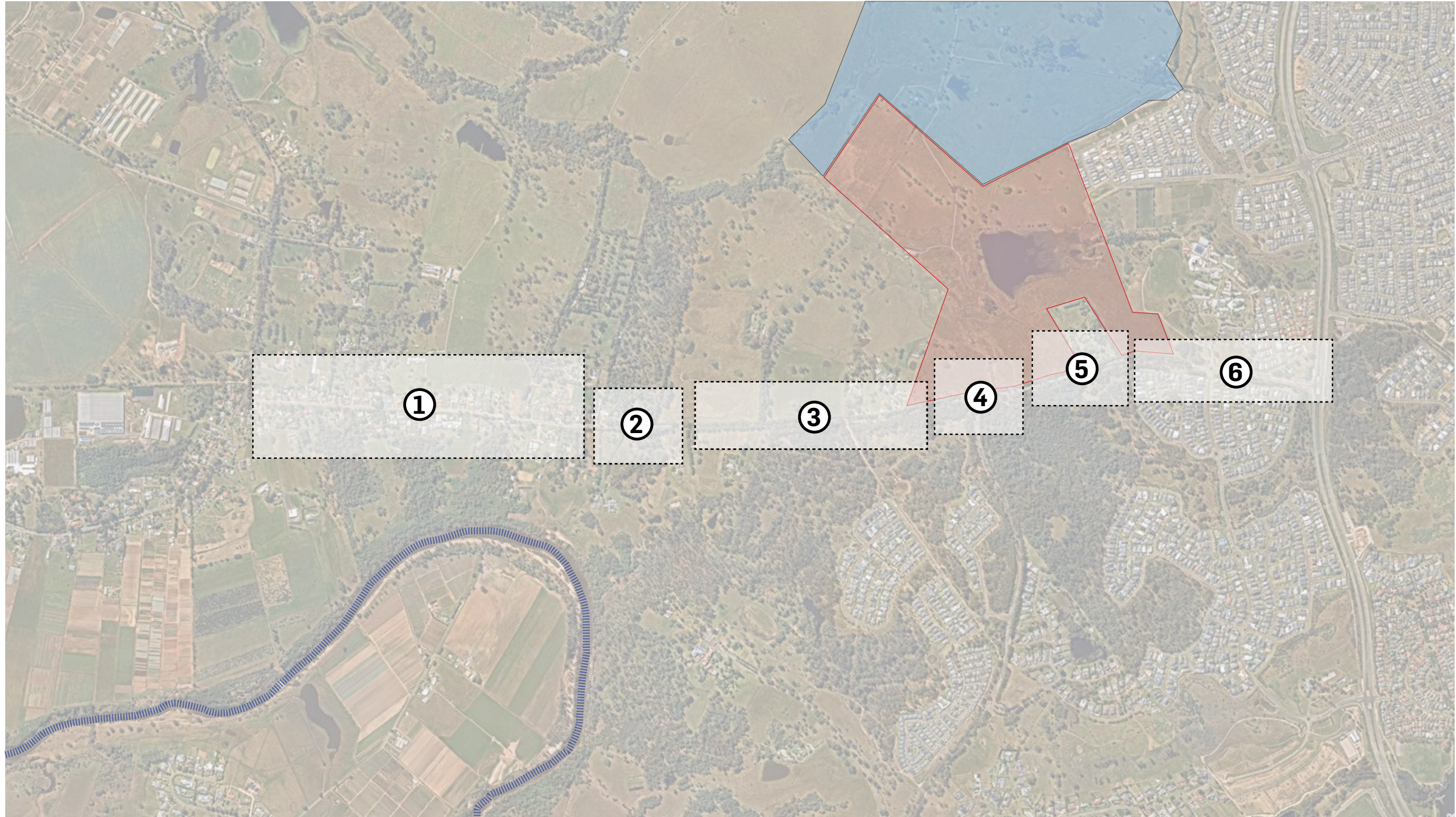


FIGURE 6 COBBITTY ROAD ZONES AND EXTERNAL VISIBILITY





**KEY INSIGHTS**

- Visual character of this section is influenced by high visibility of dwellings set within wide setbacks and ornamental gardens.

FIGURE 7 ZONE 1 AERIAL AND VIEWPOINT LOCATION



FIGURE 8 COBBITTY VILLAGE (ZONE 1) LOCATION



FIGURE 9 LOCAL HERITAGE LISTED COBBITTY GENERAL STORE

### 1. COBBITTY VILLAGE STREETScape

The predominant visual character of the Cobbitty Village streetscape is one of typical large lot residential living. Residential dwellings fronting Cobbitty Road are a mixture of architectural styles and construction dates typically ranging from mid 20th century to present, and are largely single storey brick or rendered exteriors with gabled and hipped roofs. The dwellings are typically setback from Cobbitty Road between 8 to 13 metres with front gardens comprised of a mixture of styles and planting types from open lawns, hedges, shrubs and specimen tree planting.

The dwelling setbacks, generally open front gardens and limited street tree planting creates a relatively open view when travelling along the road, and allows for a high degree of visual accessibility of built form to either side of the road, as well as infrastructure elements such as overhead power lines. Long distance views are generally not available apart from the road corridor itself, however exceptions such as from Teen Ranch south towards Camden exist.





**KEY INSIGHTS**

- The height and scale of trees located in the road reserve mark the end of the village transition section of visual character.
- Intermittent and isolated views to the north and south across adjacent rural lands are available from moving viewing situations for road users.

**FIGURE 10** ZONE 2 AERIAL AND VIEWPOINT LOCATION



**FIGURE 11** VILLAGE TRANSITION (ZONE 2) LOCATION



**FIGURE 12** VIEW EAST FROM OPPOSITE 365 COBBITTY ROAD

**2. VILLAGE TRANSITION**

A gentle decrease in elevation marks a transition zone between the large lot residential dwellings along the road to the west to more open primary production land.

The setbacks of the dwellings in this zone from the road and each other are generally larger than that to the west, and vegetation begins to become more visually significant to either side of the road corridor compared to the Zone 1 (Cobbitty Village). While views of dwellings on the northern side of Cobbitty Road are still present, views to the southern side become more fleeting as a result of the greater setbacks and denser vegetation.

The view east from this transition zone compared to the west is framed by mature vegetation. Intermittent lateral views are available between vegetation, as are areas of open sky





FIGURE 13 ZONE 3 AERIAL AND VIEWPOINT LOCATION



FIGURE 14 ENCLOSED ROADWAY (ZONE 3) LOCATION



FIGURE 15 VIEW EAST FROM 415 COBBITTY ROAD

### 3. ENCLOSED ROADWAY

Views are highly framed within this area as a result of the mature vegetation to the north and south of the road. As a result of the height, canopy spread and maturity of the trees to either side, the view is also highly enclosed, with canopy cover extending over the roadway.

Highly filtered peripheral views through the vegetation adjacent to either side of the road are possible, and create a partial sense of what is beyond, particularly to the northern side where cleared rural land is present to the north. Views to the southern side of the road are more limited due to the density of vegetation, creating a more dense impression with limited views southwards.

While the framing of vegetation to either side of the road is generally consistent throughout this section of Cobbitty Road, isolated views north and south are present, typically as a result of driveways, however these views are fleeting.





**KEY INSIGHTS**

- This section of road corridor is characterised by juvenile screen planting and less mature canopy trees within and adjacent to the road corridor.
- Intermittent and isolated views are to the north and south across adjacent rural lands are available from moving, viewing situations for road users.

**FIGURE 16** ZONE 4 AERIAL AND VIEWPOINT LOCATION



**FIGURE 17** ZONE 4 LOCATION



**FIGURE 18** VIEW NORTH FROM MACQUARIE GROVE ROAD

**4. TOPOGRAPHICAL CHANGE & JUVENILE VEGETATION**

Cobbitty Road becomes elevated above the adjacent landform to the north, with vehicles travelling along the road being able to perceive the level difference. The highly framed and enclosed view to the west is also replaced by one that is far more open as a result of the more juvenile planting to the northern side of the road.

While less mature planting is located to the north, partial peripheral views are all but lost as a result of the level difference meaning the carriageway is level with the fuller mid and upper portions of adjacent canopy as opposed to more sparse lower sections of vegetation. A fleeting long distance view is possible from the culvert over Cobbitty Creek to the east.

This area represents one of the few public access roads that allow direct southern access to Cobbitty Road with potential frontal views north.

The visual character of this zone is newly formed and emerging as a result of the establishment of growing screen planting.



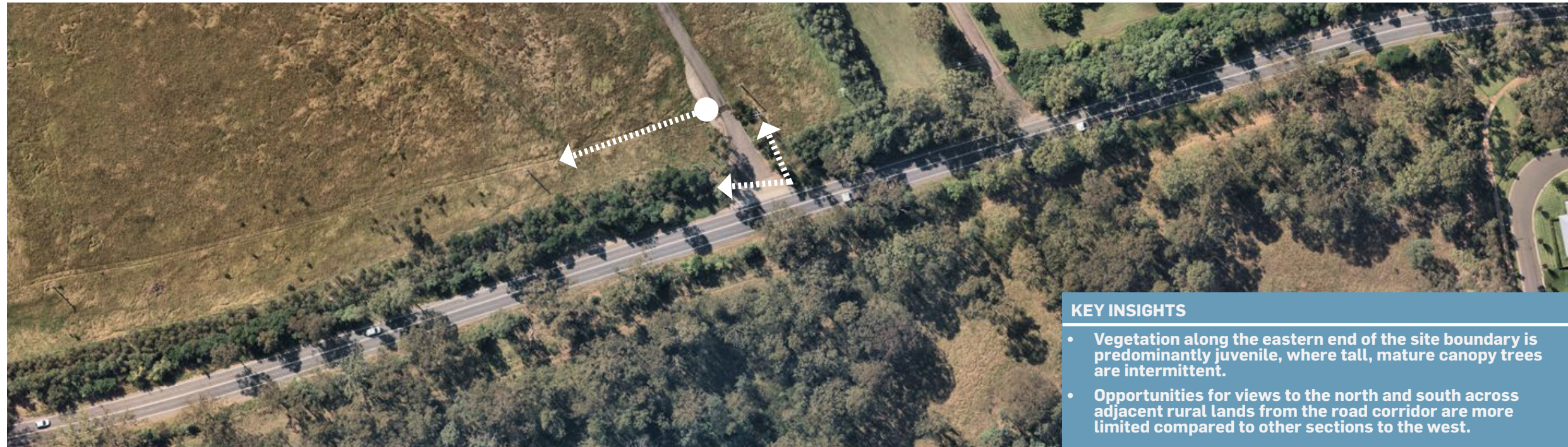


FIGURE 19 ZONE 5 AERIAL AND VIEWPOINT LOCATION



FIGURE 20 HARRINGTON GROVE APPROACH (ZONE 5) LOCATION



FIGURE 21 VIEW SOUTH WEST FROM DENBIGH FARM ENTRANCE

### 5. HARRINGTON GROVE APPROACH

A gentle increase in elevation from west to east marks the approach towards Harrington Grove and Macarthur Anglican School. Vegetation to the northern side of the carriageway is generally juvenile until reaching the driveway leading to Denbigh Farm, where a fleeting long distance view over open rural land towards vegetated slopes in the distance is possible for road users.

A short section of dense vegetation that borders 581 Cobbitty Road to the northern side of the carriageway fully blocks any views north into property, while vegetation to the southern side begins to thin out.





**KEY INSIGHTS**

- Visual character of the area is urbanised, with smaller residential lots and urban elements in contrast to rural nature of the rest of Cobbitty Road.
- Long distant view across the site possible when travelling west.

FIGURE 22 ZONE 6 AND VIEWPOINT LOCATION



FIGURE 23 NEW URBAN AREA (ZONE 6) LOCATION



FIGURE 24 VIEW NORTH WEST FROM COBBITTY ROAD

**6. NEW URBAN AREA**

Peripheral and filtered views to either side of the road become more available, particularly to the south of the carriageway where views of detached dwellings within Harrington Grove are possible. A fleeting long distance view to the north west is possible when travelling west along Cobbitty Road, although this is tightly constrained due to surrounding mature vegetation.

The eastern entrance to Cobbitty Road marks a distinct change in streetscape in comparison to the rest of the road. Short and medium distance views are possible due to the decrease in surrounding vegetation, particularly to the north surrounding Macarthur Anglican School. Low shrub planting and street lighting to either side of the road as well as a public footpath to the northern side replace the more naturalistic and rural vegetated streetscape that characterises the road to the west.



## 3.0 FINDINGS & RECOMMENDATIONS

### FINDINGS

- The east and west of Cobbitty Road (zones 1 & 6) differ greatly from one another and bookend the segment of road that is adjacent to the proposal site.
- Cobbitty Village is a typical rural town defined by large residential lots with dwellings set back from the road to allow for front gardens and generally clear views of built form from the road.
- The east of Cobbitty Road is visually distinct from the other zones identified due to the scale, height and age of development which includes residential subdivision and Macarthur Anglican College.
- Views to either side of Cobbitty Road (north and south) are generally highly filtered or obstructed due to vegetation with zones 3, 4 and 5 having the highest levels of vegetation.
- Limited views north and south through the vegetation are further compounded through a combination of travelling at speed in a vehicle and being peripheral views.
- The visual curtilage of Cobbitty Road is limited to intermittent and filtered views through vegetation for a viewer from moving viewing situations, where views are predominantly constrained to the road corridor by the presence of understorey vegetation and canopy trees located within the road reserve.
- Lack of public footpaths results in limited viewing time when travelling along Cobbitty Road in a vehicle and decreases the ability to perceive and contemplate views through the existing vegetation that would be possible if walking.
- Views to the heritage item Denbigh Farm are not possible when driving along Cobbitty Road as a result of vegetation, distance and travelling speed.

### RECOMMENDATIONS

- Maintain existing planting within the Cobbitty Road corridor adjacent to proposal where possible.
- Where peripheral views into the site are possible due to sparse vegetation recommend targeted additional planting to boundary planting (to be assessed during design development).
- Increase boundary planting to filter views at select locations if built form views is deemed to be overly intrusive on visual character of Cobbitty Road. Only to be further explored upon more detailed design layouts and analysis to ascertain necessity.
- Provide screening planting to south eastern corner to conceal north west views into site past Macarthur Anglican College roundabout.
- Proposed Cobbitty Road / Macquarie Grove Road Roundabout entrance should consist of planting to match existing in the area to maintain visual character. Roundabout treatment similar to the College entrance would be inappropriate given highly manicured nature.
- Proposed Cobbitty Road / Macquarie Grove Road entrance provides only direct views north into site. As such entrance planting should be explored to filter views northwards as should suitable median planting.





FIGURE 25 RECOMMENDED VISUAL IMPACT MITIGATION MEASURES



# 4.0 VISUAL MITIGATION MEASURES

## APPROXIMATE VEGETATIVE HEIGHTS AND MASSING ENVELOPE

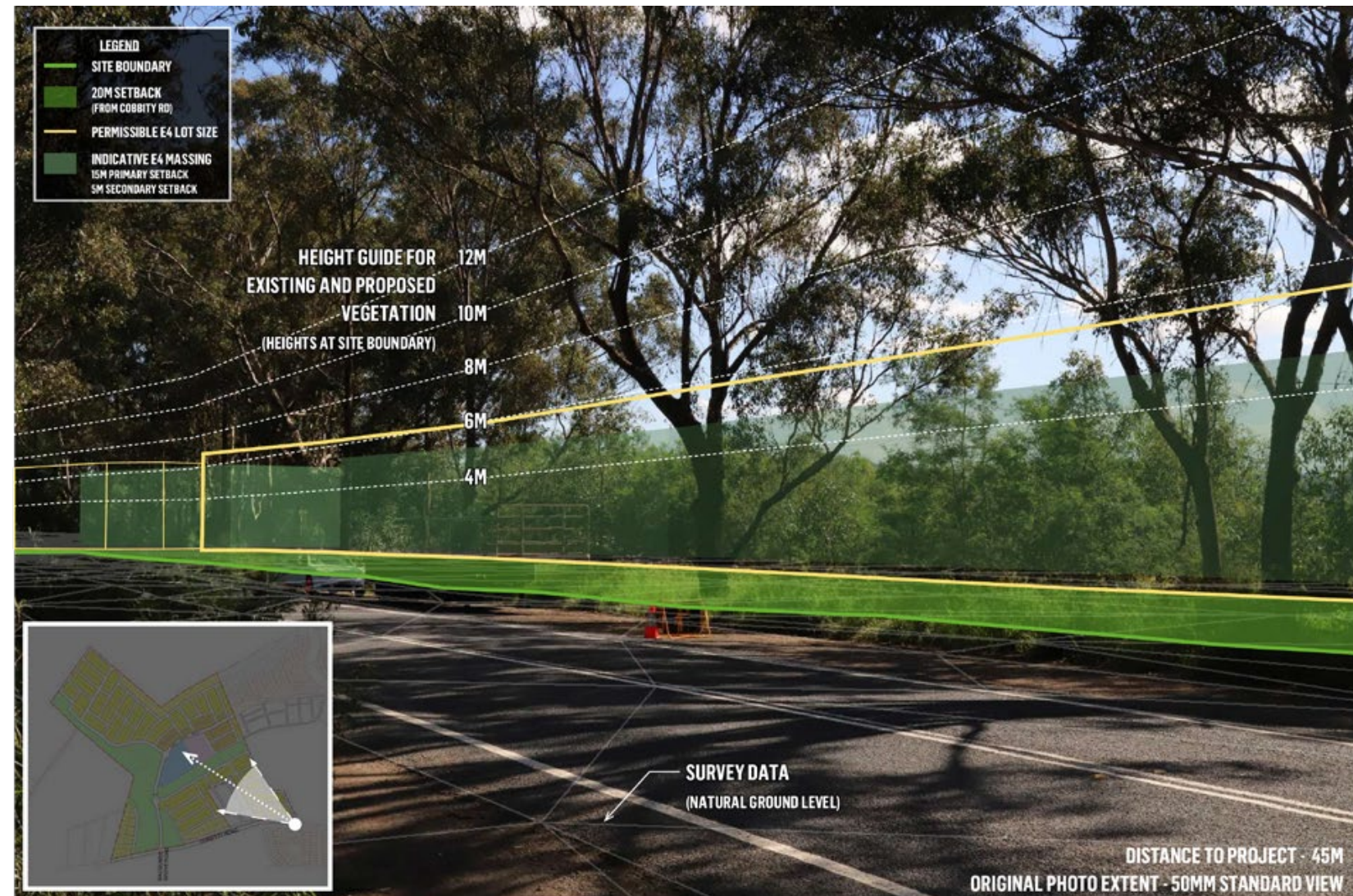


FIGURE 26 VEGETATIVE HEIGHTS AND MASSING ENVELOPES (EASTERN END OF COBBITY ROAD)



## APPROXIMATE VEGETATIVE HEIGHTS AND MASSING ENVELOPE



FIGURE 27 VEGETATIVE HEIGHTS AND MASSING ENVELOPES (COBBITTY ROAD & MACQUARIE GROVE ROAD INTERSECTION LOOKING EAST)

### PLANNING HEIGHT AND MASSING ENVELOPES

#### E4 - ENVIRONMENTAL LIVING

Height **9.5m**  
Setback **15m**

Individual dwellings within the Environmental Living lots would be detached and wide spatial separation and would not present to Cobbitty Road as a solid extent of built-form.

#### VEGETATION HEIGHTS

Planting heights have been shown at the site boundary (with the height extruded from the survey line).

#### KEY INSIGHTS

- Corridor views along Cobbitty Road (as opposed to direct views towards the site) are the primary views available
- Oblique angle of view increases screening effect of vegetation
- Road reserve planting generally consists of the most mature vegetation along the road and contributes highly to screening of the site and road character
- Density of road reserve planting allows for reduction of buffer planting within the site while maintaining road character



### WESTERN ROAD RESERVE PLANTING AND PLANTING BUFFER (2018 - 2022)



FIGURE 28 PLANTING WIDTH ON SITE AND ROAD RESERVE PLANTING (SEPTEMBER 2018)

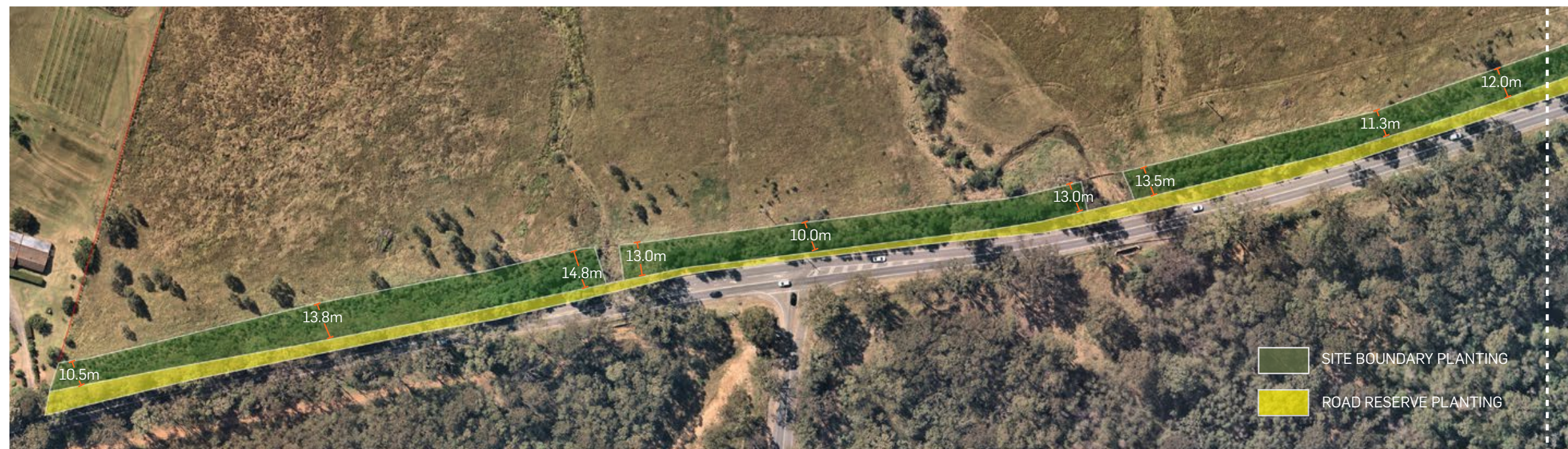


FIGURE 29 PLANTING WIDTH ON SITE AND ROAD RESERVE PLANTING (MARCH 2022)



# EASTERN ROAD RESERVE PLANTING AND PLANTING BUFFER (2018 - 2022)



FIGURE 30 PLANTING WIDTH ON SITE AND ROAD RESERVE PLANTING (SEPTEMBER 2018)



FIGURE 31 PLANTING WIDTH ON SITE AND ROAD RESERVE PLANTING (MARCH 2022)





FIGURE 32 DECEMBER 2009 STREET VIEW (COBBITTY ROAD & MACQUARIE GROVE ROAD INTERSECTION)



FIGURE 33 MARCH 2013 STREET VIEW (COBBITTY ROAD & MACQUARIE GROVE ROAD INTERSECTION)



FIGURE 34 NOVEMBER 2018 STREET VIEW (COBBITTY ROAD & MACQUARIE GROVE ROAD INTERSECTION)



FIGURE 35 DECEMBER 2020 STREET VIEW (COBBITTY ROAD & MACQUARIE GROVE ROAD INTERSECTION)

### VISUAL MITIGATION RECOMMENDATIONS

- Maintain approximate 7m of boundary planting from road reserve northern boundary (level of removed planting will vary - see Figures 36-37).
- Where peripheral views into the site are possible due to sparse vegetation, additional planting within 7m boundary planting (subject to further detailed landscape design) is recommended.
- LiDAR data, aerial photographs and street view photographs indicate relatively rapid growth of vegetation in the planting buffer which indicates fast growth of additional tree planting and could be quickly established if required to augment existing screening.
- Increase boundary planting widths to filter views at select locations if built form is deemed to be overly intrusive on visual character of Cobbitty Road.
- Include tree planting to southern boundary of proposed residential Environmental Living lots to provide further canopy filtering beyond road reserve and boundary planting (endemic species to be used).
- South-eastern corner provides highest visual access across the site and therefore existing planting should be maintained where possible and supplemented to filter views (subject to detailed design).

### KEY INSIGHTS

- The visual character of Cobbitty Road varies depending on location and corresponding density of road reserve and boundary planting.
- The vegetative level and screening of the site has varied historically, often allowing for greater visibility of the site than is currently available, for example at the intersection of Cobbitty Road and Macquarie Grove Road (see Figures 39 - 42).
- Planting in vegetative buffer demonstrates fast growth rates.
- Isolated and intermittent views into adjacent rural lands and residential subdivisions occurs along each section of visual character of Cobbitty Road. It is not an unexpected experience especially in relation to eastern sections as the visual character transitions from enclosed heavily treed sections to juvenile and more open areas characterised by sporadic mature trees and residential development.
- Road reserve planting contributes more significantly than buffer planting to the visual character of Cobbitty Road.



# VEGETATIVE BUFFER

Indicative extent of retained 7m buffer planting from road reserve boundary and indicative level of planting removed.



FIGURE 36 PLANTING WIDTH ON SITE AND ROAD RESERVE PLANTING - MARCH 2022 (SOURCE: NEARMAPS)



FIGURE 37 PLANTING WIDTH ON SITE AND ROAD RESERVE PLANTING - MARCH 2022 (SOURCE: NEARMAPS)





# Placeholder for Attachment 11

Cobbitty Road, Cobbitty - Oran Park DCP Amendment  
(Pre Public Exhibition)

Mirvac Cobbitty DCP Amendment - Appendix J - Draft  
Oran Park DCP (with track changes) - Under separate  
cover

**ORD01**

**Attachment 11**

**Attachment – Relevant Development Assessment History****Relevant Development Assessment History for 531 Cobbitty Road, Cobbitty**

The Development Application history for the site is listed below in **Table 1**.

<b>Development Application Number</b>	<b>Development Application Description</b>
<b>DA/2021/300/1</b>	<p>Procedural Torrens title subdivision to create 6 lots for future development. The subdivision layout is shown in <b>Figure 2</b>.</p> <p>Approved 15 July 2021</p>
<b>DA/2022/176/1</b>	<p>Torrens title subdivision of Lot 1 as approved in DA/2021/300/1 to create 120 residential lots and 4 residue lots including remediation of contaminated land, construction of roads and drainage infrastructure, civil works including bulk earthworks and supporting public domain landscaping works.</p> <p>The DA was approved with a variation supported by Council officers to relocate the proposed collector road. The revised collector road is a direct and convenient east-west connection and will result in a less circuitous layout which will improve legibility. The proposed layout also avoids the collector road passing through a separately owned property, meaning it can be delivered by one developer.</p> <p>Approved 4 November 2022</p>
<b>DA/2022/474/1</b>	<p>Bulk earthworks including cutting, filling and importation of material to establish preliminary site levels for separate future development, as well as the demolition of existing bitumen driveway and construction of new vehicular access.</p> <p>The application proposed bulk earthworks which will support the 120-lot residential subdivision approved under DA/2022/176/1.</p> <p>Approved 21 October 2022</p>
<b>DA/2023/60/1</b>	<p>Bulk earthworks for future residential subdivision, tree removal, stormwater management works and remediation of contaminated land.</p> <p>This application is <b>currently under assessment</b> and the proposed earthworks</p>



Development Application Number	Development Application Description
	are related to Lots 4 and 6 approved under DA/2021/300/1.
DA/2023/129/1	<p>Remediation of contaminated land, embellishment of land for the purposes of public recreation involving entry feature signage, artwork, furniture, play equipment, paths, pedestrian bridges and landscaping.</p> <p>This application is <b>currently under assessment</b> and the extent of the proposed works involved are related to Lot 2 approved under DA/2021/300/1. The application is the key entry feature into the Mirvac development estate and seeks the first phase of proposed riparian and open space embellishments within the estate.</p>
DA/2023/215/1	<p>Torrens title subdivision to create twenty-nine (29) residential lots and eight (8) residue lots, site preparation works, civil earthworks, construction of roads, stormwater drainage infrastructure and public domain landscaping works.</p> <p>This application is <b>currently under assessment</b>. The application consists of the eastern entry into the site and proposes works to Charles McIntosh Parkway.</p>
DA/2023/274/1	<p>Landscaping, entry road works and installation of signage/artwork at the intersection of Cobbitty Road and Charles McIntosh Parkway.</p> <p>This application is <b>currently under assessment</b>. The application is a revision of DA/2023/129/1 and proposes to embellish the entry into the development estate.</p>
DA/2023/292/1	<p>Torrens title subdivision to create eighty-five (85) residential lots and two (2) residue lots, site preparation works, civil earthworks, construction of roads, stormwater drainage infrastructure and public domain landscaping works.</p> <p>This application is <b>currently under assessment</b>. The application seeks to subdivide a portion of Lot 6 in the north-west of the development state into 85 residential lots.</p>

Table 1: Relevant Development Assessment History

ORD01

Attachment 12

**Attachment – Assessment of Specialist Studies****Assessment of Specialist Studies for draft Oran Park Development Control Plan Amendment – 531 Cobbitty Road, Cobbitty**Open Space Analysis

An Open Space Analysis (Analysis) has been prepared by Urbis Pty Ltd (Urbis) on behalf of Mirvac Homes (NSW) Pty Limited (Mirvac) to support the proposed modifications to the Indicative Layout Plan (ILP) and Oran Park Precinct Development Control Plan 2007 for 531 Cobbitty Road, Cobbitty (the site).

The Analysis provides an indicative concept design for the proposed open spaces which will be delivered as part of the future development of the subject site. The proposed amendments relating to open space are:

- Removal of the northern linear park; and
- Refinement of open spaces adjacent to riparian corridors.

The Analysis assumes that development of the site and adjoining land (581 Cobbitty Road, Cobbitty) would yield an approximate amount of 978 dwellings and an expected population of 2,977. Council's Spaces and Places Strategy requires 2.83 ha of open space and recreation facilities per 1,000 people. The required amount of open space therefore is 8.4ha to meet the needs of the future community. The proposal provides 8.8ha of open space, excluding the riparian corridor and therefore meets the standards of the Spaces and Places Strategy.

The Analysis also notes the minimum size requirements for open space areas as being 5,000sqm. The proposed amendment to the ILP includes two unencumbered open space pocket parks that achieve a minimum of 5,000m<sup>2</sup> to be provided in the south-east and north-west of the subject site.

The Analysis summarises the qualitative aspects of the future open space network. It is intended that future development of the site will include open space and recreation facilities such as playing courts, an amenities building, interconnected pathways, active frontage to a proposed lake, multiple seating and pedestrian crossing opportunities, and the like.

Further information has also been prepared to support the Analysis, which provides a walkability assessment to ensure all dwellings are located within 400m of open space as required in the Oran Park DCP.

*Officer Comment*

The proposed provision of open space supports Council's vision for an integrated green and blue grid across the LGA, with the opportunity for future residents to explore, exercise, relax, and connect with nature.

The removal of the northern linear park has been supported by Council officers on the condition that the quantity of space being removed is redistributed to ensure the future community has access to functional unencumbered open space. The redistribution of this open space is provided in the north-west and south-west of the subject site, where gaps in the 400m walking catchment were identified as part of Council officers' assessment. The placement of these parks now addresses these concerns and ensures all future dwellings are within 400m walking distance of useable open space.

Council officers have raised concerns that the double playing sportsfield (and ancillary uses such as car park and amenities building) identified in the existing ILP, may not be able to be delivered due to size constraints. The proponent has agreed to look at the repurposing of the sportsfield to another form of open space. Council officers are supportive of this approach, subject to collection of contributions to support additional demand from the proposed development. A future VPA offer will provide further clarification as to proposed use of this land and the collection of contributions for off-site provision, to ensure Council has adequate funds for increased demand on nearby sportsfields.

The refinement of the open space network supports an integrated design approach which considers the wider riparian and passive open space network. Council officers acknowledge that a large proportion of the existing open space network is encumbered and is currently identified in the existing ILP and Contributions Plan as open space. Council officers are supportive of the integrated approach proposed by the proponent.

#### Integrated Water Management Plan

Orion Consulting have prepared an Integrated Water Cycle Management Study (IWCMS) and Plan in support of the proposed amendment of the Oran Park DCP. The current report has considered the following key studies provided by Camden Council for the site:

- Integrated Water Cycle Management Study, Ecological Engineering (2007);
- Stormwater Quantity Management and Flooding, Brown Consulting (2007); and
- Nepean River Tributaries Study, Cardo (2022).

The need to amend the existing supporting water cycle management documentation which supports the DCP, was materialised by the determination that post development flows could not be managed to existing levels without consideration of online storage. This is due to the existing large farm dam and the attenuation it provides in the existing case. In addition to contemplating online storage, this new plan needs to address continuity with the latest flood planning information available for the Greater Nepean River Catchment.

This study presents a water management strategy that focuses on the re-creation of the existing farm dam into a new man-made lake, on-line to the same creek the existing farm dam sits on. This facilitates the dual use of land and achieves both water management and open space objectives for the site.

The IWCMS illustrates information and extracts from both the Hydrologic and Hydraulic modelling undertaken in this study and demonstrates that calibration objectives to the Nepean

River Tributaries Study were achieved with consideration to the latest data available for the site.

For water quantity and floodplain management, the proposed Masterplan features active storage above the proposed lake and sportsfields that attenuates all combined post-developed flows back to pre-developed flows achieved by the existing farm dam. Two smaller on-site stormwater detention basins are proposed to treat other independent urban catchment flows, offline to the main creek lines. Combined, these water quantity facilities adequately ensure that the proposed Masterplan does not adversely impact adjoining properties.

All urban catchments will feature primary and secondary water quality controls in the form of gross pollutant traps and biofiltration systems that adequately address Camden Council's water quality management objectives.

*Officer Comment*

The IWCMS has identified that amendments are required to the existing supporting water cycle management documentation which currently supports the DCP, as post-development flows identified in the current controls cannot be managed without consideration of online storage within the Precinct. This is due to the existing large farm dam on site and the attenuation it provides in the existing development scenario.

Overall, the amended Masterplan recommends a water management strategy that focuses on the re-creation of the existing farm dam into a new man-made lake, which remains online to the same creek that the existing farm dam connects with.

The Integrated Water Cycle Management Report provides a TUFLOW Flood Assessment of the pre and post-developed scenarios for the site. The assessment demonstrates that the proposed concept design adequately meets the required performance objectives for water quantity management.

The following water quality control assets are proposed for implementation as part of the updated design:

- Gross pollutant traps (GPT) - for removal of coarse sediment and large debris, reducing maintenance obligations and pollutant load on the tertiary treatment controls.
- Bioretention systems - capture finer sediments and nutrients (proprietary solution nominated to maximise public amenity and long-term water quality control effectiveness).
- Rainwater tanks - generally required in order to meet BASIX requirements and provide a starting point for pollutant capture and removal, as well as reduction in runoff from the site.

In order to maximise recreational land use and promote more efficient use of materials for long duration maintenance cycles, the proposed WSUD design features the use of proprietary high-flow bioretention systems. Overall, the proposed refinements to WSUD on site allow for:



- Significantly increased treatment rates, thus significantly reducing required infrastructure to manage the site; and,
- Increased native vegetation to increase the overall resilience of the site to drought conditions and protection of riparian corridors from siltation and clogging.

Furthermore, Council officers and Council's Nepean River catchment consultant have reviewed the Integrated Water Management Plan.

A peer review of the Integrated Water Management Plan was undertaken by Council's Nepean River catchment consultant. The Council officers' and external consultants' assessment of the proposal have concluded that the hydrological and hydraulic modelling is fit for purpose, the residential areas of the subject site are not subject to overland flow, and flood velocity differences demonstrate compliance with Council's Floodplain Risk and Management Study for the critical 5-, 20- and 100-year flood events. In response to these comments, Council officers have identified a number of recommendations which can be completed at the more detailed Development Application stage. These include the following:

- The Flood Planning Levels for this development should be based on Council's Nepean River Floodplain Risk Management Study and Plan 2019 (now noted as 2022 and adopted by Council on 14 February 2023) for planning purposes, until such time that the Nepean River Flood Study is updated;
- Pre versus post flood velocity difference maps for the Probable Maximum Flood (PMF) Event and for 2-hour durations of all events are recommended to be provided;
- The following noted increase in peak flows and flood depths are required to be addressed; and
- Further consideration is required to reduce the impacts of flooding to match with the criteria for urban land.

The consultant of the proponent has agreed for these amendments to be made at the Development Application stage.

#### Heritage Impact Study

Design 5 Architects have prepared a Heritage Impact Study (HIS) to support the proposed amendments to the Oran Park DCP.

The HIS summarises the importance of the Denbigh Homestead through its review of the Denbigh Conservation Management Plan and Curtilage Study. The HIS therefore responds to the draft DCP and ILP amendments proposed by the proponent.

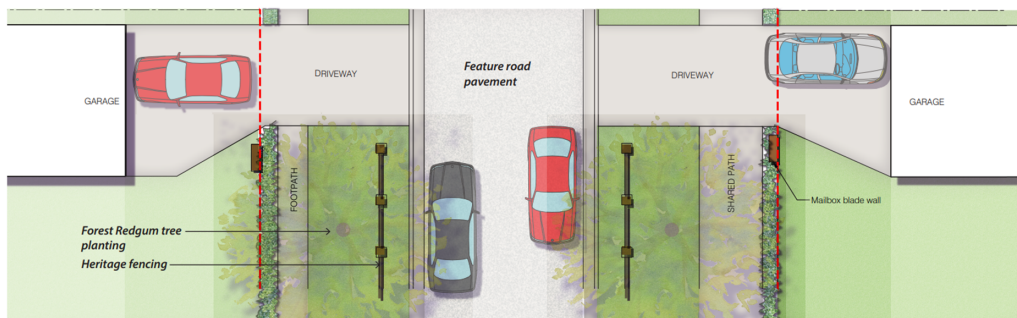
Design 5 Architects note that the proposal generally retains and respects the exceptional cultural significance of the Denbigh Homestead and associated grounds. The rural landscape, with its network of low and high ridges and hills surrounding the valley, is an important aspect of the exceptional setting and significance of the Denbigh Estate.

The study focuses on the proposed amendments to Part B3 of the DCP – Denbigh Transition Area, specifically for removing the maximum height requirement for the landscaped earth mound. The study also analyses the proposed removal of the northern triangular open space park and its reinterpretation as a heritage boulevard.

The proposed view mound is located within areas of exceptional to high aesthetic significance on the southern boundary of the Denbigh Estate. The study notes that modification of the existing low broad ridge, through the addition of a continuous raised mound, will have some impact on the visual integrity of the existing setting of the Denbigh Estate, particularly the homestead and outbuildings group (core curtilage). However, this proposed mound aims to protect this setting from proposed adjacent development. The mound on the low ridge will generally protect and preserve the rural landscape setting of the place. The height of the proposed mound reaches a maximum of approximately 8.92 metres above the natural ground level. The excavation to the south of the mound reaches more than 4.5 metres at its deepest point. These modifications should provide the required visual screening of future developments on the subject site. It is envisioned that no development will be visible from the selected viewpoints in the core curtilage. Any retaining walls or fences will also not be visible from the core curtilage. The HIS concludes that the proposed mound will be able to protect the significant rural setting and views from the core curtilage of the Denbigh Estate.

The HIS assesses the impact of the future development on Cluny Hill, which sits directly to the north of the subject site. Cluny Hill acts as a gatehouse to the Denbigh Estate. The Denbigh CMP states that the 'rural context, careful siting as entry maker and carefully articulated views and links that Cluny Hill has with its setting and Denbigh must be retained and respected'. The HIS concludes that the setting of Cluny Hill will be modified to its south and east and it will no longer be perceived as occupying the high point at the end of the ridge due to the proposed form of the mound.

The final potential impact the HIS assesses against is the reinterpretation of the currently identified open space park located in the north-west of the subject site. The open space park is approximately 10,000sqm in size and acts as an interpretation of the previous Hassall Driveway alignment. The proposal seeks to remove this park and reinterpret the historical driveway in the form of a tree-lined boulevard that respects the heritage qualities of its original setting. The details of this proposed boulevard are illustrated below:



The landscape interpretation of the Hassall Driveway, as illustrated in the 'in the above cross section' (prepared by Paterson Design Studio), will interpret this historic connection to the Denbigh Estate. The interpretation plan suggests appropriate species to be planted within the wide verges. The desired boulevard character for the corridor will interpret the existing rural character present on the subject site and beyond. It is important that this interpretation of the Hassall Driveway follows its original alignment. This alignment must be included as part of future development proposals.

The HIS concludes that the proposed amendments to the Oran Park DCP, specifically Part B3, are supportable and reflect the original objectives of the DCP and protect the significance and setting of the Denbigh Estate. The HIS recommends the following to ensure the heritage qualities and rural setting of the Denbigh Estate are preserved:

1. The mound design should be refined, such that the mound reinterprets the existing topographic variations and high points in any future DAs.
2. The mound should appear as natural as possible and not as a highly engineered landform when viewed from any adjacent areas including the subject site. This should be addressed as part of any future DAs.
3. The mound will conceal the alignment of the Hassall Driveway within the subject site. The presence of the mound should be interpreted in the design and configuration of plantings on the mound consistent with those proposed within the heritage boulevard.
4. Wherever possible, the retention of existing mature trees should be preferred over their removal, as already recommended in the existing DCP.
5. The built form and heights of future dwellings are to comply with the maximum height requirements. This is so the cultural significance of the Denbigh Estate is not compromised.
6. The amendments to the DCP are to be limited to the Southern Viewscape Precinct as identified in the DCP.

*Officer Comment*

The current DCP identifies a landscaped earth mound to avoid adverse visual impacts of future developments on the rural setting of the Denbigh Estate and on the views from the Denbigh Homestead and outbuildings group (core curtilage). The revised proposal maintains the integrity of Denbigh's heritage curtilage as it results in improvements to the heritage curtilage by providing a more responsive earth mound to reflect the topography of the site. The proposed design also reduces the amount of land required on the adjacent Denbigh Estate.

The proposed amendments remain consistent with the vision of the Oran Park DCP, in particular the specific controls set out in Part B of the DCP relating to the Denbigh Southern Viewscape Precinct. The proposed amendments will facilitate the future development of the earth mound which aims to balance the objectives of the DCP, Conservation Management Plan and the Curtilage Study for the 'Denbigh Transition Area' in anticipation of future development of the subject site. To ensure the future development of the earth mound meets the objectives of the DCP, deviations from the maximum height limit of 4.5m have been proposed. This also include updates to the extent of cut and fill within the ridgeline to reduce the extent of the earth mound required to be burdened on the adjoining landowner.

Despite the proposed modifications, the earth mound design remains consistent with the design features as required in the DCP (Figures 4a, b, c, and d). These include:

- A gradual integration of the batter with the adjoining rural pastures at the foot of the earth mound. A gradual slope of 1:6 to 1:5 is proposed for the ridgeline, and the slope at the foot of the batter ranges from 1:5 to 1:8.
- A landscaped mound with a combination of scale and type of native species planted to ameliorate potentially negative visual impacts of the height of the earth mound.

The extent of cut and fill proposed achieves a minimum screening height of 6 metres for the future development. The proposed design eliminates future possibility of roof lines, streetlights or car headlights being visible from the Denbigh core curtilage and reflects the broad aims and objectives of the DCP by providing visual screening and protecting Denbigh's rural heritage. The proposed DCP amendments also maintain the current controls for residential development within the Transition Area, to ensure that dwellings do not protrude above the ridgeline and are constructed to maintain the appearance of a single-storey dwelling when viewed from the rear.

Although the proposed mound significantly alters Cluny Hill's function as a gatehouse to the Denbigh Estate, the HIS concludes that the future landscaped mound will visually screen future development from the Cluny Hill collection of buildings.

The proposed removal of the open space linear park and reinterpretation of the Hassall Driveway is considered to interpret the existing rural character of the site and is supported from a heritage perspective. The interpretation plan suggests appropriate species to be planted within the wide verges. Further assessment of the boulevard will be undertaken as part of a future Development Application to align with the controls of Part B of the DCP.

In summary, Council officers are satisfied that the proposed DCP amendments support the original objectives of the DCP and protect the significance and setting of the Denbigh Estate.

#### Traffic Impact Assessment

SCT Consulting has prepared a Traffic Impact Assessment (TIA) to support the updates to the Oran Park DCP and ILP.

The Oran Park DCP prescribes Charles McIntosh Parkway as a two-lane sub-arterial, that connects between The Northern Road and Cobbitty Road. There are no proposed changes to the hierarchy and function of Charles McIntosh Parkway as a result of the draft amendments to the Oran Park DCP. In addition to Charles McIntosh Parkway, there are three collector roads identified for the site. The existing Street Network Plan is shown below:





The TIA summarises the proposed changes to the road hierarchy and layout which include:

- Downgrading of the collector road next to the local centre to a local street; and
- Reclassifying the collector road adjoining the riparian corridor as a collector road, instead of a road through the middle of the subdivision.

The TIA provides justification for the downgrading of the collector road next to the future local centre. The southern collector road next to the local centre was designated as a collector road despite there being very little catchment for it. The proposed amendments to the Oran Park ILP mean that most residents would be able to access Charles McIntosh Parkway directly via these north-south local streets, rather than using the collector road to the south of the subdivision to access Charles McIntosh Parkway. Therefore, the collector road is not required to collect the local traffic and would not actually function as a collector road. This is similar to Wainwright Drive through BHL’s Oxley Ridge Estate, which ended up being delivered as a local road.

The TIA provides reasoning for a revised collector road alignment south of the riparian corridor. The revised collector road is a direct and convenient east-west connection. As it no longer includes intersections with unusual give way priorities (e.g. the north and east being the priority and south giving way), the safety of the road will be improved. By avoiding a collector function road that cuts through the centre of the subject site, higher traffic volumes will run around the periphery of the precinct, improving opportunities to cross for pedestrians and improving attractiveness for cycling. The revised collector road still connects with Charles McIntosh

Parkway at the same location – the roundabout just south of the riparian corridor. The proposed layout also avoids the collector road passing through a separately owned property (Lot 1 DP 1014583) meaning it can be delivered by one developer and provide access to potential future lots to the east of this subdivision, which would otherwise be reliant on local streets. This would improve road functioning during staged delivery of the precinct.

The potential traffic impacts on the surrounding critical road network have been considered as a result of the proposed master plan update. The proposed expected trip rates and generation as a result of the development are provided in the Table the below:

Land uses	Updated master plan yield	Trip rates		Trip generation	
		AM	PM	AM	PM
Residential	903	0.95 per dwelling	0.99 per dwelling	858	894
School	1,000	0.67 per student	N/A	670	N/A
Local centre	5,150m <sup>2</sup>	5.9 per 100m <sup>2</sup>	12.3 per 100m <sup>2</sup>	304	633
<b>Total</b>				<b>1,832</b>	<b>1,527</b>

The Table summarises the trip generation rate of 0.99 and 0.95 (AM peak and PM peak) vehicle trips per low-density dwelling from the Technical Direction TDT 2013/04a. The updated Masterplan, with an additional 903 residential dwellings, would be expected to generate up to 894 vehicle trips during the peak hours.

In summary, the TIA acknowledges that the changes to the road network and hierarchy which are proposed, are justified. The proposed amendments provide more benefits than what is currently achievable in the existing ILP in terms of site accessibility and road network permeability. It also creates a pedestrian and cyclist-friendly environment for future residents.

#### *Officer Comment*

The potential traffic impacts associated with the proposed DCP amendments, on the surrounding critical road network, have been considered as a result of the proposed Masterplan update. It is noted that the proposed residential dwellings satisfy the minimum yield dwelling target of 414 as suggested in the ILP.

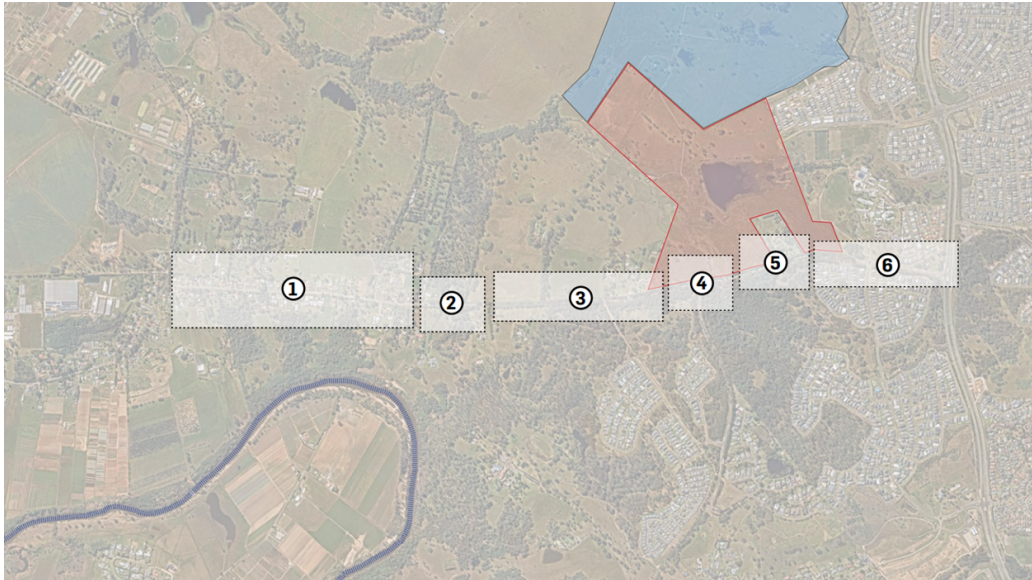
The proposed trip generation associated with the updated Masterplan is distributed to the surrounding road network.

Overall, the proposed updates to the road network aim to improve the overall traffic network for the Oran Park Precinct and result in positive benefits in relation to site accessibility and road network permeability. The proposed updates also aim to improve pedestrian and active transport connections by moving connector roads to the periphery of the site and creating improve connections to public facilities and riparian corridors.

Visual Impact Assessment

A Visual Impact Assessment (VIA) has been prepared to support the draft amendments to the Oran Park DCP.

The VIA has been structured to consider the potential for visual impacts as a result of the future development of the subject site. The VIA illustrates six different view insights as illustrated below:



The first key viewing insight is identified as the Cobbitty Village streetscape, which is located 1.5km to the west of the subject site. The VIA outlines the typical visual character of this area being of large lot residential living. The dwellings are typically set back from Cobbitty Road between 8 to 13 metres. The front setbacks opening to Cobbitty Road generally provide an open view when travelling along the road and allow for a high degree of visual accessibility. Long distance views are restricted except for the road corridor itself.

The second key viewing insight has been identified as the transition between Cobbitty Village and the rural character of Cobbitty Road. The VIA notes the setbacks of the dwellings in this zone from the road and each other are generally larger than that to the west, and vegetation begins to become more visually significant to either side of the road corridor compared to the Zone 1 (Cobbitty Village). The view east from this transition zone compared to the west is framed by mature vegetation and provides intermittent and isolated views to the north and south across the adjacent rural lands.

The third view zone identified in the VIA is directly between the subject site and zone 2 as described above. The visual character of this section of Cobbitty Road is heavily influenced by the height and maturity of street trees located in the road reserve. Highly filtered peripheral views through the vegetation, adjacent to either side of the road, are possible and create a partial sense of what is beyond. Isolated views north and south are present, typically as a result of driveways.

The fourth view zone identified in the VIA is Cobbitty Road fronting the western portion of the subject site and the intersection with Macquarie Grove Road and the future Charles McIntosh Parkway. This section of road corridor is characterised by juvenile screen planting and less mature canopy trees within and adjacent to the road corridor. This area represents one of the few public access roads that allow direct southern access to Cobbitty Road with potential frontal views north. The visual character of this zone is newly formed and emerging as a result of the establishment of growing screen planting.

The fifth view zone is the approach to the recently developed Harrington Grove Estate, which is abutting the subject site and Cobbitty Road to the south. Vegetation to the northern side of the carriageway is generally juvenile until reaching the driveway leading to Denbigh Farm, where a fleeting long-distance view over open rural land towards vegetated slopes in the distance is possible for road users.

The final view zone is the interface of Cobbitty Road with the Northern Road. The eastern entrance to Cobbitty Road marks a distinct change in streetscape in comparison to the rest of the road. Short and medium distance views are possible due to the decrease in surrounding vegetation, particularly to the north surrounding Macarthur Anglican School. Low shrub planting and street lighting to either side of the road as well as a public footpath to the northern side replace the more naturalistic and rural vegetated streetscape that characterises the road to the west.

The VIA has found that the viewscape of Cobbitty Road differs greatly between Cobbitty Village and the Northern Road and notes the importance of the rural and landscape character of the road corridor.

The VIA has a number of recommendations to ensure the rural and landscape character of Cobbitty Road is maintained. These are summarised below:

- Maintain existing planting within the Cobbitty Road corridor adjacent to the proposal where possible;
- Where peripheral views into the site are possible due to sparse vegetation, recommend targeted additional planting to boundary planting (up to a width of 7m);
- Increase boundary planting (up to a width of 7m) to filter views at select locations;
- Provide screening planting (up to a width of 7m) to south-eastern corner to conceal north-west views into site, past the Macarthur Anglican College roundabout;
- Proposed Cobbitty Road/Macquarie Grove Road roundabout entrance should consist of planting to match existing in the area to maintain visual character; and



- Proposed Cobbitty Road/Macquarie Grove Road entrance provides only direct views north into site. As such, entrance planting should be explored to filter views northwards as should suitable median planting.

*Officer Comment*

It is noted that the east and west of Cobbitty Road (zones 1 and 6 as highlighted in the VIA) differ greatly from one another. Zone 1 is categorised as Cobbitty Village which is a prominent rural town with large setbacks incorporating gardens and separation of built form from the road. Zone 6 which includes Macarthur Anglican School new urban development consistent with Camden LGAs rapid population growth.

The VIA states that views from Cobbitty Road into the development site are generally obstructed due to high levels of vegetation. The VIA provides illustrations of indicative massing for land zoned C4 Environmental Living and R1 General Residential (larger lots). This massing indicates that views from Cobbitty Road will be largely restricted.

Council officers support the recommendation to maintain existing planting within the Cobbitty Road corridor and for the proposed development to provide targeted additional planting of up to 7m within the boundary of the subject site. Greater detail of vegetation types and specific areas to target additional planting will be determined at the Development Application stage.

Council officers support the recommendation for the Cobbitty Road and Macquarie Grove Road entrance (main entrance into development site) to be of identical character with existing vegetation that's within the Cobbitty Road reserve. This is to ensure the rural character of Cobbitty Road remains intact. Furthermore, entrance and median planting should be explored to restrict northern views into the development site. This detail is to be determined at the Development Application stage.

Overall, Council officers support the recommendations of the VIA and consider that any views which may be present are to be mitigated by additional planting opportunities within the subject site.

**Attachment – Assessment of Key Strategic Documents****Assessment against Key Strategic Documents**Greater Sydney Region Plan

The Greater Sydney Region Plan (the Region Plan) was released by the Greater Sydney Commission (GSC) on 18 March 2018. The Region Plan has a vision and plan to manage the growth and change for Greater Sydney in the context of economic, social and environmental matters.

Council officer discussion on the merits of the proposal, assessed against the relevant Directions and Objectives of the Plan, is summarised in **Table 1**.

<b>Great Sydney Region Plan Direction</b>	<b>Objective</b>	<b>Officer Comment</b>
<u>Direction 1</u> A city supported by infrastructure	Objective 1: Infrastructure supports three cities  Objective 2: Infrastructure aligns with forecast growth  Objective 3: Infrastructure adapts to meet future needs	The proposed DCP amendments seek to enhance and optimise the use of the subject site which is strategically positioned within the South West Growth Area.  The proposed updates have resulted from ongoing development of the Oran Park Precinct and aim to align anticipated growth with infrastructure requirements.
<u>Direction 3</u> A city for people	Objective 6: Services and infrastructure meet communities' changing needs  Objective 7: Communities are healthy, resilient and socially connected	The Region Plan acknowledges that significant land release development is still to occur within the South West Growth Area. The proposed amendments result in improvements to the Oran Park Precinct which increase residential supply in an existing release area, and provide services expected of a new community.  The proposed amendments seek to provide an interconnected open space network which will contribute to ensuring communities are healthy, resilient and socially connected.
<u>Direction 4</u> Housing the city	Objective 10: Greater housing supply	The Region Plan acknowledges that significant land release development is still to occur within the South West Growth Centre. The proposed amendments result in improvements to the Oran Park Precinct which increase residential supply in an existing release area with proposed infrastructure to meet the future community's needs.
<u>Direction 5</u> A city of great places	Objective 12: Great places that bring people together	The Region Plan acknowledges that significant land release development is still to occur within the South West Growth Centre. The proposed amendments result in improvements to the Oran Park Precinct that seeks to provide additional infrastructure to meet the needs of the future community.

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Great Sydney Region Plan Direction	Objective	Officer Comment
<u>Direction 8</u> A city in its landscape	Objective 31: Public open space is accessible, protected and enhanced  Objective 32: The Green Grid links parks, open spaces, bushland and walking and cycling paths	The proposed amendments to the Oran Park DCP are supported by a Landscape Masterplan, prepared by PDS. The Masterplan illustrates a range of open spaces and new green links throughout the site. The expansive network of revegetated riparian corridors and interconnected paths throughout the subject site will promote increased connectivity between the neighbourhoods as well as providing additional open space areas which can support gathering spaces, informal play areas and spaces for relaxation and gatherings.

Table 1: Assessment against Greater Sydney Region Plan

Attachment 14

Western Sydney District Plan

The Western Sydney District Plan (the District Plan) was released by the GSC on 18 March 2018. The District Plan guides the 20-year growth of the District to improve its social, economic and environmental assets.

Council officer discussion on the merits of the proposal, assessed against the relevant Planning Priorities and Actions of the District Plan, is summarised in **Table 2**.

<b>Western City District Plan Planning Priority</b>	<b>Officer Comment</b>
<u>Planning Priority W3</u> Providing services and social infrastructure to meet people's changing needs	The proposed DCP amendments seek to enhance and optimise the use of the subject site which is strategically positioned within the South West Growth Area.  The proposed updates have resulted from ongoing development of the Oran Park Precinct and aim to align anticipated growth with infrastructure requirements.
<u>Planning Priority W4</u> Fostering healthy, creative, culturally rich and socially connected communities	The District Plan acknowledges that significant land release development is still to occur within the South West Growth Area. The proposed amendments result in improvements to the Oran Park Precinct which increase residential supply in an existing release area and provide services expected of a new community.  The proposed amendments seek to provide an interconnected open space network which will contribute to ensuring communities are healthy, resilient and socially connected.
<u>Planning Priority W5</u> Providing housing supply, choice and affordability with access to jobs services and public transport	The District Plan acknowledges that significant land release development is still to occur within the South West Growth Centre. The proposed amendments result in improvements to the Oran Park Precinct which increase residential supply, choice and affordability in an existing release area with proposed infrastructure to meet the future community's needs.  The subject site is situated on a public transport bus route which will provide access to jobs and services and to nearby centres such as Oran Park and Narellan.
<u>Planning Priority W6</u> Creating and renewing great places and local centres, and respecting the Districts heritage	The District Plan acknowledges that significant land release development is still to occur within the South West Growth Centre. The proposed amendments result in improvements to the Oran Park Precinct that seek to provide additional infrastructure to meet the needs of the future community.  The proposed amendments seek to provide an interconnected open space network focused on the reinterpretation of the former Hassall Driveway. The proposed amendments to the earth mound will also ensure any views to and from the Denbigh Homestead are restricted and do not impact upon the heritage of this estate.
<u>Planning Priority W12</u> Protecting and improving the health and enjoyment of the District's waterways	The proposed amendments to the Oran Park DCP are supported by a Landscape Masterplan prepared by PDS, and an Integrated Water Management Plan prepared by Orion Consulting. The Masterplan illustrates a range of open spaces and new green links which integrate with the riparian corridor which runs centrally through the subject site. The Integrated Water Management Plan ensures that the proposed amendments will not adversely impact upon the health of the riparian corridor.
<u>Planning Priority W18</u>	The proposed amendments to the Oran Park DCP are supported by a Landscape Masterplan prepared by PDS, and Open Space Analysis prepared by Urbis. The Masterplan and Open Space Analysis provide a



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Western City District Plan Planning Priority	Officer Comment
Delivering high quality open space	range of open spaces and new green links throughout the site. The proposed amendments also include the redistribution of the existing unencumbered open space to ensure all future dwellings are within 400m of these open space areas.
<u>Planning Priority W20</u> Adapting to the impacts of urban and natural hazards and climate change	The proposed amendments to the Oran Park DCP are supported by an Integrated Water Management Plan prepared by Orion Consulting. The Integrated Water Management Plan ensures that the proposed amendments will not adversely impact upon the health of the riparian corridor. The Plan also ensures that all future dwellings will be located outside of the flood planning level.

**Table 2: Assessment against the Western City District Plan**

Attachment 14

Community Strategic Plan

The Connecting Camden Community Strategic Plan 2036 (CSP) was adopted on 14 June 2022. The CSP seeks to ensure Camden is connected, diverse, and a thriving community that embraces opportunities of growth, while valuing the rich heritage and protecting and sharing responsibility for the natural environment.

An assessment of the proposal against the relevant Key Directions of the CSP is summarised in **Table 3**.

Community Strategic Plan	Consistency	Officer Comment
<b>Key Direction 2: Liveable</b> – <i>Strong and integrated connections between our people and services</i>	Y	The proposed amendments result in improvements to the Oran Park Precinct which increase residential supply, choice and affordability in an existing release area with proposed infrastructure to meet the future community's needs.  The subject site is situated on a public transport bus route which will provide access to jobs and services and nearby centres such as Oran Park and Narellan.
<b>Key Direction 4: Balanced</b> – <i>Providing sustainable and responsible solutions that enhance our heritage and natural environment</i>	Y	The proposed DCP amendments aim to improve residents' and visitors' experience by providing a range of open spaces which connect and restore the existing riparian corridors within the site. The Landscape Masterplan illustrates a range of open spaces and new green links which integrate with the riparian corridor which runs centrally through the subject site.  The subject site is located directly to the east of the Metropolitan Rural Area. The proposed amendments are consistent with the overall intent for the site and do not seek to encroach on existing rural land in the surrounding areas.  Furthermore, it is proposed to amend ' <i>Section 5.5 of the Oran Park DCP - Cobbitty Road and the Northern Road Interface</i> '. The amendments ensure that the rural character of Cobbitty Road and the surrounding MRA are not compromised.
<b>Key Direction 5: Leading</b> – <i>A successful advocate for our people and places</i>	Y	The proposed amendments result in improvements to the Oran Park Precinct that seeks to provide additional infrastructure to meet the needs of the future community.

**Table 3: Assessment against Camden Community Strategic Plan**

### Camden Local Strategic Planning Statement

The Local Strategic Planning Statement (LSPS) is a 20-year planning vision, emphasising land use, transport, and sustainability objectives to demonstrate how Camden LGA will change to meet the community's needs over the next 20 years.

Council officer discussion on the merits of the proposal assessed against the relevant Local Priorities of the LSPS, is summarised in **Table 4**.

<b>Camden Local Strategic Planning Statement Local Priority</b>	<b>Officer Comment</b>
<u>Infrastructure</u>  <u>Local Priority I1</u> Aligning infrastructure delivery with growth  <u>Local Priority I4</u> Working in partnership to deliver a more liveable, productive and sustainable Camden	<p>The proposed DCP amendments seek to enhance and optimise the use of the subject site which is strategically positioned within the South West Growth Area.</p> <p>The proposed updates have resulted from ongoing development of the Oran Park Precinct and aim to align anticipated growth with infrastructure requirements.</p>
<u>Liveability</u>  <u>Local Priority L1</u> Providing housing choice and affordability for Camden's growing and changing population  <u>Local Priority L2</u> Celebrating and respecting Camden's proud heritage  <u>Local Priority L3</u> Providing services and facilities to foster a healthy and socially connected community	<p>The District Plan acknowledges that significant land release development is still to occur within the South West Growth Centre. The proposed amendments result in improvements to the Oran Park Precinct which increase residential supply, choice and affordability in an existing release area with proposed infrastructure to meet the future community's needs.</p> <p>The proposed amendments provide additional housing including large lot residential in a desirable location. The additional residential land does not impact on the State Heritage listed Denbigh Estate to the north.</p> <p>Amended controls are proposed to the current DCP to ensure the required earth mound results in a suitable outcome for the site.</p>
<u>Sustainability</u>  <u>Local Priority S1</u> Improving the accessibility and connectivity of Camden's Green and Blue Grid and delivering high quality open space	<p>The proposed DCP amendments aim to improve residents' and visitors' experience by providing a range of open spaces which connect and restore the existing riparian corridors within the site. The Landscape Masterplan illustrates a range of open spaces and new green links which integrate with the riparian corridor which runs centrally through the subject site.</p> <p>The subject site is located directly to the east of the Metropolitan Rural Area. The proposed amendments are consistent with the overall intent for the site and do not seek to encroach on existing rural land in the surrounding areas. Furthermore, it is proposed to amend 'Section 5.5 of the</p>

Camden Local Strategic Planning Statement Local Priority	Officer Comment
<p><u>Local Priority S2</u> Protecting and enhancing the health of Camden's waterways, and strengthening the role and prominence of the Nepean River</p> <p><u>Local Priority S3</u> Protecting Camden's rural land</p> <p><u>Local Priority S4</u> Protecting and restoring environmentally sensitive land and enhancing biodiversity</p>	<p><i>Oran Park DCP - Cobbitty Road and the Northern Road Interface</i>. The amendments ensure that the rural character of Cobbitty Road and the surrounding MRA are not compromised.</p>

**Table 4: Assessment against the Camden Local Strategic Planning Statement**

ORD01

Attachment 14



Camden Local Housing Strategy

The Camden Local Housing Strategy sets out a clear plan for housing in the Camden LGA over the next 10 to 20 years.

Council officer discussion on the merits of the proposal assessed against the relevant Priorities of the LHS, is summarised in **Table 5**.

Camden Local Housing Strategy		
Priority	Objective	Officer Comment
Priority 2: Delivering resilient, healthy and connected communities	Objective 4: Neighbourhood design supports healthy and connected communities that are better placed.	The proposal is consistent with this objective as it delivers a neighbourhood design that will support a healthy and connected community.
Priority 3: Delivering the right housing in the right location	Objective 6: Housing density is strategically located to activate town centres, promote walkability and optimise infrastructure.	The proposal is consistent with this priority as it seeks to deliver the right housing in the right location.  Medium density housing is proposed near the local neighbourhood centre, open space areas and/or situated along the public transport corridor.
Priority 4: Increasing housing choice and diversity	Objective 9: The mix of housing types matches the changing needs and preferences of the community.	The proposal is consistent with this priority as it seeks to deliver housing types that match the needs and preferences of the community.  The proposed amendments to the ILP seek to increase housing choice and diversity within the site. The proposal seeks to provide predominantly lower density detached housing but also provides medium density in the right locations and larger lot housing where a transition to the surrounding rural areas is required.

**Table 5: Assessment against the Local Housing Strategy**

Camden Green and Blue Greed Vision

The Camden Green and Blue Grid Vision (Vision) was adopted by Council on 11 April 2023. The Vision outlines Council's approach to join and enhance green open spaces, biodiversity corridors, riparian areas, and natural bushland (the Green Grid) using creeks, rivers, lakes and streams (the Blue Grid) as the backbone for these connections.

Council officer discussion on the merits of the proposal assessed against the relevant principles of the Vision, is summarised in **Table 6**.

Camden Green and Blue Grid Vision Principles	Comment
<p><b>Principle 1:</b> Place-based – Being relevant to the community and designed to care for and connect with Country</p>	<p>The proposed DCP amendments aim to improve the future community's experience within the site by providing a range of open spaces that encourage place-based design which connect to the existing riparian corridors within the site.</p> <p>The Landscape Masterplan illustrates a range of open spaces and new green links which integrate and provide connections to Country in relation to the riparian corridor.</p>
<p><b>Principle 2:</b> Holistic &amp; Integrated – Being part of a larger network that integrates natural systems</p>	<p>The Landscape Masterplan illustrates an extensive network of open spaces and contributes to the Cobbitty Creek green corridor embellishment.</p> <p>The proposed amendments will be able to be integrated with the larger network of riparian embellishments within the Oran Park Precinct.</p> <p>Further embellishment of the Cobbitty Creek green corridor to the west of the subject site, in the MRA, requires further investigation and project planning by Council.</p>
<p><b>Principle 3:</b> Creative &amp; Innovative – Thinking differently about design of open space environments</p>	<p>The proposed amendments to the Oran Park DCP are supported by a Landscape Masterplan prepared by PDS, and Integrated Water Management Plan prepared by Orion Consulting.</p> <p>The Masterplan illustrates a range of open spaces and new green links which integrate with the riparian corridor that runs centrally through the subject site.</p> <p>The integration of these spaces is explored in the Integrated Water Management Plan which enables designs that are interconnected with the riparian corridor.</p>
<p><b>Principle 5:</b> Relevant &amp; Inclusive – Playing a core role in everyone's day to day lives</p>	<p>The proposed amendments are supported by a Landscape Masterplan which envisages a range of open spaces that will contribute towards providing high amenity in everyone's day to day lives.</p>
<p><b>Principle 7:</b> Healthy &amp; Active – Encouraging healthy lifestyles and sense of wellbeing</p>	<p>The proposed amendments are supported by a Landscape Masterplan which envisages a range of open spaces that will encourage healthy lifestyles and a sense of wellbeing.</p>

**Table 6: Assessment against the Green and Blue Grid Vision**

Camden Spaces and Places Strategy

The Spaces and Places Strategy aims to address the challenges posed by the LGA's rapid urban growth, changes to community profile and urbanisation on existing social infrastructure. The Strategy provides a strategic framework and action plan to support the significant role that Council plays in the provision of open space, play spaces and community facilities, to meet the needs of current and future populations.

Council officer discussion on the merits of the proposal assessed against the relevant recommendations of the strategy, is summarised in **Table 7**.

Camden Spaces and Places Strategy Recommendation	Comment
<p><b>Recommendation 2:</b> Ensure that any proposals for dedication of open space (active/ passive) are consistent with the requirements of this Strategy</p>	<p>The Spaces and Places Strategy stipulates that land that is less than 30 metres in width or has more than 30% of the open area encumbered by a secondary use function, such as flood prone land, cannot be accepted as local open space.</p> <p>The proposed DCP amendments highlight that the majority of the open spaces to be dedicated to Council fail to meet these requirements.</p> <p>Council officers have assessed the proposal and consider the non-compliance regarding the dedication of land for the purposes of open space to be acceptable for the following reasons:</p> <ul style="list-style-type: none"> <li>• The proponent is seeking to deliver two pocket parks that are entirely unencumbered at a minimum size of 5,000m<sup>2</sup> which is consistent with the Spaces and Places Strategy;</li> <li>• The existing ILP and Contributions Plan currently consider these spaces as open space;</li> <li>• The Integrated Water Management Plan supporting the proposal demonstrates that all waterbodies will drain within hours should a significant flooding event occur; and</li> <li>• The proposal is consistent with Council's Green and Blue Grid Vision to integrate open spaces with riparian (blue) corridors.</li> </ul>
<p><b>Recommendation 7:</b> Investigate areas for future open space provision to meet projected population growth and monitor demand generated by proposed new developments</p>	<p>The proposed amendments are consistent with this recommendation. The open spaces proposed are able to be integrated with the larger network of riparian embellishments within the Oran Park Precinct.</p> <p>The proposed amendments will support further embellishment of the Cobbitty Creek green corridor to the west of the subject site. Embellishments of this corridor as identified in the Green and Blue Grid Vision requires further investigation and project planning by Council.</p>
<p><b>Recommendation 12:</b> Prioritise the development of a network of open</p>	<p>The proposed amendments are consistent with this recommendation. The open spaces proposed are able to</p>

<p>space, including Regional, Local and Neighbourhood open space.</p>	<p>be integrated with the larger network of riparian embellishments within the Oran Park Precinct.</p> <p>The proposed amendments will support further embellishment of the Cobbitty Creek green corridor to the west of the subject site. Embellishments of this corridor as identified in the Green and Blue Grid Vision requires further investigation and project planning by Council.</p>
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**Table 6: Assessment against the Spaces and Places Strategy**

**ORD01**

**Attachment 14**



ORD02

Attachment 1



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# Camden Council Planning Proposal

229 Macquarie Grove Road, [A Lee Street and A McKellar Street](#) -Cobbitty

(Mater Dei/ Wivenhoe)

Version 54

[JuneNovember 20232](#)

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Document Register

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1	October 2021	Draft Planning Proposal prepared for submission to Council by Pascoe Planning Solutions	21/505967
2	March 2022	Draft Planning Proposal prepared in response to Council request for information by Pascoe Planning Solutions	22/107924
3	August 2022	Draft Planning Proposal prepared in response to Council request for information by Pascoe Planning Solutions	22/373873
4	November 2022	Planning Proposal prepared for Gateway Determination by Camden Council	22/538945
5	June 2023	Planning Proposal prepared for resubmission post Gateway decision not to proceed	9 June 2023

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Planning Proposal – 229 Macquarie Grove Road, [A Lee Street and A McKellar Street](#) Cobbitty (Mater Dei/Wivenhoe)

### Executive Summary

[This amended Planning Proposal has been prepared in response to the terms of the Gateway Determination by the Executive Director of the Department of Planning and Environment as the Delegate of the Minister for Planning and Public Spaces and the her invitation for amendment and resubmission. This resubmission seeks to leverage the previously prepared Technical Studies and Reports.](#)

The subject site for this Planning Proposal (the Proposal) is land located at 229 Macquarie Grove Road (Part Lot 100 DP 1230568), [A Lee Street and A McKellar Street \(Part Lot 394 DP 1184159\)](#), Cobbitty, as shown in **Figure 1**.

The site is approximately 250ha in size and includes the Mater Dei School, the Aspect School, the heritage listed (local) Wivenhoe homestead, an existing convent, conservation lands and recreation and drainage land associated with the Kirkham Rise Estate.

The Planning Proposal seeks to amend the Camden Local Environmental Plan (LEP) 2010 to introduce more appropriate land use zones for the current uses on the subject site and apply new minimum lot sizes to facilitate the separation of these uses.

Initial community notification of the Proposal ([prior to review](#)) was undertaken in March and April 2022 and key public agencies were consulted in December 2021. The [former](#) Proposal has been considered by the Camden Local Planning Panel on 20 September 2022 and advice was provided. The Proposal has been amended to incorporate feedback and advice from these sources.

The amended Proposal was supported by Council to proceed to a Gateway Determination on 8 November 2022.

~~[It was considered that the Proposal demonstrates sufficient strategic and site-specific merit to proceed to Gateway Determination.](#)~~

The Planning Proposal ([as revised](#)) has been prepared in accordance with Section 3.33 of the Environmental Planning and Assessment Act 1979 (the EP&A Act) and the relevant Department of Planning and Environment Guideline 'Local Environmental Plan Making Guideline (September 2022)' to ensure all matters requiring consideration are appropriately addressed.

Planning Proposal – 229 Macquarie Grove Road, [A Lee Street and A McKellar Street](#) Cobbitty (Mater Dei/Wivenhoe)



Figure 1 Site Context

**Introduction**

This Planning Proposal (the Proposal) seeks to amend the Camden Local Environmental Plan (LEP) 2010 to introduce more appropriate land use zones for the current uses on the subject site and to apply new minimum lot sizes to facilitate the separation of these uses.

[It represents an amendment to the proposal that was supported by Council for submission for Gateway Determination in November 2022. The Executive Director of the Department of Planning and Environment as the Delegate of the Minister for Planning and Public Spaces declined to advance the Planning Proposal in the Gateway Determination dated 11 May 2023. The Delegate also invited the submission of an amended proposal. This amended proposal seeks to leverage off the findings of the previously prepared Technical Studies and Reports. These will be updated where necessary should Gateway Approval be granted. In the event of any discrepancy between the amended and original Planning Proposals the amended Proposal shall prevail.](#)

**Background**

In October 2021, Pascoe Planning Solutions lodged a draft Planning Proposal on behalf of the landowners, the Sisters of the Good Samaritan.

Initial community notification of the draft Proposal was undertaken for 14 days in March and April 2022. Two submissions were received in objection to the draft Proposal.

Key public agencies were also consulted during the preliminary assessment phase of the draft Proposal and five agency referrals were received.



Planning Proposal – 229 Macquarie Grove Road, [A Lee Street and A McKellar Street](#) Cobbitty (Mater Dei/Wivenhoe)

The draft Proposal was considered by the Camden Local Planning Panel on 20 September 2022 and the Panel supported Council officer's recommendations. A copy of the Closed Panel minutes is provided as **Appendix 5**.

Feedback from initial notification, agency consultation and the Camden Local Planning has informed the final Proposal, specialist studies and the draft development control plan.

The draft Planning Proposal was reported to Council on 8 November 2022. At this meeting, Council resolved to endorse the amended Planning Proposal and to forward it to the Department of Planning and Environment (DPE) for Gateway Determination. A copy of the Pre-Gateway Council Meeting Report and Minutes are provided as **Appendix 6**.

#### Site Location

The subject site is located within the rural residential area of Cobbitty and is bounded by the Nepean River to the west, Cobbitty Road to the north and Macquarie Grove Road to the northeast and southeast. Camden Airport adjoins part of the property boundary to the southwest of the site. Vehicular access to the site is via a central driveway accessed from Macquarie Grove Road.

The site comprises approximately 246ha of sloping land with large portions of the site covered by critically endangered Cumberland Plain Woodland and much of the site mapped as being bushfire prone.

The site is located within the Metropolitan Rural Area and has scenic and heritage values.

The site is also within Camden Airport's Australian Noise Exposure Forecast 20 year and 25-year zone, Inner Horizontal Surface, Approach Surface, Transitional Surface, and Obstacle Limitation Surface.

A portion of the site is within the Wivenhoe Heritage Curtilage area (item I99) as listed in Schedule 5 of the Camden LEP 2010. This item includes the house and gardens, outbuildings, stables, servant's quarters, and a coach house.

The site is currently zoned under the Camden LEP 2010 as R5 Large Lot Residential, RU1 Primary Production, C2 Environmental Conservation and SP2 Air Transport Facility with a 40ha minimum lot size applying to the part of the site zoned RU1 and R5.

The site represents the residue holding following the Kirkham Rise residential development and the Wivenhoe Seniors Living Village.

The site comprises of the following precincts:

- Mater Dei "School" Precinct which includes the Mater Dei Special Needs Educational and Vocational Programs, the Mater Dei Chapel, the Stables and Wivenhoe Villa
- The Aspect School (Autism Spectrum Australia)
- The Convent/residue area
- Wivenhoe Environmental Conservation Area and Biodiversity Stewardship Areas Stages 1 and 2
- Supporting infrastructure for the Kirkham Rise residential development (including the Wivenhoe Seniors Living Village) including:
  - Parks and walkways (including one embellished small pocket park)
  - Walking track
  - Several detention basins



Planning Proposal – 229 Macquarie Grove Road, [A Lee Street and A McKellar Street](#) Cobbitty (Mater Dei/Wivenhoe)

The distribution of these uses across the site is shown in **Figure 2**.

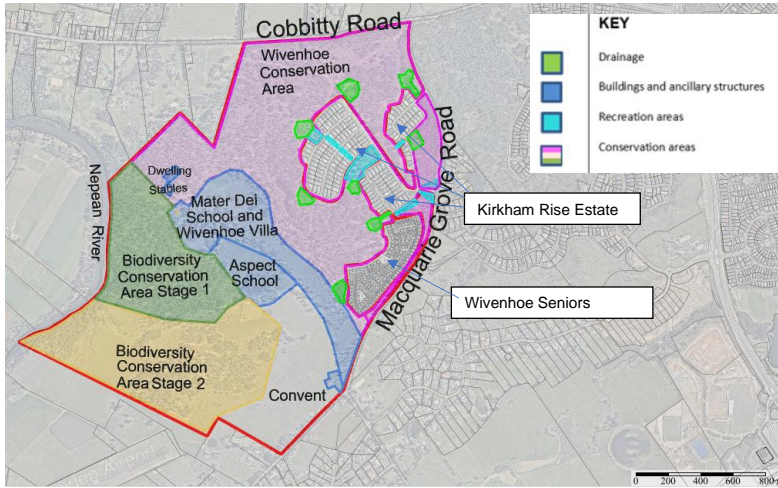


Figure 2 Distribution of current uses across the site

**Planning Proposal History**

The Kirkham Rise and Wivenhoe Village sites were rezoned for residential purposes on 14 September 2007 as part of Local Environmental Plan 139.

Three other approved Planning Proposals have also been associated with the broader site:

- April 2011: The first Planning Proposal resulted in the rezoning of the land within the Wivenhoe Village site to R2 Low Density Residential zone to facilitate the development of Seniors Living Housing.
- January 2013: The second Planning Proposal provided some minor adjustments to the land zoning boundaries on the land surrounding the Kirkham Rise and Wivenhoe Estates.
- April 2014: The third Planning Proposal resulted in an amendment to the description and Heritage Curtilage of Wivenhoe (Item 199 of the Camden LEP).
- The Delegate of the Minister for Planning and Public Spaces determined on the 11 May 2023 that the proposed amendment to Camden Local Environmental Plan 2010 should not proceed.
- In communicating such decision Council was invited to endorse an amended proposal prior to resubmission for a Gateway Determination. (Refer to Appendix 9).
- As a result, this amended proposal has been prepared for resubmission.

**Development within the Locality**



Planning Proposal – 229 Macquarie Grove Road, [A Lee Street and A McKellar Street](#) Cobbitty (Mater Dei/Wivenhoe)

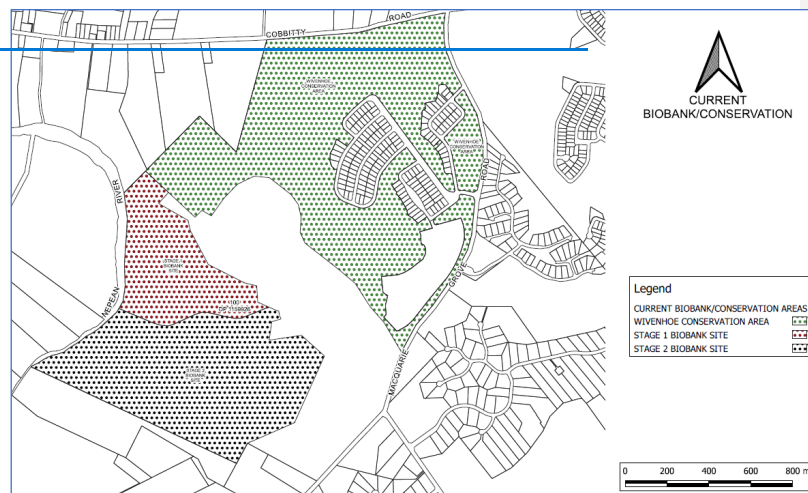
Kirkham Rise and Wivenhoe Village were developed as part of a 210 lot four stage subdivision that was approved on 24 February 2009.

The consent also approved the construction of 12 water quality basins and recreational areas located on Part Lot 100 DP1230568.

As part of the subdivision, a Voluntary Planning Agreement (VPA) was entered into between Council and the Trustees of the Sisters of the Good Samaritan. This included an agreement to provide active and passive recreational areas, monetary contributions, heritage conservation and ongoing environmental conservation works.

**Existing Conservation Protection over the site**

A substantial portion of the site has significant biodiversity values shown in **Figure 3**. These mapped areas are already subject to conservation protection measures, which include two Biodiversity Conservation Areas (Stage 1 and 2) (subject to Biodiversity Stewardship Agreements) and the Wivenhoe Conservation Area which is subject to a Conservation Management Plan (CMP) which is managed by a Trust that was set up by the Sisters of the Good Samaritan for this purpose.



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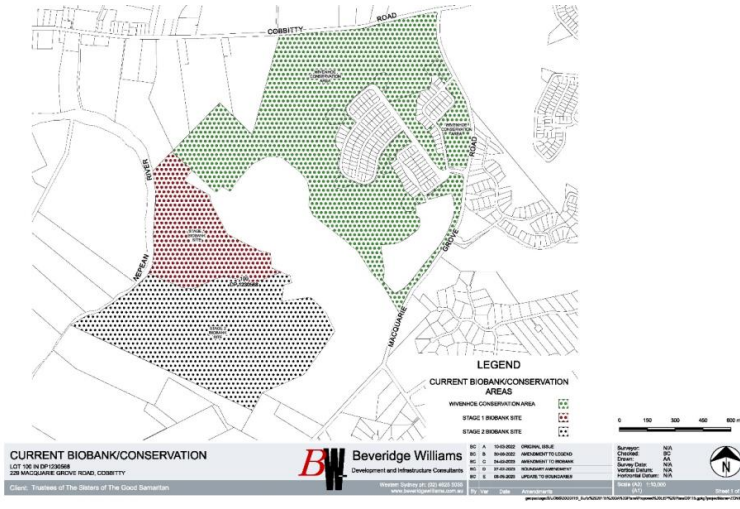


Figure 3 Existing conservation areas across the site

**Vision for the Site and Future Management**

The vision for the site is to enable the Sisters of the Good Samaritan to withdraw from the site whilst ensuring that the current uses of the site are protected into the future.

The intention for the Mater Dei Precinct is that the site will continue to be operated by Good Samaritan Schools and there will be the option for the Aspect School to purchase the smaller school site.

The intention for the Convent Precinct is that it will form a residual lot ~~that can be sold to fund the Planning Proposal and future subdivision.~~

The Sisters have been in negotiation with Council to dedicate the active and passive recreation and drainage land associated with the Kirkham Rise development (shown in **Figure 2**) with Council agreeing to accept this land subject to conditions. The rezoning of this land forms part of the Proposal with a RE1 Public Recreation zone and a SP2 Drainage zone proposed.

**Draft Development Control Plan**

The Proposal is accompanied by an amendment to Schedule 5 of the Camden Development Control Plan 2019 (draft DCP) that applies to land within the subject site. The draft DCP is included as an attachment to this report.

**Specialist Studies**

The Planning Proposal is supported by various specialist studies, as listed in Table 1 which are included as **attachments** to the Proposal.



Planning Proposal – 229 Macquarie Grove Road, [A Lee Street and A McKellar Street](#) Cobbitty (Mater Dei/Wivenhoe)

**Table 1 List of Specialist Studies submitted with the Planning Proposal**

Specialist Study	Author	Date
European Heritage Assessment	Design 5 Architects	30 September 2021
Aboriginal Due Diligence Assessment	Travers Bushfire & Ecology	22 September 2021
Bushfire Protection Assessment	Travers Bushfire & Ecology	3 September 2021
Camden Airport Operations Report	REHBEIN Airport Consulting	September 2021
Transport Assessment	Transport Planning Partnership	October 2021
Transport Assessment Addendum	Transport Planning Partnership	20 January 2022
Biodiversity Overview (updated) (Including Conservation Initiatives) Report	Travers Bushfire & Ecology	8 August 2022
Wivenhoe Biodiversity Overview and Management (appendices 1 -7)	Travers Bushfire and Ecology, Eco Logical Australia, OEH	7 October 2021, Jan 2008, Oct 2016, July 2012, May 2016, May 2012

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It is proposed that the subject studies be revised post Gateway to reflect the proposed amendments to the Proposal.

**Part 1 – Objectives and Intended Outcomes**

The objective of the Proposal is to amend the Land Zone Map and the Lot Size Map of the Camden Local Environment Plan 2010 to apply land use zones that are in keeping with the current uses and their context and to facilitate the future separation of the Mater Dei School, Aspect School, Conservation Lands and Convent Precinct onto separate allotments. The intended outcome of this is to secure these current uses and the management of the site into the future.

**Part 2 – Explanation of provisions**

The Planning Proposal seeks to amend the Camden Local Environmental Plan 2010 Land Zone and Lot Size Maps as described in the following Tables 22 and 3. The maps for the proposed amendments to the Camden LEP 2010 are provided in Appendix 7.

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**Table 2 Proposed Amendments to the Camden LEP 2010 Land Zone and Lot Size Maps**

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Planning Proposal – 229 Macquarie Grove Road, [A Lee Street and A McKellar Street](#) Cobbitty (Mater Dei/Wivenhoe)

~~The maps for the proposed amendments to the Camden LEP 2010 are provided in Appendix 7.~~

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**Part 3 – Justification of strategic and site -specific merit**

This section addresses the need for the proposed amendments to the Camden LEP 2010, identifies the background studies undertaken, and details why the Planning Proposal is the best approach.

3.1 Section A – Need for the Planning Proposal

Q1. *Is the planning proposal a result of an endorsed LSPS, strategic study or report?*

This Planning Proposal is not the result of any strategic study or report. The proposed amendments are a result of a proponent led request to introduce more appropriate land use zones for the current uses on the site and to apply new minimum lot sizes to facilitate the separation of these uses.

Q2. *Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?*

This Planning Proposal is considered to be the best means of achieving the objectives and intended outcomes having regard to the following:

- The current RU1 Primary Production zone applies to the two Biodiversity Stewardship sites and so the zone is not considered appropriate for these uses. A C2 Environmental Conservation zone is more in keeping with the current and future intention for the use of that portion of the site.
- The current R5 Large Lot Residential zone could permit future residential development of the site, whereas an ~~RU2 Rural Landscape SP2–Educational Facility~~ zone will protect the current educational uses on the site and facilitate their consolidation and expansion in a unique landscape setting into the future.
- The SP2 Air transport Facility zone is not in keeping with the Biodiversity Stewardship agreement that applies to that portion of the site and a C2 Environmental Conservation zone is considered to be more appropriate.
- A C2 Environmental Conservation zone is not in keeping with the existing recreation and drainage uses in these areas and is not in keeping with the objectives of the C2 zone. The introduction of a RE1 Public recreation and a SP2 Drainage zone is considered to be more appropriate.
- The proposed RU2 Rural Landscape zone is considered to be more in keeping with heritage and conservation values of the site as it will prevent intensive agricultural uses in a visually sensitive location and facilitate the continuing educational usage.
- The current lot sizes across the site will not support the future separation of the various uses which could hinder management of the site into the future. Lot sizes that facilitate the separation of current uses will assist in future proofing these uses so they can be provided to the Camden community into the ~~future~~future.



Planning Proposal – 229 Macquarie Grove Road, [A Lee Street and A McKellar Street](#) Cobbitty (Mater Dei/Wivenhoe)

### 3.2 Section B – Relationship to Strategic Planning Framework

*Q3. Will the planning proposal give effect to the objectives and actions of the applicable regional or district plan or strategy (including any exhibited draft plans or strategies)?*

The Planning Proposal is consistent with the objectives and directions of the Region and District Plan.

The objectives and directions of the Greater Sydney Region Plan and Western City District Plan applicable to the Planning Proposal have been addressed at **Appendix 1** of this report.

*Q4. Is the planning proposal consistent with a council LSPS that has been endorsed by the Planning Secretary or GSC, or another endorsed local strategy or strategic plan?*

This Planning Proposal is consistent with Council's local strategies as summarised below. Consistency against these strategies has been addressed in **Appendix 1**.

#### **Camden Local Strategic Planning Statement**

The Local Strategic Planning Statement (LSPS) was adopted by Council on 14 April 2020. The LSPS is a 20-year planning vision, and includes land use, transport, and sustainability objectives to demonstrate how the Camden LGA will change to meet the community's needs over the next 20 years.

The proposal is consistent against the relevant Local Priorities and Actions of the LSPS, with specific focus on the following Local Priorities:

- Local Priority L2: Celebrating and respecting Camden's proud heritage
- Local Priority S3: Protecting Camden's rural land
- Local Priority S4: Protecting and restoring environmentally sensitive land and enhancing biodiversity

#### **Camden Community Strategic Plan**

The Community Strategic Plan (CSP) seeks to actively manage growth by retaining Camden's heritage sites, scenic vistas, and cultural landscapes.

The proposal is consistent with the relevant directions and strategies of the CSP and is assessed with the following Key Directions:

- Key Direction 2 – Liveable: Strong and integrated connections between our people and our services.
- Key Direction 3 – Prosperous: Advancing local economic opportunities and job creation.
- Key Direction 4 – Balanced: Providing sustainable and responsible solutions that enhance our heritage and natural environment.
- Key Direction 5 – Leading: A successful advocate for our people and places.

#### **Camden Local Housing Strategy**

The Camden Local Housing Strategy was adopted by Council on 12 October 2021. The Camden Local Housing Strategy sets out a plan for housing in the Camden LGA over the next



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10 to 20 years. The proposal has been assessed against the Priorities, Objectives and Actions of the Strategy. The specific priorities this proposal is considered against are as follows:

- Priority 3 – Delivering the right housing in the right location
- Priority 4 – Increasing housing choice and diversity

#### **Camden Rural Lands Strategy**

The Camden Rural Lands Strategy (RLS) outlines seven key planning principles that will inform land use planning decision making for Camden. The specific principles this proposal is considered against are as follows:

- Principle 1 - Protect Camden's remaining rural land
- Principle 2 - Retain Camden's valued scenic and cultural landscapes
- Principle 3 - Provide certainty and avoid rural land fragmentation
- Principle 4 - Minimise and manage rural land conflict
- Principle 5 - Enhance Camden's Rural Economy
- Principle 6 - Minimise unplanned non-agricultural development
- Principle 7 - Maximise opportunities for relocation of rural enterprises

The RLS also requires that all Planning Proposals lodged for land within the Metropolitan Rural Area (MRA) is assessed against four different criteria. The specific criteria this proposal is considered against are as follows:

- Criteria 1 - The Planning Proposal must be consistent with the State and Local Strategic Plan.
- Criteria 2 - The Planning Proposal must not adversely impact on the operation of existing rural enterprises.
- Criteria 3 - Planning Proposals must be a logical extension to existing urban areas
- Criteria 4 - Planning Proposals must not reduce the quality of scenic landscapes, vistas and ridgelines, or heritage values.

#### **Metropolitan Rural Area**

The strategic status of the MRA was established with the adoption of the Region and District Plans in March 2018 and was not a matter for consideration for the previous Planning Proposal, which was finalised in late 2018. An objective of the Region Plan is that the environmental, social, and economic values of the MRA are protected and enhanced.

The District Plan and Council's LSPS also recognise the significance of the scenic and cultural landscape of the MRA, noting the rural hills and ridgelines of Camden create a distinct setting for neighbouring communities.

The proposal is consistent with the Region and District Plans as it does not propose residential growth or an intensification of uses within the site. Therefore, maintaining the existing environmental, social, and economic values of the MRA. The proposal also seeks to apply an environmental conservation zone to existing conservation lands and to introduce a Rural Landscape zone to visually and historically sensitive land, thus enhancing the values of land within the MRA.

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*Q5. Is the planning proposal consistent with any other applicable State and regional studies or strategies?*

No other State and regional studies or strategies are applicable to this Planning Proposal.

*Q.6. Is the planning proposal consistent with applicable State Environmental Planning Policies (SEPPS)?*

The State Environmental Planning Policies (SEPPs) that are relevant to this Planning Proposal are identified below:

- State Environmental Planning Policy (Biodiversity and Conservation) 2021
- State Environmental Planning Policy (Exempt and Complying Development Codes) 2008
- State Environmental Planning Policy (Industry and Employment) 2021
- State Environmental Planning Policy (Resilience and Hazards) 2021
- State Environmental Planning Policy (Transport and Infrastructure) 2021

The relevant SEPPs have been addressed at **Appendix 2** to this report.

*Q7. Is the planning proposal consistent with applicable Ministerial Directions (section 9.1 Directions)?*

The Section 9.1 Directions applicable to the Planning Proposal have been addressed at **Appendix 3** of this report.

This Planning Proposal is considered largely consistent with the applicable Directions with the exception of Direction 3.1 Conservation Zones, where an inconsistency has been noted. This inconsistency is considered to be of minor significance. This is further discussed in **Appendix 3**.

### 3.3 Section C – Environmental, Social and Economic Impact

*Q8. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected because of the proposal?*

#### **Biodiversity Impacts**

It is proposed to rezone approximately 2.3ha of land that forms part of the Wivenhoe Conservation Areas from C2 to [RU2 Rural Landscape](#)~~SP2 Educational Establishment~~ on the northern boundary. The location of this land is shown in **Figure 4**. The figure also shows that this will result in a loss of approximately 2.3ha of land from the C2 Environmental Conservation zone in this location. This land is also part of the Wivenhoe Conservation Lands.

This part of the site also contains the Stable development which forms part of Wivenhoe Heritage Item I99 and an existing dwelling that is currently leased to the onsite caretaker is also located on this land.

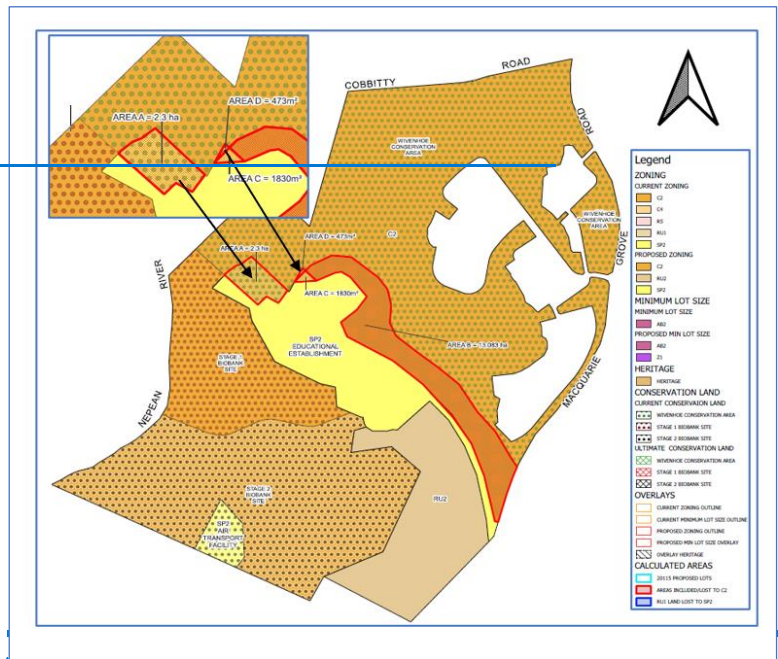
The Biodiversity Overview Report provides assessment of this portion of the site and concludes that vegetation in this portion of the site is of particularly poor

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ecological/biodiversity quality and the limited vegetation is predominately European because of historical landscape and farming practices.

It is foreshadowed that the study, as amended, would likely consider also considers that the impact of rezoning this portion of the site from C2 to RU2 Rural Landscape to SP2 Educational Establishment will be offset by the gain of additional land to the C2 zone with the rezoning of RU1 and R5 zoned land to C2.

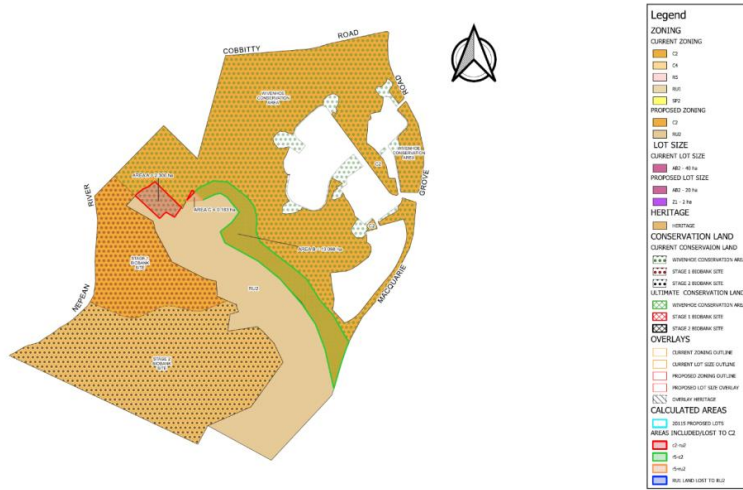
A visit to the site also confirmed that the vegetation on this part of the land is predominately European species.



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**Figure 4** Map showing loss of C2 Environmental Conservation zoned land to SP2 Educational Establishment Proposed zoning showing changes to the extent of the C2 Environmental Conservation zone. The area to be added is shaded green and area to be removed is shaded red.

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The study also considered the impact of future APZs on existing vegetation and concluded that some vegetation will need to be removed to manage bushfire risk. This will need to be further considered at the development application stage and offsetting may be required at this time. The draft DCP includes provisions for conservation and APZs.

Further loss of land from the C2 Environmental Conservation zone (approximately 5ha) is also proposed with the rezoning of land to RE1 Public Recreation and SP2 Drainage. This loss is not considered to have an impact on the overall conservation values of the site due to the land already being maintained and managed for drainage and formal recreation uses (including embellishments such as picnic tables, paved walkways and maintained gardens). Aerial photos showing the current embellishment of all land proposed to be rezoned RE1 – Public Recreation are provided in **Appendix 8**.

*Q9. Are there any other likely environmental effects of the planning proposal and how are they proposed to be managed?*  
Consideration of the bushfire protection, flooding and airport operations is provided below.

**Bushfire Protection**

The bushfire prone areas of the subject site are shown in **Figure 5**. The Bushfire Protection Assessment submitted with the Proposal concludes that future development adequately addresses bushfire risk and the land is suitable for the proposed development.



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The assessment also notes that the proposal will result in a decrease in the area that can be used for residential purposes and is unlikely to result in an increase of demand on the local road network, emergency services or infrastructure.

A school is listed as a 'special fire protection purpose' under Section 100B(6) of the Rural Bushfire Act 1997 and the proposed RU2 zoned convent/residual site will permit residential uses. Therefore, access, APZ's and evacuation will need to be considered in any future subdivision application.

Controls for APZ's, access and emergency evacuation have been included in the draft DCP.

The proposal was also referred to the NSW RFS during the initial notification stage and no objection has been raised regarding the proposal. Further consultation on the Planning Proposal and the draft DCP will also be undertaken with the RFS during formal public exhibition period, should a Gateway Determination be issued.

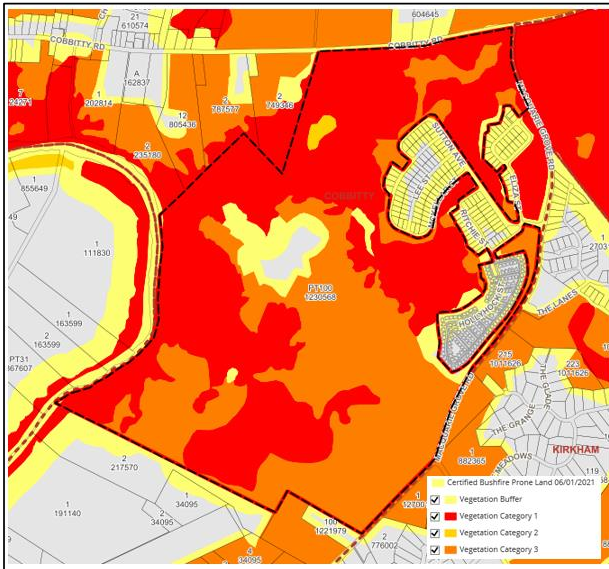
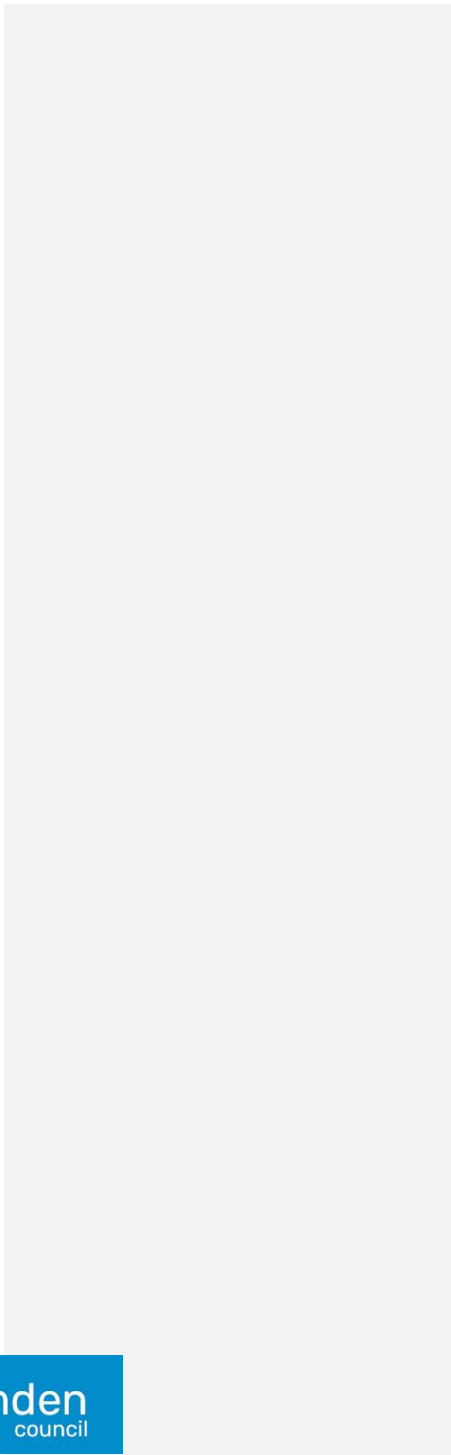


Figure 5 Bushfire Prone land map applying to [the site](#)

**Flooding**

Portions of the site are mapped as being within the 1% (1:100) and 5% (1:20) Annual Exceedance Probability (AEP) flood level and the Probable Maximum Flood (PMF) area (Nepean River Flood Study 2015). The flood extent is shown in **Figure 6**.

The portion of the site mapped as flood affected are in proximity to the Nepean River and within areas identified for a future C2 Environmental Conservation land zone and sit below the 80-metre contour outside of any of the developed areas on the site. Therefore, no buildings or evacuation routes are likely to be impacted during flooding and so no management actions are proposed.



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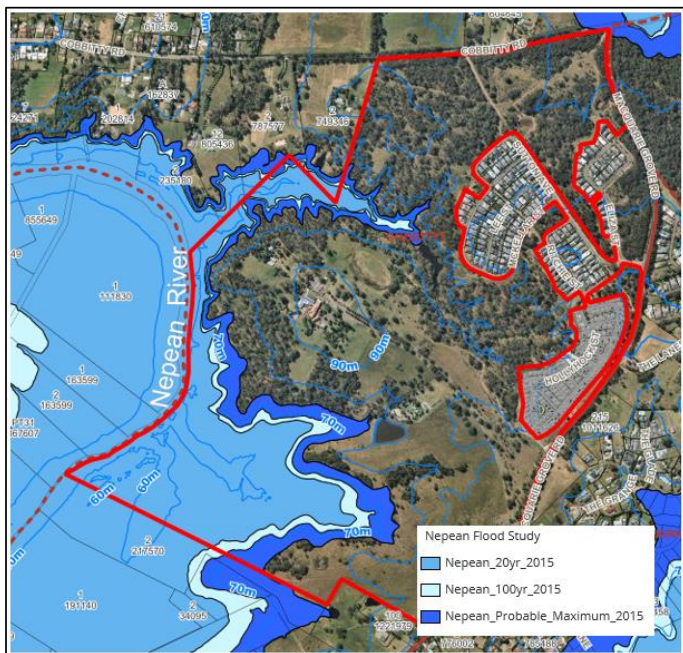


Figure 6 Flood Prone Land applying to the site

#### **Camden Airport Operations**

The subject site is impacted by the Australian Noise Exposure Forecast (ANEF) contours and Obstacle Limitation Surface (OL) and most of the site is also within the 100-year Airport noise event with flight paths directly over the Convent and Conservation Lands precincts as shown in **Figure 7**.

The Camden Airport Operations Report (The Report) submitted with the Proposal provides an assessment of the Planning Proposal against the National Airports Safeguarding Framework (NASF) Guidelines – (A) to (I) in relation to Camden Airport.

Camden Airport have reviewed the report and have not raised any objections. Controls relating to Camden Airport are already provided in the Camden DCP 2019 and further site-specific controls are proposed in the draft DCP.

Further consultation will be carried out with Camden Airport and Western Sydney Airport should a Gateway Determination be received.

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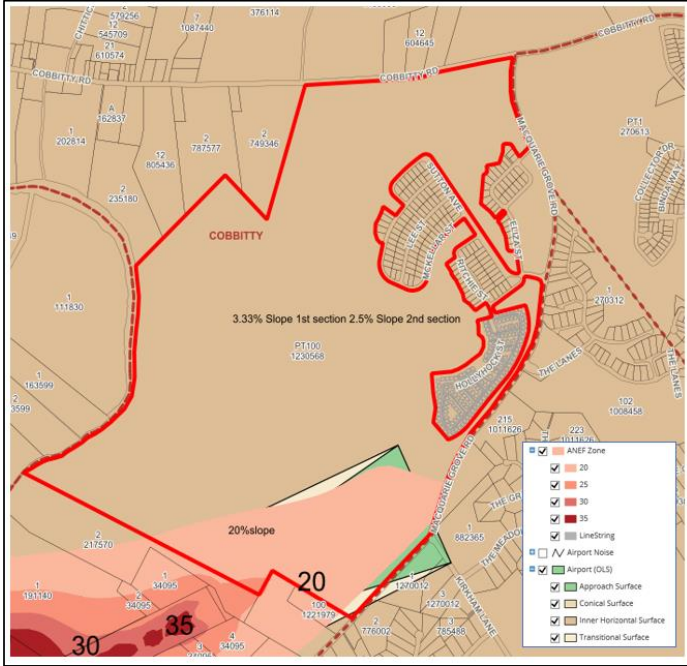


Figure 7 Camden Airport Extent of site mapped

Q10. Has the planning proposal adequately addressed any social and economic effects?

The Proposal is viewed as broadly providing a positive social and economic outcome for the Camden community by supporting the future operation of the Mater Dei and Aspect schools. which provide specialist education to families living in the Camden area. This in turn supports educational and social opportunities for the students attending the schools, it supports working parents by providing educational opportunities close to home, thus reducing the need to travel outside of the LGA and it supports employment opportunities for educators living within the LGA.

The social effects on Aboriginal Cultural Heritage and European Heritage have been considered in more detail below.

**Aboriginal Cultural Heritage**

The Due Diligence Aboriginal Heritage Assessment submitted with the proposal has identified that there are twelve sites within the study area that are listed in the AHIMS database. These sites are within the conservation areas and so can be retained in-situ within the proposed C2 zoned land.



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The Assessment also notes that there is a moderate likelihood that potential undiscovered Aboriginal heritage artefacts may be within the subject site with the most likely location for these being along the Nepean Riverbank, creek lines and the riparian zones. These areas will also be retained within the proposed C2 zone and so it is unlikely that potential items will be impacted by the proposal.

The Assessment recommends that all known Aboriginal artefacts or Potential Aboriginal Deposits (PADs) within the proposed C2 Environmental Conservation zone are to be plotted and marked in the field and on any land management or vegetation management plans. Controls have been included in the draft DCP to require that future development complies with this report.

The Proposal was referred to Heritage NSW during initial notification and no objections to the study or proposal have been raised.

#### European Heritage

The extent of the Heritage Curtilage applying to the site is shown in **Figure 8**. The European Heritage Assessment submitted with the Proposal if amended would likely notes that the proposed RU2 Rural Landscape SP2 Educational Establishment-zone will include the entrance driveway (Mater Dei Road) to the site. This driveway runs along the ridgeline to the highest point of the property and offers significant views to and from the property. This part of the site is of significant rural landscape character.

The proposed RU2 Rural Landscape zone located along Macquarie Grove Road also provides significant views into and from the site and across the site to bushland to the west.

An existing Conservation Management Plan applies to the site and the amended Proposal if was assessed against the CMP is likely to conclude. ~~The Assessment concludes~~ that the consolidation of the various cultural heritage elements under the proposed RU2 Rural Landscape -SP2 Educational Establishment-zone is appropriate on heritage grounds. An assessment of the amended Proposal ~~The Assessment~~ is likely to also recommend ~~that recommend that~~ the boundary of the proposed RU2 SP2 zone be considered in regard to natural hazards so that any future development proposals and new structures (owing to their location) will not jeopardise the built heritage items in the event of a bush fire or flood.

The proposal will facilitate the future subdivision of the site resulting in the heritage curtilage being on a separate allotment. The proposal has been referred to Heritage NSW who have determined that the proposal will not impact on any identified items on the NSW State Heritage register and have noted that the Wivenhoe local item could potentially be impacted.

The proposal does not seek to introduce new development or intensify the use of the site and so it is unlikely that that the heritage significance of items on the site will be impacted by the proposal. Development controls to ensure the ongoing management of the conservation values of the site have been included in the draft DCP to ensure heritage is protected into the future.



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Figure 8 Wivenhoe Heritage Curtilage (Item 199)

3.4 Section D – Infrastructure (Local, State and Commonwealth)

Q11. Is there adequate public infrastructure for the planning proposal?

The ~~proposal~~ ~~apart~~ ~~proposal~~, ~~apart~~ ~~from~~ ~~one~~ ~~potential~~ ~~additional~~ ~~dwelling~~ ~~entitlement~~, does not seek to introduce a new use or intensify uses at the site and so it is unlikely that it will generate an increased demand for additional public infrastructure. Further consideration on transport, traffic and site access is provided below.

**Local Infrastructure – Transport, Traffic and Site Access**

The proposal will facilitate a future super lot subdivision which will create at least four different ownerships. Currently only one access driveway is available into the site to service all Precincts. This access point is located along Macquarie Grove Road and forms an informal intersection with Kirkham Lane. This is shown in **Figure 9**.

The Transport Assessment and Addendum (The Assessment) submitted with the Proposal proposes to retain the existing single access point for the Mater Dei site, Aspect School, Conservation Lands and Convent site (residual land) with further consideration for a second access point along Macquarie Grove Road for emergency access purposes in a limited location to ensure sight distance.

The Assessment concludes that the existing access driveway for the school has restricted sight distance from the south and east and that this may contribute to future safety concerns at the intersection of Macquarie Grove Road and Kirkham Lane. However, the assessment

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also notes that 5-year crash history along Macquarie Grove Road has identified only one serious crash.

The Assessment also concludes that the proposal itself will not generate additional traffic to the site and so an upgrade to the access point is not required. However, a reduction in speed from 70km/hr to 60km/hr along Macquarie Grove Road will improve road safety generally and address sight distance issues at the site.

The Assessment notes that future upgrades to local roads in the Proposal location will be required because of the ongoing urbanisation of Oran Park and that any such upgrade is likely to lead to the installation of a roundabout and realignment of the intersection of Macquarie Grove Road and Kirkham Lane.

As the proposal itself will not create additional traffic demand, there is no nexus between the proposal and the future upgrade to warrant land dedication or a Voluntary Planning Agreement as part of this proposal. However, any future upgrade of the Macquarie Grove Road and Kirkham Lane intersection may be a trigger for a road widening request to the landowner.



Figure 9 Access to site and informal intersection with Kirkham Lane

Macquarie Grove Road Bridge and Kirkham Lane, which provides access to and from the site to the Camden town centre is prone to flooding and so during a flooding event, access can only be achieved via Cobbitty Road. Additional consideration of flooding impacts on surrounding road networks is likely to be required at the development application stage.

The draft DCP includes provisions for an additional emergency access and identifies the future intersection upgrade in section 5.2 Subdivision Planning and Design. A right of way access along the driveway will also need to be considered at the subdivision stage.

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### 3.5 Section E – State and Commonwealth Interests

*Q12. What are the views of state and Commonwealth public authorities consulted in accordance with the Gateway determination?*

Preliminary consultation was undertaken with the following Government Agencies:

- NSW Rural Fire Service (RFS)
- Camden Airport
- Heritage NSW
- Environment Heritage Group (EHG)
- Biodiversity Conservation Trust on behalf of EHG
- National Parks and Wildlife

Submissions were received from five agencies, which raised no objections, subject to further investigation of certain matters. These matters have been considered as part of the final Planning Proposal document and supporting studies. Agency responses are provided as attachments to the Proposal.

The Gateway Determination will outline the State and Commonwealth public authorities to be consulted.

### Part 4 – Mapping

The following Camden LEP 2010 maps will need to be amended to support the Planning Proposal:

- Land Zoning Map – Sheet LZN\_002
- Land Zoning Map – Sheet LZN\_007
- Land Zoning Map – Sheet LZN\_008
- Lot Size Map – Sheet LSZ\_002
- Lot Size Map – Sheet LSZ\_007
- Lot Size Map – Sheet LSZ\_008

The mapping amendments are illustrated in **Appendix 7**.

### Part 5 – Community Consultation

The original draft Planning Proposal was initially notified for a period of 14 days from 28 March to 11 April 2022. Two submissions were received regarding the draft Planning Proposal.

The Planning Proposal ([as amended](#)) will be placed on public exhibition subject to a favourable Gateway Determination.

The Planning Proposal will be publicly exhibited in accordance with the Gateway Determination. The exhibition material will be available at:

- Council Administrative Centre, 70 Central Avenue, Oran Park (Hard Copy)

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- Narellan Library, Queen Street, Narellan (Hard Copy)
- Camden Library, John Street, Camden (Hard Copy)
- Camden Council website (Electronic Copy).

Prior to the public exhibition period, a notification letter will also be sent to landowners in the vicinity of the subject site to advise of the Planning Proposal.

### Part 6 – Project Timeline

Anticipated commencement date (date of Gateway Determination)	<del>September 2023</del> <u>December 2022</u>
Anticipated timeframe for the completion of required technical information	<del>October 2023</del> <u>February 2022</u>
Timeframe for government agency consultation (pre and post exhibition as required by Gateway Determination)	<del>November</del> <u>February 2023</u>
Commencement and completion dates for public exhibition period	<del>December</del> <u>March 2023/January 2024</u>
Dates for public hearing (if required)	N/A
Timeframe for consideration of submissions	<del>February</del> <u>April 2024</u>
Timeframe for the consideration of a proposal post exhibition	<del>April 2023</del>
Date of submission to the department to finalise the LEP	<del>May</del> <u>April 2024</u>
Anticipated date RPA will make the plan (if delegated)	<del>June</del> <u>May 2024</u>
Anticipated date RPA will forward to the department for notification	<del>June 2024</del>

### Part 7 – Conclusion

The Proposal seeks amendments to the Land Zone Map and Lot Size Map of the Camden LEP 2010.

The proposal demonstrates merit by

- Applying Land use zones that match the current uses on site.
- Removing the opportunity for residential development.
- Restricting intensive agricultural uses in a conservation area that is visually sensitive and has local historical value.
- Supports the ongoing future management of the site.

The Planning Proposal has been prepared in accordance with Section 3.33 of the EP& A Act 1979. Amendments to Land Use Zone and Lot Size maps is the most appropriate method to achieve the objectives of this Planning Proposal.

The Planning Proposal will have a positive outcome for the community and secure existing uses on the site into the future.





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### Part 8 – Appendices

**Appendix 1:** Assessment against Regional, District and Local Strategic Plans

**Appendix 2:** Consistency against State Environmental Planning Policies

**Appendix 3:** Section 9.1 Directions

**Appendix 4:** Draft DCP

**Appendix 5:** Camden Local Planning Panel (LPP) Meeting Minutes

**Appendix 6:** Camden Council Meeting Report Agenda and Minutes

**Appendix 7:** Existing and Proposed LEP mapping

**Appendix 8:** Aerial photos and location of land proposed for RE1 – Public Recreation

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## Appendix 1: Assessment against Regional, District and Local Strategic Plans

### 1.1 Greater Sydney Region Plan

The Greater Sydney Region Plan (the Region Plan) was released by the Greater Sydney Commission (GSC) on 18 March 2018. The Region Plan has a vision and plan to manage growth and change for Greater Sydney in the context of economic, social and environmental matters.

Greater Sydney Region Plan		
	Consistency	Comment
<b>Liveability</b>		
<b>Objective 13:</b> Environmental heritage is conserved and enhanced	Yes	The proposal is viewed as being consistent with Objective 13 as it seeks to conserve existing heritage on the site through the introduction of land zones that are more in line with the current uses and removing the potential for residential development that currently exists under the R5 Large Lot Residential zone.
<b>Sustainability</b>		
<b>Objective 27:</b> Biodiversity is protected, urban bushland and remnant vegetation is enhanced	Yes	The proposal is viewed as being consistent with Objective 27 as it seeks to provide further protection to existing conservation lands on the site through the introduction of a C2 Environmental Conservation zone and ensuring that lands within this zone are appropriate for conservation.
<b>Objective 28:</b> Scenic and cultural landscapes are protected	Yes	The proposal is viewed as being consistent with Objective 28 as it seeks to conserve and protect existing scenic and cultural landscape on the site through removing the potential for intensive rural industry in a visually sensitive area that is currently permissible under the RU1 Primary Production zone and applying an RU2 Rural Landscape zone and a C2 Environmental Conservation Zone.
<b>Objective 29:</b> Environmental, social and economic values in rural areas are protected and enhanced	Yes	The proposal is viewed as being consistent with Objective 29 as it seeks to ensure that the existing educational uses on the site continue into the future whilst also providing additional protection to environmental conservation lands.
<b>Objective 31:</b> Public open space is accessible, protected and enhanced	Yes	The proposal is viewed as being consistent with Objective 31 as it seeks to apply a RE1 Public Recreation zone to land currently used by the community as public open space. This will also assist in

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Greater Sydney Region Plan		
	Consistency	Comment
		future management of this land and help to protect and enhance and ensure ongoing access.

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Attachment 1



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### 1.2 Western City District Plan

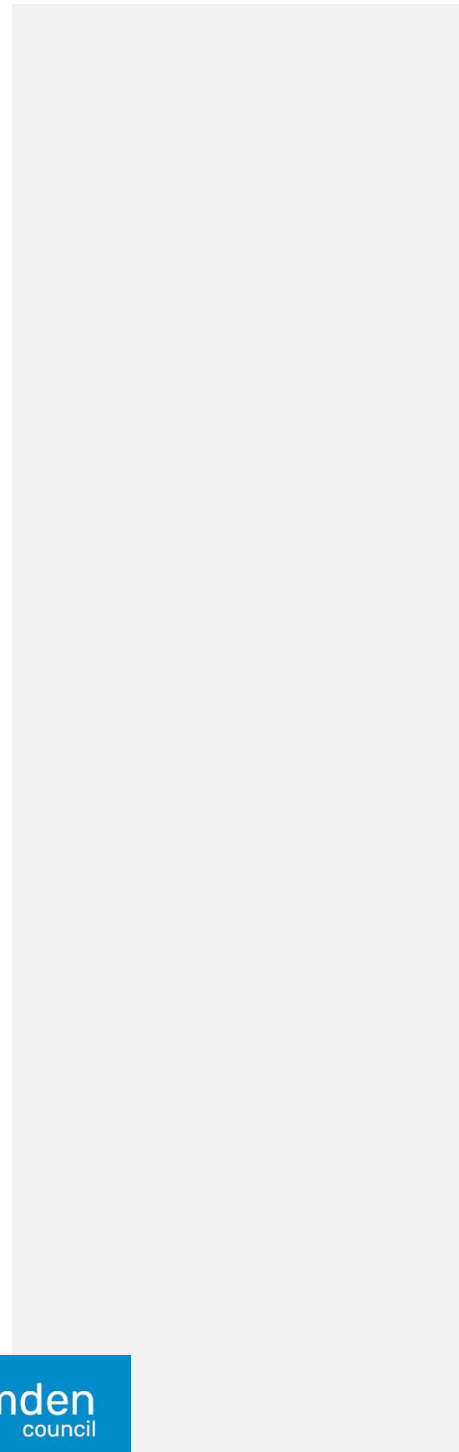
On 18 March 2018, the Western Sydney District Plan (the District Plan) was released by the GSC. The District Plan guides the 20-year growth of the district to improve its social, economic and environmental assets.

Western City District Plan		
	Consistency	Comment
<b>Liveability</b>		
Planning Priority W5: Providing housing supply, choice and affordability, with access to jobs, services and public <del>transport</del> <a href="#">transport</a> . <b>Objective 10:</b> Greater housing supply. <b>Objective 11:</b> Housing is more diverse and affordable.	Yes	The proposal is viewed as being consistent with Planning Priority W5 as it seeks to rezone land from R5 Large Lot Residential to <a href="#">RU2SP2 Rural Landscape</a> <del>Educational Establishment</del> and C2 Environmental Conservation to better reflect existing land use precincts on the site. Currently a 40ha minimum lot size applies to the existing R5 Large Lot Residential zoned land and so is not suitable for residential subdivision under this current development standard. The site is also located within the Metropolitan Rural area and has not been identified in Council's housing strategy for future urban development, therefore the Proposal is unlikely to have an adverse impact on housing supply in the Camden LGA.
Planning Priority W6: Creating and renewing great places and local centres, and respecting the District's <del>heritage</del> <a href="#">heritage</a> . <b>Objective 12:</b> Great places that bring people together. <b>Objective 13:</b> Environmental heritage is identified, conserved and enhanced.	Yes	The proposal is viewed as being consistent with Planning Priority W6 as it seeks to provide further protection to existing conservation lands on the site through the introduction of a C2 Environmental Conservation zone and ensuring that lands within this zone are appropriate for conservation.
<b>Sustainability</b>		
Planning Priority W14: <b>Protecting and enhancing bushland and</b> <del>biodiversity</del> <a href="#">biodiversity</a> . <b>Objective 27:</b> Biodiversity is protected urban bushland and remnant vegetation is enhanced.	Yes	The proposal is viewed as being consistent with Planning Priority W14 as it seeks to provide further protection to existing conservation lands on the site through the introduction of a C2 Environmental Conservation zone and ensuring that lands within this zone are appropriate for conservation.
Planning Priority W16: <b>Protecting and enhancing scenic and cultural</b> <del>landscapes</del> <a href="#">landscapes</a> . <b>Objective 28:</b> Scenic and cultural landscapes are protected	Yes	The proposal is viewed as being consistent with Planning Priority W16 as it seeks to conserve and protect existing scenic and cultural landscape on the site through removing the potential for intensive rural industry in



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Western City District Plan		
	Consistency	Comment
		a visually sensitive area that is currently permissible under the RU1 Primary Production zone and applying an RU2 Rural Landscape zone and a C2 Environmental Conservation Zone.
<b>Planning Priority W17: Better managing rural areas</b> <b>Objective 29:</b> Environmental, social and economic values in rural areas are protected and enhanced.	Yes	The proposal is viewed as being consistent with Planning Priority W17 as it seeks to ensure that the existing educational uses on the site continue into the future whilst also providing additional protection to environmental conservation lands.
<b>Planning Priority W18: Delivering high quality open space</b> <b>Objective 31:</b> Public open space is accessible, protected and enhanced.	Yes	The proposal is viewed as being consistent with Planning Priority W17 as it seeks to apply a RE1 Public Recreation zone to land currently used by the community as public open space. This will also assist in future management of this land and help to protect and enhance and ensure ongoing access.



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### 1.3 Camden Community Strategic Plan

The Connecting Camden Community Strategic Plan (CSP) 2036 acknowledges that Camden's urban landscape is changing and that there is a need to ensure that everyone has access to quality environments that are well planned and designed, maintained and built to last for future generations. The CSP also acknowledges that the green spaces, natural and rural landscapes, and waterways are special spaces with cultural and heritage values to the community.

Camden Community Strategic Plan		
	Consistency	Comment
<b>Key Direction 2 – Liveable: Strong and integrated connections between our people and our services</b>		
<b>Objective LB2</b> Our public spaces and places are vibrant and accessible	Yes	The Proposal aims to ensure the ongoing management of existing environmental conservation land by applying a C2 Environmental Conservation zone. The Proposal also seeks to apply an RU2 rural landscape zone to land zoned RU1 to restrict intensive agricultural type development to land within a heritage conservation curtilage.
<b>Key Direction 3 – Prosperous: Advancing local economic opportunities and job creation</b>		
<b>Objective P2</b> Our LGA provides diverse local job opportunities, supported by skills and training pathways to employment	Yes	The Proposal supports the future operation of the Mater Dei and Aspect schools by applying land zones most appropriate to these educational uses and allowing for the separation of these two schools, thus providing certainty into the future. This is in keeping with this Key Direction and it acts to retain school spaces in the Camden LGA.
<b>Key Direction 4 – Balanced: Providing sustainable and responsible solutions that enhance our heritage and natural environment</b>		
<b>Objective B1</b> Our natural environment and waterways are protected, well maintained and enhanced for community engagement	Yes	The Proposal seeks to remove a residential zone from land currently used for educational purposes and apply an <a href="#">RU2 Rural Landscape SP2 Educational Establishment</a> therefore, removing residential development at the site. This is viewed as being in keeping with this objective.  The proposal is consistent with the ongoing protection of environmental lands on the subject site.
<b>Objective B2</b> Our environment is integrated into the design of our towns, villages, suburbs and	Yes	The site will add additional protection to existing conservation lands to ensure that they are

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places		secured for the future.
<b>Objective B3</b> Climate impacts and risks in Camden are well managed	Yes	The Proposal will act to protect low scale existing uses on the site and prevent inappropriate intensification of the site and thus, potential climate impacts
<b>Objective B4</b> Our community is resourced, efficient and able to meet our vision and objectives	Yes	The Proposal will protect land for existing educational services to the community.
<b>Key Direction 5 – Leading: A successful advocate for our people and places</b>		
<b>Objective L2</b> Our Council is forward thinking and building value for our community	Yes	The Proposal seeks to future proof existing uses on the site to ensure that they can continue to be available to the community in the future.
<b>Objective L3</b> Our Council decisions are informed, accountable and transparent	Yes	A comprehensive report on the Proposal, <a href="#">prior to amendment</a> , has been considered by Council at its meeting on 1 November 2022 and supported to proceed to Gateway. This report and minutes of the meeting are available on Council's website.

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#### 1.4 Camden Local Strategic Planning Statement

The Local Strategic Planning Statement (LSPS) was adopted by Council on 14 April 2020. The LSPS is a 20-year planning vision and includes land use, transport and sustainability objectives to demonstrate how the Camden LGA will change to meet the community's needs over the next 20 years.

Camden Local Strategic Planning Statement 2020		
	Consistency	Comment
<b>Liveability</b>		
<b>Local Priority L2:</b> Celebrating and respecting Camden's proud heritage	Yes	The Proposal acts to preserve the Wivenhoe heritage precinct by introducing changes to remove unintended residential development (R5 zoned land) and secure the current use of the site into the future.
<b>Sustainability</b>		
<b>Local Priority S3:</b> Protecting Camden's Rural Land	Yes	The proposal seeks to rezone RU1 zoned land to <b>SP2-Educational Establishment</b> , C2 Environmental Conservation and RU2 Rural Landscape. The proposed zonings are in keeping with the current uses on the site and so it is unlikely that there will be any negative impact on the existing rural character.
<b>Local Priority S4:</b> Protecting and restoring environmentally sensitive land and enhancing biodiversity	Yes	The proposal seeks apply a C2 Environmental Conservation Zone for land that is used for biodiversity conservation purposes, which would represent an increase in land zoned C2 across the site. The proposal also seeks to remove unintended large lot residential development from the site.

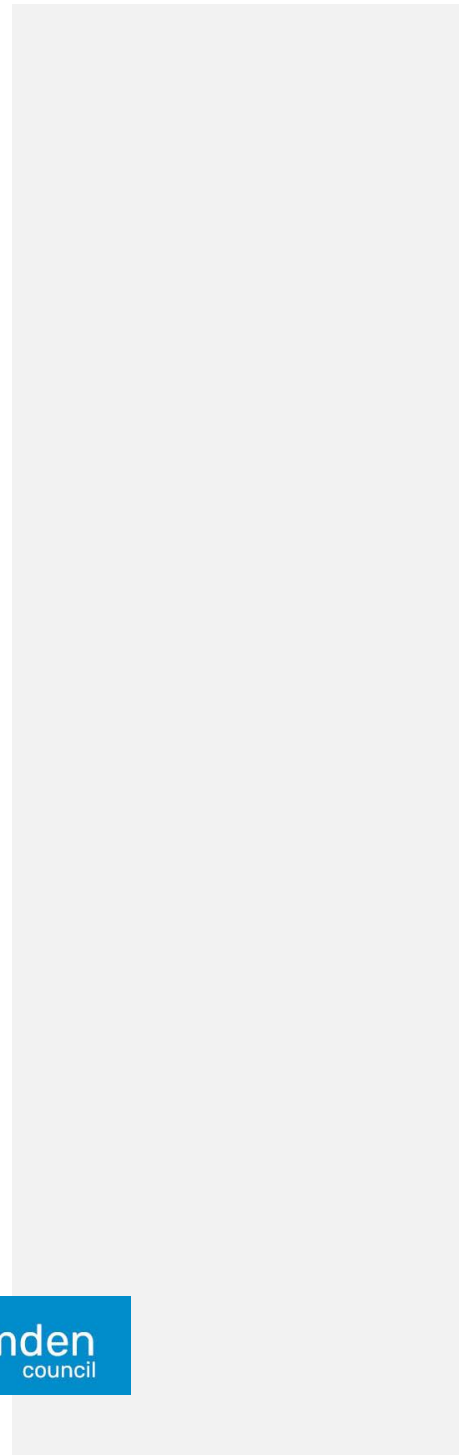


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**1.5 Camden Local Housing Strategy**

The Camden Local Housing Strategy sets out a plan for housing in the Camden LGA over the next 10 to 20 years.

Camden Local Housing Strategy 2021		
	Consistency	Comment
<b>Priority 3 – Delivering the right housing in the right location</b>		
<b>Objective 7:</b> Housing growth in established areas is incremental, and preserves character and heritage values	Yes	The Proposal will provide one additional rural residential opportunity through the proposed rezoning of the Convent site to RU2 and the future subdivision of this land. This is viewed as being in keeping with the existing established large lot rural residential development in the area.
<b>Objective 8:</b> Protect Camden LGA's Rural Lands	Yes	The Proposal seeks to retain existing uses on the site and to apply a RU2 Rural <del>landscape</del> <u>landscape</u> zone to protect the existing rural <del>landscape</del> <u>landscape</u> quality of the site.
<b>Priority 4 – Increasing housing choice and diversity</b>		
<b>Objective 9:</b> The mix of housing types matches the changing needs and preferences of the community	Yes	The proposal seeks to rezone land from R5 Large Lot Residential to <u>RU2 Rural Landscape- SP2-Educational Establishment</u> and C2 Environmental Conservation to better reflect existing land use precincts on the site. Existing R5 zoned land has a 40ha minimum lot size and the proposal is not considered to have an adverse impact on housing supply.



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### 1.6 Camden Rural Lands Strategy

The Camden Rural Lands Strategy sets out a plan to protect Camden's Rural Land outside of the South West Growth Area.

Camden Rural Lands Strategy 2018		
	Consistency	Comment
Principle 1: Protect Camden's remaining rural lands	Yes	The proposal seeks to rezone RU1 zoned land to <del>SP2 Educational Establishment</del> , C2 Environmental Conservation and RU2 Rural Landscape. The proposed zonings are in keeping with the current uses on the site which have a rural character. R5 zoned land is proposed to be rezoned to RU2 Rural Landscape.
Principle 2: Retain Camden's valued scenic and cultural landscapes	Yes	The proposal will not result in an intensification of the use on the site and so existing scenic and cultural landscapes will be retained.
Principle 3: Provide certainty and avoid rural land fragmentation	Yes	The proposal will result in the rezoning of land zoned as RU1 Primary Production to an C2 Environmental Conservation zone, <del>an</del> <del>SP2 Educational Establishment Zone</del> and an RU2 Rural landscape zone. The planning proposal also seeks to assist the separation of existing uses in these zones into the future. Although this will support fragmentation of existing rural land at the site, these changes will only reflect the current uses and protections on the site so minimal impact is anticipated
Principle 4: Minimise and manage rural land use conflict	Yes	The proposal is unlikely to result in rural land conflict as no new uses are being proposed
<b>Principle 5:</b> Enhance Camden's Rural Economy	Yes	The proposal will support the operation of the Mater Dei and Aspect schools, therefore securing ongoing local employment and services in the LGA.
<b>Principle 6:</b> Minimise unplanned non-agricultural development	Yes	No new development is planned for the site because of the proposal.
<b>Principle 7:</b> Maximise opportunities for relocation of rural enterprises	N/A	Not applicable.

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#### Appendix 2: Consistency against State Environmental Planning Policies

SEPP Chapter Title	Assessment of Consistency with
State Environmental Planning Policy (Biodiversity and Conservation) 2021	Assessment provided under chapters below.
Chapter 2 Vegetation in non-rural areas	The site is within a rural area and no vegetation is proposed to be removed, therefore the SEPP is not applicable to this Planning Proposal
Chapter 3 Koala Habitat Protection 2020	Does not apply to the Camden LGA.
Chapter 4 Koala Habitat Protection 2021	Does not apply to the Camden LGA.
Chapter 5 River Murray Lands	Does not apply to the Camden LGA.
Chapter 6 Bushland in Urban areas	Not relevant to the Proposal.
Chapter 7 Canal Estate Development	Not relevant to the Proposal.
Chapter 8 Sydney Drinking water Catchment	Not relevant to the Proposal.
Chapter 9 Hawkesbury-Nepean River	The proposal site is within the Hawkesbury-Nepean River Catchment. The Proposal seeks to introduce land zones to match the existing uses on the site. The Proposal includes detail on the future management of wastewater at the site. This includes the construction of a rising main from the Sydney Water sewer to cater for effluent flows from Mater Dei School, Wivenhoe Villa and separately for the Aspect School with some preliminary concept plans already developed. On-site wastewater management systems associated with the convent cottage and farmhouse will remain operational within their respective precincts. The introduction of a rising main to service the schools and villa may have a positive impact on the Hawkesbury – Nepean Catchment by reducing onsite wastewater disposal.
Chapter 10 Sydney Harbour Catchment	Does not apply to the Camden LGA
Chapter 11 Georges Rivers Catchment	Only applies to a small area within the Camden LGA and the proposal site is outside of this catchment and so is not relevant to the Proposal.
Chapter 12 Willandra Lakes Region World Heritage Property	Does not apply to the Camden LGA
Chapter 13 Strategic Conservation Planning	No land within the site has been mapped as Avoided Land or Land for Strategic Conservation under the SEPP and so this Chapter is not relevant to the Proposal.

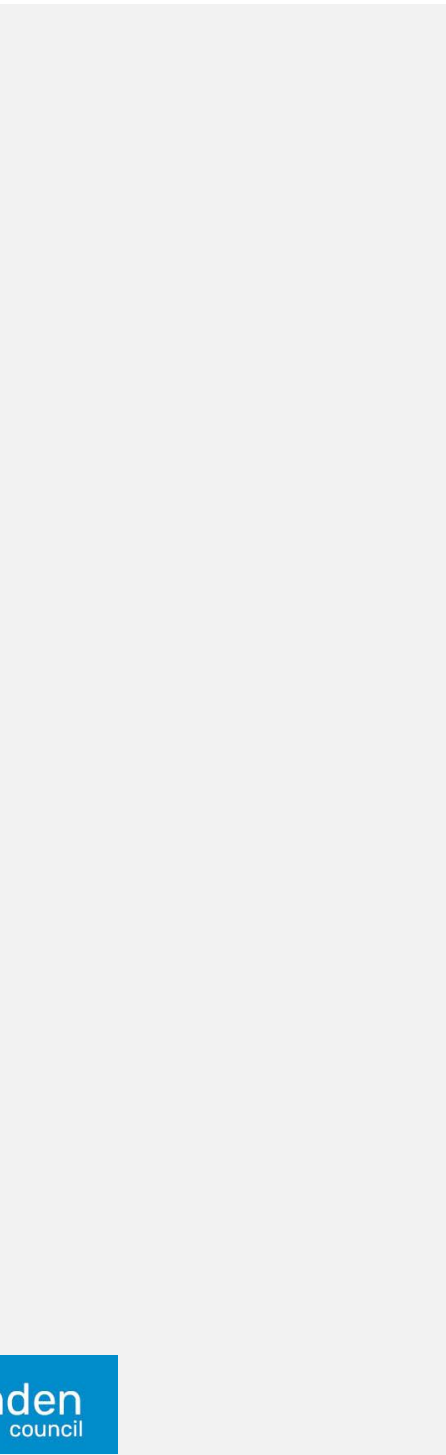
Planning Proposal – 229 Macquarie Grove Road, [A Lee Street and A McKellar Street](#) Cobbitty (Mater Dei/Wivenhoe)

SEPP Chapter Title	Assessment of Consistency with
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004	Does not apply to the Proposal.
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008	The Proposal will not impede the provisions of this SEPP. The Proposal will assist in the application of this SEPP by introducing land zones in keeping with current uses at the site.
State Environmental Planning Policy (Housing) 2021	Not relevant to the Proposal.
State Environmental Planning Policy (Industry and Employment) 2021	Assessment provided under chapters below.
Chapter 2 Western Sydney Employment area	Does not apply to Camden LGA.
Chapter 3 Advertising and Signage	The Proposal will not impede the application of this chapter.
State Environmental Planning Policy No 65- Design Quality of Residential Apartment Development	Not relevant to the Proposal.
State Environmental Policy (Planning Systems) 2021	Assessment provided under chapters below.
Chapter 2 State and Regional Development	Not relevant to the Proposal.
Chapter 3 Aboriginal Land	Does not apply to the Camden LGA.
Chapter 4 Concurrences and Consents	The Proposal does not affect the implementation of this chapter.
State Environmental Planning Policy (Precincts- Western Parkland City) 2021	Assessment provided under chapters below.
Chapter 2 State Significant Precincts	Not relevant to the Proposal.
Chapter 3 Sydney Region Growth Centres	The site is outside of the Camden Growth Centres boundary and so the chapter is not relevant to the Proposal.
Chapter 4 Western Sydney Aerotropolis	Not relevant to the Proposal.
Chapter 5 Penrith Lakes scheme	Does not apply to the Camden LGA.
Chapter 6 St Marys	Does not apply to the Camden LGA.
Chapter 7 Western Sydney Parklands	Does not apply to the Camden LGA.
State Environmental Planning Policy (Primary Production) 2021	Assessment provided under chapters below.
Chapter 2 Primary production and rural development	Not relevant to the Proposal.
Chapter 3 Central Coast plateau areas	Does not apply to the Camden LGA.
State Environmental Planning Policy (Resilience and Hazards) 2021	Assessment provided under chapters below.
Chapter 2 Coastal Management	Does not apply to the Camden LGA.
Chapter 3 Hazardous and Offensive Development	Not relevant to the Proposal.
Chapter 4 Remediation of land	No changes to existing uses on the site are



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SEPP Chapter Title	Assessment of Consistency with
	proposed with the Proposal and so assessment of contamination is not required.
State Environmental Planning Policy (Resources and Energy) 2021	Assessment provided under chapters below.
Chapter 2 Mining, petroleum production and extractive industries	Not relevant to the Proposal.
Chapter 3 Extractive Industries in Sydney Area	Not relevant to the Proposal.
State Environmental Planning Policy (Transport and Infrastructure) 2021	Assessment provided under chapters below.
Chapter 2 Infrastructure	No new uses are proposed at the site and so the SEPP is not relevant to the Proposal.
Chapter 3 Educational Establishments and childcare facilities	The Proposal will assist in the application of this SEPP by rezoning two existing schools <u>to an Ru2 Rural Landscape zone that reinforces their setting and provides consolidation and expansion opportunities from an R5 Large Lot Residential zone to an SP2 Educational Establishment zone.</u>
Chapter 4 Major Infrastructure corridors	The Proposal will not impact on major infrastructure corridors and so the SEPP is not relevant to the Proposal.
Chapter 5 Three ports- Port Botany, Port Kembla and Newcastle	Does not apply to the Camden LGA.



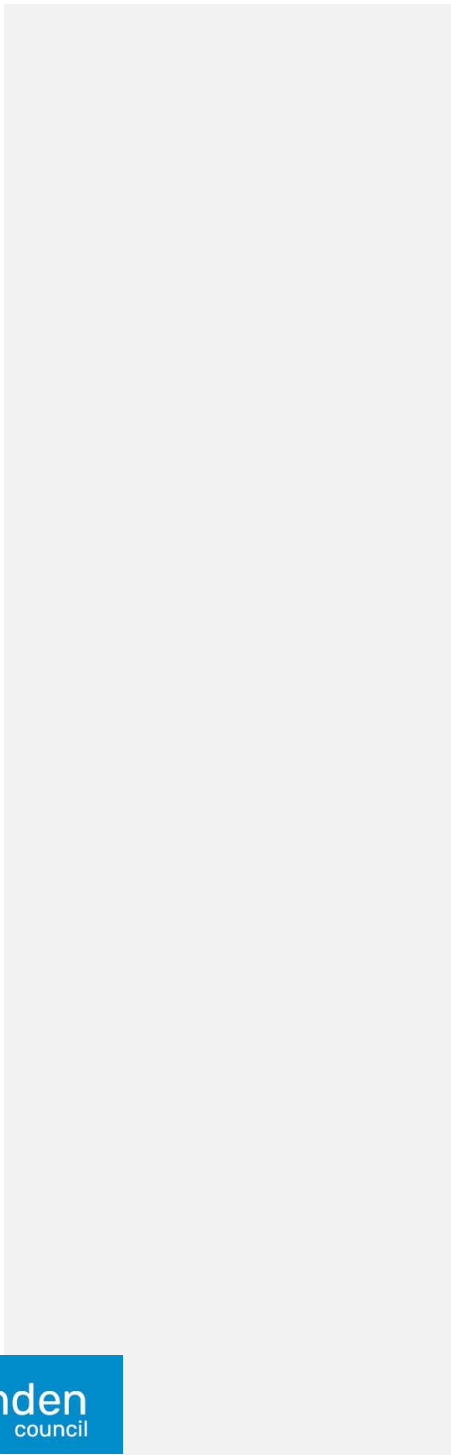
Planning Proposal – 229 Macquarie Grove Road, [A Lee Street and A McKellar Street](#) Cobbitty (Mater Dei/Wivenhoe)

### Appendix 3: Section 9.1 Directions

S9.1 Direction Title	Assessment of Consistency
<b>Focus area 1: Planning Systems</b>	
1.1 Implementation of Regional Plans	The Proposal's consistency with the Greater Sydney Region Plan and Western City District Plan has been assessed in the tables above under Section 1.1. The Proposal has been assessed as being consistent with the Greater Sydney Region Plan and so is consistent with this direction.
1.2 Development of Aboriginal Land Council Land	No rezoning of land owned by an Aboriginal Land Council is proposed with this Proposal.
1.3 Approval and Referral Requirements	The Proposal is consistent with this direction as it does not propose provisions requiring concurrence, consultation or referral of a minister or public authority outside of bushfire management and does not identify development as designated development.
1.4 Site Specific Provisions	The Proposal does not introduce any site-specific provisions and so is not inconsistent with this direction.
<b>Focus Area 1: Planning Systems-Place-based</b>	
1.5 Paramatta Road Corridor Urban Transformation Strategy	Not applicable to the Camden LGA.
1.6 Implementation of North West Priority Growth Area Land Use and Infrastructure Implementation Plan	Not applicable to the Camden LGA.
1.7 Implementation of Greater Paramatta Priority Growth Area Interim Land Use and Infrastructure Implantation Plan	Not applicable to the Camden LGA.
1.8 Implementation of Wilton Priority Growth Area Interim Land Use and Infrastructure Implementation Plan	Not applicable to the Camden LGA.
1.9 Implementation of Glenfield to Macarthur Urban Renewal Corridor	Not applicable to the Camden LGA.
1.10 Implementation of the Western Sydney Aerotropolis Plan	The Proposal is not inconsistent with this direction.
1.11 Implementation of Bayside West Precincts 2036 Plan	Not applicable to the Camden LGA.
1.12 Implementation of Planning Principles for the Cooks Cove Precinct	Not applicable to the Camden LGA.
1.13 Implementation of St Leonards and Crows Nest 2036 Plan	Not applicable to the Camden LGA.
1.14 Implementation of Greater Macarthur 2040	Not applicable to the Proposal.
1.15 Implementation of the Pyrmont Peninsula Place Strategy	Not applicable to the Camden LGA.
1.16 North West Rail Link Corridor Strategy	Not applicable to the Camden LGA.
1.17 Implementation of the Bays West	Not applicable to the Camden LGA.

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SS.1 Direction Title	Assessment of Consistency
Place Strategy	
1.18 Implementation of the Macquarie Park Innovation Precinct	Not applicable to the Camden LGA.
Focus Area 2: Design and Place	
Focus Areas 3: Biodiversity and Conservation	
3.1 Conservation zones	<p>The Proposal is both consistent and inconsistent with this direction as follows:</p> <p><b>Consistent:</b> The Proposal seeks to rezone conservation lands from an RU1 Primary Production and an SP2 Air Transport Facility zone to a C2 Environmental Conservation zone. Thus, improving the future protection of these conservation lands.</p> <p><b>Inconsistent:</b> The Proposal also seeks to rezone C2 Environmental Conservation zoned land to:</p> <ul style="list-style-type: none"> <li>- <del>RU 2 Rural Landscape-SP2 Educational Establishment,</del></li> <li>- SP2 Drainage and</li> <li>- RE1 Public recreation zone.</li> </ul> <p>This is viewed as being inconsistent with Direction 3.1 as the rezoning of this land will reduce the existing conservation standard applied to the land under the Camden LEP 2010.</p> <p>This inconsistency is viewed as being of minor significance due to the following considerations:</p> <ul style="list-style-type: none"> <li>- The proposed <del>RU2 Rural Landscape-SP2 Educational Establishment</del> portion of the site comprises of an existing dwelling; historical stables and the vegetation is predominantly maintained European species.</li> <li>- The land within the proposed SP2 Drainage zone comprises of maintained drainage basins, that are managed in accordance with a relevant Operational Plan.</li> <li>- The land within the proposed RE1 Public Recreation zone comprises of maintained public recreation land that includes embellishments such as picnic tables, paved walkways and maintained gardens.</li> </ul> <p>Advice is sought from the Planning Secretary regarding this inconsistency.</p>
3.2 Heritage Conservation	The land subject to the Proposal includes the Wivenhoe Heritage Item I99 and curtilage area. The proposed amendments



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S9.1 Direction Title	Assessment of Consistency
	seek to protect the current uses on the site and reduce the potential for further development outside of these uses. This has been confirmed by the Heritage Assessment submitted with the Proposal. Additionally, as the Proposal will not result in future development and will increase conservation zoned land, no impact on land of Aboriginal Cultural significance is likely to occur. This has been confirmed by a due diligence assessment submitted with the Proposal. Therefore, the Proposal is viewed as being consistent with this direction.
3.3 Sydney Drinking Water Catchments	Not applicable to the Camden LGA.
3.4 Application of C2 and C3 Zones and Environmental Overlays in Far North Coast LEPs 26	Not applicable to the Camden LGA.
3.5 Recreation Vehicle Areas	Recreational vehicle areas are not proposed and so the Proposal is not inconsistent with this direction.
3.6 Strategic Conservation Planning	No land within the Proposal site has been identified as Avoided Land or as a Strategic Conservation Area under the State Environmental Planning Policy (Biodiversity and Conservation) 2021 and so this Direction is not applicable to the Proposal.
Focus area 4: Resilience and Hazards	
4.1 Flooding	The land subject to the Proposal is located on land mapped as being flood prone however the portions of the site proposed for rezoning for <a href="#">RU2 Rural Landscape SP2 Educational Establishment</a> are elevated above the flood affected areas and are outside of this mapped land. Further studies are required to confirm that evacuation from the site and access roads will not be impacted by flooding however the Proposal is viewed as being consistent with this direction at this stage.
4.2 Coastal Management	Not applicable to the Camden LGA.
4.3 Planning for Bushfire Protection	The Proposal seeks to rezone land mapped as bushfire prone to <a href="#">an Ru2 Rural Landscape - an SP2 Educational Establishment</a> zone. A Bushfire Assessment has been prepared for the Proposal which concludes that appropriate bushfire management can be achieved on site. In addition to this the site is already being used for educational purposes and the Proposal is not viewed as leading to the intensification of this use on site.



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S9.1 Direction Title	Assessment of Consistency
	Consultation will be undertaken with Commissioner of the NSW Rural Fire Service following receipt of a positive Gateway Determination. The Proposal is viewed as being consistent with this direction at this stage.
4.4 Remediation of Contaminated Land	No additional or new uses are proposed on site and the site has already been developed for its current uses and has been in use for a number of years. Therefore, the Proposal is viewed as being consistent with this direction.
4.5 Acid Sulphate Soils	The Proposal will not result in an intensification of the use of the site and as the Camden LGA has not been mapped as being at risk for Acid Sulphate on NSW Government SEED mapping, the proposal is not inconsistent with this direction.
4.6 Mine Subsidence and Unstable Lands	The land is not within a mine subsidence area and so the direction is not applicable.
Focus area 5: Transport and Infrastructure	
5.1 Integrating Land Use and Transport	Not relevant to the Proposal.
5.2 Reserving Land for Public Purposes	The Proposal will not result in the loss of land for public purposes and so is consistent with this direction.
5.3 Development Near Regulated Airports and Defence Airfields	The Proposal site is within the Wind Turbine Buffer and the Wildlife Buffer zone of the Western Sydney Airport and within the 20 and 25 ANEF zone of the Camden Airport as well as the Approach Surface and Transitional surface of the Camden Airport OLS. However, as the Proposal will not result in additional uses or density at the site no additional impact is anticipated on either airport. Therefore, the Proposal is consistent with this direction. The draft Proposal was referred to Camden Airport who have not raised any objection to the Proposal at this stage. Therefore, the Proposal is viewed as being consistent with this direction. Further consultation will be carried out with Western Sydney Airport and Camden Airport if the proposal receives a positive Gateway to confirm this consistency and to assess the inclusion of the proposed change to the SP2 Air Transport Facility zone following reporting to the Camden LPP and Council.
5.4 Shooting Ranges	Not applicable to the Proposal.
Focus area 6: Housing	
6.1 Residential Zones	The proposal seeks to remove the R5 zone from the site and so this direction is not relevant to the Proposal.

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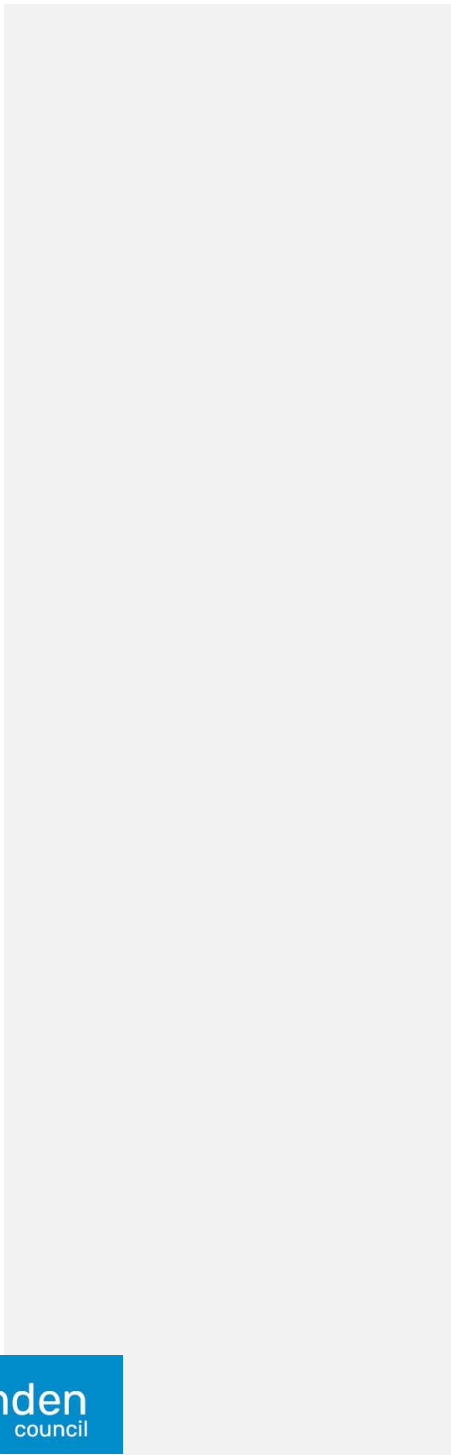
SS.1 Direction Title	Assessment of Consistency
6.2 Caravan Parks and Manufactured Home Estates	Not relevant to the Proposal.
<b>Focus area 7: Industry and Employment</b>	
7.1 Business and Industrial Zones	Not relevant to the Proposal.
7.2 Reduction in non-hosted short-term rental accommodation period	Not applicable to the Camden LGA.
7.3 Commercial and Retail Development along the Pacific Highway, North Coast	Not applicable to the Camden LGA.
<b>Focus area 8: Resources and Energy</b>	
8.1 Mining, Petroleum Production and Extractive Industries	The Proposal will not impact on resource and extractive industries and so the direction is not relevant to the Proposal.
<b>Focus area 9: Primary Production</b>	
9.1 Rural Zones	The Proposal seeks to rezone land zoned RU1 Primary Production to C2 Environmental Conservation zone on land already protected as Biodiversity Stewardship sites. This land zone is not within the zones identified within this direction and so the Proposal is viewed as being consistent with this direction.
9.2 Rural Lands	Not applicable to the Camden LGA.
9.3 Oyster Aquaculture	Not applicable to the Camden LGA.
9.4 Farmland of State and Regional Significance on the NSW Far North Coast	Not applicable to the Camden LGA.

ORD02

Attachment 1


| Planning Proposal – 229 Macquarie Grove Road, [A Lee Street and A McKellar Street](#) Cobbitty (Mater Dei/Wivenhoe)

**Appendix 4: Draft DCP**



Planning Proposal – 229 Macquarie Grove Road, [A Lee Street and A McKellar Street](#) Cobbitty (Mater Dei/Wivenhoe)

#### Appendix 5: Camden Local Planning Panel Minutes – 20 September 2022


Camden Local Planning Panel

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**CC01 Mater Dei / Wivenhoe Planning Proposal**

The Panel has considered the Council Officers' report and inspected the site of the Planning Proposal.

The Panel considers the proposed zones and planning controls reflect the opportunities and attributes of this land holding. The Planning Proposal will ensure the important ecological and heritage values of the site will be protected and will continue to be appropriately managed in the future.

The Panel supports the amendments recommended by Council officers. These amendments:

- reflect an existing agreement between Council and the landowner under which Council will take ownership of drainage and public recreation/open space areas associated with the existing Kirksam Rise residential development; and
- correct an apparent anomaly in relation to land currently zoned SP2 Air Transport Facility.

These amendments are appropriate.

The Panel agrees that the inconsistency of the Planning Proposal with Ministerial Direction 3.1 (Conservation Zones) is justified, for the reasons outlined in the Council officers' report.

**PANEL'S ADVICE**

The Panel supports the planning proposal as recommended to be amended by Council officers being progressed to a gateway determination.

**Voting Numbers:**

The Panel voted 4-0 in favour of the advice.

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MINUTES
CAMDEN LOCAL PLANNING PANEL MEETING HELD ON | 20 September 2022

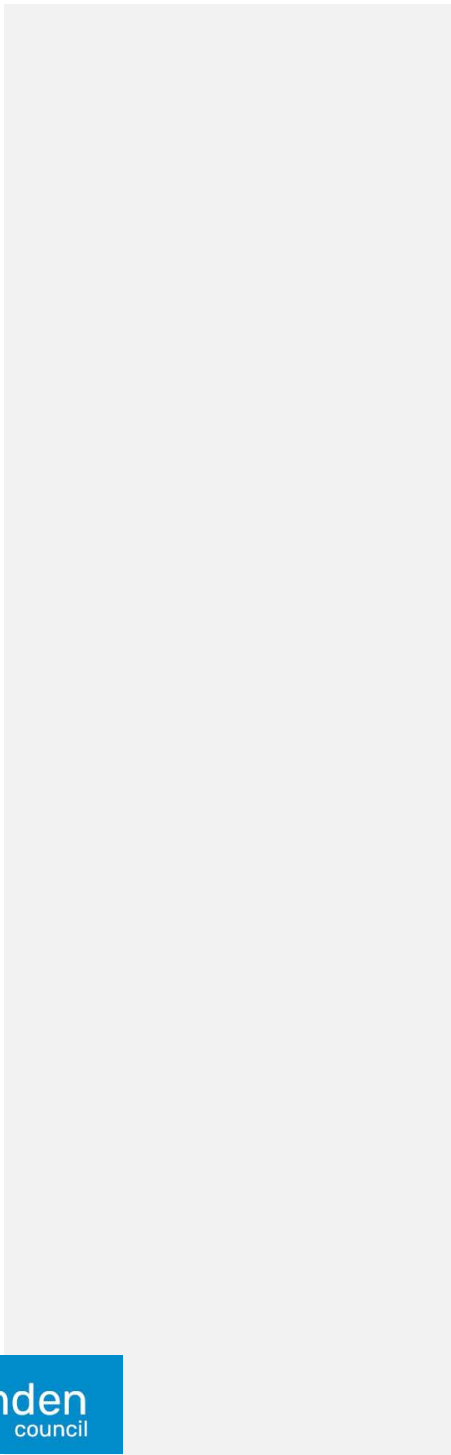


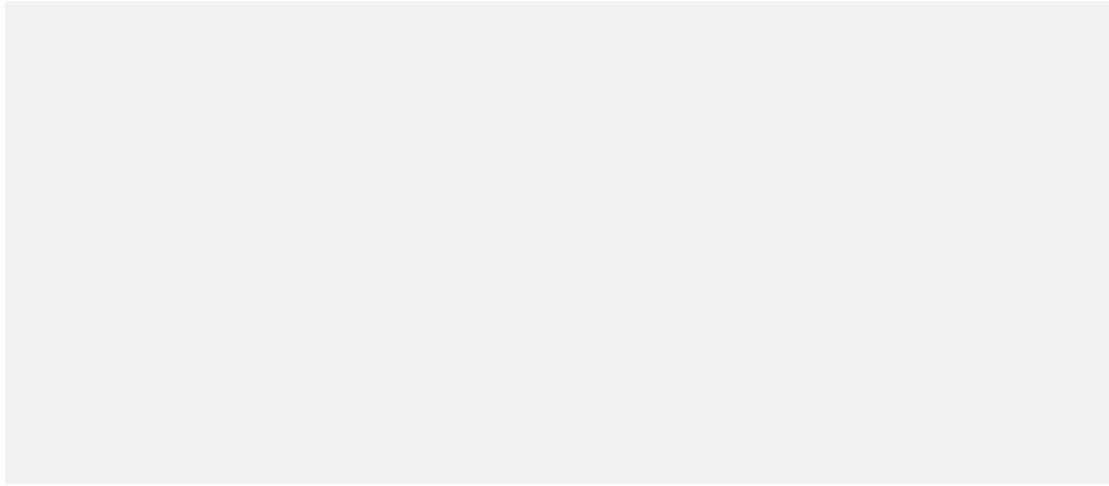
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Attachment 1

| Planning Proposal – 229 Macquarie Grove Road, [A Lee Street and A McKellar Street](#) Cobbitty (Mater Dei/Wivenhoe)

**Appendix 6: Camden Council Meeting Report and Minutes – 1 November 2022**





Planning Proposal – 229 Macquarie Grove Road, [A Lee Street](#) and [A McKellar Street](#) Cobbitty (Mater Dei/Wivenhoe)

**Appendix 7: Existing and Proposed LEP Mapping**

**ORD02**

**Attachment 1**



Planning Proposal – 229 Macquarie Grove Road, A Lee Street and A McKellar Street Cobbitty (Mater Dei/Wivenhoe)

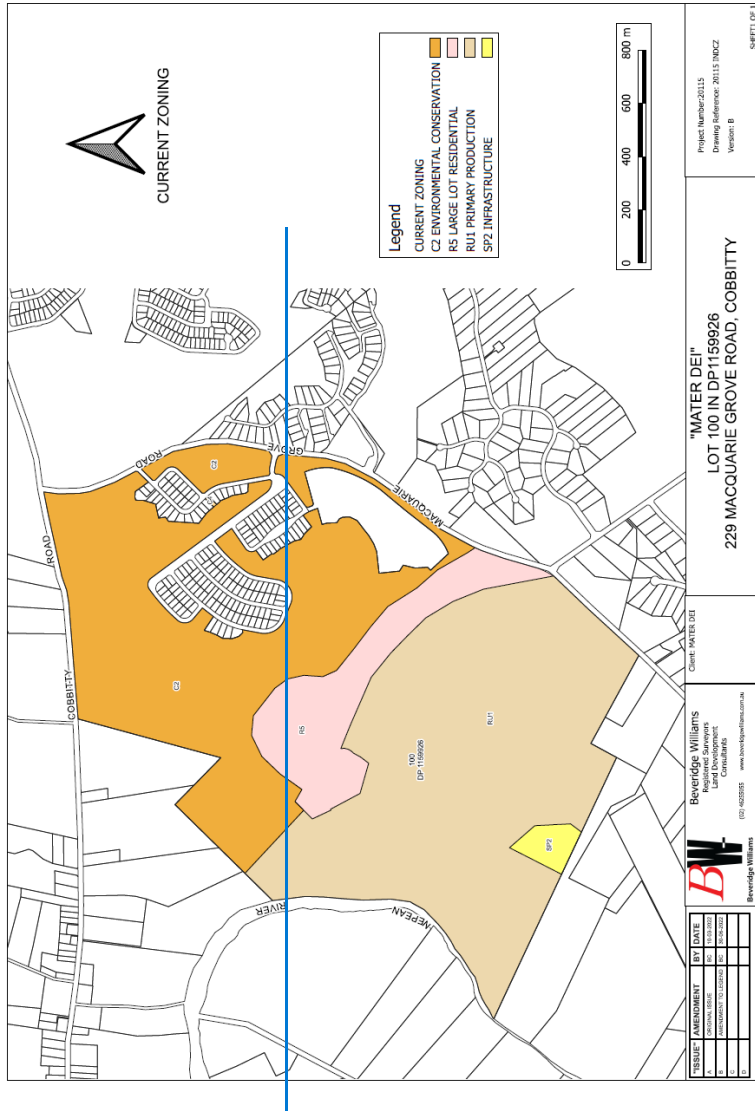
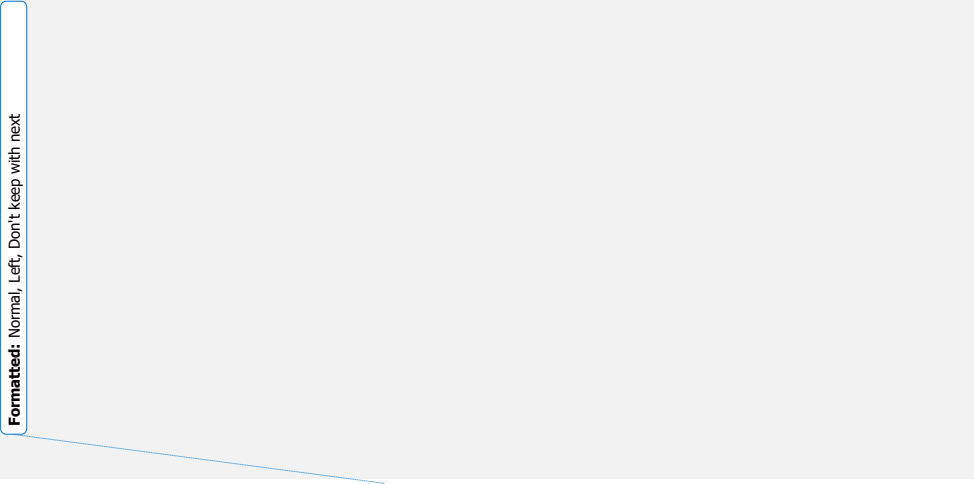
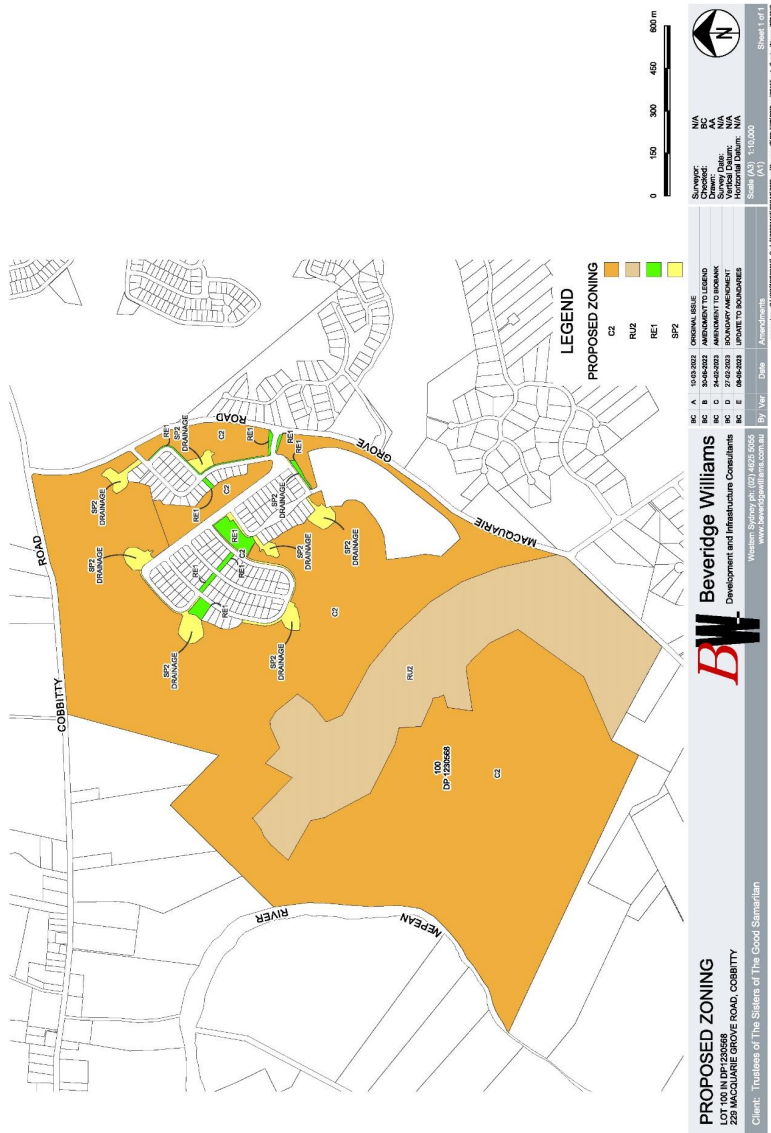


Figure 10 Existing Zoning



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Planning Proposal – 229 Macquarie Grove Road, A Lee Street and A McKellar Street Cobbitty (Mater Dei/Wivenhoe)





Planning Proposal – 229 Macquarie Grove Road, A Lee Street and A McKellar Street Cobbitty (Mater Dei/Wivenhoe)

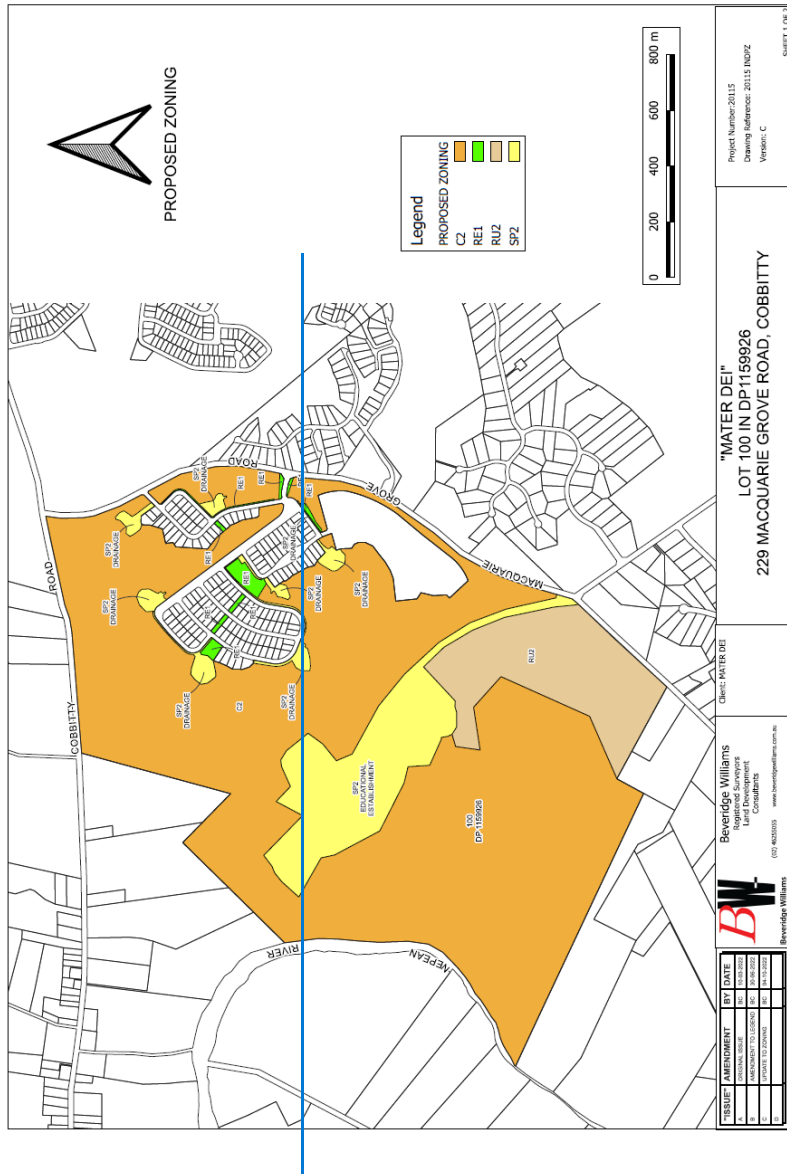
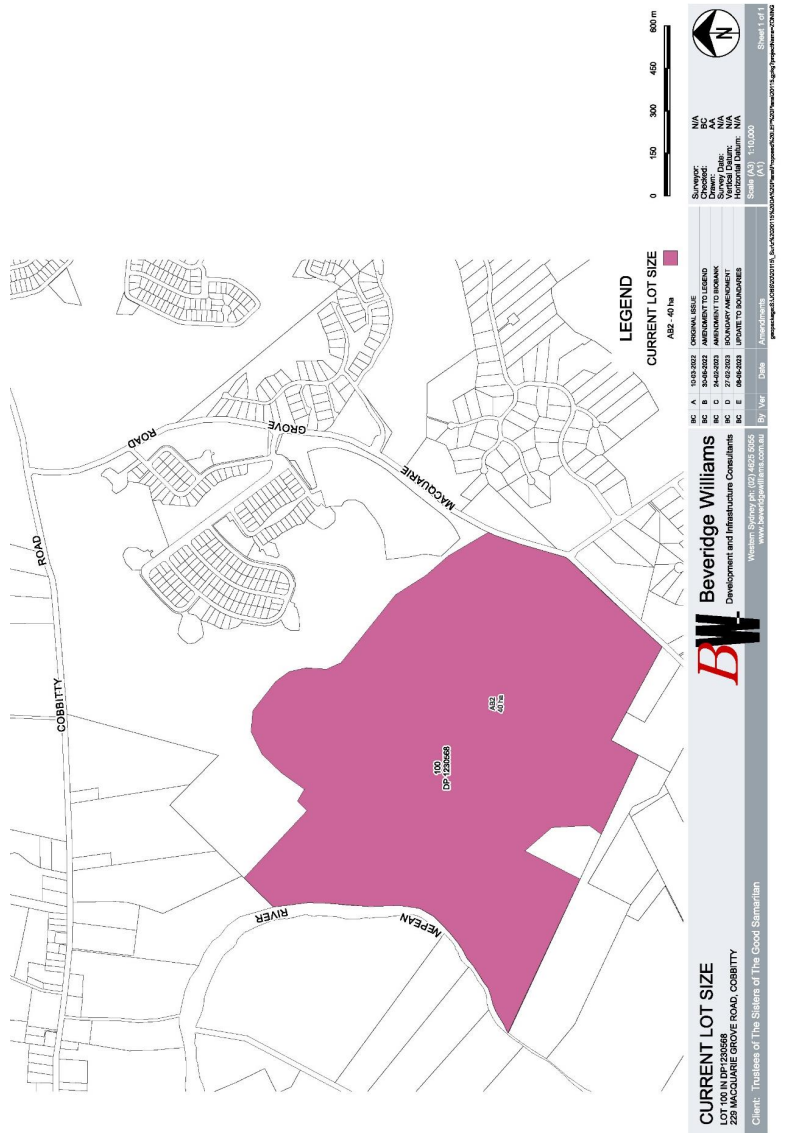


Figure 11 Proposed Zoning

Attachment 1  
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Planning Proposal – 229 Macquarie Grove Road, A Lee Street and A McKellar Street Cobbitty (Mater Dei/Wivenhoe)



Planning Proposal – 229 Macquarie Grove Road, A Lee Street and A McKellar Street Cobbitty (Mater Dei/Wivenhoe)

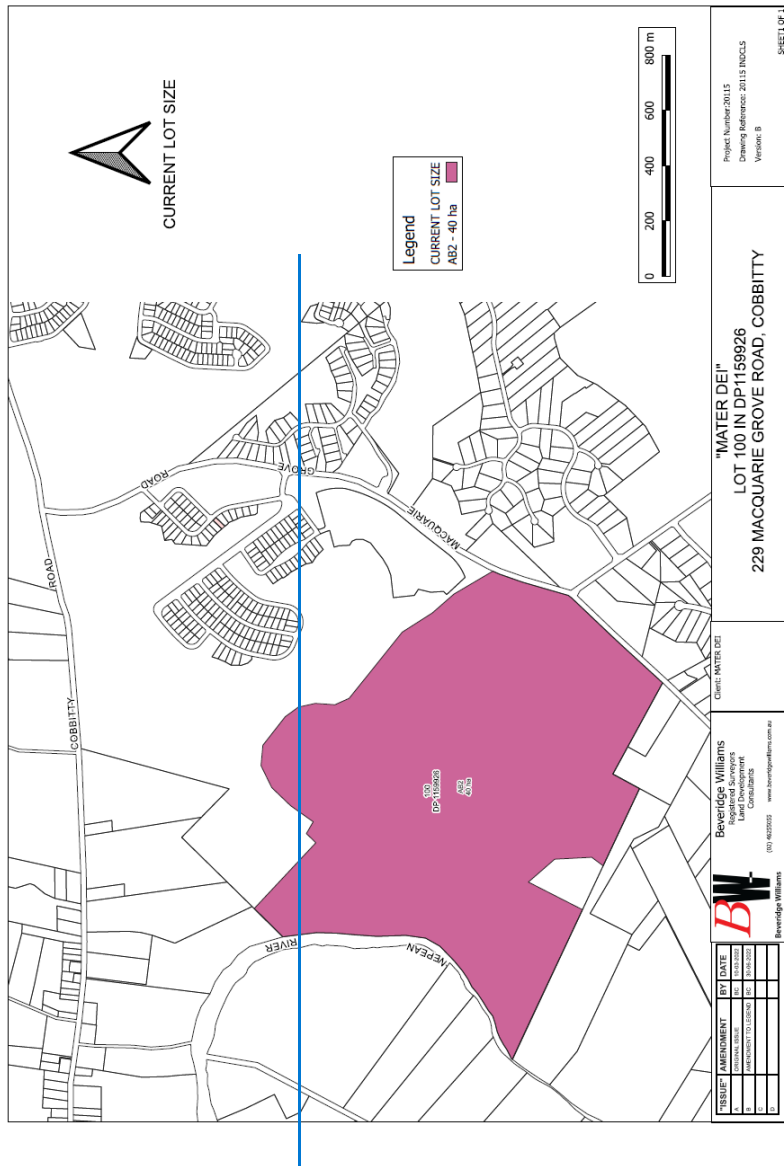
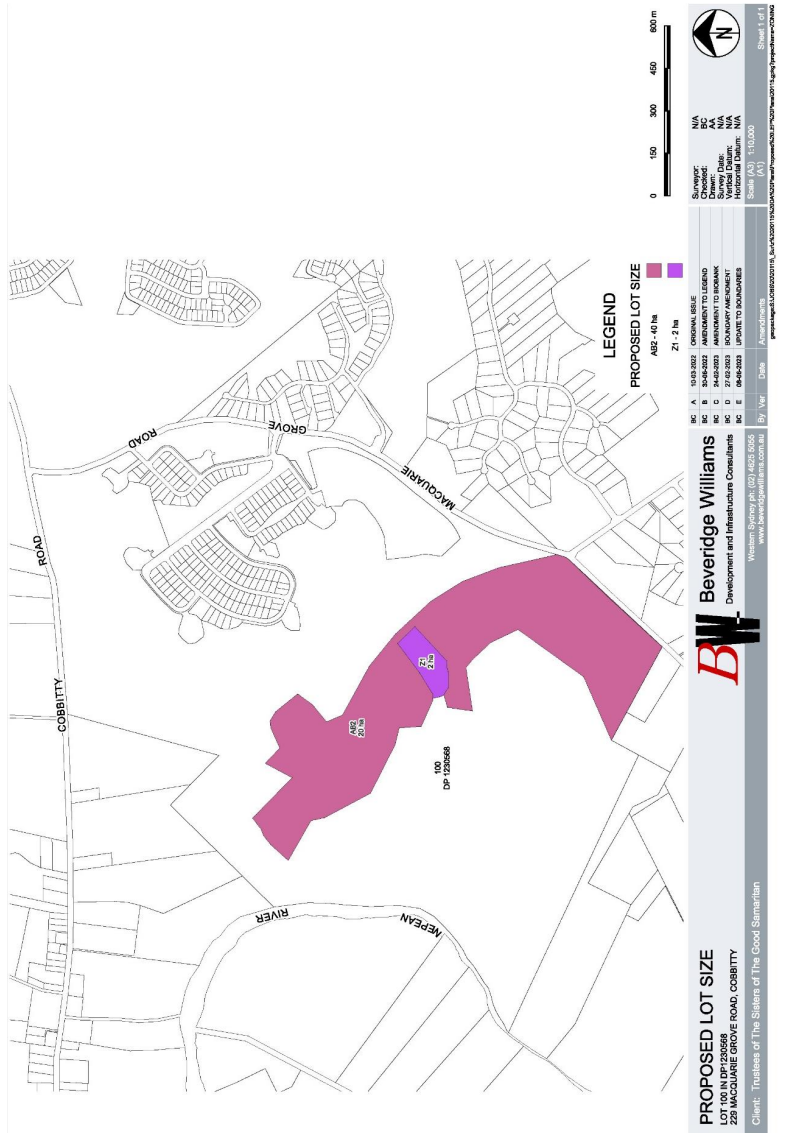


Figure 12 Existing Lot Size

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Planning Proposal – 229 Macquarie Grove Road, A Lee Street and A McKellar Street Cobbitty (Mater Dei/Wivenhoe)



Planning Proposal – 229 Macquarie Grove Road, A Lee Street and A McKellar Street Cobbitty (Mater Dei/Wivenhoe)

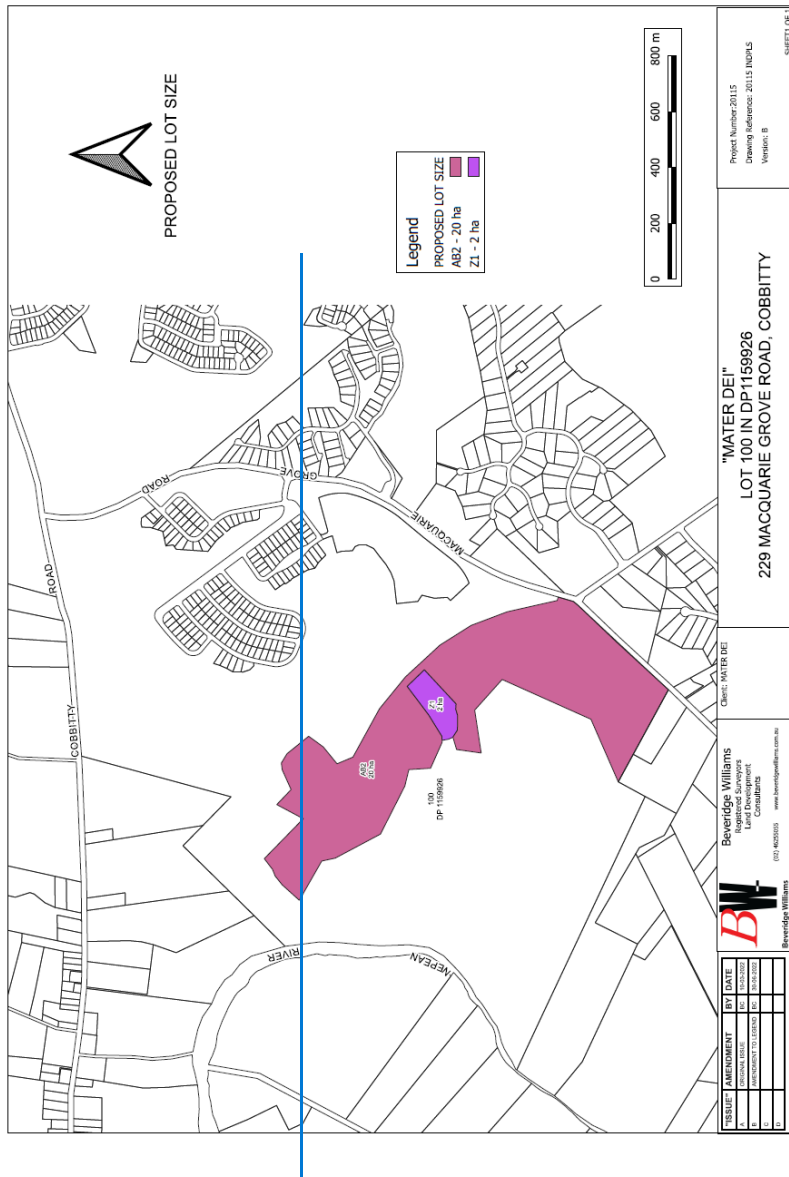
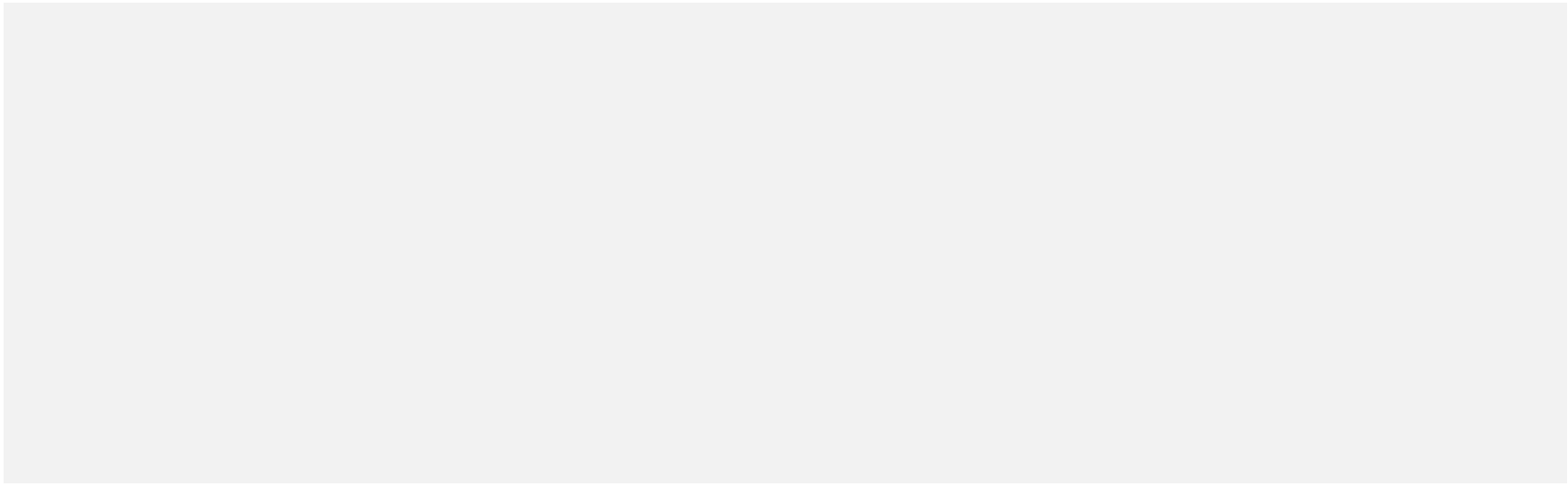


Figure 13 Proposed Lot Size



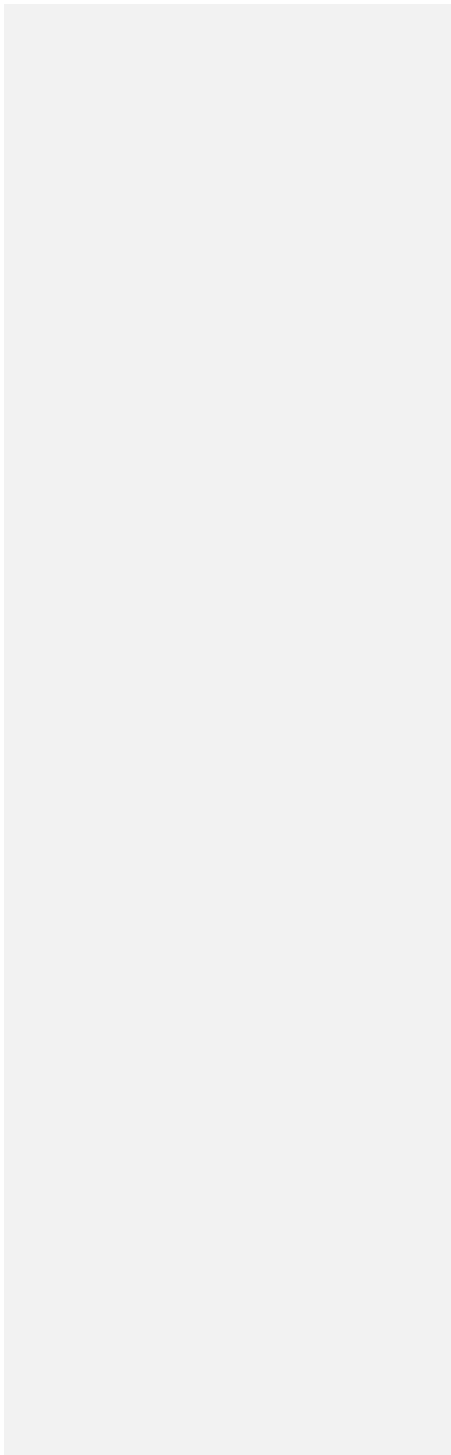
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Appendix 8 Aerial Photos and location of land proposed for RE1 Public Recreation Zone showing current embellishment



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**ORD02**


**Attachment 1**

ORD02

Attachment 1



camden council



camden council

70 Central Ave,  
Oran Park NSW 2570

PO Box 183, Camden 2570

4654 7777

DX 25807

mail@camden.nsw.gov.au

camden.nsw.gov.au

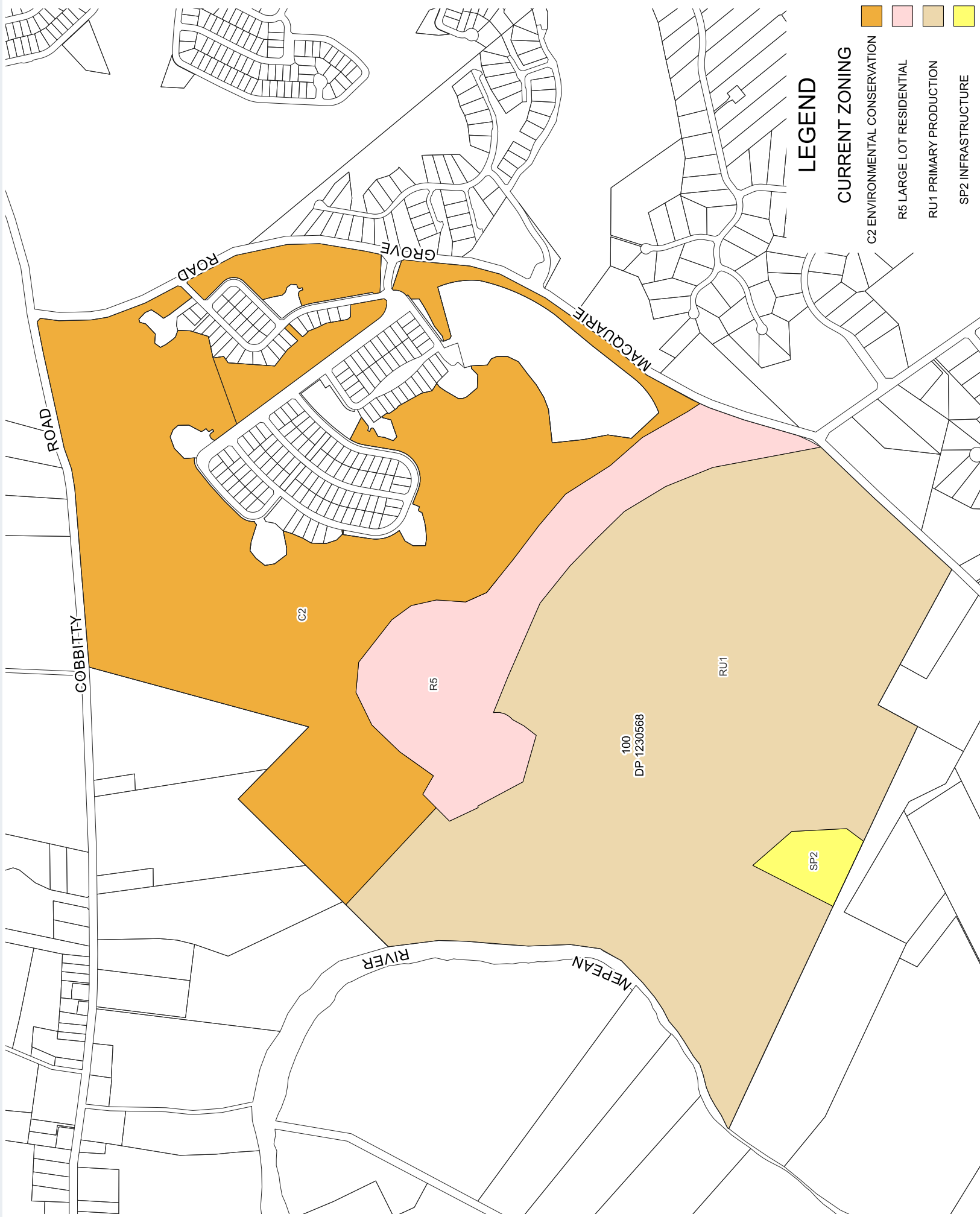
4654 7829

ABN: 31 117 341 764



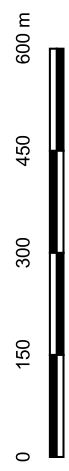
Version: E

Drawing Ref: 20115 INDCZ



### LEGEND

- CURRENT ZONING**
- C2 ENVIRONMENTAL CONSERVATION
- R5 LARGE LOT RESIDENTIAL
- RU1 PRIMARY PRODUCTION
- SP2 INFRASTRUCTURE



Surveyor: N/A  
 Checked: BC  
 Drawn: AA  
 Survey Date: N/A  
 Vertical Datum: N/A  
 Horizontal Datum: N/A  
 Scale (A3): 1:10,000  
 (A1)

BC	A	10-03-2022	ORIGINAL ISSUE
BC	B	30-06-2022	AMENDMENT TO LEGEND
BC	C	24-02-2023	AMENDMENT TO BIOBANK
BC	D	27-02-2023	BOUNDARY AMENDMENT
BC	E	08-06-2023	UPDATE TO BOUNDARIES

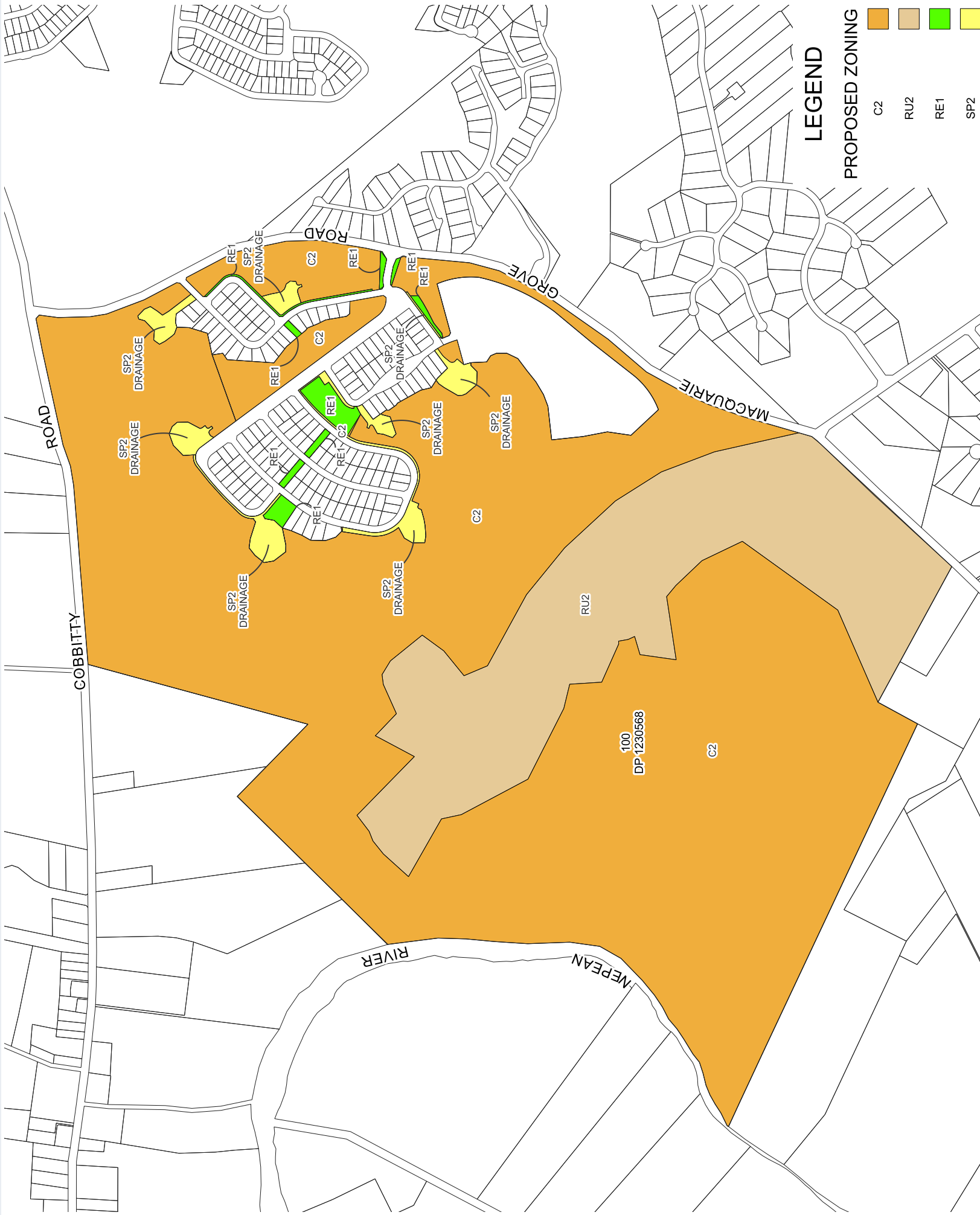
**Beveridge Williams**  
 Development and Infrastructure Consultants  
 Western Sydney ph: (02) +625 5055  
 www.beveridgewilliams.com.au

**CURRENT ZONING**  
 LOT 100 IN DP1230568  
 229 MACQUARIE GROVE ROAD, COBBITTY  
 Client: Trustees of The Sisters of The Good Samaritan

geopackage:S:\UOB\S\20115\20115\_Sur\20115%20DA%20Plans\Proposed%20EP%20Plans\20115.gpkg?projectName=ZONING

Version: E

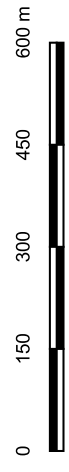
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**LEGEND**

**PROPOSED ZONING**

- C2
- RU2
- RE1
- SP2



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Survey Date:	N/A
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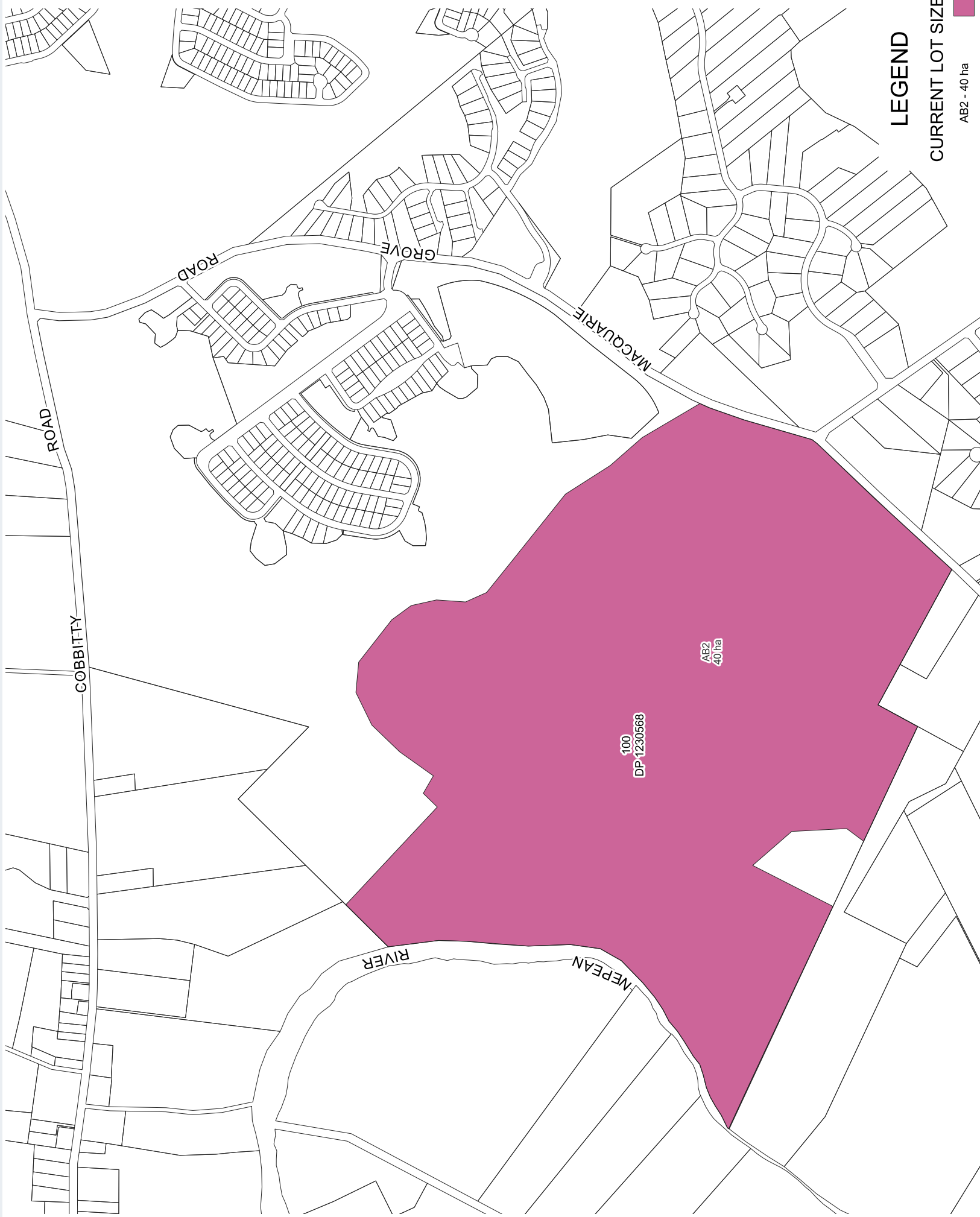
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**PROPOSED ZONING**  
 LOT 100 IN DP1230568  
 229 MACQUARIE GROVE ROAD, COBBITTY

Client: Trustees of The Sisters of The Good Samaritan

Version: E

Drawing Ref: 20115 INDCLS



**LEGEND**

CURRENT LOT SIZE  
AB2 - 40 ha

Surveyor:	N/A
Checked:	BC
Drawn:	AA
Survey Date:	N/A
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By	Ver	Date	Amendments

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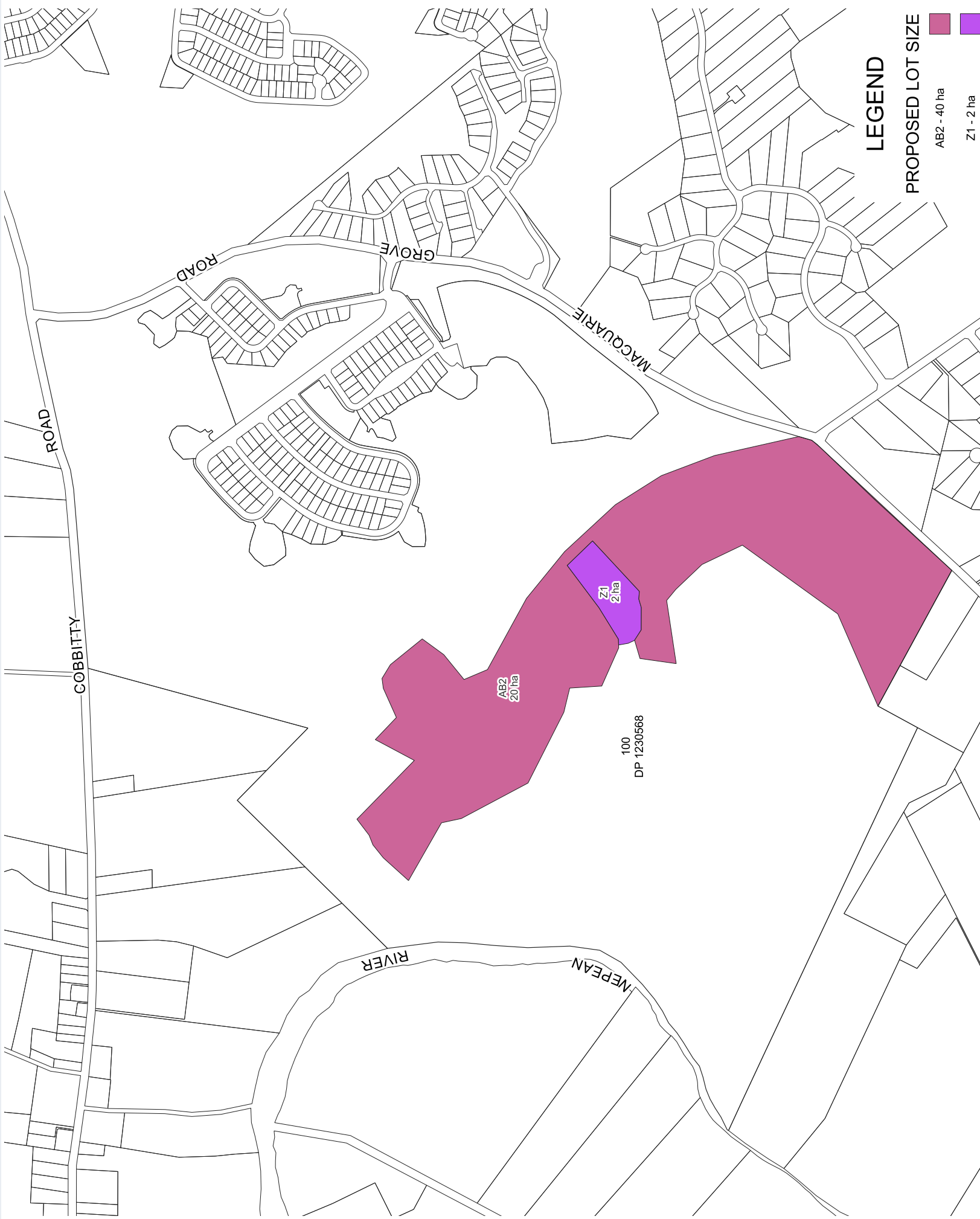
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**Client:** Trustees of The Sisters of The Good Samaritan  
**CURRENT LOT SIZE**  
LOT 100 IN DP1230568  
229 MACQUARIE GROVE ROAD, COBBITTY

Attachment 2

ORD02

Version: E

Drawing Ref: 20115 INDPLS

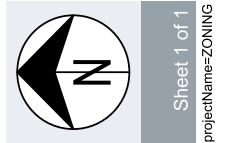
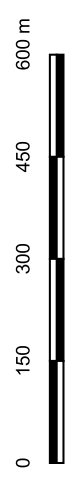


**LEGEND**

**PROPOSED LOT SIZE**

AB2 - 40 ha

Z1 - 2 ha

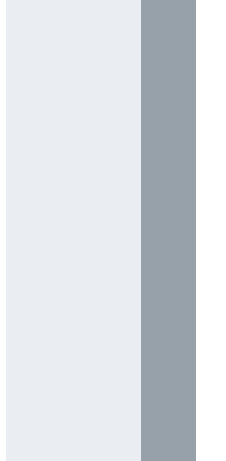


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By	Ver	Date	Amendments

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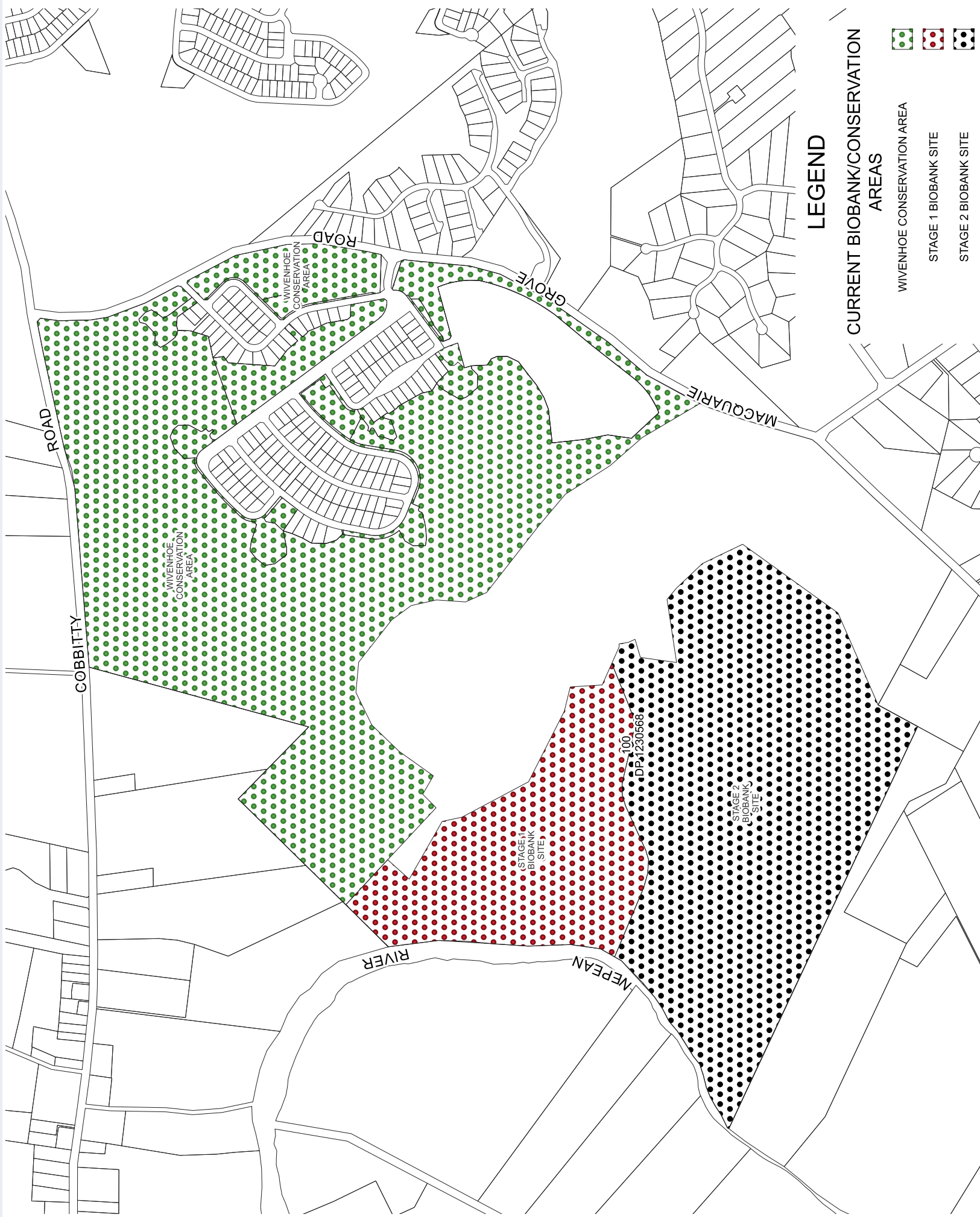


**PROPOSED LOT SIZE**  
 LOT 100 IN DP1230568  
 229 MACQUARIE GROVE ROAD, COBBITTY  
 Client: Trustees of The Sisters of The Good Samaritan



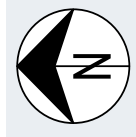
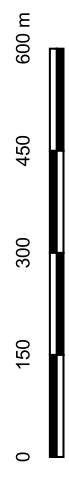
Version: E

Drawing Ref: 20115 INDCBA



LEGEND

- CURRENT BIOBANK/CONSERVATION AREAS
  - WIVENHOE CONSERVATION AREA (Green dotted pattern)
  - STAGE 1 BIOBANK SITE (Red dotted pattern)
  - STAGE 2 BIOBANK SITE (Black dotted pattern)



Surveyor: N/A  
 Checked: BC  
 Drawn: AA  
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 Vertical Datum: N/A  
 Horizontal Datum: N/A

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BC	E	08-06-2023	UPDATE TO BOUNDARIES

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**Beveridge Williams**  
 Development and Infrastructure Consultants



**CURRENT BIOBANK/CONSERVATION**  
 LOT 100 IN DP1230568  
 229 MACQUARIE GROVE ROAD, COBBITTY

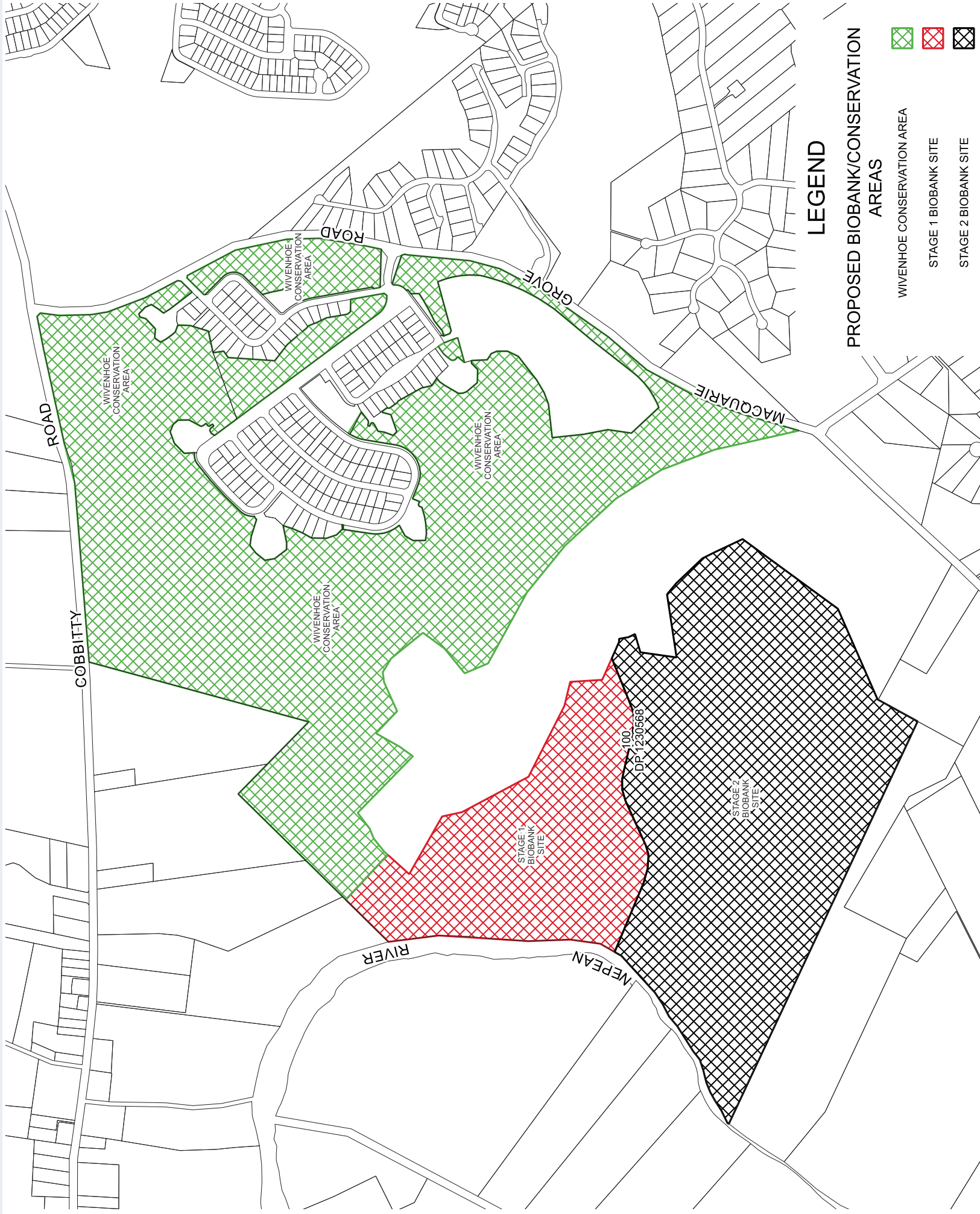
Client: Trustees of The Sisters of The Good Samaritan

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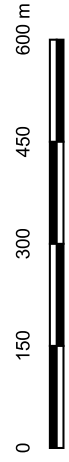
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LEGEND

- PROPOSED BIOBANK/CONSERVATION AREAS
- WIVENHOE CONSERVATION AREA
  - STAGE 1 BIOBANK SITE
  - STAGE 2 BIOBANK SITE



Surveyor: N/A  
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 Survey Date: N/A  
 Vertical Datum: N/A  
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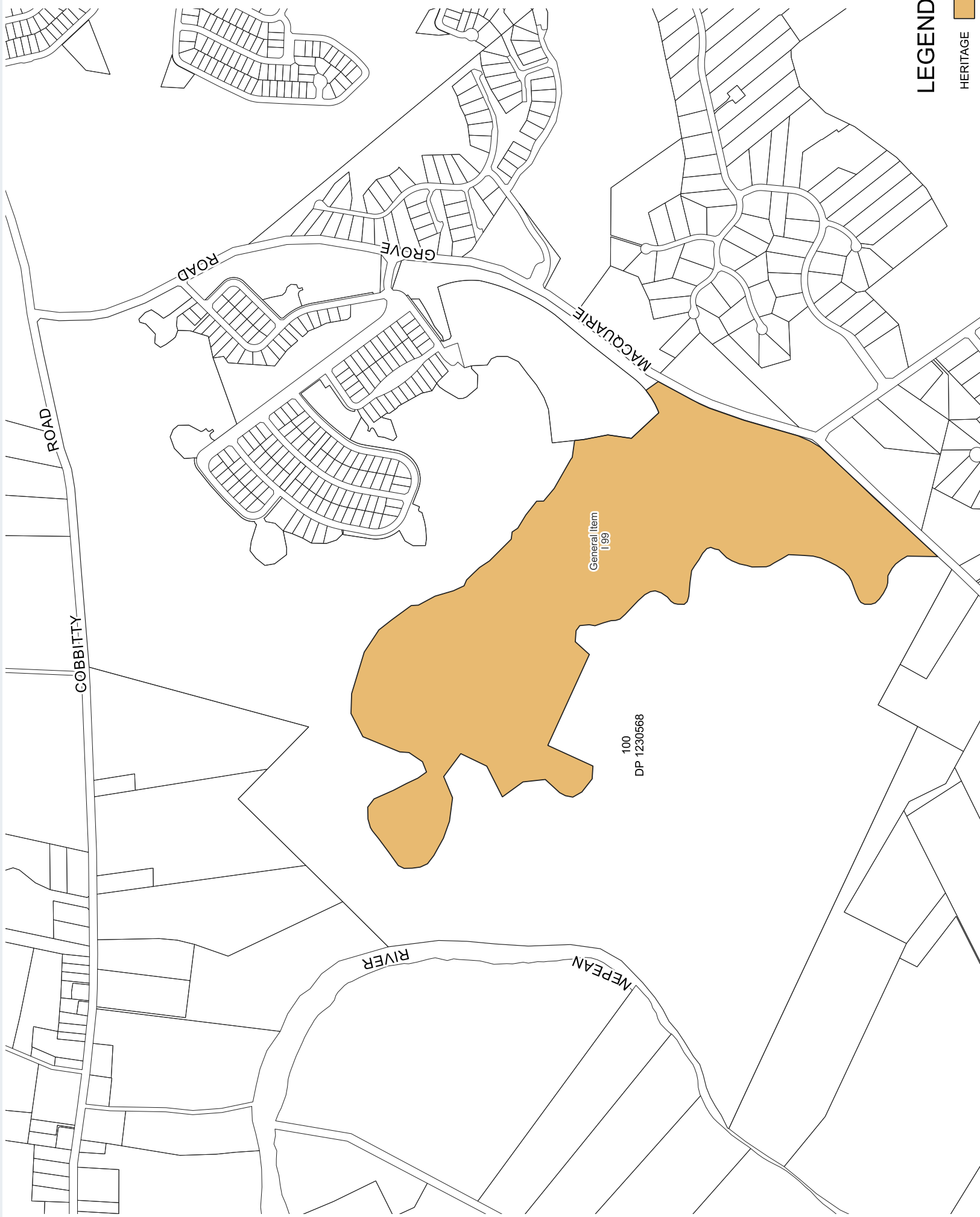
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 Western Sydney ph: (02) +625 5055  
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**PROPOSED BIOBANK/CONSERVATION**  
 LOT 100 IN DP1230568  
 229 MACQUARIE GROVE ROAD, COBBITTY  
 Client: Trustees of The Sisters of The Good Samaritan

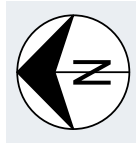
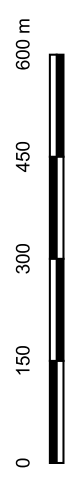
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Drawing Ref: 20115 INDHER



**LEGEND**

HERITAGE



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By Ver Date  
 Amendments  
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**HERITAGE**  
 LOT 100 IN DP1230568  
 229 MACQUARIE GROVE ROAD, COBBITTY

**BW**  
**Beveridge Williams**  
 Development and Infrastructure Consultants  
 Western Sydney ph: (02) +625 5055  
 www.beveridgewilliams.com.au

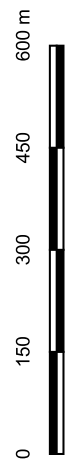
Client: Trustees of The Sisters of The Good Samaritan

Attachment 2

ORD02

Version: E

Drawing Ref: 20115 INDAREA



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By	Ver	Date	Amendments
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BC	E	08-06-2023	UPDATE TO BOUNDARIES

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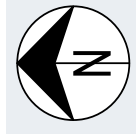
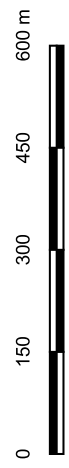
**Beveridge Williams**  
 Development and Infrastructure Consultants  
 Western Sydney ph: (02) 4625 5055  
 www.beveridgewilliams.com.au

**AREAS**  
 LOT 100 IN DP1230568  
 229 MACQUARIE GROVE ROAD, COBBITTY  
 Client: Trustees of The Sisters of The Good Samaritan



Version: E

Drawing Ref: 20115 INDACQ



Surveyor: N/A  
 Checked: BC  
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By Ver Date  
 Amendments  
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**BW**  
**Beveridge Williams**  
 Development and Infrastructure Consultants  
 Western Sydney ph: (02) 4625 5055  
 www.beveridgewilliams.com.au

**LAND RESERVATION ACQUISITION MAP**  
 LOT 100 IN DP1230568  
 229 MACQUARIE GROVE ROAD, COBBITTY

Client: Trustees of The Sisters of The Good Samaritan

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## Amended Planning Proposal for 229 Macquarie Grove Road Cobbitty (Mater Dei/Wivenhoe) - Assessment against Relevant Strategies, SEPPs and Ministerial Directions for Council Report

### 1. Assessment against Region, District and Local Strategic Plans

#### 1.1 Greater Sydney Region Plan

The Greater Sydney Region Plan (the Region Plan) was released by the Greater Sydney Commission (GSC) on 18 March 2018. The Region Plan has a vision and plan to manage growth and change for Greater Sydney in the context of economic, social and environmental matters.

Greater Sydney Region Plan	
Objective	Officer Comment
<b>Objective 13:</b> Environmental heritage is conserved and enhanced	The proposal is viewed as being consistent with Objective 13 as it seeks to conserve existing heritage on the site.

#### 1.2 Western Sydney District Plan

Western Sydney District Plan On 18 March 2018, the Western Sydney District Plan (the District Plan) was released by the GSC. The District Plan guides the 20-year growth of the district to improve its social, economic and environmental assets.

Western Sydney District Plan	
Objective	Officer Comment
Planning Priority W5: Providing housing supply, choice and affordability, with access to jobs, services and public transport: <ul style="list-style-type: none"> <li>• <b>Objective 10:</b> Greater housing supply.</li> <li>• <b>Objective 11:</b> Housing is more diverse and affordable.</li> </ul>	The proposal seeks to rezone land from R5 Large Lot Residential to RU2 Rural Landscape and C2 Environmental Conservation to better reflect existing land use precincts on the site. Existing R5 zoned land has a 40ha minimum lot size and the proposal is not considered to have an adverse impact on housing supply.
Planning Priority W6: Creating and renewing great places and local centres, and respecting the District's heritage: <ul style="list-style-type: none"> <li>• <b>Objective 12:</b> Great places that bring people together.</li> <li>• <b>Objective 13:</b> Environmental heritage is identified, conserved and enhanced.</li> </ul>	The proposal is viewed as being consistent with these objectives of the plan.

#### 1.3 Camden Community Strategic Plan

The Connecting Camden Community Strategic Plan (CSP) 2036 acknowledges that Camden's urban landscape is changing and that there is a need to ensure that everyone has access to quality environments that are well planned and designed, maintained and built to

last for future generations. The CSP also acknowledges that the green spaces, natural and rural landscapes, and waterways are special spaces with cultural and heritage values to the community.

Community Strategic Plan	
Objective	Officer Comment
<p><b>Key Direction - Liveable</b></p> <p>LB2 - Our public spaces and places are vibrant and accessible:</p> <ul style="list-style-type: none"> <li>LB2.3 Identify and maintain city heritage and culture</li> </ul>	<p>The draft Planning Proposal aims to ensure the ongoing management of existing environmental conservation land by applying a C2 Environmental Conservation zone. The draft proposal also seeks to apply an RU2 rural landscape zone to land zoned RU1 to restrict primary production development to land to within a heritage conservation curtilage.</p>
<p><b>Key Direction - Prosperous</b></p> <p>P2 - Our LGA provides diverse local job opportunities, supported by skills and training pathways to employment:</p> <ul style="list-style-type: none"> <li>P2.1 Strengthen education, training and career pathways</li> </ul>	<p>The draft proposal supports the future operation of the Mater Dei and Aspect schools by applying lands zones most appropriate to these educational uses and allowing for the separation of these two schools, thus providing certainty into the future. This is in keeping with this Key Direction and it acts to retain school spaces in the Camden LGA.</p>
<p><b>Key Direction - Balanced</b></p> <p>B1- Our natural environment and waterways are protected, well maintained and enhanced for community enjoyment:</p> <ul style="list-style-type: none"> <li>B1.3 Manage the impact and integration of population growth responsibly within our natural environment</li> <li>B1.5 Maintain and enhance the natural environment</li> </ul>	<p>The draft proposal seeks to remove a residential zone from land currently used for educational purposes and apply an RU2 Rural Landscape zone. This is viewed as being in keeping with this objective.</p> <p>The proposal is consistent with the ongoing protection of environmental lands on the subject site.</p>

#### 1.4 Camden Local Strategic Planning Statement

The Local Strategic Planning Statement (LSPS) was adopted by Council on 14 April 2020. The LSPS is a 20-year planning vision and includes land use, transport and sustainability objectives to demonstrate how the Camden LGA will change to meet the community's needs over the next 20 years.

Objective	Officer Comment
<b>Local Priority L2:</b> Celebrating and respecting Camden's proud heritage	The draft Planning Proposal acts to preserve the Wivenhoe heritage precinct by introducing changes to remove unintended residential development (R5 zoned land) and secure the current use of the site into the future.
<b>Local Priority S3:</b> Protecting Camden's rural land	The proposal seeks to rezone RU1 zoned land to C2 Environmental Conservation and RU2 Rural Landscape. The proposed zonings are in keeping with the current uses on the site and so it is unlikely that there will be any negative impact on the existing rural character.
<b>Local Priority S4:</b> Protecting and restoring environmentally sensitive land and enhancing biodiversity	The proposal seeks apply a C2 Environmental Conservation Zone for land that is used for biodiversity conservation purposes, which would represent an increase in land zoned C2 across the site. The proposal also seeks to remove unintended large lot residential development from the site.

### Camden Rural Lands Strategy

The Camden Rural Lands Strategy (RLS) outlines seven key planning principles that will inform land use planning decision making for Camden. An assessment against these is provided below.

The RLS also requires that all Planning Proposals lodged for land within the Metropolitan Rural Area (MRA) is assessed against four different criteria. This assessment is provided in the table below.

Principle	Officer Comment
1. Protect Camden's remaining rural land	The proposal seeks to rezone RU1 zoned land to C2 Environmental Conservation and RU2 Rural Landscape. The proposed zonings are in keeping with the current uses on the site which have a rural character. R5 zoned land is proposed to be rezoned to RU2 Rural Landscape.
2. Retain Camden's valued scenic and cultural landscapes	The proposal does not propose an intensification of the use on the site and so existing scenic and cultural landscapes will be retained.
3. Provide certainty and avoid rural land fragmentation	The proposal will result in the rezoning of land zoned RU1 Primary Production to an C2 Environmental Conservation zone and an RU2 Rural landscape zone. The planning proposal also seeks to assist the separation of existing uses in these zones into the future and although this will support fragmentation of existing rural land at the site, no change to the current uses and protections on the site are proposed and so minimal impact is anticipated.
4. Minimise and manage rural land conflict	The proposal is unlikely to result in rural land conflict as no new uses are being proposed.
5. Enhance Camden's Rural Economy	The proposal will support the operation of the Mater Dei and Aspect schools, therefore

	securing ongoing local employment and services in the LGA.
6. Minimise unplanned non-agricultural development	No new development is planned for the site because of the proposal.
7. Maximise opportunities for relocation of rural enterprises	Not applicable.
Criteria	Officer Comment
Criteria 1: Planning Proposal must be consistent with the State and Local Strategic Plan.	The proposal is consistent with Region and District Plan and with the Local Strategic Plan.
Criteria 2: The Planning Proposal must not adversely impact on the operation of existing rural enterprises.	The proposal does not seek to introduce new uses or intensify the use of the site, therefore no impact on existing rural enterprises is anticipated.
Criteria 3: Planning Proposals must be a logical extension to existing urban areas	The proposal does not seek to extend the urban area and so Criteria 3 is not applicable.
Criteria 4: Planning Proposals must not reduce the quality of scenic landscapes, vistas and ridgelines, or heritage values.	The draft Planning Proposal will provide two additional rural residential opportunities through the proposed rezoning of the Convent and Aspect school sites to RU2 and future subdivision of this land. This is viewed as in keeping with the existing established large lot rural residential development in the area and will have negligible impact on the quality of landscapes, vistas, ridgelines and heritage values.

### Camden Local Housing Strategy

The Camden Local Housing Strategy sets out a plan for housing in the Camden LGA over the next 10 to 20 years.

Objective	Officer Comment
Priority 3 – Delivering the right housing in the right location  Objective 7: Housing growth in established areas is incremental, and preserves character and heritage values	The draft Planning Proposal will provide two additional rural residential opportunities through the proposed rezoning of the Convent and Aspect school sites to RU2 and the future subdivision of this land. This is viewed as being in keeping with the existing established large lot rural residential development in the area.
Priority 4 – Increasing housing choice and diversity  Objective 9: The mix of housing types matches the changing needs and preferences of the community	The proposal seeks to rezone land from R5 Large Lot Residential to RU2 Rural Landscape and C2 Environmental Conservation to better reflect existing land use precincts on the site. Existing R5 zoned land has a 40ha minimum lot size and the proposal is not considered to have an adverse impact on housing supply.

## 2. Consistency against State Environmental Planning Policies (SEPPs)

SEPP/SREP/ Chapter Title	Assessment of Consistency with
State Environmental Planning Policy (Biodiversity and Conservation) 2021	Assessment provided under chapters below.

<b>SEPP/SREP/ Chapter Title</b>	<b>Assessment of Consistency with</b>
Chapter 2 Vegetation in non-rural areas	The site is within a rural area and no vegetation is proposed to be removed, therefore the SEPP is not applicable to this Planning Proposal
Chapter 3 Koala Habitat Protection 2020	Does not apply to the Camden LGA.
Chapter 4 Koala Habitat Protection 2021	Does not apply to the Camden LGA
Chapter 5 River Murray Lands	Does not apply to the Camden LGA
Chapter 6 Bushland in Urban areas	Not relevant to the draft Planning Proposal.
Chapter 7 Canal Estate Development	Not relevant to the draft Planning Proposal.
Chapter 8 Sydney Drinking water Catchment	Not relevant to the draft Planning Proposal.
Chapter 9 Hawkesbury-Nepean River	<p>The proposal site is within the Hawkesbury-Nepean River Catchment. The draft Planning Proposal seeks to introduce land zones to match the existing uses on the site.</p> <p>The draft proposal includes detail on the future management of wastewater at the site. This includes the construction of a rising main from the Sydney Water sewer to cater for effluent flows from Mater Dei School, Wivenhoe Villa and separately for the Aspect School with some preliminary concept plans already developed.</p> <p>On-site wastewater management systems associated with the convent cottage and farmhouse will remain operational within their respective precincts.</p> <p>The introduction of a rising main to service the schools and villa may have a positive impact on the Hawkesbury – Nepean Catchment by reducing onsite wastewater disposal.</p>
Chapter 10 Sydney Harbour Catchment	Does not apply to the Camden LGA
Chapter 11 Georges Rivers Catchment	Only applies to a small area within the Camden LGA and the proposal site is outside of this catchment and so is not relevant to the draft Planning Proposal.
Chapter 12 Willandra Lakes Region World Heritage Property	Does not apply to the Camden LGA
Chapter 13 Strategic Conservation Planning	No land within the site has been mapped as Avoided Land or Land for Strategic Conservation under the SEPP and so this Chapter is not relevant to the Planning Proposal.
<b>State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004</b>	Does not apply to the draft Planning Proposal.



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<b>SEPP/SREP/ Chapter Title</b>	<b>Assessment of Consistency with</b>
<b>State Environmental Planning Policy (Exempt and Complying Development Codes) 2008</b>	The draft Planning Proposal will not impede the provisions of this SEPP. The draft Planning Proposal will assist in the application of this SEPP by introducing land zones in keeping with current uses at the site.
<b>State Environmental Planning Policy (Housing) 2021</b>	Not relevant to the draft Planning Proposal.
<b>State Environmental Planning Policy (Industry and Employment) 2021</b>	Not applicable
Chapter 2 Western Sydney Employment area	Does not apply to Camden LGA
Chapter 3 Advertising and Signage	The draft Planning Proposal will not impede the application of this chapter.
<b>State Environmental Planning Policy No 65- Design Quality of Residential Apartment Development</b>	Not relevant to the draft Planning Proposal.
<b>State Environmental Policy (Planning Systems) 2021</b>	Refer to chapters below.
Chapter 2 State and Regional Development	Not relevant to the draft Planning Proposal.
Chapter 3 Aboriginal Land	Does not apply to the Camden LGA
Chapter 4 Concurrences and Consents	The draft Planning Proposal does not affect the implementation of this chapter.
<b>State Environmental Planning Policy (Precincts-Central River City)</b>	Does not apply to the Camden LGA
<b>State Environmental Planning Policy (Precincts-Eastern Harbour City) 2021</b>	Does not apply to the Camden LGA
<b>State Environmental Planning Policy (Precincts- Regional) 2021</b>	Does not apply to the Camden LGA
<b>State Environmental Planning Policy (Precincts- Western Parkland City) 2021</b>	Refer to chapters below
Chapter 2 State Significant Precincts	Not relevant to the draft Planning Proposal.
Chapter 3 Sydney Region Growth Centres	The site is outside of the Camden Growth Centres boundary and so the chapter is not relevant to the draft Planning Proposal.
Chapter 4 Western Sydney Aerotropolis	Not relevant to the draft Planning Proposal.
Chapter 5 Penrith Lakes scheme	Does not apply to the Camden LGA
Chapter 6 St Marys	Does not apply to the Camden LGA.
Chapter 7 Western Sydney Parklands	Does not apply to the Camden LGA.
<b>State Environmental Planning Policy (Primary Production) 2021</b>	Refer to chapters below
Chapter 2 Primary production and rural development	Not relevant to the draft Planning Proposal.
Chapter 3 Central Cost plateau areas	Does not apply to the Camden LGA.

SEPP/SREP/ Chapter Title	Assessment of Consistency with
<b>State Environmental Planning Policy (Resilience and Hazards) 2021</b>	Refer to chapters below
Chapter 2 Coastal Management	Does not apply to the Camden LGA
Chapter 3 Hazardous and Offensive Development	Not relevant to the draft Planning Proposal.
Chapter 4 Remediation of land	No changes to existing uses on the site are proposed with this draft proposal and so assessment of contamination is not required.
<b>State Environmental Planning Policy (Resources and Energy) 2021</b>	Refer to chapters below.
Chapter 2 Mining, petroleum production and extractive industries	Not relevant to the draft Planning Proposal.
Chapter 3 Extractive Industries in Sydney Area	Not relevant to the draft Planning Proposal.
<b>State Environmental Planning Policy (Transport and Infrastructure) 2021</b>	Refer to chapters below.
Chapter 2 Infrastructure	No existing uses are proposed at the site and so the SEPP is not relevant to the draft Planning Proposal.
Chapter 3 Educational Establishments and childcare facilities	The draft proposal will assist in the application of this SEPP by rezoning two existing schools from an R5 Large Lot Residential zone to a designated RU2 Rural Landscape zone.
Chapter 4 Major Infrastructure corridors	The draft proposal will not impact on major infrastructure corridors and so the SEPP is not relevant to the draft Planning Proposal.
Chapter 5 Three ports- Port Botany, Port Kembla and Newcastle	Does not apply to the Camden LGA

### 3. Consistency with the Section 9.1 Ministerial Directions

S9.1 Direction Title	Assessment of Consistency
<b>Focus area 1: Planning Systems</b>	
1.1 Implementation of Regional Plans	The draft Planning Proposal's consistency with the Greater Sydney Region Plan and Western City District Plan has been assessed in the tables above under Section 1.1. The draft Planning Proposal has been assessed as being consistent with the Greater Sydney Region Plan and so is consistent with this direction.
1.2 Development of Aboriginal Land Council Land	No rezoning of land owned by an Aboriginal Land Council is proposed with this draft Planning Proposal.
1.3 Approval and Referral Requirements	The draft Planning Proposal is consistent with this direction as it does not propose provisions requiring concurrence, consultation or referral of a minister or public authority outside of bushfire management and does not identify development as designated development.

S9.1 Direction Title	Assessment of Consistency
1.4 Site Specific Provisions	The Planning Proposal does not introduce any site-specific provisions and so is not inconsistent with this direction.
<b>Focus Area 1: Planning Systems-Place-based</b>	
1.5 Paramatta road Corridor Urban Transformation Strategy	Not applicable to the Camden LGA.
1.6 Implementation of North West Priority Growth Area Land Use and Infrastructure Implementation Plan	Not applicable to the Camden LGA.
1.7 Implementation of Greater Paramatta Priority Growth	Not applicable to the Camden LGA.
1.8 Implementation of Wilton Priority Growth Area interim Land Use and Infrastructure Implementation Plan	Not applicable to the Camden LGA.
1.9 Implementation of Glenfield to Macarthur Urban Renewal Corridor	Not applicable to the draft Planning Proposal
1.10 Implementation of the Western Sydney Aerotropolis Plan	The draft Planning Proposal is not inconsistent with this direction.
1.11 Implementation of Bayside West Precincts 2036 Plan	Not applicable to the Camden LGA.
1.12 Implementation of Planning Principles for the cooks Cove Precinct	Not applicable to the Camden LGA.
1.13 Implementation of St Leonards and Crows Nest 2036 Plan	Not applicable to the Camden LGA.
1.14 Implementation of Greater Macarthur 2040	Not applicable to this draft Planning Proposal
1.15 Implementation of the Pymont Peninsula Place Strategy	Not applicable to the Camden LGA.
1.16 North West Rail Link Corridor Strategy	Not applicable to the Camden LGA.
1.17 implementation of the Bays West Place Strategy	Not applicable to the Camden LGA.
<b>Focus Areas 3: Biodiversity and Conservation</b>	
3.1 Conservation zones	<p>The draft Planning Proposal is consistent with this direction in that it seeks to rezone conservation lands from an RU1 Primary Production and an SP2 Air Transport zone to a C2 Environmental Conservation zone. Thus, improving the future protection of these conservation lands.</p> <p>However, the draft proposal also includes the rezoning of conservation lands from a C2 Environmental Conservation zone to anRU2 Rural Landscape, SP2 Drainage and RE1 Public recreation zone and so is inconsistent with this direction.</p> <p>This inconsistency is viewed as being of minor significance due to the following considerations:</p> <ul style="list-style-type: none"> <li>- The proposed RU2 Rural Landscape portion of the site comprises of an existing dwelling, historical stables and the vegetation is predominantly maintained European species.</li> <li>- The land within the proposed SP2 Drainage zone comprises of maintained drainage basins.</li> <li>- The land within the proposed RE1 zone comprises of maintained public recreation land that includes embellishments such as picnic tables,</li> </ul>

S9.1 Direction Title	Assessment of Consistency
	<p>paved walkways and maintained gardens.</p> <p>Advice will be sought from the Planning Secretary regarding this inconsistency subject to the support of Council to proceed to a Gateway Determination.</p>
3.2 Heritage Conservation	<p>The land subject to the draft Planning Proposal includes the Wivenhoe Heritage Item 99 and curtilage area. The proposed amendments seek to protect the current uses on the site and reduce the potential for further development outside of these uses. This has been confirmed by the Heritage Assessment submitted with the draft proposal.</p> <p>Additionally, as the draft Planning Proposal will not result in future development and will increase conservation zoned land, no impact on land of Aboriginal Cultural significance is likely to occur. This has been confirmed by a due diligence assessment submitted with the draft proposal. Therefore, the draft Planning Proposal is viewed as being consistent with this direction.</p>
3.3 Sydney Drinking Water Catchments	Not applicable to the Camden LGA
3.4 Application of C2 and C3 Zones and Environmental Overlays in Far North Coast LEPs 26	Not applicable to the Camden LGA.
3.5 Recreation Vehicle Areas	Recreational vehicle areas are not proposed and so the draft Planning Proposal is not inconsistent with this direction.
3.6 Strategic Conservation Planning	No land within the Planning Proposal site has been identified as Avoided Land or as a Strategic Conservation Area under the State Environmental Planning Policy (Biodiversity and Conservation) 2021 and so this Direction is not applicable to the Planning Proposal.
<b>Focus area 4: Resilience and Hazards</b>	
4.1 Flooding	The land subject to the draft Planning Proposal is located on land mapped as being flood prone however the portion of the sites proposed for rezoning for RU2 Rural Landscape are elevated above the flood affected areas and are outside of this mapped land. Further studies are required to confirm that evacuation from the site and access roads will not be impacted by flooding however the Draft Planning Proposal is viewed as being consistent with this direction at this stage.
4.2 Coastal Management	Not applicable to the Camden LGA
4.3 Planning for Bushfire Protection	The draft Planning Proposal seeks to rezone land mapped as bushfire prone to an RU2 Rural Landscape zone. A Bushfire Assessment has been prepared for the draft Planning Proposal which concludes that appropriate bushfire management can be achieved on site. In addition to this the site is already being used for educational purposes and the draft proposal is not viewed as leading to the intensification of this use on site. Consultation will be undertaken

S9.1 Direction Title	Assessment of Consistency
	with Commissioner of the NSW Rural Fire Service following receipt of a positive Gateway Determination Therefore, the draft Planning Proposal is viewed as being consistent with this direction at this stage.
4.4 Remediation of Contaminated Land	No additional or new uses are proposed on site and the site has already been developed for its current uses and has been in use for a number of years. Therefore, the draft proposal is viewed as being consistent with this direction.
4.5 Acid Sulphate Soils	The draft Planning Proposal will not result in an intensification of the use of the site and as the Camden LGA has not been mapped as being at risk for Acid Sulphate on NSW Government SEED mapping, the proposal is not inconsistent with this direction.
4.6 Mine Subsidence and Unstable Lands	The land is not within a mine subsidence area and so the direction is not applicable.
<b>Focus area 5: Transport and Infrastructure</b>	
5.1 Integrating Land Use and Transport	Not relevant to the draft Planning Proposal
5.2 Reserving Land for Public Purposes	The draft Planning Proposal will not result in the loss of land for public purposes and so is consistent with this direction.
5.3 Development Near Regulated Airports and Defence Airfields	The draft Planning Proposal site is within the Wind Turbine Buffer and the Wildlife Buffer zone of the Western Sydney Airport and within the 20 and 25 ANEF zone of the Camden Airport as well as the Approach Surface and Transitional surface of the Camden Airport OLS. However, as the draft proposal will not result in additional uses or density at the site no additional impact is anticipated on either airport. Therefore, the draft proposal is consistent with this direction. The draft proposal was referred to Camden Airport during initial notification and no objection to the draft proposal was raised. Further consultation with the area management group for Camden Airport and Western Sydney Airport will also be covered at public exhibition stage. The draft proposal is viewed as being consistent with this direction.
5.4 Shooting Ranges	Not applicable to the draft Planning Proposal
<b>Focus area 6: Housing</b>	
6.1 Residential Zones	The proposal seeks to remove the R5 zone from the site and so this direction is not relevant to the draft proposal.
6.2 Caravan Parks and Manufactured Home Estates	Not relevant to the draft Planning Proposal
<b>Focus area 7: Industry and Employment</b>	
7.1 Business and Industrial Zones	Not relevant to the draft Planning Proposal
7.2 Reduction in non-hosted short-term rental accommodation period	Not relevant to the draft Planning Proposal
7.3 Commercial and Retail Development along the Pacific Highway, North Coast	Not applicable to the Camden LGA.
<b>Focus area 8: Resources and Energy</b>	
8.1 Mining, Petroleum Production and Extractive Industries	The draft proposal will not impact on resource and extractive industries and so the direction is not relevant to the draft Planning Proposal.



S9.1 Direction Title	Assessment of Consistency
<b>Focus area 9: Primary Production</b>	
9.1 Rural Zones	The draft proposal seeks to rezone land zoned RU1 Primary Production to C2 Environment Conservation zone on land already protected as Biodiversity Stewardship sites. This land zone is not within the zones identified within this direction and so the draft Planning Proposal is viewed as being consistent with this direction.
9.2 Rural Lands	Not applicable to the Camden LGA
9.3 Oyster Aquaculture	Not relevant to the draft Planning Proposal
9.4 Farmland of State and Regional Significance on the NSW Far North Coast	Not relevant to the draft Planning Proposal

ORD02

Attachment 3

**Department of Planning and Environment**

Mr Andrew Carfield  
General Manager  
Camden Council  
PO Box 183  
Camden NSW 2570

Our ref: IRF22/4229

Attention: Nicole Aiken

Dear Mr Carfield

**Planning proposal PP-2021-5998 to amend Camden Local Environmental Plan 2010**

I am writing in response to the planning proposal submitted to the Minister under section 3.34(1) of the *Environmental Planning and Assessment Act 1979* (the Act) for the amendment of planning controls at 229 Macquarie Grove Road, Cobbitty.

The Department has assessed the proposal and I commend Council's intent to protect the sensitive biodiversity nature of the land. During assessment, however, an issue concerning acquisition responsibilities has been identified that requires resolution. Consequently, I have determined under section 3.34(2)(b) of the Act that the proposal is not to proceed in its current form and I ask that Council considers revising the proposal to address acquisition matters and resubmits the proposal for determination.

While I appreciate that the proposal seeks to address private schools on the site, interpretation of section 3.15(1) of the Act indicates that proposed rezoning to SP2 *Educational establishment* would require nomination of an acquisition authority. While consideration may be given to applying a special uses zone for non-government schools, and not education establishments, there remains concern over whether acquisition could be sought under the *Land Acquisition (Just Terms compensation) Act 1991*. Council may care to seek legal opinion in this regard.

As a policy matter, the assignment of a special zone for these schools is generally not supported by the Department. Development potential permitted under the existing zones would not apply should the land be zoned for special purposes, which may in the future necessitate rezoning under the planning proposal process to allow these permissible uses, incurring costs and delay in development.

Council's further consideration of this issue will provide an opportunity for Council to make necessary changes to the proposal and provide its endorsement prior to resubmission for Gateway determination. Council may care to consider an alternative and appropriate zone for the school sites.

In undertaking further consideration, Council may also care to consider addressing the need for acquisition provisions for the proposed RE1 Public Recreation and SP2 Drainage Zones, as well as, making a minor correction to the eastern boundary of Bio Bank site 217 within the planning proposal.

Should you wish to discuss my letter, I have arranged for Terry Doran, Manager Western, to assist you. Mr Doran can be contacted on 9860 1579.

Yours sincerely



11/05/2023

**Catherine Van Laeren**  
**Executive Director**  
**Planning and Land Use Strategy**

Encl: Gateway determination

**ORD02**

**Attachment 4**



Department of Planning and Environment

## Gateway Determination

**Planning proposal (Department Ref: PP-2021-5998):** which seeks to amend planning controls at 229 Macquarie Grove Road, Cobbitty.

I, the Executive Director at the Department of Planning and Environment, as delegate of the Minister for Planning and Public Spaces, have determined under section 3.34(2) of the *Environmental Planning and Assessment Act 1979* (the Act) that an amendment to the Camden Local Environmental Plan 2010 to amend planning controls at 229 Macquarie Grove Road, Cobbitty, should not proceed.

Dated 11<sup>th</sup> day of May 2023.



**Catherine Van Laeren**  
Executive Director  
Planning and Land Use Strategy  
Department of Planning and Environment

**Delegate of the Minister for Planning and  
Public Spaces**

# Mater Dei and Kirkham Rise



ORD02

Attachment 5



Camden Development Control Plan 2022



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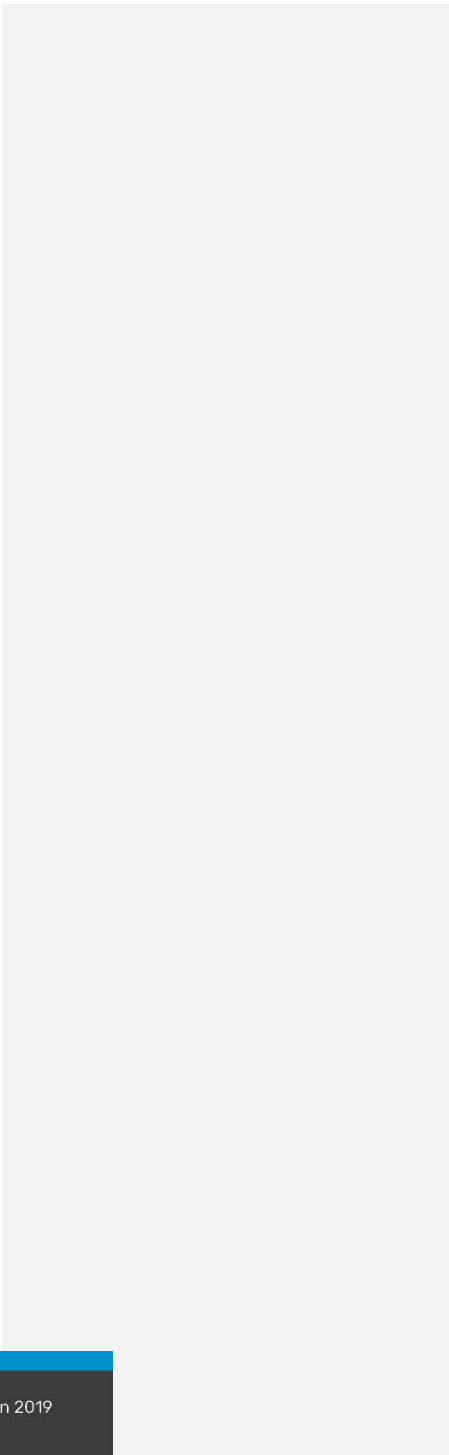
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## MATER DEI/KIRKHAM RISE

### S5.1 Introduction

The Mater Dei/Kirkham Rise (and Wivenhoe Retirement Village) site interfaces with Harrington Grove and the Kirkham low density residential lands to the west of Macquarie Grove Road (Refer to Figure 5-1). The Mater Dei site is occupied by the heritage listed building called Wivenhoe, two functioning schools and collection of associated buildings spaces and infrastructure and expansive restored woodland areas and open rural landscapes. The site is bound to the east by Macquarie Grove Road, to the north by Cobbitty Road, to the west by the Nepean River and adjoins privately owned rural lands to the south.

The Kirkham Rise site (incorporating the Wivenhoe Retirement Village) is a low-density residential development accessed off Macquarie Grove Road. It was formerly part of the Mater Dei property holding and is reflected in Figure 5.6.

**Note:** Wivenhoe referred to in isolation is a reference to the Wivenhoe Villa (heritage item) on the Mater Dei Site. **This schedule refers to the residue Mater Dei site and the Kirkham Rise site (which incorporates the Wivenhoe Retirement Village)**

If this is not to be the case refer to the Kirkham Rise in a separate Schedule 5A and 5B



Camden Development Control Plan 2019

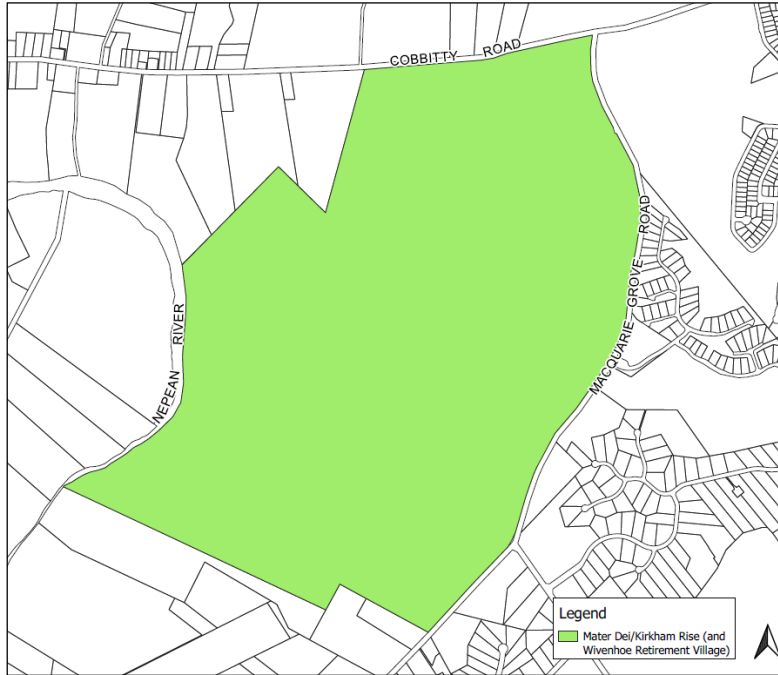


Figure 5-1: Mater Dei/Kirkham Rise Location Plan

## S5.2 Subdivision Planning and Design

### S5.2.1 Kirkham Rise

#### Introduction

The public domain of Kirkham Rise has been completed. If there are any residual issues, please refer to the repealed Camden DCP 2011.



### S5.2.2 Mater Dei

#### Introduction

The Mater Dei site is an expansive diverse character parcel of land which includes the residue land holding surrounding the Kirkham Rise and Wivenhoe Retirement Village. It has an extensive frontage to Cobbitty Road, Macquarie Grove Road and Nepean River, with access generally opposite Kirkham Lane. It is depicted in Figure S5.2 below.

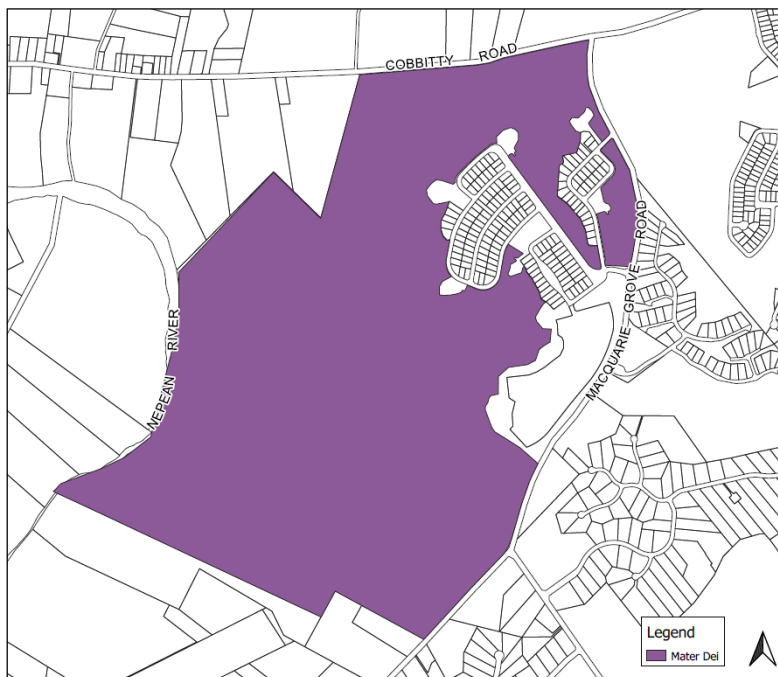


Figure 5-2 Mater Dei Site Plan

#### Relationship to Other Plans

Detailed planning for the Mater Dei site has been informed by a range of specialist consultant reports over the years including most relevantly:

- Conservation Management Plan (1997 revised 2000) prepared by Design 5 Architects.
- Landscape Conservation Plan (2000) prepared by Design 5 Architects.
- Heritage Impact Statement (2021) prepared by Design 5 Architects.
- Biodiversity Overview (including Conservation Initiatives) Report (August 2022 prepared by Travers Bushfire and Ecology).



- Aboriginal Due Diligence Assessment (September 2021) prepared by Travers Bushfire and Ecology.
- Bushfire Protection Assessment (September 2021) prepared by Travers Bushfire and Ecology.
- NASF Assessment – Aviation Services (September 2021) prepared by Rehbein Airport Consulting.
- Preliminary Transport Assessment (September 2021) prepared by The Transport Planning Partnership.

Commented [NA1]: Dates and references be updated prior to exhibition

**Site Precincts and Planning and Design Provisions**

The Mater Dei site comprises a number of landuse precincts which generally exhibit distinguishing character qualities.

The subject precincts are distinguished as follows:

- Education
- Natural Areas Conservation
- Rural Residue

Planning provisions in respect of the education precinct are detailed below; whilst provisions in respect of natural areas conservation and the rural residue holding are detailed at S5.3.1 and S5.4.2 respectively.

Planning and design provisions in respect of Bushfire Hazard Management/Asset Protection zones and Access are documented in this section.

They are represented in Figure 5.3 below, with objectives and controls detailed following.





Camden Development Control Plan 2019



Figure 5.3: Mater Dei Landuse Precinct/Character Areas

## Education

### Objectives

- a. To facilitate a range of education opportunities for people with disability in a unique environment.
- b. To ensure the natural and built environment sensitivities of the precinct and nearby lands are respected and protected.

### Controls

1. Ensure appropriate setbacks, buffers and landscaping (including Asset Protection zones) that do not adversely impact on the built heritage, landscape setting or natural environment qualities of the precinct.
2. Provide appropriate and sufficient access, manoeuvring and parking that is durable, maintainable and respects the environmental sensitivities of the site.
3. Ensure that clear, safe pedestrian movement paths are provided.
4. Require spatial, acoustic and access compatibility of all educational activities and environments.
5. Ensure compliance with all constraint management strategies, including the Wivenhoe Heritage Conservation Management Plan, Chapter B3 of this DCP in respect of each heritage items and curtilage area.



**Bushfire Hazard Management/Asset Protection Zones**

Bushfire hazard assessment and management is most recently addressed in Travers Bushfire and Ecology 2021.

The site is importantly established to "have the capacity for future development to conform with the planning principles detailed in Planning for Bushfire Protection 2019" and in particular the imposition and management of relevant Asset Protection Zones.

Objectives

- a. To prevent loss of life and property due to bushfires by providing for development compatible with bushfire hazard.
- b. To encourage sound management of bushfire-prone areas.
- c. To ensure appropriate access to the site during an emergency.

Controls

- 1. Asset Protection Zones (APZ) must be established as a means of managing vegetation related hazards.
- 2. APZs must be established and maintained in accordance with Planning for Bushfire Protection, 2019; with indicative APZs depicted in Figure 5.5 following.
- 3. A separate emergency access must be established to facilitate evacuation from the education precinct during an emergency.

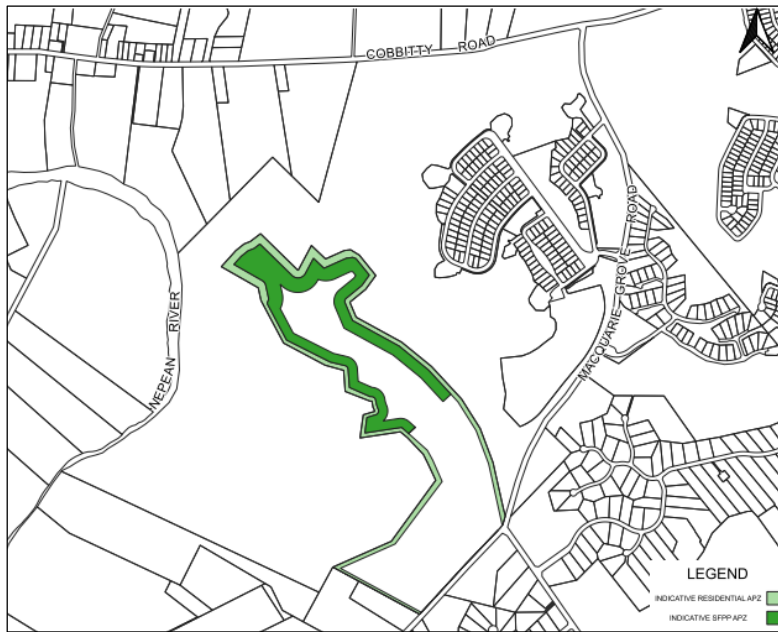


Figure 5.4: Indicative Asset Protection Zones (depicted in green)

## Access

### Objectives

- a. To ensure safe convenient access to the Mater Dei precinct.
- b. To minimise conflict between the disparate users of the Mater Dei access.
- c. To integrate access with changes to the immediate road network occasioned by surrounding growth.
- d. To ensure appropriate secondary/emergency access.
- e. To retain the visual tree lines quality of the current driveway.

### Controls

1. All future development applications must be accompanied by a traffic impact assessment.
2. Any intersection upgrade must include the integration of the Mater Dei access (see indicative design in Figure 5.5).
3. Any access/driveway alterations must have regard to the Conservation Management Plan compiled by Design 5 Architects 1997 (revised 2000), Landscape Conservation Plan compiled by the same author and dated 2000 and the Heritage Impact Statement 2021, again compiled by Design 5 Architects.

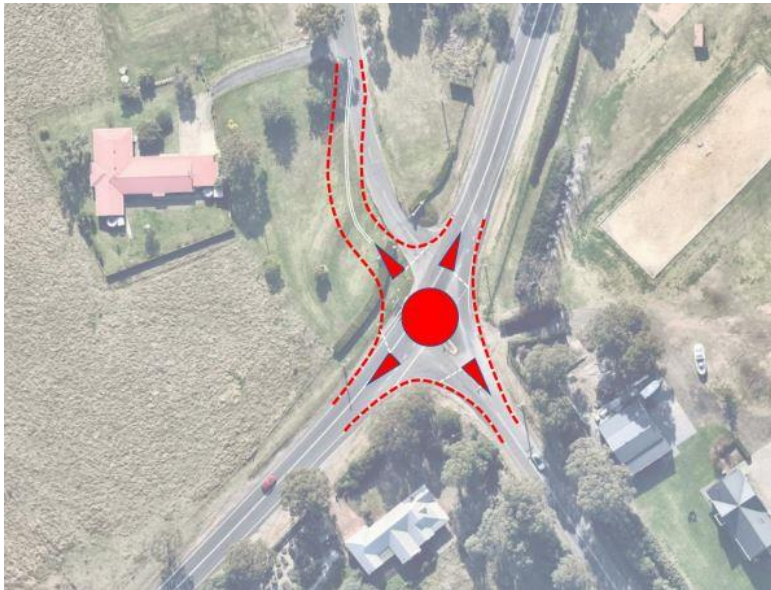


Figure 5.5: Conceptual Kirkham Lane/Macquarie Grove Road Intersection Design

## S5.3 Heritage, Conservation and Airport Operations

### Introduction

Key distinguishing qualities of the Mater Dei site which have future development and management implications include:

- Heritage Conservation
- Airspace Operations
- Natural Areas Conservation

Objectives and controls in respect of each are detailed as follows: -

#### Heritage Conservation

The Wivenhoe group including the grand villa (house) and gardens, outbuildings, stables, servant quarters, farmhouse and coach house are listed as an important local item of environmental heritage.

A comprehensive Conservation Management Plan was compiled by Design 5 Architects in 1997 and revised in 2000 and more recently reviewed associated with a Planning Proposal. A Landscape Conservation Plan was also prepared by Design 5 Architects in 2000. Further, Design 5 Architects prepared a Heritage Impact Statement in respect of the rationalisation Planning Proposal Request in 2021.

#### Objectives

- a. To preserve significance of the place and its setting.
- b. To ensure an appropriate visual and physical curtilage is provided around the heritage place to protect it and facilitate its enjoyment and understanding.

#### Controls

1. In accordance with the Heritage Impact Statement compiled by Design 5 Architects: The SP2 zone (and any future subdivision) must include the avenue of trees and fencing each side of the driveway.
2. The tree lined driveway known as Mater Dei Road, along with open grasslands along the sides of the driveway must be conserved.
3. The site must be managed in accordance with the Conservation Management Plan compiled by Design Five Architects (1997 and amended 2000) and the Landscape Conservation Plan also compiled by Design 5 Architects (2000).

#### Airspace Operations

The site is located adjacent to the Camden Airport and is subject to the influence of its operational parameters.

A comprehensive report compiled by Rehbein Airport Consulting dated 17 September 2021 details preliminary considerations for further development of the site that are impacted by Camden airport operations and form an important reference source.

#### Objectives

- a. To ensure the operational integrity of the Camden Airport is not compromised and relevant safety levels achieved.
- b. To ensure appropriate development envelopes are not compromised.
- c. To ensure appropriate acoustic amenity in respect of new development.



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Camden Development Control Plan 2019

Controls

1. Development must have specific regard to the NASF Assessment undertaken by Rehbein Airport Consulting (17 September 2021), where still relevant.

**Natural Areas Conservation**

The retained and rehabilitated natural areas are critical to the Mater Dei setting and local and broader biodiversity outcomes.

Objectives

- a. To conserve the ecological values of the site and ecological links to surrounding areas.
- b. To facilitate limited access and educational/interpretative actions/activities.

Controls

1. All conservation initiatives must generally reflect the details contained in the prevailing biodiversity stewardship and biodiversity legislation.
2. A Conservation Management Plan must inform environmental protection works and the establishment of environmental facilities.
3. Development on land that adjoins C2 Conservation Land is to ensure that there are no adverse impacts to the native vegetation and ecological values of the C2 zone, including adverse weed dispersion.

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Attachment 5





Camden Development Control Plan 2019

## S5.4 Site Specific Controls

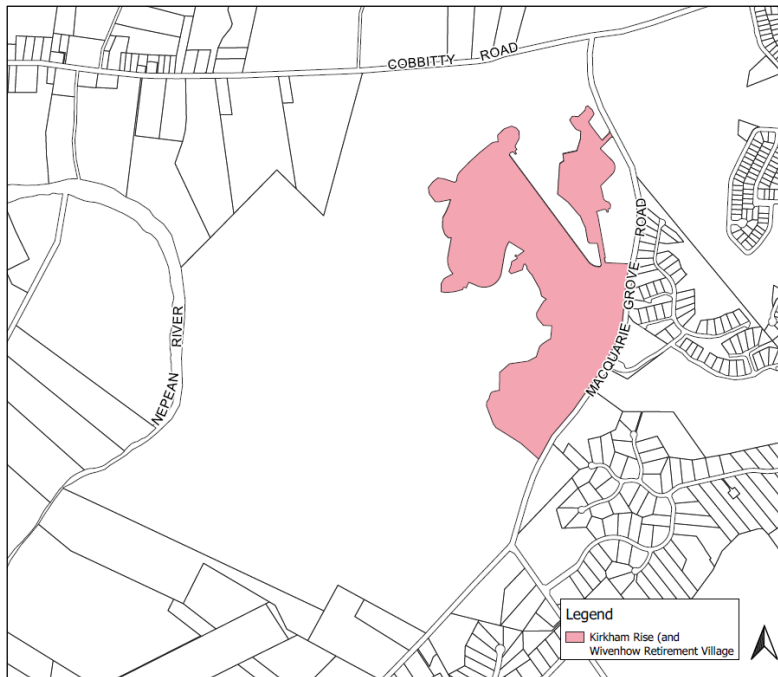


Figure 5-6 Kirkham Rise (incorporating Wivenhoe Retirement Village) Site Plan

### S5.4.1 Kirkham Rise (and Wivenhoe Retirement Village)

It should be noted that the controls listed below are specific to Kirkham Rise (and the Wivenhoe Retirement Village). They must be read in conjunction with the controls in Part 4 of this DCP. In the event of any inconsistency, the controls below prevail.

#### Appearance

1. Homes should be designed to be of 'contemporary, eco character'.
2. Use of architectural features such as awnings, porticos and verandahs are required to ensure street presentation of the homes is in keeping with the vision for Mater Dei.



**Roof Eaves**

1. 600mm at a minimum on eastern and western facades.

**Corner Lots**

1. Should be designed to present to both street frontage and public areas.
2. Front facade feature should continue around to 40% of the secondary frontage.

**Parkland Lots**

1. Should be designed to appropriately address the parkland area.
2. Architectural features are to be replicated to secondary frontages with front a parkland.
3. Blank walls to the parkland are not permitted.

**Roofing**

1. Roof designs must be a minimum pitch of 20°.
2. Skillion roofs can have a minimum pitch of 5°.
3. Highly reflective roofing material are not permitted.

**Colours and Materials**

1. Colours should be low in contrast and sympathetic to the natural environment. Rendered masonry, stone, timber, steel and painted/rendered brickwork should be the predominant external materials.

**Fencing**

1. Open fencing is preferred wherever possible.
2. Front fencing is not allowed.
3. Brush mat fencing is prohibited.
4. Rear and side boundary fences once behind the building line can be a maximum height of 1.8m but on bush front lots must return with open post and rail or post and wire for the rear 6m of the lot.



**Maximum Driveway Width**

- 1. 4.0m wide at the property verge but can be splayed within the property boundary to allow for adequate vehicle manoeuvrability.

**Rainwater Tanks**

- 1. Each dwelling must have a tank of at least 5,000ltr.
- 2. If the home contains a swimming pool, the water tank must be connected to the pool to assist in topping up the pool.
- 3. Water tanks in the APZ cannot be constructed of plastic

**Kirkham Rise Guidelines**

- 1. Kirkham Rise Design Guidelines volume 1, November 2010 and as amended, should be referenced for further detailed design requirements

**Table 5-1: Summary of residential accommodation controls – Kirkham Rise**

SETBACKS	
Front setback (min)	4.5m; average of 5.5m
Secondary street setback (min)	4.5m
Side setback ground floor (min)	1.5m
Side setback second floor (min)	4.5m
Rear setback ground floor (min)	6m
Rear setback second floor (min)	10m
Garage setback (min)	1m behind principal building line and 5.5m from front boundary; third garage to be set back 2m behind principal building line.
Architectural element front setback encroachment (max)	1m
Rear lane setback (min)	1m.



Camden Development Control Plan 2019

	Notwithstanding this, the rear lane setback can be reduced to 0.5m only if it can be adequately demonstrated to Council's satisfaction, that the development can facilitate waste collection in a safe and orderly manner.
Public reserve setback (min)	3m
<b>HEIGHT</b>	
As per LEP 2010 and Part 4 of this DCP	
<b>PRIVATE OPEN SPACE, LANDSCAPING AND SITE COVERAGE</b>	
Site coverage (max) – lots less than 450m <sup>2</sup>	Single storey development - 60% Two storey development – 50% ground floor, 35% upper floor
Site coverage (max) – lots 450m <sup>2</sup> or greater	Single storey development - 50% Double storey development – 30%
Front yard paved surfaces (max)	40%
Landscaped area (min)	30%
Landscaped area (min) within the front setback	40%
Principal private open space (PPOS) (min)	24m <sup>2</sup> with a minimum dimension 4m
Gradient of PPOS (max)	1:10
Solar access to PPOS (min)	Direct sunlight must reach at least 50% of the PPOS of both the subject dwelling and of any adjoining dwelling for not less than 3 hours between 9:00am and 3:00pm on 21 June.  Dwellings must be orientated to maximise solar access to living rooms having regard to future and existing site constraints.  At least one window to a living area of dwellings on neighbouring properties must receive a minimum of 3 hours of direct sunlight between 9am and 3pm on 21 June.



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GARAGE DESIGN	
Garage door width (max) – lots 7-15m wide	60% of front elevation width
Garage door width (max) – lots greater than 15m wide	50% of front elevation width

#### S5.4.2 Mater Dei Rural Residue

The rural residue precinct on the Mater Dei site (depicted in Figure 5.3) is strategically located and should be developed and managed in accordance with the following planning provisions.

##### Objectives

- a. To maintain the rural landscape character and general visual amenity of the area.
- b. To ensure the compatibility of non-agricultural land uses with the rural, environmental and conservation values of the land.
- c. Not to adversely impact the operational parameters of the Camden Airport.

##### Controls

1. The prevailing topography must not be significantly altered.
2. Adverse impacts on view corridors and vistas should be minimised.
3. New buildings and structures should minimise any visual impact.
4. Fencing must be generally of a rural character utilising post and rail or wire.
5. Screen landscaping should be minimised.

- End of Schedule -





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# TREE MANAGEMENT POLICY P1.0012.2

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## TREE MANAGEMENT POLICY

**DIVISION:** Community Assets

**BRANCH:** Open Space and Sustainability

**CATEGORY:** 2

---

### PART 1 - INTRODUCTION

#### 1. BACKGROUND

- 1.1 This policy relates to the management of trees located within public and private land.
- 1.2 Camden has a rich diversity of natural, cultural and urban landscape settings.
- 1.3 Natural areas including bushland remnants are typically found in riparian corridors, public reserves and in private land. Cultural landscapes are found in public and private ownership and reflect different historical phases of Camden's development while urban landscapes are generally associated with residential developments.
- 1.4 Trees are important elements of the local amenity and provide a sense of place.
- 1.5 Trees are vital environmental components providing tangible health, wellbeing and economic benefits or ecoservices to the community. Other benefits include but are not limited to:
  - a) Climate resilience through shade and wind breaks
  - b) Improved air quality by absorbing air pollutants
  - c) Reducing soil erosion and run-off
  - d) Habitat for local fauna
  - e) Softening the built environment
  - f) Reflecting natural and cultural values.
- 1.6 Current and projected urban growth is having a transformative effect on the Camden LGA. Competing pressures on available land to accommodate varied and affordable housing, and service infrastructure is providing new challenges for establishing green amenity.
- 1.7 Development density and reduced lot size in most cases precludes upper canopy tree establishment on private land therefore increasing the need for trees in the public domain.

- 1.8 This Tree Management Policy provides a mechanism for ensuring the values Camden residents place on its trees are reflected through contemporary management and appropriate use of species of known qualities and performance to enhance urban, natural and cultural heritage treescapes vision for how Camden will look in the future.

## 2. OBJECTIVE

- 2.1 The objective of this policy is to provide guidelines to ensure consistency in the management of tree assets and tree selection within the Camden Local Government Area (LGA).
- 2.2 To provide an indicative species list suitable for planting in public and private open space within Camden LGA.
- 2.3 To ensure the species list draws on Camden's unique natural heritage and rich culturally historic landscapes.
- 2.4 To identify plant species not suitable for use on public land and not recommended for planting on private land within the Camden LGA.
- 2.5 To promote the Tree Management Policy as a resource to assist Landscape Architects, Developers, Public Authorities and Residents to make informed decisions about tree selection.
- 2.6 To update and supplement the species list with new varieties that have proven characteristics and performance suited for use within Camden LGA.
- 2.7 To ensure that suitable trees are chosen for the location and managed appropriately.
- 2.8 To ensure trees located on private land are managed in accordance with relevant legislation, namely State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 and Camden Development Control Plan 2019.
- 2.9 For Council, within the limitations of resources:
- Manage, enhance and conserve the amenity of the streetscape and/or open space trees;
  - Acknowledge trees as important components of the urban/rural landscape;
  - Ensure public trees are managed to best practices;
  - Meet Council and Community expectations.

### 3. SCOPE

- 3.1 This policy applies to all departments within Council and is a principle source for tree species to be used within Camden LGA.
- 3.2 Council encourages stakeholders, land owners, landscape architects and developers to incorporate the species palette endorsed by Council, where tree planting is proposed for public and private open space.
- 3.3 The Tree Management Policy is intended for use by:
- a) Camden Council employees and contractors – as a guide for the provision and management of street trees and trees within parks and reserves;
  - b) Landowners and developers – To assist in the selection of tree species and understanding of Council's management of trees; and
  - c) The Community – To foster better understanding of tree management.

### 4. DEFINITIONS

<b>Community</b>	Includes residents, businesses, schools, Camden Council staff, and visitors to the area;
<b>Danger</b>	Potential for a tree's imminent failure and collapse in full or part, posing an immediate risk of hazard to the safety of persons or damage to property;
<b>Hazard</b>	The threat of danger to persons or property from a tree or tree part resulting from changes in the physical condition, growing environment, or existing physical attributes of a tree;
<b>Public Open Space</b>	Open space in a public ownership that is usually accessible to the public, eg. Parks, bushland reserves, cemeteries;
<b>Public Tree</b>	A tree that is managed and owned by Council;
<b>Tree Management</b>	Planned protection, conservation, maintenance and enhancement of a population of trees;
<b>Risk</b>	The random or potentially foreseeable probability that a hazard will cause harm or damage to people and infrastructure;
<b>Urban Forest</b>	A single or group of trees that stand within the urban environment.



## PART 2 - POLICY STATEMENT

### 5. GUIDELINES FOR TREE MANAGEMENT – PUBLIC LAND

- 5.1 Council is committed to managing and maintaining public trees in accordance with best practices to ensure public safety minimise nuisance and benefit of the community. Trees constitute an important element to the amenity of Camden and are a considerable asset.
- 5.2 Develop management principles for public trees.
- 5.3 Manage public trees in accordance with Council's Tree Management Strategy (Public Land) ie, removal, replacement, identification of additional planting locations, etc.
- 5.4 Ensure all public tree management and maintenance practices are carried out in a safe manner.
- 5.5 Educate the community on the environmental and social benefits of trees.
- 5.6 Consult with the community on large tree management projects that have a significant or direct impact on the community.
- 5.7 Manage public trees that are of significant historic, cultural, commemorative or aesthetic importance and those that define the character of an area.
- 5.8 Recognise and preserve canopy cover and corridors and vistas.
- 5.9 Protect and enhance habitat and wildlife corridors in conjunction with Councils management of natural areas.
- 5.10 The Land and Environment Court (LEC), has published a tree dispute principle in the case *Barker v Kyriakides* 2007 LEC 292 which states:

*For people who live in urban environments, it is appropriate to expect that some degree of house exterior and grounds maintenance will be required in order to appreciate and retain the aesthetic and environmental benefits of having trees in such an urban environment. In particular, it is reasonable to expect people living in such an environment might need to clean the gutters and the surrounds of their houses on a regular basis.*

*The dropping of leaves, flowers, fruit, seeds or small elements of deadwood by urban trees ordinarily will not provide the basis for ordering removal of or intervention with an urban tree.*

Council adopts and applies this principle.

- 5.11 Council acknowledges that it is excluded from the Trees (Disputes between Neighbours) Act 2006 as per section 4(2)(a), however will manage and coordinate works on public land as outlined in Council's Tree Management Strategy (Public Land) to ensure the best outcome is achieved for the community.

- 5.12 Tree management is a way of mitigating potential risks to property and the community due to interference with below or above ground infrastructure and/or other assets such as buildings or services, trees require effective and coordinated management to maximise their benefits to the community and the environment against their risks.

## 6. GUIDELINES FOR TREE PRESERVATION

- 6.1 Prescribed trees and vegetation located on private property within Camden Local Government Area are protected by legislation. Detail on Camden's tree preservation controls are prescribed in the State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 and Camden Development Control Plan 2019.
- 6.2 A person must not ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree or other vegetation without first obtaining;
- (a) development consent, or
  - (b) a permit granted by the Council
- 6.3 A tree or vegetation is prescribed as being any tree, sapling or shrub which meets or exceeds one of the following;
- (a) is 3 metres or more in height;
  - (b) has a circumference of 300mm (100mm diameter) or more at a height of 1 metre above natural ground surface; or
  - (c) has a branch span of 3 metres or more.
- 6.4 Some exemptions apply and are detailed under Section 2.4 of Camden Development Control Plan 2019
- (a) These controls are in place to provide criteria for permitting removal and appropriate management of prescribed trees and vegetation, establish exemptions that may apply under certain circumstances, ensure that stakeholders are notified where proposals involving tree removal are likely to impact on local amenity and ensure where appropriate tree removals are offset by replacement planting so that overtime there is no net loss of Camden's biomass.

## 7. GUIDELINES FOR TREE SELECTION

- 7.1 The Tree Management Policy shall be used as the principle source for tree species to be used in Camden LGA.
- 7.2 Council encourages stakeholders, land owners, landscape architects and developers to incorporate the species espoused in the 'Tree and Landscape Species List' where tree planting is proposed for public and private open space.
- 7.3 The species will be selected for their suitability for specific application such as street trees or for open space.

- 7.4 Council will not approve the planting of street trees or tree planting on public land using tree species identified as not being suitable and will discourage private land owners from planting unsuitable trees.
- 7.5 The onus will be on the proponent to demonstrate that an alternate species can reliably perform within known constraints associated with the proposed use or intended location.
- 7.6 Council takes a whole of life approach to tree management and understands that trees need room to grow, will require formative pruning when young, that they may cause superficial damage to hard structures that have shorter lifespans like footpaths and guttering and that for many decades will not require any maintenance and then at some distant point in the future will need to be pruned or removed to allow for succession planting.
- 8. REVIEW**
- 8.1 This policy is to be reviewed every four (4) years by Council, to ensure it aligns with Camden Council's vision and strategies.
- 8.2 Appendices to this policy including the 'Tree and Landscape Species List' will be reviewed on a regular basis and updated accordingly. All updates will be forwarded to Council's Executive Leadership Group (ELG) for approval and adoption.
- 9. APPENDICES**
- A. Tree Management – Tree and Landscape Species List;  
B. Tree Management – History of Camden Trees and Landscape.

\* \* \*

**RELEVANT LEGISLATIVE INSTRUMENTS:** *Environment and Planning Assessment Act 1979*  
*State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017*  
*Local Government Act 1993*  
*Biodiversity Conservation Act 2016*  
*Roads Act 1993*

**RELATED POLICIES, PLANS AND PROCEDURES:** Camden Community Strategic Plan  
 Camden Development Control Plan (DCP) 2019  
 Tree Management Strategy (Public Land)  
 Local Biodiversity Strategy for Camden LGA  
 Sydney Region Growth Centres State Environmental Planning Policy  
 Camden Growth Centre Precincts Development Control Plan 2013  
 Oran Park and Turner Road Development Control Plan

**RESPONSIBLE DIRECTOR:** Director Community Assets

**APPROVAL:** Council

**HISTORY:**

Version	Approved by	Changes made	Date	EDMS Number
1	Council	New	24/02/2015	15/224498
2	Council	Minor amendments	26/11/2019	20/28690

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# APPENDIX A

## Tree and Landscape Species List

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Tree and Landscape Species List

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## RECOGNISED TREE SPECIES

Trees and vegetation contribute to local amenity and help make our urban environment livable by ameliorating climatic extremes, improving air quality, providing habitat, reducing erosion and salinity. Future development in the Camden LGA will place significant pressure on existing trees and space for new trees as available land becomes increasingly scarce. This subsection aims to prevent unnecessary tree and vegetation removal and poor tree and vegetation management.

This list is to provide an indicative species palette suitable for planting in public and private open space within Camden Local Government Area (LGA). This list is not limited to those recorded and should an alternative species be identified, the species must be suitable for the intended location and be approved by Councils officers.

The selection of street trees should have regard to the following but not limited to:

1. Utilities (Power/Gas/Water/Sewer/etc);
2. Street lighting;
3. Easements;
4. Driveways and bus stops;
5. Pedestrian crossings;
6. House frontages and set backs'
7. Lateral spread of subject species'
8. Road reserve widths and constraints;
9. Waste service collection
10. Vehicle line of sight; and
11. Cultural and heritage amenity.

# Note: The heights and widths listed should be used as a guide and may differ in different situations.

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## NEW STREET TREE PLANTING

**List Objective:** All new street trees planted within Camden LGA are confined to the following list of tree species.

**Application:** Street tree selection is contingent upon potential site constraints. Not all trees listed below will be suitable for every situation. Where a variation to the list is proposed the onus will be on the proponent to demonstrate that an alternate species can reliably perform within known constraints associated with the proposed use and location.

Botanical Name	Common Name	Origin	Type	Height	Width
		Native (N) Exotic (E)	Deciduous (D) Evergreen (E)	In Metres	In Metres
<i>Acer buergeranum</i>	Trident Maple	E	D	6m	6m
<i>Acer negundo</i> 'Sensation'	Box Elder Maple	E	D	9m	6m
<i>Acer palmatum</i> 'Senkaki'	Coral Bark Maple	E	D	6m	5m
<i>Acer rubrum</i> 'October Glory'	Red Maple	E	D	12m	9m
<i>Acmena smithii</i> 'Red Head'	Red Head Acmena	N	E	6m	2m
<i>Angophora hispida</i>	Dwarf Apple	N	E	7m	5m
<i>Brachychiton populneus</i> x <i>acerifolius</i> 'Jerilderie Red'	Jerilderie Red	N		8m	5m
<i>Brachychiton populneus</i>	Kurrajong	N*	E	12m	6m
<i>Brachychiton populneus</i> 'Bella Pink'	Bella Pink	N	E	9m	4m
<i>Brachychiton rupestris</i>	Bottle Tree	N	E	12m	7m
<i>Buckinghamia celsissima</i>	Ivory Curl Flower	N	E	7m	5m
<i>Calodendron capense</i>	Cape Chestnut	E	E	10m	8m
<i>Cercis canadensis</i> 'Forest Pansy'	Canadian Redbud	E	D	5m	5m
<i>Cercis chinensis</i> 'Avondale'	Chinese Redbud	E	D	3m	2m
<i>Ceretopetalum gummiferum</i>	NSW Xmas Bush	N	E	5m	3m
<i>Corymbia citriodora</i> 'Scentuous'	Lemon Scented Gum	N	E	7m	4m
<i>Corymbia ficifolia</i> cvs	Dwarf grafted varieties	N	E	5m	4m
<i>Cupaniopsis anarcardiodes</i>	Tuckeroo	N	E	8m	6m
<i>Elaeocarpus eumundii</i>	Smooth-leaved Quandong	N	E	7m	4m
<i>Elaeocarpus reticulatus</i>	Blue Berry Ash	N	E	8m	4m
<i>Fraxinus griffithii</i>	Evergreen Ash	E	E	7m	6m
<i>Fraxinus pennsylvanica</i> 'Cimmzam'	Cimmaron	E	D	13m	8m
<i>Fraxinus pennsylvanica</i> 'Urbanite'	Urbanite	E	D	11m	8m
<i>Ginko biloba</i> 'Princeton'	narrow form Ginko	E	D	11m	5m

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Botanical Name	Common Name	Origin	Type	Height	Width
		Native (N) Exotic ( E)	Deciduous (D) Evergreen (E)	In Metres	In Metres
<i>Sentry'</i>					
<i>Glochidion ferdinandi</i>	Cheese Tree	N	E	8m	6m
<i>Gordonia axillaris</i>	Poached Egg Camellia	E	E	6m	5m
<i>Hymenosporum flavum</i>	Native Frangipani	N	E	8m	5m
<i>Lagerstroemia species</i>	Crepe Myrtle	E	D	7m	5m
<i>Lirodendron tulipifera</i>	Tulip Tree	E	D	12m	8m
<i>Lirodendron tulipifera</i> 'Fastigiatum'	Fastigate Form of Tulip Tree	E	D	12m	5m
<i>Liquidambar styraciflua</i>	Liquidambar	E	D	18m	12m
<i>Liquidambar styraciflua</i> 'Oakville Highlight'	Liquidambar Oakville Highlight	E	D	15m	4m
<i>Lophostemon confertus</i>	Brush Box	N	E	15m	10m
<i>Magnolia grandiflora</i> 'Exmouth'	Evergreen Magnolia 'Exmouth'	E	D & E	8m	6m
<i>Magnolia grandiflora</i> 'Kay Parris'	Dwarf Evergreen perfumed Magnolia	E	D & E	4m	3m
<i>Magnolia grandiflora</i> 'Little Gem'	Dwarf Evergreen Magnolia	E	D & E	6m	3m
<i>Magnolia grandiflora</i> 'Teddy Bear'	Dwarf Evergreen Magnolia	E	E	4m	3m
<i>Magnolia x soulangeana</i>	Tulip Magnolia	E	D	7m	4m
<i>Malus floribunda</i>	Japenese Crab Apple	E	D	5m	5m
<i>Malus ioensis</i> 'Plena'	Crab Apple	E	D	6m	4m
<i>Malus species</i>	Crab Apple	E	D	6m	5m
<i>Melaleuca decora</i>	White Cloud Tree	N	E	6m	3m
<i>Melaleuca linariifolia</i>	Snow In Summer	N	E	7m	5m
<i>Melaleuca styphelioides</i>	Prickly Paperbark	N	E	8m	5m
<i>Nyssa sylvatica</i>	Black Tupelo	E	D	11m	6m
<i>Nyssa sylvatica</i> 'Autumn Cascade'	Weeping Blackgum	E	D	4m	3m
<i>Parrotia persica</i>	Persian Witch Hazel	E	D	7m	5m
<i>Pistacia chinensis</i>	Pistacia Nut Tree	E	D	8m	6m
<i>Prunus cerasifera</i> 'Oakville Crimson Spire'	Flowering Plum	E	D	6m	2m
<i>Prunus cerasifera</i> 'nigra'	Flowering Plum	E	D	5m	4m
<i>Prunus x blireana</i>	Purple-leafed Plum	E	D	4m	4m
<i>Prunus species</i>	Flowering Plum	E	D	6m	4m
<i>Pyrus betulaefolia</i> 'Southworth Dancer'	Flowering Pear	E	D	7m	4m
<i>Pyrus calleryana</i> 'Aristocrat'	Flowering Pear	E	D	11m	7m
<i>Pyrus calleryana</i> 'Bradford'	Bradford Pear	E	D	12m	9m

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Botanical Name	Common Name	Origin	Type	Height	Width
		Native (N) Exotic (E)	Deciduous (D) Evergreen (E)	In Metres	In Metres
<i>Pyrus calleryana</i> 'Capital'	Flowering Pear	E	D	11m	3m
<i>Pyrus calleryana</i> 'Chanticleer'	Flowering Pear	E	D	11m	6m
<i>Pyrus calleryana</i> 'Edgedell'	Edgedell Pear	E	D	8m	6m
<i>Quercus palustris</i>	Pin Oak	E	D	15m	10m
<i>Quercus palustris</i> 'Pringreen'	Narrow Green Pillar	E	D	14m	3m
<i>Quercus robur</i>	English Oak	E	D	11m	11m
<i>Quercus robur</i> 'Fastigiata'	Fastigate Form of English Oak	E	D	13m	3m
<i>Syzygium australe</i> 'Pinnacle'	Narrow tall Syzygium	N	E	8m	6m
<i>Syzygium paniculatum</i>	Brush Cherry	N	E	8m	6m
<i>Syzygium smithii</i> 'Sublime'	Lilly Pilly	N	E	5m	3m
<i>Tristaniopsis laurina</i>	Water Gum	N	E	9m	7m
<i>Tristaniopsis laurina</i> 'Luscious'	Water Gum	N	E	9m	7m
<i>Ulmus americana</i> 'Princeton'	Princeton Elm	E	D	15m	10m
<i>Ulmus glabra</i> 'Lutescens'	Golden Elm	E	D	10m	12m
<i>Waterhousea floribunda</i>	Weeping Lilly Pilly	N	E	10m	8m
<i>Waterhousea floribunda</i> 'Green Avenue'	Waterhousea 'Green Avenue'	N	E	10m	8m
<i>Zelkova serrata</i>	Zelkova	E	D	9m	7m
<i>Zelkova serrata</i> 'Green Vase'	Wine Glass tree	E	D	9m	6m
<i>Zelkova serrata</i> 'Mushashino'	Fastigate form Zelkova	E	D	10m	6m
<i>Zelkova serrata</i> 'Golden Flame'	Zelkova Golden Flame	E	D	10m	9m

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Attachment 1**REPLACEMENT PLANTING**

**List Objective:** To list trees species for the replacement or infill planting in existing streetscapes to maintain continuity.

**Application:** Council's Public Tree Management Officer has responsibility to assess and determine matters concerning replacement or infill street tree planting. Not all trees listed below will be suitable for every situation.

Botanical Name	Common Name	Origin	Type	Height	Width
		Native (N) Exotic (E)	Deciduous (D) Evergreen (E)	In Metres	In Metres
<i>Acer buergerianum</i>	Trident Maple	E	D	6m	6m
<i>Angophora hispida</i>	Dwarf Apple	N	E	7m	7m
<i>Backhousia citriodora</i>	Lemon-scented Myrtle	N	E	6m	4m
<i>Backhousia myrtifolia</i>	Cinnamon Myrtle	N*	E	5m	2m
<i>Buckinghamia celsissima</i>	Ivory Curl Flower	N	E	7m	5m
<i>Callistemon salignus</i>	White Bottlebrush	N*	E	9m	5m
<i>Callistemon viminalis</i>	Weeping Bottlebrush	N	E	8m	5m
<i>Calodendron capense</i>	Cape Chestnut	E	E	10m	8m
<i>Corymbia ficifolia</i>	Dwarf grafted varieties	N	E	5m	4m
<i>Corymbia maculata</i>	Spotted Gum	N*	E	20m	15m
<i>Corymbia citriodora</i>	Lemon-scented Gum	N	E	20m	18m
<i>Corymbia citriodora</i> 'Scentuous'	Lemon-scented Gum	N	E	7m	4m
<i>Cupaniopsis anarcardioides</i>	Tuckeroo	N	E	8m	6m
<i>Dais cotinifolia</i>	PomPom Tree	E	E	4m	4m
<i>Elaeocarpus eumundii</i>	Smooth-leaved Quandong	N	E	7m	4m
<i>Elaeocarpus reticulatus</i>	Blue Berry Ash	N	E	8m	4m
<i>Flindersia australis</i>	Australian Teak	N	E	20m	18m
<i>Fraxinus griffithii</i>	Flowering Ash	E	E	7m	6m
<i>Gordonia axillaris</i>	Fried Egg Plant	E	E	6m	5m
<i>Harpullia pendula</i>	Tulipwood	N	E	9m	5m
<i>Hymenosporum flavum</i>	Native Frangipani	N	E	8m	5m
<i>Jacaranda mimosifolia</i>	Jacaranda	E	D	12m	10m
<i>Lagerstroemia species</i>	Crepe Myrtle	E	D	7m	5m
<i>Liquidambar styraciflua</i>	Liquid Amber	E	D	15m	12m
<i>Liriodendron tulipefera</i>	Tulip Tree	E	D	12m	5m

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Botanical Name	Common Name	Origin	Type	Height	Width
		Native (N) Exotic (E)	Deciduous (D) Evergreen (E)	In Metres	In Metres
<i>Lophostemon confertus</i>	Brush Box	N	E	15m	12m
<i>Magnolia grandiflora</i> <i>Exmouth</i>	Magnolia Exmouth	E	D & E	8m	6m
<i>Malus Species</i>	Flowering Ornamental Fruit Varieties	E	D	6m	5m
<i>Nyssa sylvatica</i>	Black Tupelo	E	D	11m	6m
<i>Pistacia chinensis</i>	Chinese Pistachio	E	D	8m	6m
<i>Platanus orientalis 'insularis'</i>	Autumn Glory Plane	E	D	15m	10m
<i>Platanus orientalis 'digitata'</i>	Cut Leaf Plane Tree	E	D	15m	10m
<i>Populus alba</i>	Grey Poplar	E	D	15m	8m
<i>Populus nigra 'Italica'</i>	Fastigate Lombardy Poplar	E	D	20m	4m
<i>Prunus Species</i>	Flowering Ornamental Varieties	E	D	6m	4m
<i>Pyrus nivalis</i>	Snow Pear	E	D	8m	6m
<i>Pyrus calleryanan cvs</i>	Flowering Ornamental Varieties	E	D	12m	9m
<i>Pyrus ussuriensis</i>	Manchurian Pear	E	D	9m	6m
<i>Quercus palustris</i>	Pin Oak	E	D	15m	10m
<i>Quercus palustris</i> <i>'Pringreen'</i>	Narrow Green Pillar	E	D	14m	3m
<i>Sapium sebiferum</i>	Chinese Tallowwood	E	D	8m	8m
<i>Syzygium paniculatum</i>	Bush Cherry	N	E	8m	6
<i>Syzygium smithii</i>	Lilly Pilly	N	E	10m	8m
<i>Tilia cordata</i>	Small-Leaved Lime	E	D	12m	8m
<i>Tristaniopsis laurina</i>	Water Gum	N	E	9m	7m
<i>Tristaniopsis laurina</i> <i>'Luscious'</i>	Water Gum	N	E	9m	7m
<i>Ulmus americana</i> <i>'Princeton'</i>	Princeton Elm	E	D	15m	10m
<i>Ulmus glabra 'lutescens'</i>	Golden Elm	E	D	10m	12m
<i>Ulmus parvifolia</i>	Chinese Elm	E	D	12m	10m
<i>Waterhousea floribunda</i>	Weeping Lilly Pilly	N	E	10m	8m
<i>Zelkova serrata</i>	Zelkova	E	D	10m	4m

\* Found in Cumberland Plain Woodland

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## OPEN SPACE PLANTING

**List Objective:** To provide a broad palate of large and unique trees that have an association with Camden's natural, cultural and commemorative history.

**Application:** The trees listed under open space are generally suitable to large unrestricted sites where large trees can grow as either single specimen trees or in groups to establish urban forests.

Botanical Name	Common Name	Origin	Type	Height	Width
				In Metres	In Metres
		Native (N) Exotic (E)	Deciduous (D) Evergreen (E)		
<i>Agathis robusta</i>	Kauri Pine	N	E	18m	12m
<i>Angophora costata</i>	Sydney Red Gum	N	E	15m	12m
<i>Angophora floribunda</i>	Rough Barked Apple	N*	E	18m	15m
<i>Angophora subvelutina</i>	Broad Leaf Apple	N*	E	18m	14m
<i>Araucaria araucana</i>	Monkey Puzzle Tree	N	E	20m	15m
<i>Araucaria bidwillii</i>	Bunya Bunya Pine	N	E	30m	15m
<i>Araucaria cunninghamii</i>	Hoop Pine	N	E	25m	15m
<i>Brachychiton acerifolius</i>	Illawarra Flame Tree	N	D	15m	10m
<i>Brachychiton discolor</i>	Lacebark Kurragong	N	E	15m	10m
<i>Caloedendron capense</i>	Cape Chestnut	E	E	10m	10m
<i>Carya illinoensis</i>	Pecan	E	D	25m	18m
<i>Cedrus atlantica</i>	Atlas Cedar	E	E	18m	12m
<i>Cedrus deodara</i>	Deodar Cedar	E	E	25m	18m
<i>Corymbia citriodora</i>	Lemon-Scented Gum	N	E	20m	18m
<i>Corymbia ficifolia cvs</i>	Flower Gum	N	E	5m	4m
<i>Corymbia maculata</i>	Spotted Gum	N*	E	20m	15m
<i>Cupressus funebris</i>	Funeral Cypress	E	E	15m	8m
<i>Eucalyptus amplifolia</i>	Cabbage Gum	N*	E	25m	15m
<i>Eucalyptus bauerana</i>	Blue Box	N*	E	20m	10m
<i>Eucalyptus benthamii</i>	Camden White Gum	N*	E	25m	12m
<i>Eucalyptus crebra</i>	Narrow Leaf Red Iron Bark	N*	E	18m	12m
<i>Eucalyptus fibrosa</i>	Broad Leaf Red Iron Bark	N	E	18m	12m

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Botanical Name	Common Name	Origin	Type	Height	Width
		Native (N) Exotic ( E)	Deciduous (D) Evergreen (E)	In Metres	In Metres
<i>Eucalyptus microcorys</i>	Tallow Wood	N	E	25m	15m
<i>Eucalyptus sideroxylon</i>	Red Ironbark	N*	E	15m	12m
<i>Eucalyptus viminalis</i>	Ribbon Gum	N*	E	30m	18m
<i>Ficus macrophylla</i>	Moreton Bay Fig	N	E	20m	25m
<i>Ficus rubiginosa</i>	Port Jackson Fig	N	E	18m	15m
<i>Flindersia australis</i>	Australian Teak	N	E	20m	18m
<i>Ginkgo biloba</i>	Maidenhair Tree	E	D	11m	5m
<i>Glochidion ferdinandi</i>	Cheese Tree	N	E	7m	5m
<i>Jacaranda mimosifolia</i>	Jacaranda	E	D	12m	10m
<i>Jubaea chilensis</i>	Chilean Wine Palm	E	E	15m	8m
<i>Liriodendron tulipifera</i>	Tulip Tree	E	D	12m	5m
<i>Livistona australis</i>	Cabbage Palm	N	E	15m	8m
<i>Macadamia integrifolia</i>	Macadamia Nut Tree	N	E	10m	6m
<i>Magnolia denudata</i>	Yulan Magnolia	E	D	7m	8m
<i>Magnolia grandiflora</i>	Bull Bay Tree	E	E	15m	12m
<i>Malus Species</i>	Flowering Ornamental Varieties	E	D	4m	3m
<i>Phoenix canariensis</i>	Canary Island Date Palm	E	E	12m	8m
<i>Pinus pinea</i>	Italian Stone Pine	E	E	15m	20m
<i>Podocarpus elatus</i>	Illawarra Plum	N	E	15m	12m
<i>Quercus coccinea</i>	Scarlet Oak	E	D	12m	8m
<i>Quercus palustris</i>	Pin Oak	E	D	15m	10m
<i>Quercus robur</i>	English Oak	E	D	11m	11m
<i>Syzygium luehmannii</i>	Small Leaf Water Gum	N	E	8m	6m
<i>Toona ciliata</i>	Red Cedar	N	D	15m	10m
<i>Ulmus glabra 'Lutescens'</i>	Golden Elm	E	D	10m	12m
<i>Ulmus parvifolia</i>	Chinese Elm	E	D	12m	10m
<i>Washington robusta</i>	Mexican Fan Palm	E	E	18m	8m
<i>Zelkova serrata</i>	Zelkova	E	D	12m	10m

\* Found in Cumberland Plain Woodland

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## TREES SUITABLE UNDER POWERLINES

**List Objective:** To provide a list of trees that can successfully grow under power lines within acceptable utility clearance.

**Application:** Council's Public Tree Management Officer has responsibility to assess and determine matters concerning tree planting under power lines.

Botanical Name	Common Name	Origin	Type	Height	Width
		Native (N) Exotic (E)	Deciduous (D) Evergreen (E)	In Metres	In Metres
<i>Acer palmatum</i> 'Senkaki'	Coral Bark Maple	E	D	6m	5m
<i>Acmena smithii</i> 'Red Head'	Red Head Acmena	N	E	6m	2m
<i>Angophora hispida</i>	Dwarf Apple	N	E	7m	5m
<i>Buckinghamia celsissima</i>	Ivory Curl Flower	N	E	7m	5m
<i>Cercis canadensis</i> 'Forest Pansy'	Canadian Redbud	E	D	5m	5m
<i>Ceretopetalum gummiferum</i>	NSW Xmas Bush	N	E	5m	3m
<i>Corymbia ficifolia</i>	Dwarf grafted varieties	N	E	5m	4m
<i>Dais cotinifolia</i>	PomPom Tree	E	E	4m	4m
<i>Elaeocarpus reticulatus</i>	Blue Berry Ash	N	E	8m	4m
<i>Fraxinus griffithii</i>	Evergreen Ash	E	E	7m	6m
<i>Gordonia axillaris</i>	Poached Egg Camellia	E	E	6m	5m
<i>Lagerstroemia species</i>	Crepe Myrtle	E	D	7m	5m
<i>Laurus nobilis</i>	Bay Laurel	E	E	4m	3m
<i>Magnolia grandiflora</i> 'Kay Parris	Dwarf Evergreen perfumed Magnolia	E	D & E	4m	3m
<i>Magnolia grandiflora</i> 'Little Gem	Dwarf Evergreen Magnolia	E	D & E	6m	3m
<i>Malus Species</i>	Flowering Ornamental Fruit Varieties	E	D	6m	5m
<i>Melaleuca decora</i>	White Cloud Tree	N	E	6m	3m
<i>Melaleuca linarifolia</i>	Snow In Summer	N	E	7m	5m
<i>Melaleuca styphelioides</i>	Prickly Paperbark	N	E	8m	5m
<i>Nyssa sylvatica</i> 'Autumn Cascade'	Weeping Blackgum	E	D	4m	3m
<i>Prunus species</i>	Flowering Ornamental Fruit Varieties	E	D	6m	4m

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Botanical Name	Common Name	Origin	Type	Height	Width
		Native (N) Exotic ( E)	Deciduous (D) Evergreen (E)	In Metres	In Metres
<i>Pyrus betulaefolia</i> 'Southworth Dancer'	Flowering Pear	E	D	7m	4m
<i>Pyrus calleryana</i> 'Edgedell'	Flowering Pear	E	D	8m	6m
<i>Syzygium australe</i> 'Pinnacle'	Narrow tall Syzygium	N	E	8m	6m

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## LANDSCAPE SPECIES OTHER THAN TREES

**List Objective:** To provide a general list of Shrubs and Ground Covers and Climbers that are suited to a range of Landscape applications within Camden.

**Application:** Unrestricted. Specialist advice is required when making selection. Where a plant name refers to “varieties” or “Spp” this means there are many cultivars or special.

Botanical Name	Common Name
<b>Hedges</b>	
<i>Buxus varieties</i>	Buxus
<i>Brunfelsia varieties</i>	Yesterday Today Tomorrow
<i>Camellia sasanqua varieties</i>	Camellia
<i>Loropetalum chinensis varieties</i>	Chinese fringe flower
<i>Luculia grandiflora</i>	White Luculia
<i>Luculia pinceana</i>	Pink Spice
<i>Michelia figo</i>	Port Wine Magnolia
<i>Michelia yunnanensis</i>	Scented Pearl Magnolia
<i>Murraya varieties</i>	Orange Jasmine
<i>Nandina varieties</i>	Sacred Bamboo
<i>Photonia x fraseri 'Little Red Robin'</i>	Photinia
<i>Viburnum odoratissimum</i>	Sweet Viburnum
<b>Shrubs</b>	
<i>Acmena varieties</i>	Lilly Pilly
<i>Banksia spp</i>	Banksia
<i>Brunfelsia - grandifolia/maliformis/pauciflora/dwarf varieties</i>	Yesterday Today Tomorrow
<i>Callistemon spp</i>	Bottle Brush
<i>Cordyline fruiticosa</i>	Cordyline
<i>Crinum pedunculatum</i>	Crinum Lilly
<i>Dodonaea varieties</i>	Hopbush
<i>Doryanthes excelsa</i>	Gynea lily
<i>Eremophila varieties</i>	Emu Bush
<i>Erica varieties</i>	Winter heath
<i>Corymbia ficifolia cvs.</i>	Flower Gum
<i>Gordonia axillaris</i>	Fried Egg Plant
<i>Grevillea shrubs – eg 'Spinebill'</i>	Grevillea
<i>Ixora chinensis</i>	Prince of Orange
<i>Indigofera australis</i>	Australian Indigo
<i>Leptospermum species</i>	Tea Tree
<i>Loropetalum chinensis</i>	Chinese fringe flower

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Botanical Name	Common Name
<i>Luculia grandaflora</i>	White Luculia
<i>Luculia pinceana</i>	Pink Spice
<i>Magnolia grandifolia</i> 'Little Gem'	Magnolia
<i>Magnolia stellata</i>	Star Magnolia
<i>Melaleuca</i> 'Revolution Gold'	Revolution Gold
<i>Michelia figo</i>	Port Wine Magnolia
<i>Michelia Yunnanensis</i>	Scented Pearl Magnolia
<i>Myoporum montanum</i>	Western Boobialla
<i>Photonia</i> 'Red Robin'	Photonia
<i>Pieris japonica</i>	Japanese pieris
<i>Viburnum</i> varieties, eg <i>odoratissimum</i>	Sweet Viburnun
<i>Syzygium</i> spp.	Lilliy Pilly
<b>Climbers</b>	
<i>Clematis aristate</i>	Old Man's Beard
<i>Gelsemium sempervirens</i>	Carolina Jasmine
<i>Jasminum</i> spp.	Jasmine
<i>Hardenbergia violacea</i>	Native Sarsoparilla
<i>Kennedia rubicunda</i>	Dusky Coral Pea
<i>Mandevilla</i> spp	Mandevilla
<i>Pandorea jasminoides</i>	Bower of Beauty
<i>Trachelospermum jasminoides</i>	Star Jasmine
<b>Ground Covers</b>	
<i>Acacia cognate</i> eg 'Mini Cog' & 'Limelight'	Wattle
<i>Anigozanthos</i> "Bush Gems - varieties, eg Bush Haze, Bush Ranger	Kangaroo Paw
<i>Dianella caerulea</i>	Blue Flax Lily
<i>Dichondra repens</i>	Kidney Grass
<i>Convolvulus mauritanicus</i>	Ground Blue-convolvulus
<i>Goodenia hederacea</i>	Goodenia
<i>Hardenbergia violacea</i>	Native Sarsoparilla
<i>Kniphofia</i> "Maid of Orleans"	Torch Flower
<i>Melaleuca pentagona</i> 'Little Penta'	Honey Myrtle
<i>Myoporum parvifolium</i>	Creeping boobialla
<i>Plectranthus parviflorus</i>	Cockspur Flower
<i>Rhodanthe anthemoides</i>	Rhodanthe
<i>Scaevola aemula</i>	Fan-flower
<i>Sedum sempervirens</i>	Hens and Chicks
<b>Herbs</b>	
<i>Dianella</i> spp	Flax Lilly

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Botanical Name	Common Name
<i>Eremophila debilis</i> (syn. <i>Myoporum debile</i> )	Myoporum
<i>Lomandra</i> spp (eg <i>Tanika</i> or <i>Nyalla</i> )	Basket Grass
<i>Plectranthus parvifolius</i>	Cockspur Flower
<i>Pennisetum alopecureoides</i>	Fountain Grass
<i>Scaevola albida</i>	Fan-flower
<b>Grasses</b>	
<i>Carex appressa</i>	Tall Sedge
<i>Danthonia racemosa</i>	Wallaby Grass
<i>Dianella</i> varieties <i>Imperata cylindrical</i>	Flax Lilly
<i>Lomandra</i> varieties incl ' <i>Tanika</i> ' ' <i>Nyalla</i> ' etc	Basket Grass
<i>Sorghum leiocladum</i>	Wild Sorghum
<i>Themeda australis</i>	Kangaroo Grass

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## SALT TOLERANT TREES, SHRUBS AND GROUND COVERS

**List Objective:** To provide a list of trees, shrubs and groundcovers with known performance in saline conditions

**Application:** Specialist advice is required when determining site salinity and which of species are suitable.

Botanical Name	Common Name
<b>Trees</b>	
<i>Angophora subvelutina</i>	Broad Leaf Apple
<i>Cupaniopsis anarcardiodes</i>	Tuckeroo
<i>Eucalyptus amplifolia</i>	Cabbage Gum
<i>Eucalyptus fibrosa</i>	Broad Leaf Ironbark
<i>Eucalyptus tereticornis</i>	Forest Red Gum
<i>Eucalyptus moluccana</i>	Grey Box
<i>Casuarina glauca</i>	Swamp Oak
<i>Casuarina cunninghamiana</i>	River Oak
<i>Melaleuca decora</i>	White Cloud Tree
<i>Melaleuca linariifolia</i>	Snow storm in Summer
<i>Melaleuca styphelioides</i>	Prickly leaf Paperbark
<i>Metrosideros excelsa</i>	NZ Christmas Tree
<b>Shrubs</b>	
<i>Banksia ericifolia</i>	Heath Banksia
<i>Banksia speciosa</i>	Showy Banksia
<i>Banksia spinulosa</i>	Hairpin Banksia
<i>Indigofera australis</i>	Australian Indigo
<i>Melaleuca thymifolia</i>	Thyme Honey Myrtle
<i>Melaleuca nodosa</i>	Ball Honey Myrtle
<i>Myoporum floribundum</i>	Boobialla
<b>Ground Covers</b>	
<i>Hardenbergia violacea</i>	Native Sarsoparilla
<i>Myoporum parvifolium</i>	Creeping Boobiala
<i>Cynodon dactylon</i>	Bermuda Grass

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## NOT ACCEPTABLE SPECIES FOR USE ON PUBLIC LAND AND NOT RECOMMENDED FOR USE ON PRIVATE LAND

**List Objective:** To provide a list of trees that Council will not use or approve on Public land and does not recommend to be used on private land. This list excludes established species.

**Application:** Nil on Public Land, not recommended on Private Land. Council will not approve the planting of tree species identified as not being suitable.

Botanical Name	Common Name
<i>Cinnamomum camphora</i>	Camphor Laurel
<i>Gleditsia triacanthos</i>	Honey locust
<i>Lantana camara</i>	Lantana
<i>Ligustrum lucidum</i>	Broad Leaved Privet
<i>Ligustrum sinense</i>	Small Leaved Privet
<i>Olea Europaea var. Africana</i>	Wild Olive
<i>Robinia pseudoacacia</i>	Robinia
<i>Syagrus rhomanzofianum</i>	Cocos Palm

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# APPENDIX B

## History of Camden Trees and Landscape

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## BACKGROUND TO THE LISTS

### 1. The Original Landscape

Plant communities grow in response to soil, topography and climatic conditions. The Camden local government area extends over an area of 206 square kilometres within the central southern part of the Cumberland Plain. Bringelly Shales dominate the area, forming landscape of low undulating hills with steeper hillier sections to the north of Cobbitty and along the southern boundary to Wollondilly Shire. These areas are interspersed with extensive alluvial plains along the Nepean River and its tributaries, and narrower flats along the upper tributaries of South Creek. Sandy Tertiary alluvials also occur in the Elderslie area. The Nepean River, the major drainage catchment of the Cumberland Plain, runs through the south-western corner of the LGA and continues to delineate parts of the western and southern boundary with Wollondilly Shire.

#### 1.1. Cumberland Plain Woodland

This once extensive Cumberland Plain Woodland was originally the major vegetation type of this area. It was characterised by the dominant **Grey Box** (*Eucalyptus moluccana*), **Forest Red Gum** (*Eucalyptus tereticornis*), **Narrow-leaved Ironbark** (*Eucalyptus crebra*), **Broad-leaved Apple** (*Angophora subvelutina*), **Thin-leaved Stringybark** (*Eucalyptus eugenoides*) and **Cabbage Gum** (*Eucalyptus amplifolia*). The **Narrow-leaved Ironbark** favoured the drier hills and terraces and occurred in almost pure stands in some locations (eg South Camden area), while Cabbage Gum dominated the periodically waterlogged soils of the floodplains. The **Kurrajong** (*Brachychiton populneum*) and **Port Jackson Pine** (*Callitris rhomboidea*) were important components, particularly on the drier hill tops of this area. The only known occurrence of the **Spotted Gum** (*Eucalyptus maculata*) in Camden is an isolated mature stand on the steeper, hilly country of 'Roseneath', north of Cobbitty.

The fertile soils of the Bringelly Shales supported a rich natural pasture dominated by **Kangaroo Grass** (*Themeda australis*) which was quickly exploited by the new European settlers. Patches of understorey shrubs included **Blackthorn** (*Bursaria spinosa*), **Native Indigo** (*Indigofera australis*), (*Myoporum montanum*) and (*Olearia viscidula*).

#### 1.2. Tall River flat Forests and Swamps

A diverse range of Riparian or Tall River flat Forest species would have occurred along the immediate margins of the river and its tributaries, i.e. along the riverbank associated swales, anabranches and the levee banks. This association contained a 25 – 30 metre high, co dominant canopy of **Forest Red Gum** (*Eucalyptus tereticornis*), **Manna Gum** (*Eucalyptus viminalis*), **Blue Box** (*Eucalyptus baueriana*), **River Peppermint** (*Eucalyptus elata*), **Broad-leaved Apple** (*Angophora subvelutina*), **Rough-barked Apple** (*Angophora floribunda*) and **River Oak** (*Casuarina cunninghamiana*). Some of the older trees would certainly have been of massive proportions.

The rare **Camden White Gum** (*Eucalyptus benthamii*), known from the Bent's Basin area to the north, may also have originally occurred in numbers along stretches of the river within

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Camden. It was Sir William Macarthur who first brought this distinctive tree to the attention of the eminent Victorian botanist, Ferdinand von Mueller.

Rain forest trees, such as **White Cedar** (*Melia azedarach*) (once known locally as Hawkesbury Cedar), **Brush Kurrajong** (*Commersonia fraseri*) and **Sandpaper Fig** (*Ficus coronata*) also occurred along the riverbanks. The shrub understorey would have contained a mixture of mesic species, with rain forest affinities, such as **Tree Violet** (*Hymenanthera dentata*), **Hairy Calodendron** (*Calodendron tomentosum*) and **Corkwood** (*Duboisia myoporoides*). Vines and creepers such as **Wonga Vine** (*Pandorea pandorana*) and **Tape Vine** (*Stephania japonica*), would have combined with these shrubs to create closed vine thickets in some places. These fertile, moist areas were the first to be cleared for agriculture and very little of this community remains.

Freshwater wetland communities also occurred along the river and its tributary creeks along the floodplains but have now largely been cleared and drained. The wetland communities ranged from large swamps and billabongs of permanent standing water to generally waterlogged areas of periodic inundation. Emergent reedland of (*Elaeocharis sphacelata*) and **Cumbungi** (*Typha orientalis*) typically flanked the shallower waters surrounding these swamps. The reedland was followed by a waterlogged zone of (*Juncus spp.*) dominated rushland and beyond this tall shrubland thickets of **Swamp Oak** (*Casuarina glauca*) and **Prickly Paperbark** (*Melaleuca styphelioides*), which graded into seasonally waterlogged woodland of **Cabbage Gum** (*Eucalyptus amplifolia*).

### 1.3. Vine Scrub (Dry Rain Forest)

Isolated pockets of remnant dry vine scrub, a dry rain forest vegetation type, also may have occurred sporadically in this district, particularly south of Camden in the Razorback Range. Of particular importance to Camden is an area known as the 'Native Vineyard', a small isolated patch of vine scrub north of Cobbitty. The area was first reported by the Parramatta botanist William Woolls in 1867. He recorded a number of rare species which were found nowhere else in the Western Sydney area, including **Native Holly** (*Alchornea ilicifolia*), **Native Cascarilla** (*Croton verreauxii*) and (*Sicyos australis*). These are now believed to be extinct at this site, however a number of species with rain forest affinities still persist, including **Whalebone Tree** (*Streblus brunonianus*), **Broad-leaved Brush Wilga** (*Geijera latifolia*) and **Red Olive Plum** (*Cassine australis*). (Benson & McDougall, 1991). Refer to Listing 'The Native Vineyard'.

Together these vegetation associations would have formed a vast and interrelated ecosystem of immense diversity and character.

## 2. The Impact of European Settlement

### 2.1. The Camden District

Since European settlement in the late 1790's, the Camden district has undergone enormous changes with most of the indigenous vegetation being cleared, fragmented and modified. Grazing of livestock and pasture enrichment has been the primary land use over this period.



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Furthermore, timber getting, cultivation and the introduction of exotic plants, the removal of the aboriginal population and subsequent changes in fire regimes, quarrying of coal, sand and soil, road construction and urban expansion have all made an enormous impact on the original natural ecosystem.

The most obvious changes have been the replacement of the original mature communities of vegetation by regrowth woodland, the fragmentation of these relatively immature communities into small and often isolated remnants and the introduction of weed species into these communities (Terry & Morgan, 1991). Local and regional extinction of both plant and animal species has occurred, some of which as recently as the 1960's. The Camden area contains about 250 native species of plants, of which 113 are now considered as vulnerable (Benson & McDougall, 1991). Perhaps the one lasting impression is the pace of change which saw the transformation of this district from a vast unexplored wilderness at the end of the 18<sup>th</sup> century to established rural and urban landscape today.

In spite of all the changes brought upon the pre European landscape, many areas still contain significant vestiges of the original vegetation, albeit in a modified and somewhat fragmented form. These remnants owe their survival to a number of historic factors including the establishment of larger early land grants, the pattern of clearing leases, the proximity to transport corridors, the type of agricultural development, the presence of competitive exotic plants and conservation efforts of the time.

Environmental factors such as poor saline soils in some low lying floodplain areas and the steeper hilly country of the north western sector would have limited the commercial viability of these areas and subsequently reduced the level of clearing and modification. The degree of disturbance and clearing, alterations to drainage, nutrient enrichment, altered fire regimes, location within the sub drainage catchment and the impact of weed introductions have all played a role in determining the quality and viability of these remnant communities.

Community and family interests also played an important role in conserving and protecting significant vegetation, such as Mrs Macarthur-Onslow's interest in protecting the **Narrow-leaved Ironbarks** (*Eucalyptus crebra*) at 'Macarthur Park', Camden. There was also widespread interest in certain local native specimens for ornamental and curiosity value as well as fodder trees in times of drought, such as **Kurrajongs** (*Brachychiton populneum*). Ironically, the Macarthur family also introduced many exotic plants to this area and a number of these have now become major weed species which compete aggressively against native remnant plant communities.

## 2.2. The Nepean River

In 1819, Quoy described the great contrast from Cumberland Plain woodlands to tall river flat forest of the Nepean River:

*...up till then we had met with but poorly watered soil, only a portion of which seemed capable of cultivation, but on either side of the Nepean we saw unfold level country, where the trees were gigantic, and though numerous, growing far enough apart to leave spaces where many grasses grew, forming a magnificent meadow. (Burton, 1992).*

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The rich agricultural lands surrounding the Nepean River, its tributaries and associated floodplains were the focus of early development and have received the greatest level of modification and environmental degradation. The first 100 years of the colony was a period of immense agricultural expansion in the wake of the timber getters. Early records indicate that timber was cleared and harvested from the banks of streams and rivers with little regard to bank stability, erosion and siltation. Often land owners pushed cleared timber directly into the rivers to remove it from farmland.

There were few restrictions placed over logging activities, however by 1826, only four years after opening the country westward of the Nepean River, most of the alluvial land had been cleared and was being cultivated. River banks were undermined and collapsing into the river, while felled trees impeded water flow, leading to significant changes to the river channels and siltation. The introduction and spread of exotic weed species further compounded these problems. Water quality was becoming an issue as early as 1844. Nevertheless, environmental change and degradation continued unabated throughout the 19<sup>th</sup> and 20<sup>th</sup> centuries (Recher & Hutchings, 1992).

Remnant pockets of mature tall river flat forest and immature regrowth are still present to varying degrees along the river today, however its future viability is severely threatened by the alteration to the natural flow regime and competition from introduced exotic species. The remnant tall river flat forest in many sections of the river has been reduced to individual mature specimens standing above a dense understorey of exotic and invasive species. The river banks still contain some venerable old specimen trees from the original tall forest, occasionally up to 30 metres in height. The more common species include **Forest Red Gum** (*Eucalyptus tereticornis*), **River Peppermint** (*Eucalyptus elata*), **Broad-leaved Apple** (*Angophora subvelutina*), **Rough-barked Apple** (*Angophora floribunda*) and **River Oak** (*Casuarina cunninghamiana*), the **River Peppermint** (*Eucalyptus elata*) is most commonly found as young regrowth coppices, rather than as single old specimens. The **Manna Gums** (*Eucalyptus viminalis*), with their distinctive white bark and the small rough barked **Blue Box** (*Eucalyptus baueriana*) are generally rare, with a more sporadic distribution than the other listed tree species.

Weed species, which now dominate much of the banks of the Nepean River and its tributaries include **Honey-locust** (*Gleditsia triacanthos*), **Hackberry** (*Celtis occidentalis*), **Broad-leaved Privet** (*Ligustrum lucidum*), **Box Elder** (*Acer negundo*) and **Wild Olive** (*Olea africana*). In the 1830's Sir William Macarthur introduced some of these exotic species as hedge plants to the gardens, paddocks and arboretum at 'Camden Park'. These exotics later become garden escapes, freely colonising the riverbanks of the Nepean River and its tributaries and spreading throughout the district. Although these naturalised exotic plants compete aggressively against native remnant vegetation and prevent regeneration, they now play a vital role in mechanical stabilisation of the riverbanks in many areas. Furthermore, these trees are now a pivotal element in the cultural landscape of Camden and the Nepean River. Their presence in many places is indeed visually significant and evocative of the rural qualities of this district. A balanced and integrated weed management strategy is now needed; one which recognises the values of both remnant indigenous vegetation and the naturalised exotic plants which make up this landscape.

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### 3. The Cultural Landscape

#### 3.1. Rural Beginnings and the Development of Camden

The Macarthur name is synonymous with the early development of this district. 'Camden Park' was originally established on an area of 2000 hectares, granted to John Macarthur in 1805, on the fertile soils adjacent to the Nepean River. Since the 1790's the area had been known as 'the Cowpastures', after the Colony's domesticated cattle had strayed from Sydney Cove and were some years later discovered in far greater numbers, here running wild. The richness of the area, which had been indicated by the cattle's preference, had created considerable interest within the Colony. John Macarthur's original grant was later increased to more than 3000 hectares through the acquisition of Walter Davidson's 'Belmont' and the area known as 'North Camden'.

A whole new cultural landscape evolved from these beginnings and in the process totally altered the pre existing landscape forever. The colony of New South Wales was entering a new period of consolidation from penal settlement towards a free society. As wealth was created, gardens and estates were increasingly used to signify a new permanence, attempting to emulate the grand gardens of Europe. Although being devoid of an aristocracy or fashion makers and provincial in nature, gardens were developed by borrowing on the traditions of the English Landscape School and European romanticism. Both were well established in Europe at the time New South Wales was founded and provided the main influence for garden design in these early years.

The landscape approach was generally to modify and enhance the standard of life in the colony. The built environment reflected the differences in community origins within the Counties, together with the cultural and artistic differences of London and abroad. These influences were displayed in the elaboration of workmanship, historic details and use of materials. Likewise, the landscape reflected local differences in approach and the fashions which dictate European thinking.

In 1812 a Government order was given, prohibiting anyone from crossing the Nepean River, with the exemption of members of the Macarthur and Davidson family and their servants. This prohibition was aimed at preserving the herd of cattle on 'the Cowpastures' the order operated for ten years, effectively restricting all other grants to the eastern side of the Nepean River and focusing on the area between Prospect and Camden. The major land grants of 'Macquarie Grove', 'Wivenhoe' (now 'Mater Dei'), 'Kirkham' (now 'Camelot'), 'Denbigh', 'Harrington Park' and 'Nonnorrah' (later 'Maryland') were all taken up between the years of 1812-1815.

By the time of opening of the country westward of the Nepean River in 1822 and the building of the Cowpastures Bridge at Camden in 1826, there was already growing settlements in the vicinity of Narellan and Elderslie, in the form of homesteads and huts, saw pits and loggers' camps, blacksmiths' forges, brickfields, mills, stores and grog shops (Proudfoot, 1990). Experienced agriculturalists and tradesmen were also in high demand from the owners of the various large estates. A rapid expansion of the population followed and many clearing leases were taken up in the Camden area during this period.

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In 1836 plans were drawn for the township of Camden, one of the first 'private' towns in the colony. An ordered rectilinear layout, and the regulation hierarchy of streets (Argyle and John Streets are slightly wider) and basic town block dimensions were adopted. The town was to be located on an alluvial ridge, immediately west of the Nepean River on the 'North Camden' section of the Macarthur estate. Following the death of John Macarthur, his sons James and William advocated strongly for the town development and were closely involved in the establishment of many of its public buildings, including St John's Anglican Church and Rectory on the hill and allotments for the Catholic and Presbyterian churches. The population however, grew slowly after this time and there was a major set back to the town's growth in the 1860's as a result of the increasing rust problems in wheat (Proudfoot 1990).

### 3.2. The Landscapes of Colonial Rural Estates

The size and scale of rural estates contrasted with the intensive town centre development. 'Camden Park', the earliest and one of the largest estates in the district, continued to be the focus of agricultural, horticultural and pastoral development in the colony. Consequently, the 'Home Farm (Belgenny Homestead)' on the 'Camden Park' estate retained its importance as a centre in its own right, containing workmen's cottages, stables, blacksmiths, storage barns and maintenance sheds. In addition to the many agricultural and pastoral innovations and experimentation on the estate, Sir William, his brother James and their mother Elizabeth Macarthur had a special interest in horticulture. The 'Camden Park Nursery' was established in the 1830's and its first commercial plant catalogue released in 1843. Francis Ferguson, a former employee of Sir William Macarthur at the 'Camden Park Nursery' also established a further nursery in this district. The 'Ferguson's Australia Nursery', known on the original deeds as the 'Old Nursery' was located about one kilometre west of Camden.

By the mid 19<sup>th</sup> century, large gardens complemented a number of fine estates in the district. During the latter part of the 19<sup>th</sup> century, the romanticism in garden design was fused with the order of French neo classicism, the Italianate School and many other influences. Furthermore, these many competing design influences merged with the broader interest of collecting and borrowing on a diverse range of plants, made more accessible by the growth of the empire and improvements in communication. These new directions created the gardenesque movement which was marked by an eclectic mix of styles and collections of botanic curiosities from around the world.

Significantly, it was the native rain forest trees which captured the greatest interest, providing visual relief from the grey greens of the surrounding Eucalypt dominated woodlands. Following in the wake of the Red Cedar cutters, botanists and seed collectors brought to commercial nurseries, a wide range of lush densely foliated trees from the native rain forests of the Illawarra and further a field along the New South Wales north coast and Queensland coastal areas.

Commonly cultivated rain forest trees included the **Silky Oak** (*Grevillea robusta*), **Illawarra Flame Tree** (*Brachychiton acerifolia*), **White Cedar** (*Melia azedarach*), **Blackbean** (*Castanospermum australe*) and the **Firewheel Tree** (*Stenocarpus sinuatus*). Other significant and rare specimen rain forest plantings include stunted **Macadamia Nut Trees** (*Macadamia integrifolia*) and **Tuckeroo** (*Cupaniopsis anacardioides*). These ornamental and

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exotic looking trees provided a link with the colony's heritage and the green memory of European trees as well as evoking the romanticism of a lush antipodeans paradise. Although there are still remnants of these species in early gardens, many rain forest trees were not suited to the dryness and the frosts experienced in this district, thus planting palettes had to be modified.

The exotic and hardy ornamental **Chinese Elms** (*Ulmus parvifolia*), **Pepper Trees** (*Schinus ariera*), **Jacarandas** (*Jacaranda mimosifolia*), **Hackberry** (*Celtis occidentalis*), **Pencil Pines** (*Cupressus sempervirens*), **Funeral Cypress** (*Cupressus funebris*) and other **Cypresses** (*Cupressus spp. and Thuja sp.*) and the native, locally occurring **Kurrajong** (*Brachychiton populneum*) remain the most common sub dominants, ornamental species in this district. The ornamental, smooth barked **Lemon-scented Gum** (*Eucalyptus citriodora*), although not indigenous to this area, was a favoured native Eucalypt species in these early planting schemes.

Other less common species included the Carob Bean (*Ceratonia siliqua*), **London Plan Tree** (*Platanus hybrida*), **English Oak** (*Quercus robur*), **Holm Oak** (*Quercus ilex*), **Sweet Osmanthus** (*Osmanthus fragrans*), **Common Holly** (*Ilex aquifolium*) and **Norfolk Island Hibiscus** (*Lagunaria patersonia*). Windbreak and hedgerow plantings were dominated by **Lombardy Poplars** (*Populus nigra 'italica'*) and **Cottonwood Poplars** (*Populus deltoides*) as well as species which have become naturalised such as **Wild Olives** (*Olea africana*), Honey-locust (*Gleditsia triacanthos*) and **Large-leaved Privet** (*Ligustrum lucidum*). The ornamental **Osage Orange** (*Maclura pomifera*) was another, somewhat rare, hedgerow planting.

The tall, emergent **Bunya Pine** (*Araucaria bidwillii*) and **Hoop Pine** (*Araucaria cunninghamii*) from the drier rain forests of the Bunya Mountains and parts of the north coast of NSW and Queensland proved to be particularly suitable tree species. These native pines with their imposing scale, bold symmetry and distinctive dense green foliage, were planted on the hill top sites around the homesteads and villas of the grand estates, thus visually locating these buildings from a great distance. These species, more than any other, set a definitive grand character to these 19<sup>th</sup> century landscapes. In coastal Sydney, these pines were usually planted in association with massive **Moreton Bay Figs** (*Ficus macrophylla*) and other Fig species, however these are rare in this district, usually stunted and in poor condition. Similarly, the **Norfolk Island Pine** (*Araucaria heterophylla*), historically the most common component of these Araucaria plantings in Sydney and along the coast, is notably absent from most of these local planting schemes. In response to the drier climate and colder winter nights, hardy exotic pines such as **Monterey Pine** (*Pinus radiata*), **Stone Pine** (*Pinus pinea*) and **Loblolly Pine** (*Pinus taeda*) were planted as co dominants to the Araucarias.

Palms continue this early exotic theme and later reinforced through further palm plantings after the First World War. The tall, exotic **Washington Palm** (*Washingtonia robusta*) is a component of many historic plantings around homesteads in this district. This palm was favoured over the **Cabbage Palm** (*Livistona australis*), a native of the coastal rain forests, as it proved to be a more hardy palm to drought and frost. Nevertheless, Camden contains some rare and significant plantings of the Cabbage Palm. Furthermore, the **Chilean Wine Palm** (*Jubaea chilensis*), a very rarely planted palm in Sydney, is of great botanical

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significance to Camden. They appear to be first connected with Sir William Macarthur and form a significant component of many historic plantings in the area.

Many of the larger 19<sup>th</sup> century estates display a number of common thematic elements and similarities in the planting palette and landscape layout. The homestead or villa was usually located on a commanding hill top position with panoramic views of the surrounding country side. There were often two sets of gates, firstly to the outer paddocks and secondly to the inner gardens surrounding the residence. The very hardy and long lived **Century Plant** (*Agave americana*) was used in early schemes, as a dramatic accent plant at the entrance to properties (eg Cawdor Road).

The inner gardens around the residence were delineated by hedgerow or windbreak plantings, ranging from shrubs to tall trees. These plantings nowadays are commonly a random mixture of naturalised species, however on some properties it appears that only one species was used or two species, planted alternatively to provide a mixed deciduous/evergreen hedgerow (eg 'Burnham Grove'). The gates, posts and immediate fences were generally constructed in timber, though wrought iron gates and brick masonry piers have been used in some instances (eg 'Camelot'). A gatehouse or gate keeper's lodge may have also been located adjacent to the entry gates (eg 'Maryland').

Typically, on entering the inner garden area, a curving gravel driveway first leads the visitor through an unkempt 'wilderness' area of tangled tree canopies, shrubs and vines before reaching a circular turn around and drop off point, adjacent to the main entry of the house. This focal area usually opens out to a formal, flat lawn, bordered by tree plantings and garden beds. It contrasts sharply with the previous plantings and is generally the most highly maintained of all landscaped areas.

A 'wilderness' area was typical of many of the larger estate plantings (Refer to 'Denbigh', 'Maryland', 'Camelot', 'Gledswood', the Macarthur Cemetery at 'Camden Park' and substantially modified at 'Harrington Park'). These are magnificent cloistered, mysterious and eerie landscapes. They are located quite close to the homestead and contain a variety of 'wild' shrubs, hedgerow plants and vines, dominated by species now considered weeds. These areas form a vegetative buffer or extended windbreak planting to the house. **Wild Olives** (*Olea africana*) often dominate the understorey, with their tangled canopies interconnecting over the driveway, creating a 'gothic' landscape composition.

Low clipped formal hedges often lined the driveway edges through the 'wilderness' and onto the formal gardens but now many of these are overgrown. Typical formal hedging plants included **Sky Flower** (*Duranta repens*), **Cape Honeysuckle** (*Tecomaria capensis*) and **Cape Plumbago** (*Plumbago auriculata*). The groundcovers, *Agapanthus orientalis* and **Kaffir Lily** (*Clivea miniata*) were also commonly used as border plants in these areas and the formal gardens. The formal garden beds contained an eclectic mix of ornamental trees, fruit/orchard trees, shrubs, rose beds and perennial borders in the gardenesque style. These plants were set within rigid geometric or curvilinear pathways, often bordered by low hedge plants. Most of these original formal estate gardens require intensive maintenance and replanting by trained horticulturists. Consequently many gardens have fallen into disrepair over time as maintenance has been reduced. More recent and unsympathetic plantings have sometimes blurred the impact and original design intent.

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'Gledswood', 'Denbigh', Belgenny Homestead at 'Camden Park' and 'Burnham Grove' are notable exceptions, displaying sensitive approaches to landscape maintenance and design for these gardens.

#### 4. Community Planting Schemes

In parallel with the development of large estates and gardens during the late 19<sup>th</sup> century, a tradition of public parks, gardens and street tree planting was also established, ensuring public access to open spaces for recreation and embellishment of the town centre. Similarly, ecclesiastical plantings associated with church yards and cemeteries continue the same palette of plants as the rural estates. In particular, **Pencil Pines** (*Cupressus sempervirens*), **Funeral Cypress** (*Cupressus funebris*) and other **Cypresses** (*Cupressus spp.* and *Thuja sp.*) are emphasised in these schemes.

Commemorative plantings, associated with important people in the community and events, such as the World Wars earlier this century, were often featured in these public landscapes (eg *Camden Hospital grounds* and memorial avenue plantings along the Hume Highway). The elevated site of 'Macarthur Park', Camden, is an outstanding important element in this park scheme. The 'Onslow Park (Showground)' is a further example of the strong links with the surrounding rural landscape (Refer to Listings). Landscaping of these areas followed from the models for the larger estates and botanic gardens. The species used in these public schemes were often identical to those used on the rural estates. Thus, the parkland and streetscapes of Camden have in many ways continued to complement the plantings which have characterised rural private estates. This has significantly added to the depth of these cultural and historic plantings throughout the district and created a strong cohesive landscape quality.

Photographs dating from 1896 and 1906 show John Street with mature street tree plantings of **Monterey Pines** (*Pinus radiata*) and **Pepper Trees** (*Schinus areira*). Each tree was protected from the ravages of wandering livestock by a heavy timber guard. By 1923 however, records show that a recommendation was made to remove the large Pepper Trees as a result of root damage to neighbouring properties and services. The Monterey Pines also disappeared. New planting schemes replaced many of these earlier trees however the species selected have not been recorded. Nevertheless, many of the street trees throughout Camden town centre and Elderslie still retain close links with historic rural plantings (Refer to Listings). For example, the **Jacaranda** (*Jacaranda mimosifolia*) remains a pivotal element in these street planting schemes while the major entry/exit points to Camden retain the important rural windbreak species, **Lombardy Poplar** (*Populus nigra var. italica*).

Importantly, the substantial plantings of **Liquidambar** (*Liquidambar styraciflua*) along Camden Valley Way, near the Cowpastures Bridge is a good example of recent sensitive cultural plantings, which in time will reinforce the quality of deciduous historic plantings in this district. This deciduous species, with its autumn foliage of bright reds and oranges, will provide a magnificent visual and seasonal display, against the backdrop of hedgerows and other Lombardy Poplar and Southern Cottonwood 'escapes' along the roadside.

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Unfortunately, the older street tree plantings are more often in contrast with recent suburban plantings. The increasing suburban development of the local government area has reflected a particular period of interest in the use of native Australian species, particularly Eucalyptus **She-Oaks** (*Casuarina spp.*). This planting palette gained wide support in the early 70's and has only in recent years been supplanted by greater interest in the use of local indigenous species and ornamental exotics. These are trends and styles which have characterised the history of this landscape, however the pattern of developing suburban growth is systematically erasing all vestiges of both the remnant vegetation and the rural cultural plantings of Camden.

Residential development in the suburbs of South Camden (Elizabeth Macarthur Estate), Elderslie and Narellan, as well as the estates of Currans Hill, Mount Annan and Grasmere all reflect these changes. Notwithstanding this, there are some fine native street plantings (eg Bruchhauser Estate, Elderslie), but the **Tallowwoods** (*Eucalyptus microcorys*) here are an alien Australian species. These native trees from the NSW north coast have no relevance to the historic or remnant native landscapes of Camden. Similarly, the magnificent woodland remnants in Elizabeth Macarthur Estate, dominated by the **Narrow-leaved Ironbark** (*Eucalyptus crebra*), are slowly being fragmented and replaced with other ornamental trees. The streets have been planted with similar but generic Australian species, such as the ubiquitous **Narrow-leaved Peppermint** (*Eucalyptus nicholii*) and the more ornamental **Pink Flowering Mugga Ironbark** (*Eucalyptus sideroxylon var. rosea*). An indigenous and truly distinctive heritage landscape is thus degraded and devalued.

Over recent years the use of local native species has come to the fore and many local plant nurseries now stock local indigenous plant species.

It is equally important to recognise the heritage values of the original remnant vegetation as it is the culturally and historically significant planting since settlement. The remnant vegetation is a major component in establishing the landscape context and the local identity of this area. Furthermore, the district's landscape quality is drawn largely from its rural background and history. Landscape quality is derived from the sum of these factors; it is the balance between the natural remnant vegetation and the cultural landscape. The two are intrinsically intertwined and both are threatened landscapes within the context of suburban development. (Camden Significant Tree & Landscape Register 1993 & 2007)

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Figure A – A photograph of St John's Anglican Church, Camden taken by 1896 shows that a pair of **Forest Red Gums** (*Eucalyptus tereticornis*) (right), remnants of the original woodland, were large specimens even at this time. The same trees are still thriving on the site. One large **Pencil Pine** (*Cupressus sempervirens*) remains from this planted group in front of the church. The immature **Monterey Pines** (*Pinus radiator*) (left) were possibly removed at a latter date.

Photo taken by Kerry & Co. courtesy of Camden Historical Society



Figure B – A photograph taken at possibly the same time as Figure A, shows John Street, Camden looking south towards the hill and St John's Anglican Church. During the 1890's the street was planted with a mixed avenue of **Pepper Trees** (*Schinus areira*), **Monterey Pines** (*Pinus radiator*) and possibly another unidentified species. Each tree was protected from the ravages of wandering livestock by a heavy timber guard.

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Photo taken by Kerry & Co. courtesy of Camden Historical Society

#### 4.1. Present-day Tree Planting

Tree planting in Camden is currently being driven by development and urban growth. This growth generates opportunities for tree planting in new riparian and bush conservation areas, public open space, infill private and commercial development, public authority infrastructure projects (RMS, State Rail), Council works program and private residential tree planting.

Tree planting generally falls into one of several categories of planting;

- street tree planting ie. new residential street
- group tree planting ie. pocket park
- tree planting within landscaping ie. child care centre, industrial complex, road reserve (Camden Valley Way dual carriageway project)
- mass planting ie. conservation areas

Each year Council is responsible for the planting of a considerable number of trees as either infill street tree planting in existing urban areas, conservation areas and parkland embellishment however the majority of tree planting currently undertaken within the LGA is carried out by others.

Council is the consenting authority and has final say on the type and location of almost all new trees planting. Where Council does not have final say, for example State projects the Council nevertheless is provided opportunity to comment on the suitability of proposed trees and landscaping on areas to be developed. By making these lists of suitable trees available to the community it is envisaged that tree planting will be conducted in a more informed way.

With many thousands of trees currently being planted and with many more thousands to be planted in the near future suitable tree selection has never been more important.

The second half of this document is divided into a series of lists containing tree species deemed to be suitable for use in particular situations. The title of each list describes the intended purpose and application of the species to be used. For example the street tree planting list is the list of trees that a developer is confined to choose from where street tree planting is concerned. The replacement or infill street tree planting list differs slightly to the street tree list in that it contains species that the Council would not approve in a new streetscape but will use in an existing streetscape to maintain continuity and uniformity.

The remaining sections are self evident in name and are more of a resource to be drawn upon where site constraints, or where specific site objectives need to be met. For instance a site may have a salt issue or there maybe existing overhead power lines.

Many tree species appear in multiply lists because their characteristics and performance is suited to a range of situations.



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## CULTURALLY SIGNIFICANT SPECIES

**List Objective:** To provide a complete list of trees recognised as significant and reflective of Camden's natural, cultural and commemorative history.

**Application:** The list of significant trees and vegetation is a list of trees that mark different periods of Camden's development since settlement. Many of the species are only suited to large open spaces. Many of the trees are now considered weed species and their use is discouraged. Specialist advice is required before selecting trees from this list.

Botanical Name	Common Name
Acacia parramattensis	Green Wattle
Acer negundo	Box Elder
Adiantum aethiopicum	Maidenhair Fern
Agapanthus orientalis	Agapanthus
Agathis robusta	Kauri Pine
Agave americana	Century Plant
Alectryon subcinereus	Wild Quince
Angophora costata	Sydney Pink Gum
Angophora floribunda	Rough-barked Apple
Angophora subvelutina	Broad-leaved Apple
Araucaria bidwillii	Bunya Pine
Araucaria cunninghamii	Hoop Pine
Araucaria heterophylla	Norfolk Island Pine
Arbutus unedo	Irish Strawberry Tree
Arecastrum romanzoffianum	Queen Palm
Bambusa sp.	Giant Bamboo
Banksia integrifolia	Coastal Banksia
Brachychiton acerifolium	Illawarra Flame Tree
Brachychiton discolor	Lacebarks
Brachychiton populneum	Kurrajong
Brachychiton rupestre	Queensland Bottle Tree
Callitris rhomboidea	Port Jackson Pine
Calodendron capense	Cape Chestnut
Calodendron tomentosum	Hairy Calodendron
Camellia spp.	Camellias
Carya illinoensis	Pecans
Cassine australis	Red Olive Plum
Castanospermum austale	Blackbean
Casuarina cunninghamiana	River Oak
Casuarina glauca	Swamp Oak
Cedrus atlantica	Atlantic Cedar
Cedrus deodara	Deodar Cedar

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Botanical Name	Common Name
<i>Celtis australis</i>	Nettle Tree
<i>Celtis occidentalis</i>	Hackberry
<i>Certonia siliqua</i>	Carob Tree
<i>Cinnamomum camphora</i>	Camphor Laurel
<i>Cissus antarctica</i>	Kangaroo Vine
<i>Citriobatus pauciflorus</i>	Orange-Thorn
<i>Corylus avellana</i>	European Hazels
<i>Corymbia citriodora</i>	Lemon-scented Gum
<i>Corymbia maculata</i>	Spotted Gum
<i>Cotoneaster</i> sp.	Cotoneaster
<i>Cupaniopsis anacardiodes</i>	Tuckeroo
<i>Cupressus arizonica</i> 'glabra'	Arizona Cypress
<i>Cupressus funebris</i>	Funeral Cypress
<i>Cupressus macrocarpa</i>	Monterey Cypress
<i>Cupressus macrocarpa</i> 'aurea erecta'	Golden Monterey Cypress
<i>Cupressus sempervirens</i>	Pencil Pine
<i>Dioscorea transversa</i>	Pencil Yam
<i>Diospyros kaki</i>	Persimmon
<i>Duranta repens</i>	Sky Flower
<i>Eriobotrya japonica</i>	Loquat
<i>Eucalyptus amplifolia</i>	Cabbage Gum
<i>Eucalyptus baueriana</i>	Blue Box
<i>Eucalyptus benthamii</i>	Camden White Gum
<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark
<i>Eucalyptus elata</i>	River Peppermint
<i>Eucalyptus eugenoides</i>	Thin-leaved Stringybark
<i>Eucalyptus globulus</i>	Tasmanian Blue Gum
<i>Eucalyptus melliodora</i>	Yellow Box
<i>Eucalyptus moluccana</i>	Grey Box
<i>Eucalyptus nicholii</i>	Narrow-leaved Peppermint
<i>Eucalyptus pilularis</i>	Blackbutt
<i>Eucalyptus robusta</i>	Swamp Mahogany
<i>Eucalyptus sideroxylon</i> 'rosea'	Pink Flowering Ironbark
<i>Eucalyptus tereticornis</i>	Forest Red Gum
<i>Eucalyptus viminalis</i>	Ribbon or Manna Gum
<i>Euphorbia ingens</i>	Candelabra Tree
<i>Eustrephus latifolius</i>	Wombat Berry
<i>Ficus macrophylla</i>	Moreton Bay Fig
<i>Ficus rubiginosa</i>	Port Jackson Fig
<i>Fraxinus biltmoreana</i>	Pennsylvania Ash
<i>Fraxinus excelsior</i> 'aurea'	Golden Ash

Camden Council

Botanical Name	Common Name
<i>Fraxinus oxycarpa</i>	Desert Ash
<i>Fraxinus oxycarpa</i> var. <i>Raywoodii</i>	Claret Ash
<i>Geijera latifolia</i>	Broad-leaved Brush Wilga
<i>Gleditsia triacanthos</i>	Honey-locust
<i>Gleditsia triacanthos</i> var. <i>Sunburst</i>	Golden Honey-locust
<i>Grevillea robusta</i>	Silky Oak
<i>Ilex aquifolium</i>	Common Holly
<i>Jacaranda mimosifolia</i>	Jacaranda
<i>Jubaea chilensis</i>	Chilean Wine Palms
<i>Lagunaria patersonia</i>	Norfolk Island Hibiscus
<i>Laurus nobillis</i>	Sweet Bays
<i>Ligustrum lucidum</i>	Large-leaved Privet
<i>Ligustrum sinensis</i>	Small-leaved Privet
<i>Liquidamber styraciflua</i>	Liquidamber
<i>Liriodendron tulipifera</i>	Tulip Tree
<i>Livistona australis</i>	Cabbage Palms
<i>Lophostemon confertus</i>	Brush Box
<i>Macadamia integrifolia</i>	Macadamia Nut Tree
<i>Maclura pomifera</i>	Osage Orange
<i>Macrozamia communis</i>	Burrawangs
<i>Magnolia grandiflora</i>	Bull Bay Magnolia
<i>Malus sylvestris</i>	Apple Tree
<i>Melaleuca</i> sp.	Paperbark
<i>Melaleuca styphelioides</i>	Prickly Paperbark
<i>Melia azedarach</i>	White Cedar
<i>Morus alba</i>	Mulberry
<i>Nerium oleander</i>	Oleander
<i>Olea Africana</i>	Wild Olive
<i>Osmanthus fragrans</i>	Sweet Osmanthus
<i>Pandorea pandorana</i>	Wonga Vine
<i>Pellaea falcata</i>	Sickle Fern
<i>Phoenix canariensis</i>	Canary Island Date Palm
<i>Phoenix dactylifera</i>	Date Palm
<i>Phoenix reclinata</i>	Senegal Date Palm
<i>Phoenix rupicola</i>	Cliff Date Palm
<i>Photinia serratifolia</i>	Chinese Hawthorn
<i>Pinus pinea</i>	Stone Pine
<i>Pinus ponderosa</i>	Western Yellow Pine
<i>Pinus radiata</i>	Monterey Pine
<i>Pinus taeda</i>	Loblolly Pine
<i>Platanus x hybrida</i>	London Plane Tree

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Attachment 1

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Attachment 1

Botanical Name	Common Name
Plumbago auriculata	Cape Plumbago
Podocarpus elatus	Plum Pine
Populus alba	White Poplar
Populus deltoides	Cottonwood Poplars
Populus nigra 'italica'	Lombardy Poplars
Prunus sp.	Flowering Plum
Quercus ilex	Holm Oak
Quercus palustris	Pin Oak
Quercus robur	English Oak
Robinia pseudoacacia	Black Locust Tree
Rosa sp.	Roses
Salix babylonica	Weeping Willows
Sapium sebiferum	Chinese Tallowwood
Schinus areira	Pepper Tree
Solanum laciniatum	Kangaroo Apple
Stenocarpus sinuatus	Firewheel Tree
Streblus brunonianus	Whalebone Tree
Syzygium australe	Brush Cherry
Taxus sp.	Yew
Tecomaria capensis	Cape Honeysuckle
Thuja orientalis	Bookleaf Cypress
Thuja spp. and Cupressus spp.	Cypress
Toona australis	Red Cedar
Trachycarpus fortunei	Windmill Palm
Ulmus parvifolia	Chinese Elm
Ulmus procera	English Elm
Washingtonia robusta	Washington Palm
Wisteria sinensis	Wisteria
Yucca aloifolia	Spanish Bayonet



# Urban Forest Strategy

2023

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Attachment 2





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**Artist: Melissa Barton**  
**Bulawiri Nura - Three Country's**

An artwork that depicts and celebrates the strength and unity, community and team work shared between the Dharawal, Dharug and Gundungurra peoples to care for Country in and around Camden. Camden being an area where these three nations met, held ceremony, corroboree, traded and looked after our sacred Mother Earth and Father Sky. Showing that traditional ways of caring for Country are significant and valuable to our way of living today.

**Council acknowledge that the Camden LGA is situated on the sacred Traditional Lands and Waterways of the Dharawal peoples. We also recognise surrounding Dharug and Gundungurra people that may have connections to these lands. We pay our respects to Elders from the past, present, and emerging, and to all Aboriginal and Torres Strait Islander peoples on these lands and celebrate the continuing contribution of the Aboriginal community to the life of Camden LGA.**

2 | Urban Forest Strategy





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Attachment 2



**Acknowledgments**

This project is part of the Greener Neighbourhoods grant program that is proudly funded by the NSW Government.

Camden Council acknowledges the contributions of Mosaics Insights with support from treeiQ in the preparation of the Strategy.

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## Mayors Message

Trees and other vegetation are essential components of our urban areas. Not only do they add a sense of character and charm, they produce real-world benefits which are backed by research, as you will find out about in this Strategy. In an urban area, they help mitigate the Urban Heat Island Effect, improve residents' health and wellbeing, and help biodiversity to flourish.

For those reasons and more, Camden Council is committed to creating an urban forest that thrives. The Urban Forest Strategy 2023 is how we get there.

The Strategy sets an ambitious target to increase our canopy from 15 per cent to 40 per cent by 2036 and lays out an action plan to get us there. We are one of the fastest growing Local Government Areas in Australia, and so it's important we act now to ensure we can meet these canopy targets through that growth.

The good news is, work has already begun. Since 2021, more than 27,000 trees have been planted in streets, parks, reserves and bushland areas. There's lots more to do and I look forward to partnering with you to see Camden's canopy grow for future generations.

**Ashleigh Cagney**  
Mayor of Camden



## Executive Summary

Camden’s urban forest is the trees and greening (and the ecosystems, soil and water that support them) that exist across the urban area, in spaces that are planned, designed and managed.

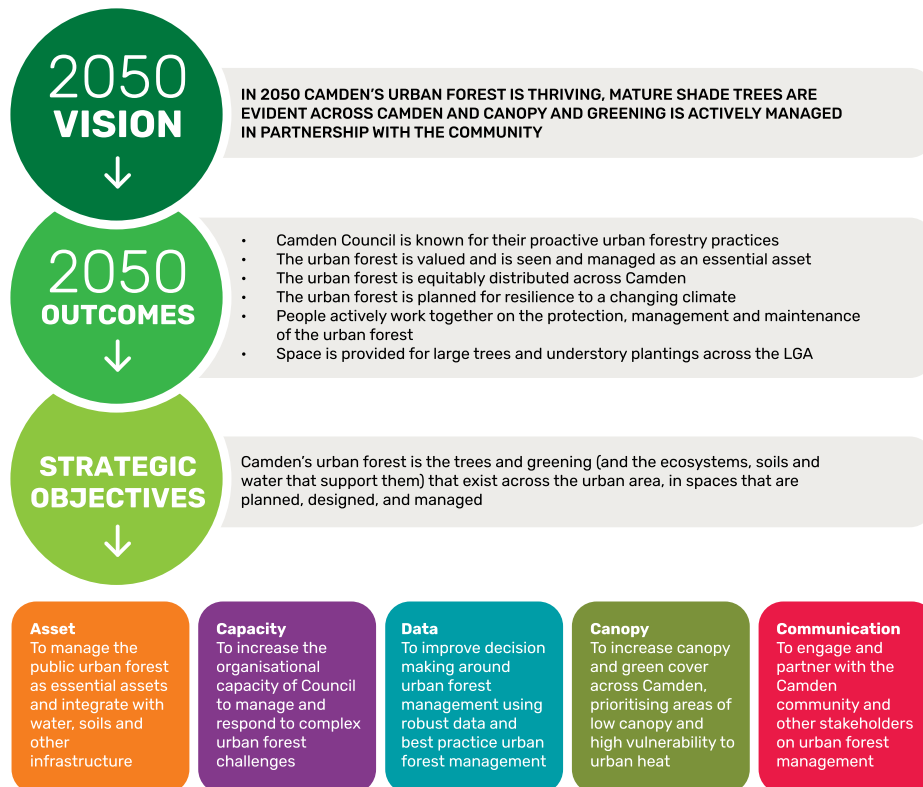
Canopy cover across the Camden Local Government Area (LGA) is below the NSW State Government target of 40%. In 2019, areas within the LGA showed canopy levels as low as 2-3% with overall canopy coverage of just over 15%. The Connecting Camden Community Strategic Plan 2022-2036 (CSP) sets directions, objectives, strategies, and measures for progress to achieve the Camden community’s vision with specific reference to protecting and sharing responsibility for the natural environment.

**Camden is a connected, diverse, and thriving community, embracing opportunities of growth, while valuing our rich heritage and protecting and sharing responsibility for our natural environment.**

This Strategy was developed based on available data and information, including data from the NSW Government and the community. The analysis of this data and information describes the current state and provides a baseline of information around tree canopy, Council’s capacity and the community values.

To significantly increase tree canopy towards the NSW government target, we need to respond to current state information and the challenges and pressures we face. These include: rapid population growth and associated development, climate change, urban heat and equity of canopy for the most vulnerable communities, increasing competition for space, need for the right skills and knowledge across Council and the community, access to sound data and information, engagement with a wide range of stakeholders and robust policy and procedures. Building widespread community support for the urban forest will also be crucial.

The assessment of the current state of Camden’s urban forest has informed the development of the vision, outcomes and strategic objectives as well as the definition of the urban forest for Camden:



A range of actions and a monitoring and reporting plan for the next ten years have been developed to support this Strategy.



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# Part One

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## Introduction

Local governments around the world are focused on better management of nature in cities and urban areas. The pressure experienced due to climate change and Covid lockdowns have highlighted the importance of urban vegetation: trees, canopy, understory plantings, open space and greening, for the liveability of cities and urban areas and the health and wellbeing of the people who live there.

This Strategy has been developed to provide a vision, and a pathway to recognise the importance of the urban forest in Camden and identify the actions we will take to protect, enhance and support the urban forest.

**Camden's urban forest is the trees and greening (and the ecosystems, soil and water that support them) that exist across the urban area, in spaces that are planned, designed and managed.**

## Vision Statement

In 2050 Camden's urban forest is thriving, mature shade trees are evident across Camden and canopy and greening is actively managed in partnership with the community.

## What is an Urban Forest?

An urban forest refers to native or introduced trees and related vegetation in the urban and near-urban areas, including, but not limited to, urban catchments, soils and related habitats, street trees, park trees, residential trees, natural riparian habitats, and trees on other private and public properties. An urban forest is a managed system different to natural bushland or ecosystems.





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## Benefits of the Urban Forest

The urban forest provides multiple benefits not often well known by the wider community. The benefits of the urban forest cover:

### Shade and cooling

Trees and other vegetation help to mitigate the Urban Heat Island Effect (UHI effect)<sup>1</sup>. Through the process of transpiration and the provision of shade, trees help reduce day and night-time temperatures. They provide shade to streets and footpaths, and their leaves reflect more sunlight and absorb less heat than built materials, reducing the heat absorbed by the built environment.

### A sense of place and social cohesion

Trees and other vegetation define the character and identity of urban places. Access to trees in green spaces improves various measures of social cohesion and community connection by providing pleasant and healthy spaces for the community to interact and relax.

### Human health

120 minutes of time spent in green space per week can significantly increase feelings of good health or wellbeing significantly for any age group. Increased urban vegetation is also linked to reduced levels of crime<sup>2</sup>.

### Healthier biodiversity

Urban forests support biodiversity by providing space for species to thrive and adapt. Biodiverse, complex, and connected plant communities in urban areas are vital to support biodiverse faunal communities and provide important connectivity to support biodiversity.

### Reduced pollution

Trees and shrubs as part of a road buffer with good structure (understorey and canopy) assist in pollution reduction by reducing particulates such as PM2.5 and PM10<sup>3</sup>.

### A stronger economy

Trees and other vegetation significantly contribute to the economies of urban places by increasing property values and benefits, they add aesthetic values to properties, reduce expenditure on stormwater infrastructure services, reduce energy use and costs by improving passive cooling of built structures<sup>4</sup>.

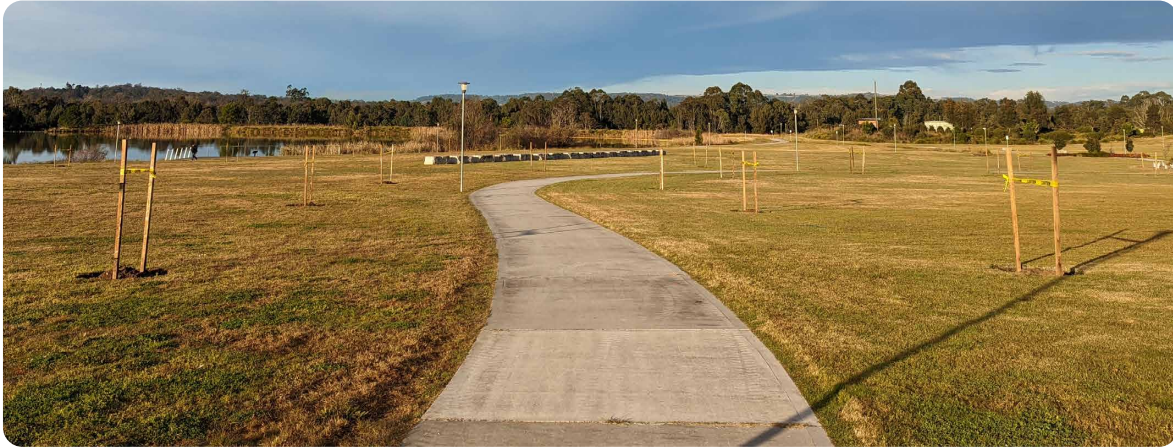
<sup>1</sup>Haider Taha, Heat Islands and Energy, Editor(s): Cutler J. Cleveland, Encyclopedia of Energy, Elsevier, 2004, Pages 133-143

<sup>2</sup>White, M.P., Alcock, I., Grellier, J. et al. Spending at least 120 minutes a week in nature is associated with good health and wellbeing. Sci Rep 9, 7730 (2019)

<sup>3</sup>Victorian Department of Health (2021) Air pollution Department of Health, State Government of Victoria, viewed 30th June 2022 <https://www.betterhealth.vic.gov.au/health/healthyliving/air-pollution>

<sup>4</sup>Yenneti, K., Ding, L., Prasad, D., Ulpiani, G., Paolini, R., Haddad, S. and Santamouris, M., 2020. Urban overheating and cooling potential in Australia: An evidence-based review. Climate, 8(11), p.126.





## Why is this Strategy important for Camden Council?

Canopy cover across the Camden LGA is consistently below the NSW State Government target of 40%. In 2019 areas within the LGA showed canopy levels as low as 2-3% with overall canopy coverage of just over 15%.

In June 2019, the NSW Government set priorities to increase the tree canopy and green cover across Greater Sydney by planting 1 million trees by 2022. The NSW Government committed to achieving 40% urban tree canopy cover for Greater Sydney by 2036.

As Camden is experiencing exponential population growth, higher than that experienced in any LGA in NSW, it is important that Camden acts now in order to achieve the ambitions identified in the Connecting Camden Community Strategic Plan 2022-2036 (CSP) and Local Strategic Planning Statement 2020 (LSPS). The CSP sets directions, objectives, strategies, and measures for progress to achieve the community's vision.

**Camden is a connected, diverse, and thriving community, embracing opportunities of growth, while valuing our rich heritage and protecting and sharing responsibility for our natural environment.**

The Camden community highly value the local rural and natural landscapes and have expressed concerns about increased urban heat resulting from growth and development. Investment in environmental protection, restoration and urban greening and maintaining, protecting, and increasing Camden's tree canopy are key objectives of the CSP to address the community's concern.

These objectives will be delivered through a range of strategies including Council's Sustainability Strategy 2020-2024, the Biodiversity Strategy 2023, the Greener Places, Healthier Waterways: A Vision for the Green and Blue Grid 2023, and this Urban Forest Strategy 2023.

Council has invested time and resources to increase canopy and greening and has been active in seeking additional grant funding and support from others to supplement the core Council programs.

Over the next two years, a further \$1.3 million has been secured to continue increasing Camden's tree canopy. Funding has also been obtained through the WestInvest Community Grants program to deliver a community nursery facility that will significantly enhance opportunities for greening across the LGA.

As part of Council's continuing program to achieve a greener, cooler and liveable Camden, Council has developed this Urban Forest Strategy with funding support from NSW Department of Planning and Environment (DPE) under the Greener Neighbourhoods grant program. This Strategy will facilitate the realisation of a range of interconnected community goals and objectives within the CSP, LSPS, Sustainability Strategy 2020-2024, Biodiversity Strategy 2023, and Greener Places, Healthier Waterways: A Vision for the Green and Blue Grid 2023.

## How was this Strategy developed?

This Strategy was developed in five stages (Figure 1) with a focus on understanding the context for urban forestry within Camden as a first step. The evidence gathered across stages one and two formed the basis for the strategic framework which includes a long-term vision and outcomes, strategic objectives, and major actions.

Stages one and two were spent in review of current documents and data. Available data on tree canopy, greening and the community were reviewed and analysed to understand the current state of the urban forest for Camden as well as the current community vulnerabilities and the changing community with future development pressures.

An assessment of the capacity of Council to deliver best practice and contemporary urban forest management was also completed. This provided valuable insights into the areas where we can focus our attentions to build capacity across skills and knowledge, project delivery and processes and policy. A community survey around perceptions and values of the urban forest completed these stages.

In stage three, the focus was on working with staff to create the structure of the Strategy, its vision, outcomes, and strategic objectives. These were based on the key challenges and pressures for the urban forest and feedback from community and Council staff from stage two.

The final stages (four and five) were focussed on developing actions and measures to support monitoring and reporting of achievements under this Strategy.



Figure 1  
Stages of development for the Urban Forest Strategy





### About data and canopy targets for Camden

Data and evidence are two major elements of an Urban Forest Strategy. The NSW Government’s Greener Neighbourhoods Guide provides a range of examples on best practice in managing data and evidence for urban forestry, which includes:

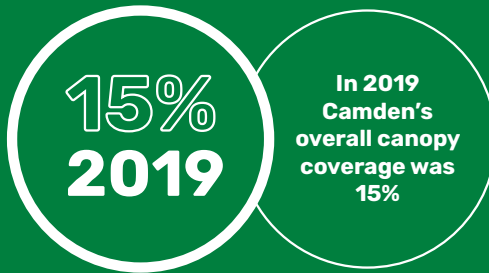
- Access to scientific data and policies on the urban forest that are shared amongst departments
- Ability to analyse and predict the changes in urban forest due to climate change, natural changes or management changes
- Live database (comprehensive tree inventory);
- Learning culture linked with industry and local research activities
- Comprehensive Strategy for managing and assessing risks associated with urban forestry
- Proactive and adaptive organisational capacity for decision making based on data and evidence

Urban canopy is influenced by many challenges and barriers. For best practice, gathering data and evidence is key however challenges for Council include:

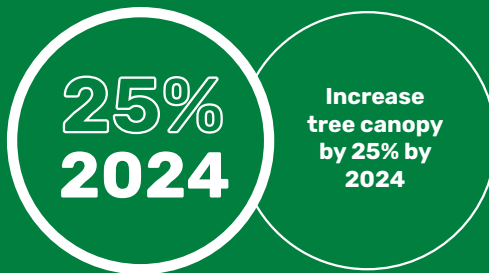
- Costs of tree inventories, mapping and data maintenance
- Limited understanding of ecosystem service concepts (climate change, water, soils etc)
- Limited resources available

Canopy targets can be a useful way to achieve an increase in healthy urban forest that support and enhance communities’ quality of life and resilience to climate change. Previously, Council has set a target to increase its canopy by 25% by 2024 and to align longer term canopy with the NSW Government 40% targets.

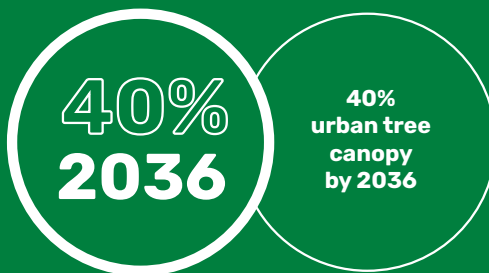
### Current canopy targets and measures



Canopy cover across the Camden LGA is consistently below the NSW State Government target. In 2019, areas within the LGA showed canopy levels of the 2-3% and overall canopy coverage of 15%.



Council’s Sustainability Strategy 2020-2024 is a four-year plan to bring together actions Council will implement to work towards creating a sustainable Camden. The Strategy adopts a target to increase tree canopy cover by 25% by 2024 to progress Camden towards 40% urban tree canopy cover by 2036.



In June 2019, the NSW Government set priorities to increase the tree canopy and green cover across Greater Sydney by planting 1 million trees by 2022 was established. The NSW Government committed to achieving 40% urban tree canopy cover for Greater Sydney by 2036.

Setting and achieving canopy targets is more complex than simply planting more trees. There are multiple elements that effect the growth of canopy and urban forest management. Often targets are unrealistic, untested and are linked to various other factors. Figure 2 represents several factors to consider while setting urban canopy targets.

While we have invested significant time and resourcing into urban tree and canopy management, and although thousands of trees have been planted in recent years, the 2024 canopy target will not be reached. This is partly due to the time required for trees to grow and mature.

This Strategy uses a range of measures to monitor the achievement of a healthy and thriving urban forest and urban canopy as we work towards the 40% canopy target. It applies a place and land use-based approach to monitoring improvements and will rely on improved data collected at the local and LGA-wide scale and establish realistic and locally relevant targets to drive further canopy gains over time.

This Strategy uses a range of measures to monitor the achievement of a healthy and thriving urban forest and urban canopy cover. It applies a place and land use-based approach to monitoring improvements and will rely on improved data collected at the local and LGA wide scale to establish realistic and locally relevant targets to drive further canopy gains over time.



## Elements that influence canopy targets

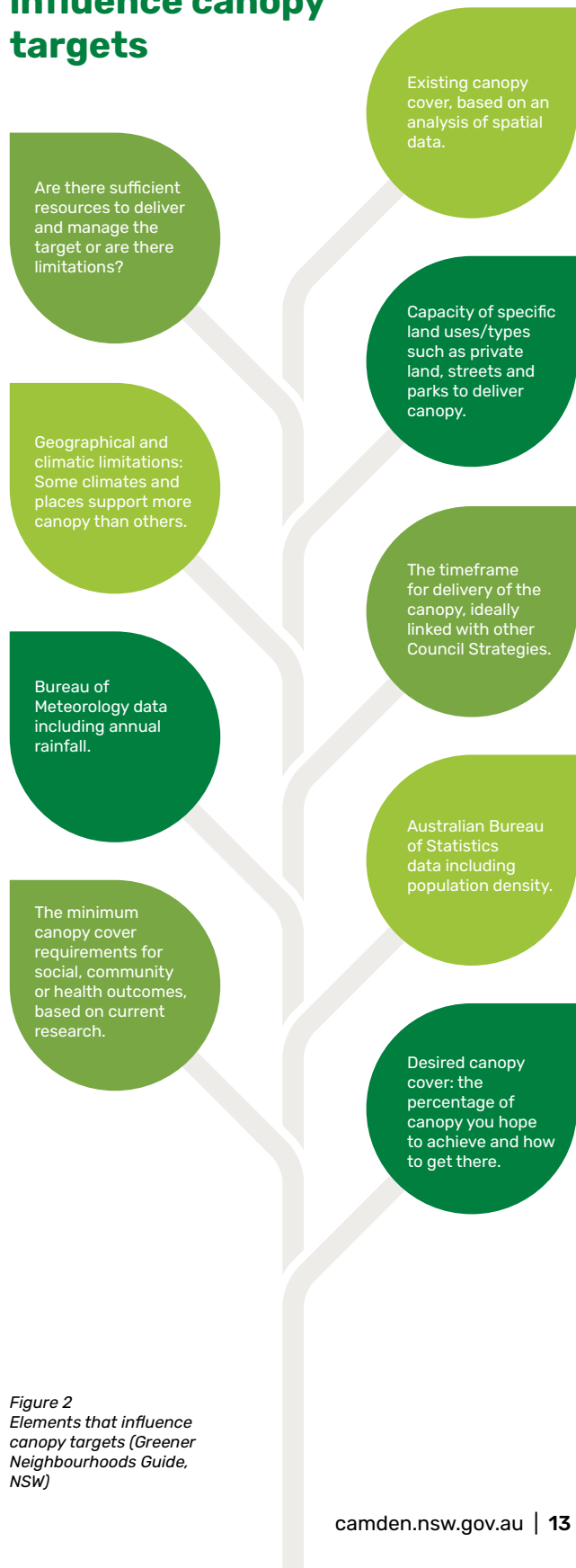


Figure 2  
Elements that influence canopy targets (Greener Neighbourhoods Guide, NSW)





## What are we already doing?

Over recent years, many projects have been implemented to not only increase tree canopy cover, but also to improve the management of our urban forest.

### Partnerships

Council has also partnered with a range of organisations to undertake tree planting projects delivering significant plantings at John Oxley Reserve, Ron Dine Reserve, Rossmore Reserve and Burrell Road Reserve with more projects already planned for delivery.



### Tree Planting Activities

Since 2021 over 27,000 trees have been installed within streets, parks, reserves, and natural bushland areas. The plantings are achieving improved amenity of highly valued community facilities, streetscapes, parks, and reserves and have potential for significant gains in canopy cover and urban heat reduction as the canopy continues to mature.

Council has been successful in gaining funding under the NSW Government's Greening our City Program for seven separate projects. This has seen the installation of more than 6,000 trees into the urban forest throughout 2020-2023 with an additional 2,070 street trees to be installed in 2023-24, and a further 3,000 trees into reserves to create a micro-forest carbon sink providing dense canopy and cooling benefits.

The program also included establishing a seed orchard of Camden White Gums at Elizabeth Macarthur Reserve. Fifty Camden White Gums were also planted at Ferguson's Land Cricket Facility. These genetically diverse trees will help to ensure the survival and resilience of this threatened species and will be maintained and monitored through a partnership under the Saving our Species program.





**Building Community Support**

Council’s successful Love Your Tree program recognises members of the community that pledge to adopt a public tree. So far 300 residents have signed up, with participants receiving a care package including a Love Your Tree bucket, gloves, a native shrub for their own garden, information on how to love their tree, and a certificate to recognise their commitment.

Each year Council gives away native plants to schools, preschools and the community as part of our celebrations for Schools Tree Day, Picnic in the Park and at various events and workshops. In 2022 eight schools and twenty-seven pre-schools were provided with 20 native plants to install and increase green cover for habitat as part of Schools Tree Day.



**Improving Data Management**

Trees are often thought of as static elements in the landscape; however they are living organisms with a lifecycle and their wellbeing is dependent on a range of environmental factors and requirements including human intervention. Council is investing in improving data management capabilities to facilitate building a quantifiable tree inventory to better manage these assets now and into the future.

**Camden Community Nursery**

Council was successful in its application for \$4 million under the WestInvest Community Project Grants program to build a community nursery at Smeaton Grange. The nursery will focus on the propagation of local native species and significantly enhance Council’s capacity to deliver urban forest and urban greening projects into the future.



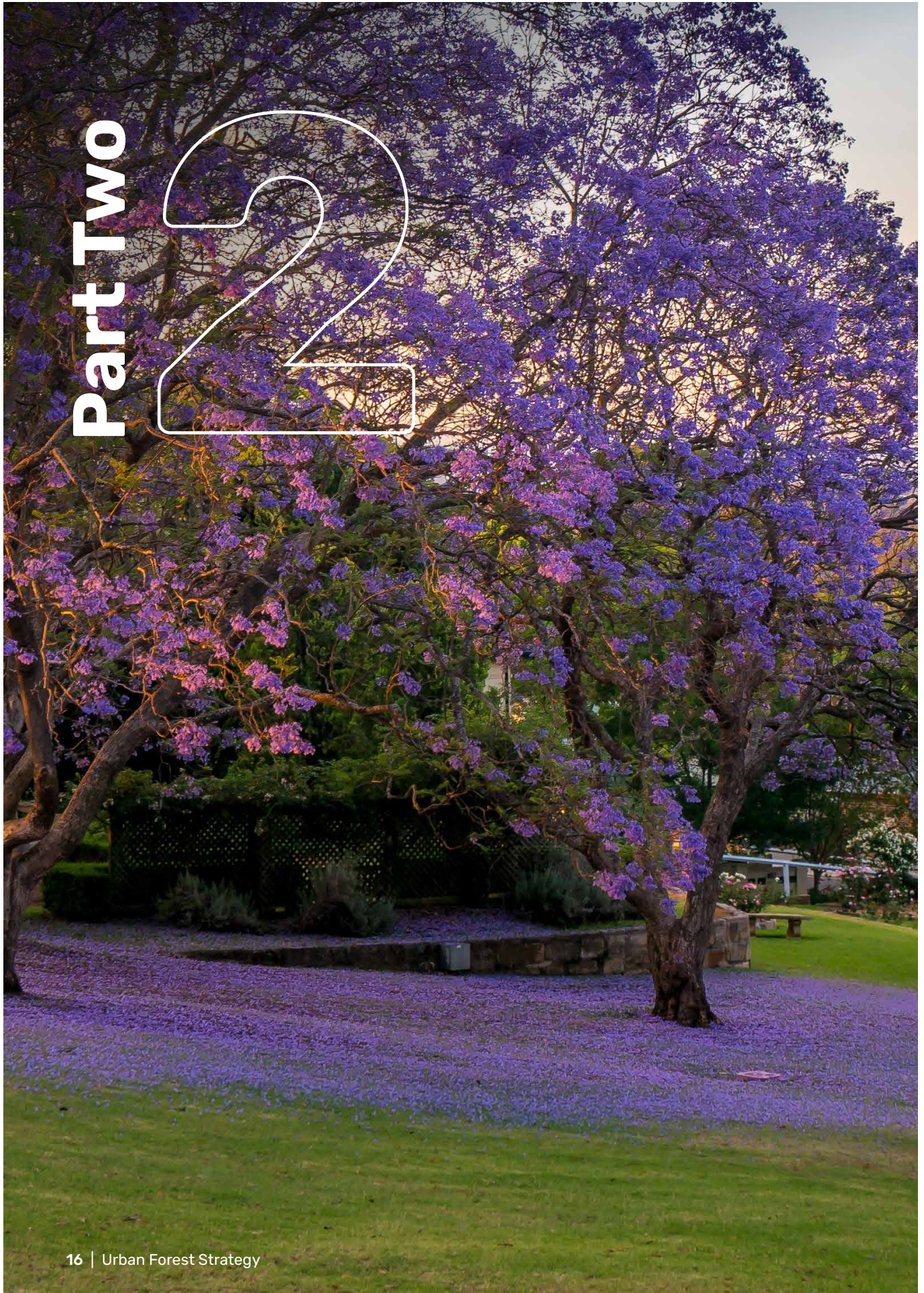


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# Part Two

# 2







## Camden Context

Camden Council is the fastest growing Local Government Area in New South Wales, with the population forecast increase from 119,951 to more than 240,000 by 2036.

The Camden LGA covers a total land area of about 200 square kilometres, bounded by Liverpool City Council in the north, Campbelltown City Council in the east, and Wollondilly Shire Council in the south and west. Camden is a dynamic urban place which is defined by its unique history, rural backdrop with many opportunities presented by urban development and population growth. As a rapidly growing area containing a mix of agricultural land, country towns and villages, new residential areas, commercial and industrial development and in the context of a new airport (Western Sydney Airport), the Camden LGA offers unique opportunities for investment.

Camden LGA's population is expanding exponentially, and the diverse community still benefits from a rich cultural and rural settings with cafes, growers' markets, galleries and facilities set amongst the natural environment, with busy retail, industrial and commercial hubs spread across the LGA. Council is effectively balancing this new urban growth with the existing semi-rural country feel by providing people with the option to enjoy both urban and rural lifestyle.

Trees, shrubs and groundcovers are an essential aspect of urban areas, providing important social, economic and environmental benefits to the landscape and the community. Council manages the urban forest that includes over 50,000 street trees and over 70,000 park trees, plus gardens in streets, parks and town centres.

Council and the NSW government have made commitments to increase tree canopy through various programs. With the increased and rapid development pressure in the LGA, there is a need to ensure the urban forest is well planned and managed so that it contributes to a liveable city and the wellbeing of the community.

## Strategic Context

This Urban Forest Strategy sits under a number of important strategic documents and is the link between the longer-term strategic desires and the operational delivery of urban forest actions.

Camden’s urban forest is protected and managed through a framework of state and local laws, policies and programs. The documents and strategies that guide and influence Camden’s urban forestry are shown in Figure 3.

Camden is a part of the Western Parkland City vision of Metropolis of Three Cities. The Greater Sydney Green Grid is the fundamental element for amenity across the Western Parkland City with a vision for a city that is landscape-led. The vision relies on increased tree canopy cover to provide shade and shelter for walkable neighbourhoods, prioritising the value that the South Creek corridor provides. Camden is expected to experience the highest increase in population in the Western Parkland City with strong growth across all age groups.

This Strategy is set to respond and achieve the goals of Camden’s local planning documents, strategies, and plans. In the CSP, the objectives and strategies for a balanced Camden include actions to maintain, protect and increase Camden’s tree canopy (B1.2) and to invest in environmental protection, restoration and urban greening (B1.1).

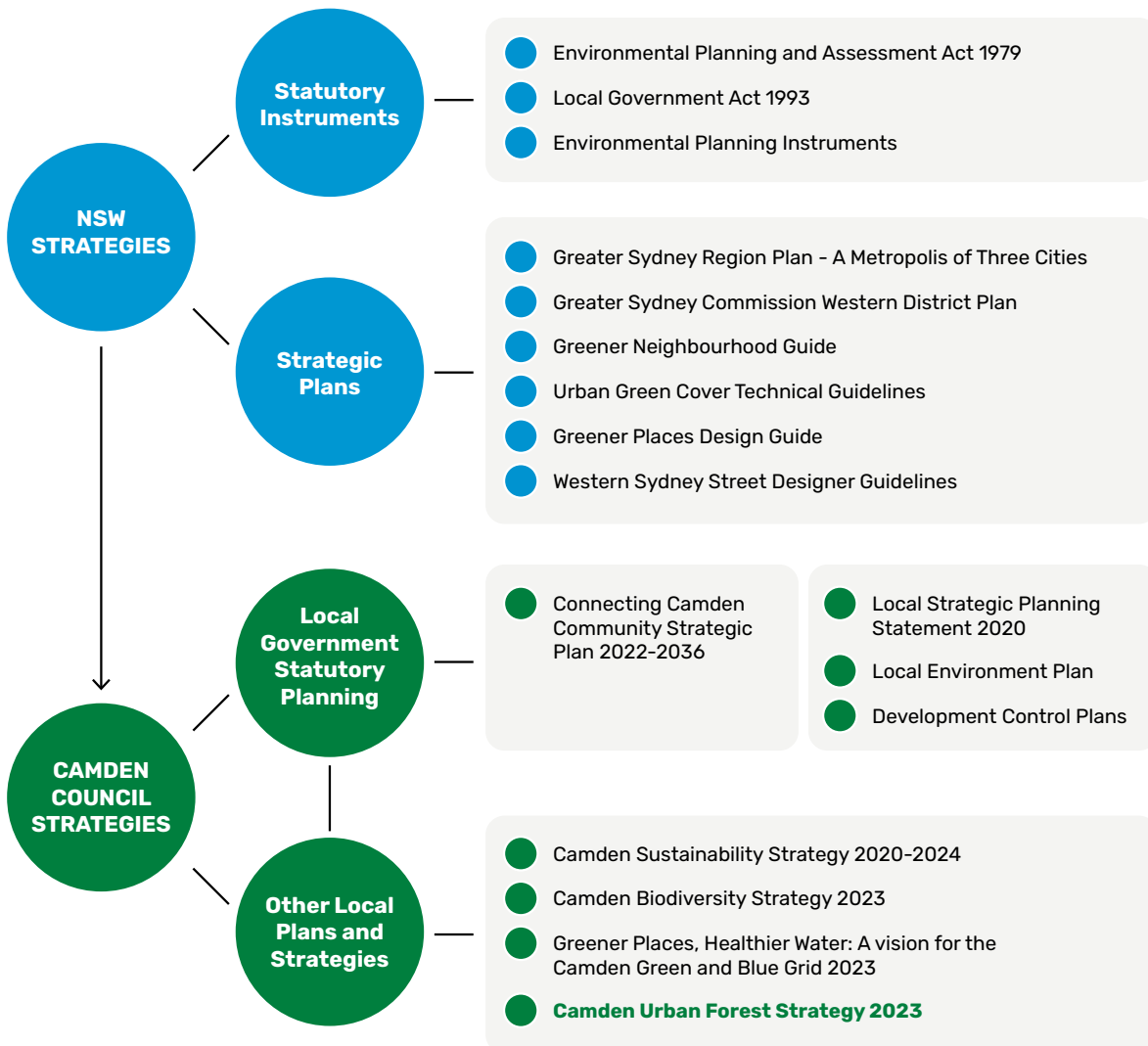


Figure 3  
Strategic context of Camden’s Urban Forest Strategy

## Community Views

As an important step in building the capacity of the community to assist with management of the urban forest, Council asked the community about the urban forest and its importance in early 2023 through an online survey and engagement tools.

### Overall response

Overall, the community views on the urban forest across all contributions were positive and insights from the feedback include:

- Community Strongly Agree to the various values and benefits of trees
- Community Strongly Agree that there should be more urban forest (86%) and it needs to be protected (74%)
- Community Agree that they need to be engaged in urban forest management in their neighbourhood (50%)

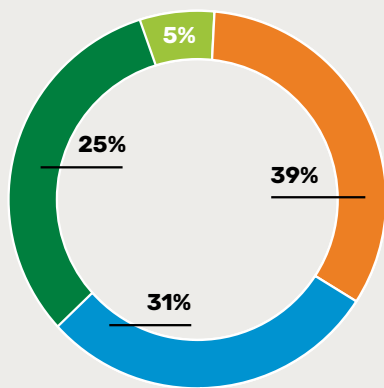
- Close to half the respondents do not feel their streets are shady.
- Incentives to plant trees and information and advice are needed to encourage people to plant trees on their property.
- Community is unsure if the urban forest is well managed and maintained (32%).

### What do people like about street trees and urban forest?

- Creates cooler places
- Good for mental health
- Attracts wildlife
- Provide cooling on hot days
- Provides shade and greenery
- Adds value to neighbourhood
- Aesthetics
- Connects to nature
- Visual Value to streets

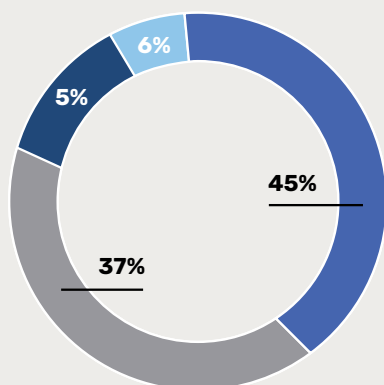
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**Trees on Streets:**  
(Community Description)

- THERE ARE TREES ON EVERY STREET
- THERE ARE TREES ON MOST STREETS
- THERE ARE TREES ON SOME STREETS
- THERE ARE NO OR FEW TREES



**On a hot summer's day, my street is...**

- SHADY IN PARTS
- NOT SHADED AT ALL
- NOT SO COOL & LEAFY
- COOL & LEAFY

### What would encourage community to plant trees?

- Free trees
- Information on suitable trees
- Advice on planting
- Discounts/vouchers
- Advice on planting locations



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Attachment 2



## Camden's Urban Forest Today

In order to develop a Strategy for improvement, it is important to understand the current state of the urban forest.

An analysis of the following data has been undertaken to understand the current state of the urban forest across Camden.

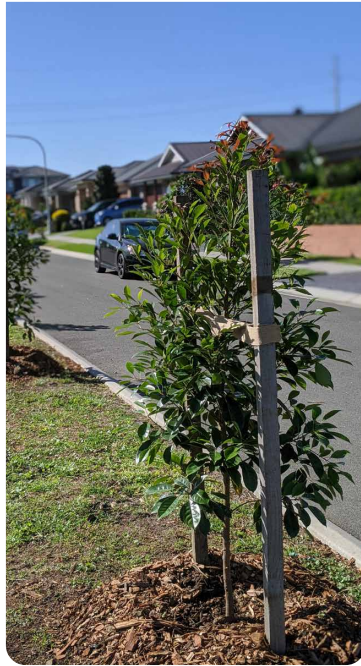
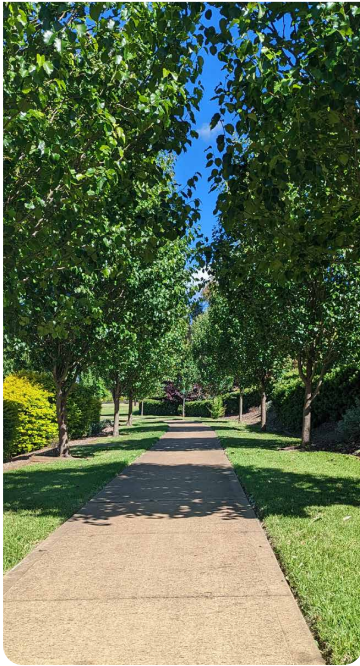
Available data used for the assessment of the urban forest included:

- Basic land information including land ownership, property, road, footpaths and other;
- Future development and population data

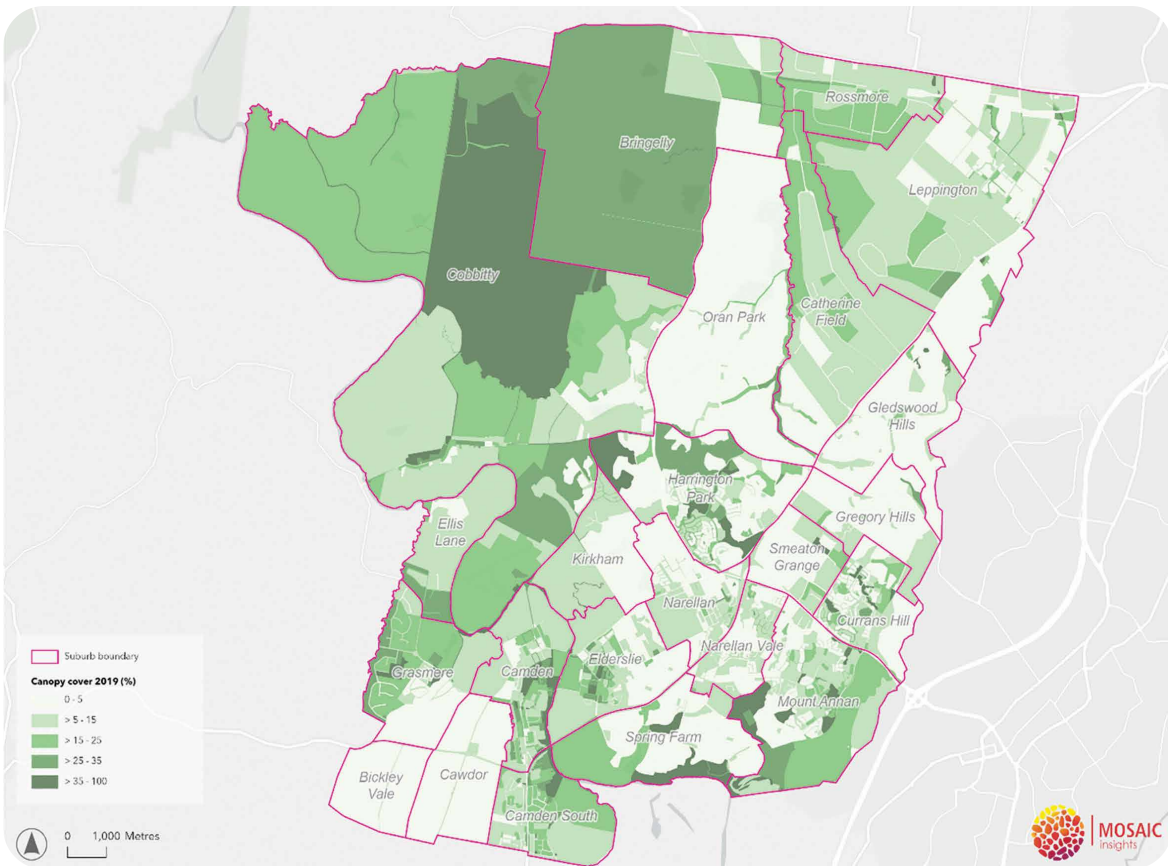
- Walking, cycling and fitness trails
- Spatial layers of possible tree obstructions (streetlights)
- Greater Sydney Region Tree Canopy to Modified Mesh Block 2019 (DPE)
- Greater Sydney Region Urban Vegetation Cover to Modified Mesh Block 2016 (DPE)
- Social data (ABS) including the SEIFA index, and human health and heat vulnerability indicators

The maps and information provided in this document use this data with Figure 4 providing an overview of the current tree canopy cover (DPE 2019) for the LGA. This information combined with available datasets helps to identify areas where urban forest action is most needed and where action could be targeted as part of the implementation of this Strategy.





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Figure 4  
Camden's tree canopy cover to Modified Mesh Block (DPE, 2019)



## Canopy Analysis

The current canopy and change in canopy for Camden was assessed using the NSW Government’s SEED canopy data for 2016 and 2019. Canopy cover and change in cover was assessed at the LGA level and suburb scale. Analysis included whole suburbs as well as canopy cover over different land uses.

The canopy analysis for Camden shows that:

- The 2019 canopy cover was 15.28%.
- New greenfield suburbs such as Gledswood Hills and Oran Park have very low overall canopy coverage in 2019. This is due to age of plantings and has not taken into account the future canopy from extensive plantings being undertaken in these new residential development areas
- Rural and agricultural suburbs, such as Cobbitty and Bringelly have the highest canopy coverage (25.6% and 26.5% respectively) in 2019 however these areas are likely to experience significant development in the coming years that will cause pressure on its existing canopy
- Open space has cover ranging from above 30% to below 5%. There are large areas of open space with canopy under 5%, noting that the data did not separate sports fields from other open space

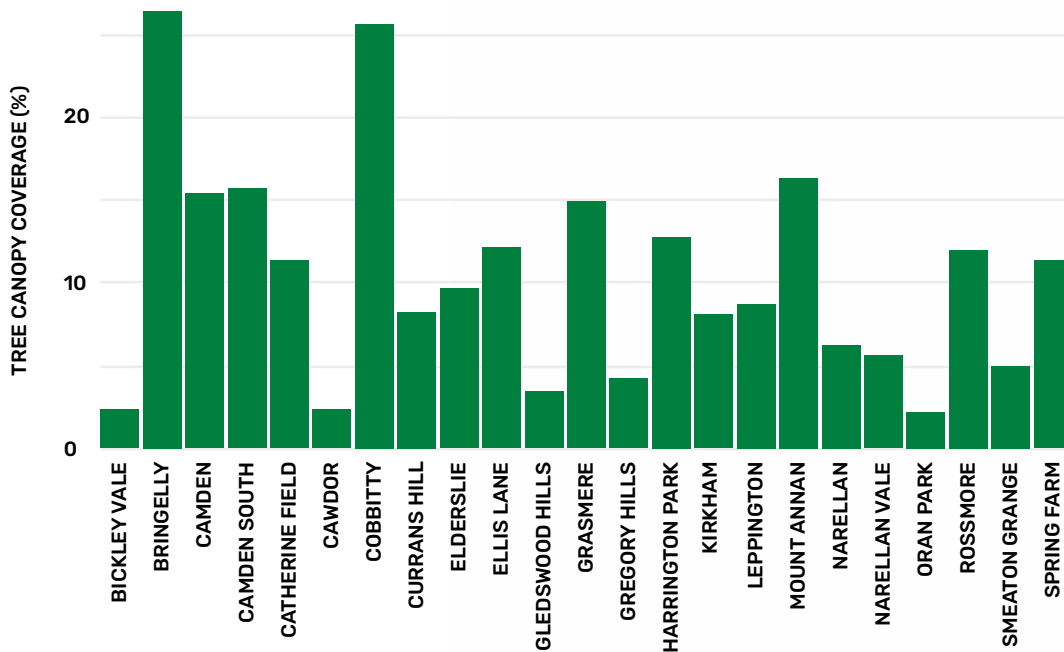


Figure 5  
Tree canopy coverage (%) across suburbs (DPE, 2019)



- Most suburbs saw a decline in canopy coverage between 2016 and 2019, except for Cobbitty and Bringelly
- When considering the LGA as a whole, street canopy coverage is very low (6.1%), this canopy percentage (%) reflects the low capacity for canopy on major roads and transport corridors which are outside of Council's control

Figure 6 represents the change in canopy from 2016 to 2019. Rossmore is observed to have the highest negative canopy growth in the LGA with a 10% decrease over this period of time.

Other significant decreases were identified in Camden South, Catherine Field, Harrington Park, Leppington and Narellan Vale. Only two suburbs, Cobbitty and Bringelly, were observed to have an increase in canopy cover throughout that period.

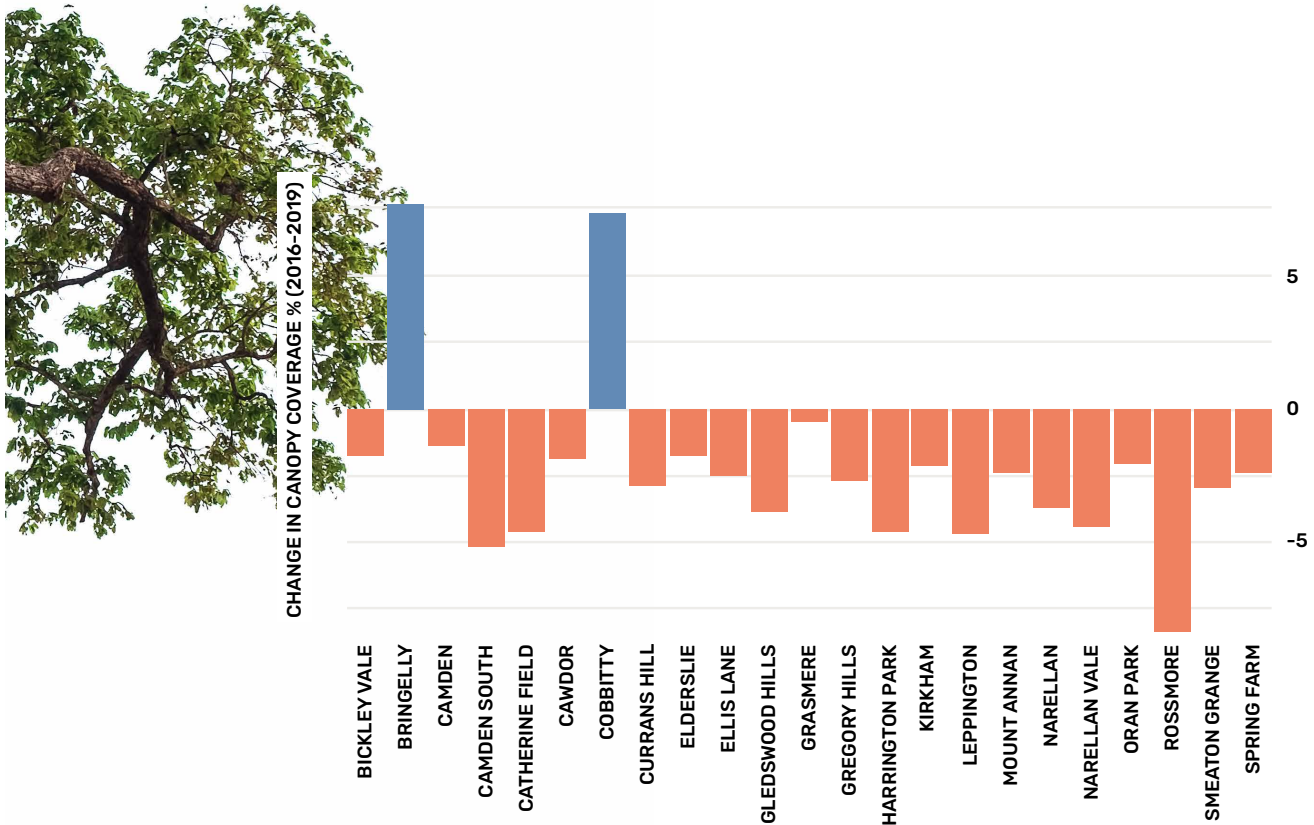


Figure 6  
Change in canopy coverage by suburbs (2016 to 2019)



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## Heat and Vulnerability

As one of the significant climate change hazards for Camden, it is important to understand where the community is most vulnerable to the impacts of urban heat. The most recent Heat Vulnerability Index (HVI) data available is from 2016 which is likely not reflective of community vulnerability to extreme heat in new, rapidly developing suburbs (e.g. Oran Park). New SEIFA indices (a component of the HVI index) will be released later in 2023, allowing community vulnerabilities to heat to be characterised in growth suburbs.

Attachment 2

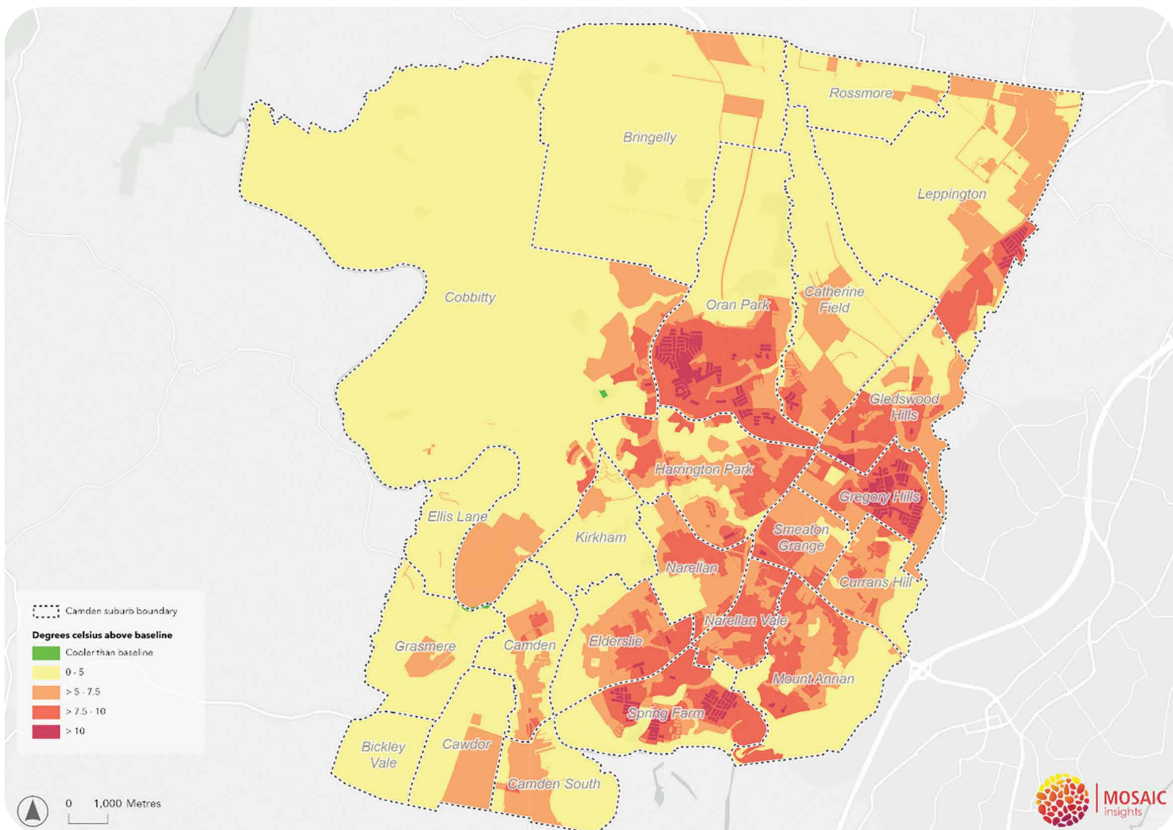


Figure 7  
Urban Heat Index across Camden LGA (DPE, 2016)

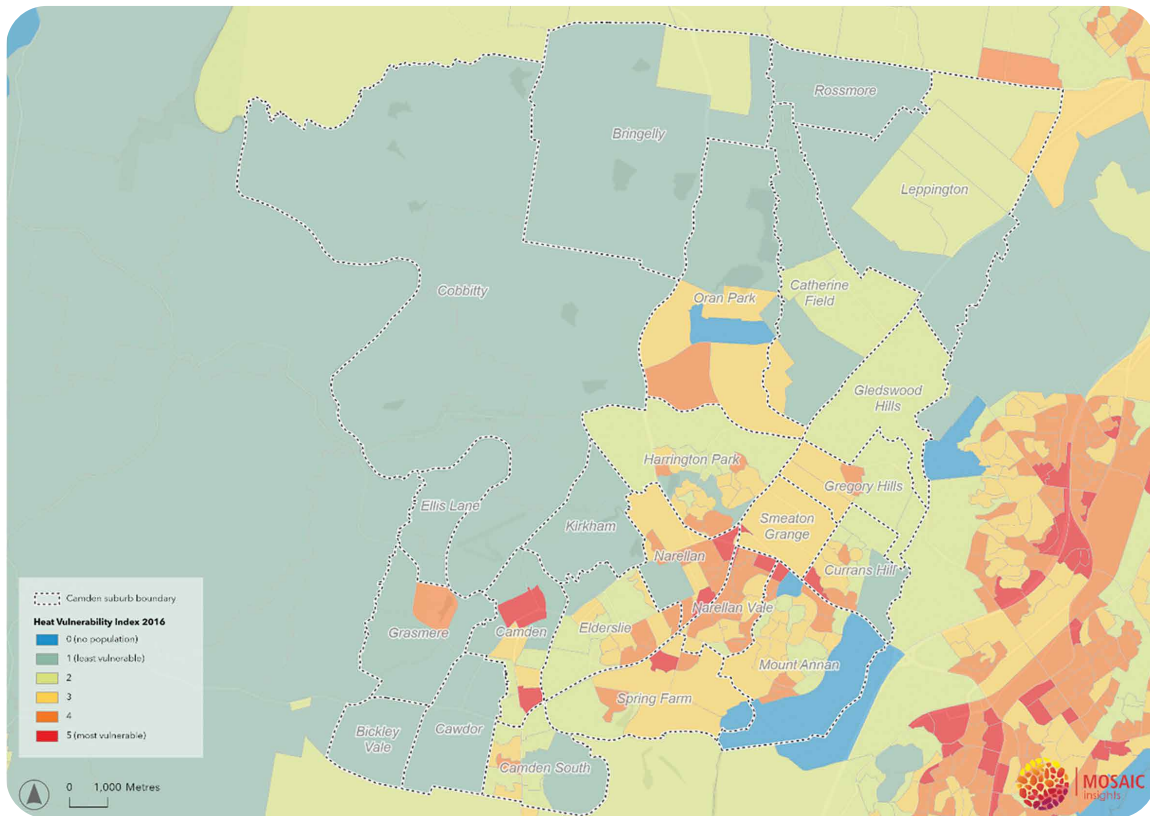


Figure 8  
Heat Vulnerability Index across Camden LGA (DPE, 2016)

Analysis of available data on current canopy and urban heat vulnerability (Figure 7 and 8) found that:

- Urban Heat Island (UHI) effects are most pronounced in blocks within new residential developments (Oran Park, Gregory Hills, Spring Farm), with peak summer temperatures recorded of over 10 degrees Celsius above baseline in 2019
- Older, established suburbs with higher tree canopy coverage (like Camden, Mount Annan and Elderslie) appear to have less pronounced UHI effects, with residential areas recording peak summer temperatures 5-10 degrees Celsius above baseline
- Suburbs such as Cobbitty, Bringelly and Bickley Vale recorded negligible to small UHI effects.
- The centre of the suburb of Camden is notable for its residents having the highest vulnerability to extreme heat, as do pockets of older suburbs such as Narellan, Narellan Vale and Spring Farm
- Open space with high canopy coverage can act as refuges from urban heat

- Spring Farm, Harrington Park, Mount Annan, Camden and Camden South contain well-shaded community areas within their boundaries
- Spring Farm, Oran Park, Gledswood Hills and Gregory Hills are notable for their absence of cycleways in the newer residential areas, except along unshaded main roads around the periphery
- Canopy cover over streets is very low (6.1%) making cycling and walking less desirable especially in the summer months

Urban heat and climate change will also have an impact on the vegetation that will thrive and survive as temperatures rise.



## Key Pressures and Challenges

Urban forests face multiple pressures and challenges. Climate change, population increase and urbanisation, limited availability of urban forest data, organisational capacity, variable community support for the urban forest and resources to manage urban forests all contribute barriers to the growth and health of Camden's urban forest. The strategic objectives of this Urban Forest Strategy were formed to respond to each pressure and challenge faced by Camden Council and community.

### Pressures

Climate change is increasing the frequency, severity, and duration of extreme weather events including heatwaves, droughts, floods, bushfires and storm events. Each of these hazards poses a significant threat to trees and other vegetation.

Research undertaken by the School of Ecosystem and Forest Science at the University of Melbourne (2016) found that in addition to these hazard related impacts the urban forest is also vulnerable to ongoing and gradual impacts of climate change associated with increasing temperatures.

Even under a moderate warming scenario there are likely to be many existing species that will no longer be considered suitable<sup>5</sup> for Camden's climate.

At the same time, Camden is forecast to increase from the current population of 119,951 to more than 240,000 by 2036. This exponential rise in population and associated development is causing pressure on the existing land and resources.

The space needed for trees is compromised for development purposes and for other conflicting priorities such as line of sight requirements from pedestrian crossings and street intersections, footpath width requirements and parking.

### Challenges

Organisational capacity and complexity of needs often hinder the delivery of best practice management and maintenance of urban forests. The leadership and management of the organisation (having the right skills and knowledge, decision making processes, reporting and continuous improvement), the availability of good data and analysis, sound engagement with community and others and the clear planning needed for a thriving urban forest are all essential in managing and delivering best practice urban forestry.

Managing the development pressures and responding to development that is often outside of the control of Council is a significant challenge and one faced by most local governments across NSW.

Integrating urban forestry outcomes (trees, understorey plantings, water sensitive urban design and soil health) into all areas of Council challenges the status quo. Institutional barriers to change can be significant challenges to implementing a best practice Urban Forest Strategy.

Limited resourcing is often listed as the largest challenge to the delivery of best practice urban forestry. While lack of funding can be a significant barrier, resourcing is also best considered in a broad context to include funding, staff numbers and time allocated to urban forest management, the availability of evidence and data and the ability to analyse it.

### Limitations

This Strategy relies upon information from 2016 and 2019, however due to the growth being experienced within the Camden LGA there are limitations of this data. The release of the 2022 Greater Sydney Canopy Dataset delivered from the NSW Department of Planning and Environment, expected in 2023, will provide more detail enabling further review particularly areas to target for future planting programs.



<sup>5</sup>Kendal and Baumann, 2016, The City of Melbourne's future urban forest: identifying vulnerability to future temperatures, Report to the City of Melbourne

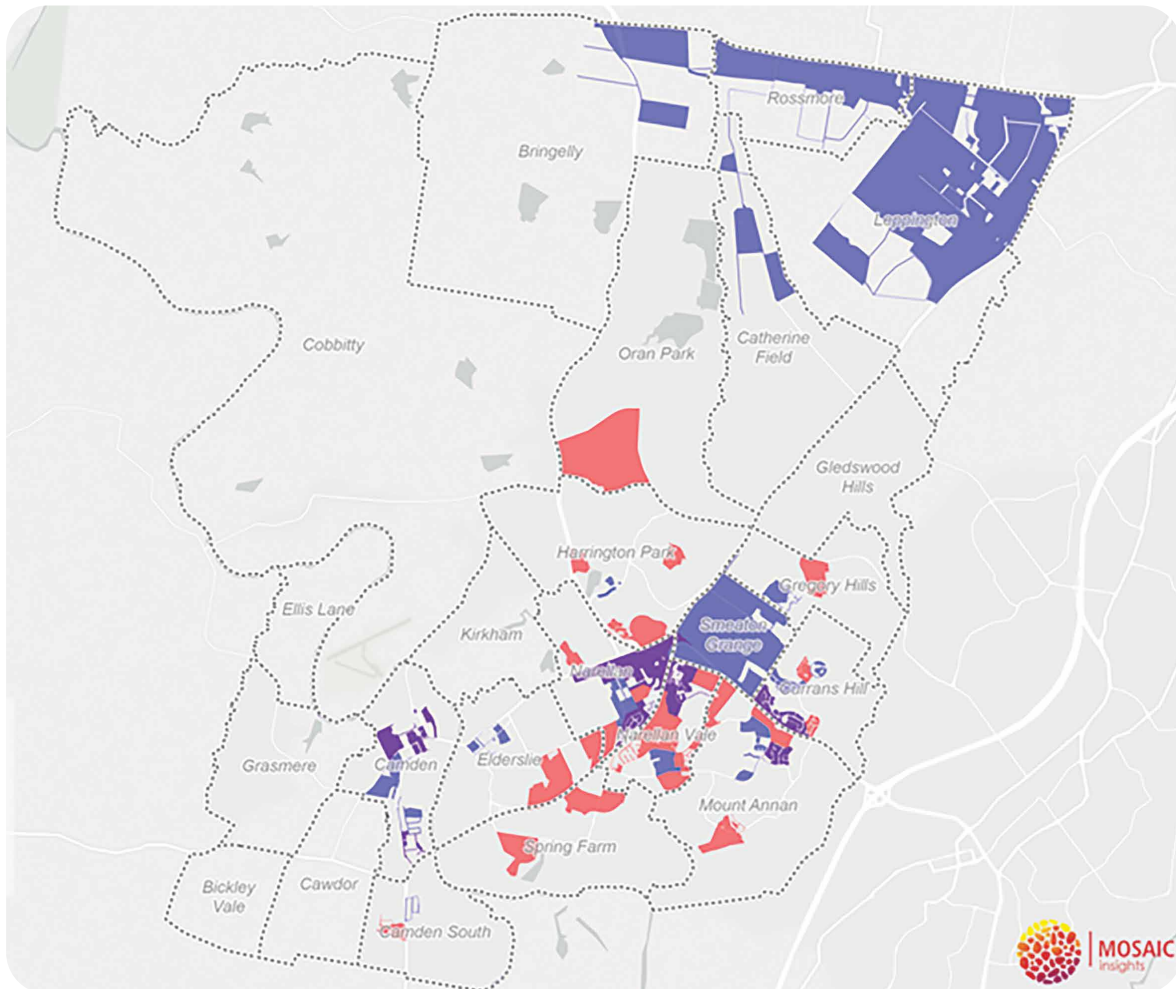


## Priority Areas for Urban Forest Enhancement

An analysis of the available data has identified the following areas as worthy of focus for increasing canopy and improving the urban forest. Figure 9 highlights areas of Camden that have high heat vulnerability and socio-economic disadvantage while also having canopy cover of less than 10%. These areas should be considered as a priority for the delivery of projects that will increase tree canopy coverage.







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Figure 9  
Areas of Camden that are most vulnerable to urban heat

-  Suburb boundary
-  HVI 4-5 (2016) and canopy cover <= 10% (2019)
-  SEIFA state decile 1-5 (2016) and canopy cover <= 10% (2019)
-  SEIFA state decile 1-5 and HVI 4-5 and canopy cover <= 10%

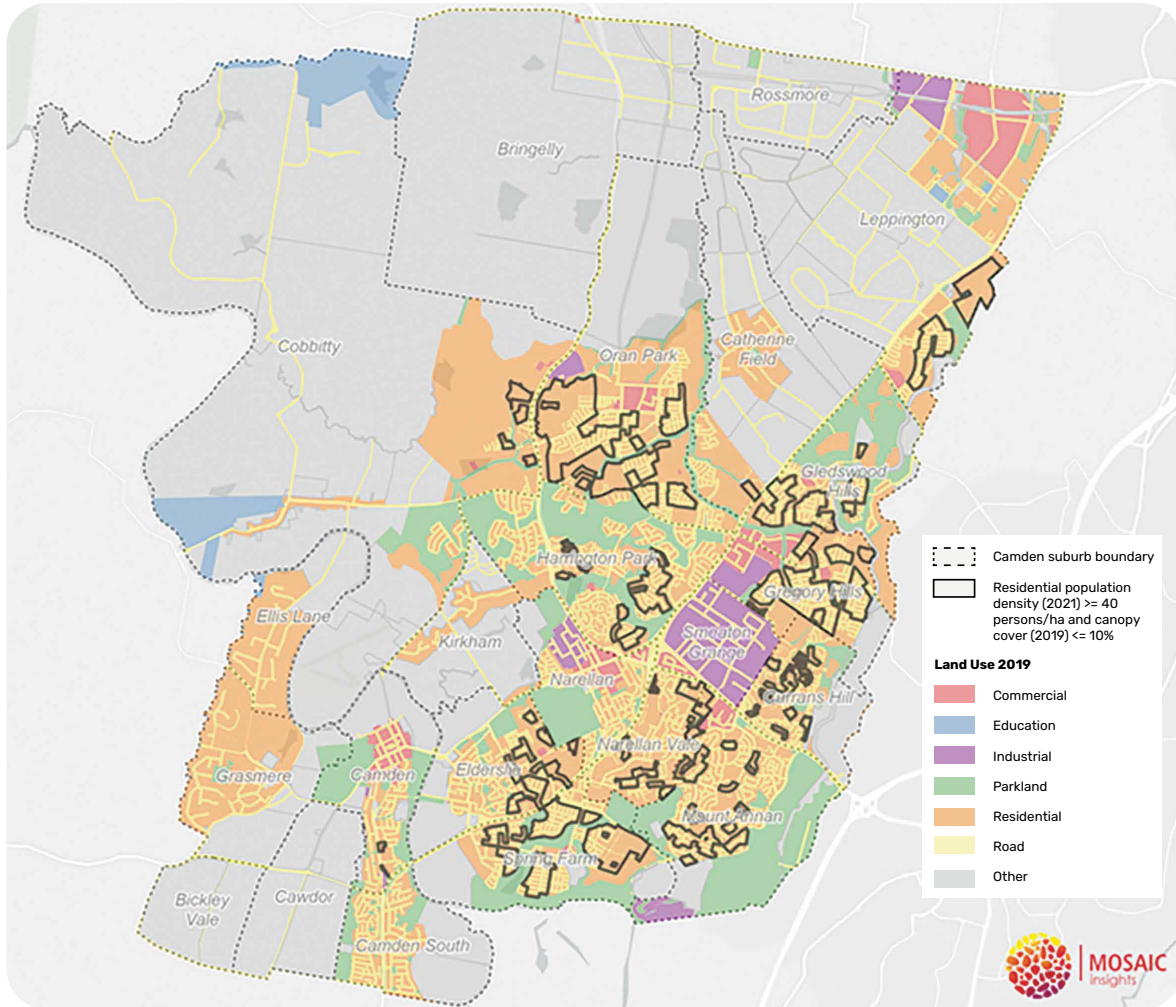


Figure 10  
Camden land use and residential areas showing low canopy (<10%)

- Areas in red show communities that have a high proportion of residents vulnerable to urban heat and existing low canopy over (<10%) including areas in Oran Park, Harrington Park, Gregory Hills, Narellan and Narellan Vale, Currans Hill, Mount Annan, Camden, Camden South and Elderslie
- Areas in light purple show communities that experience highest socio-economic disadvantage combined with low canopy cover (<10%) including areas in Leppington, Catherine Field, Gregory Hills, Smeaton Grange, Narellan and Narellan Vale, Currans Hill, Mount Annan, Spring Farm, Camden South and Elderslie
- Areas in purple show communities with both high vulnerabilities to heat and socio-economic disadvantage with existing low canopy (<10%) including parts of Narellan, Narellan Vale, Currans Hill, Mount Annan and Camden

Further analysis and consideration of this data is required in the development and implementation of projects to ensure that local characteristics and any recent changes in land use and canopy cover are considered.

Given the increased population and associated development it will be important for Council to focus attention on continuing to improve the urban forest outcomes particularly in new development areas.

Figure 10 highlights the residential areas of Camden that have the lowest canopy (<10%). Some of these areas are newer developments and so canopy cover in 2019 will not be as evident as it may be now or will be in ten years e.g., Oran Park. This data is helpful to identify priority areas where Council knows there has been no active tree planting in the past five to ten years e.g., in older suburbs.

Figure 11 shows the tree canopy coverage by land use in Camden. The lowest tree canopy cover is observed in lands zoned commercial, industrial and roads with around 5% canopy cover, while the highest canopy cover is observed in education zones and in parklands with above 20% canopy cover.

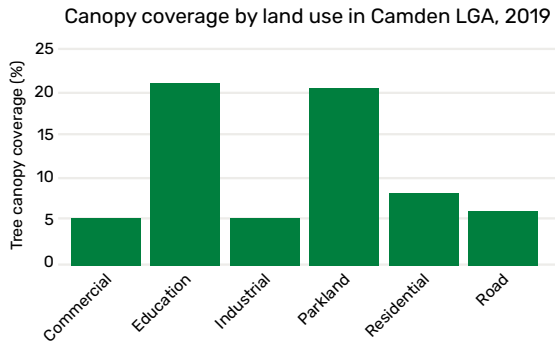


Figure 11  
Tree canopy by land use (DPE, 2019)

## Council Capacity

To achieve best practice urban forestry, it is important to understand where Camden has high capacity to deliver urban forestry outcomes as well as the areas needing improved management approaches.



Figure 12  
Themes of best practice urban forestry to guide the Camden capacity assessment

## Governance, Data, Engagement and Targets

Camden Council’s capacity for urban forestry was assessed using a capacity assessment framework and tool informed by the NSW Government’s Greener Neighbourhoods Guide; Urban Green UP’s Nature based solutions decision support tool developed by Thami Croeser, and the CRC for Water Sensitive Cities Transition Dynamics Framework.

The assessment consisted of four main themes and seven subthemes (Figure 12) with success in each theme including:

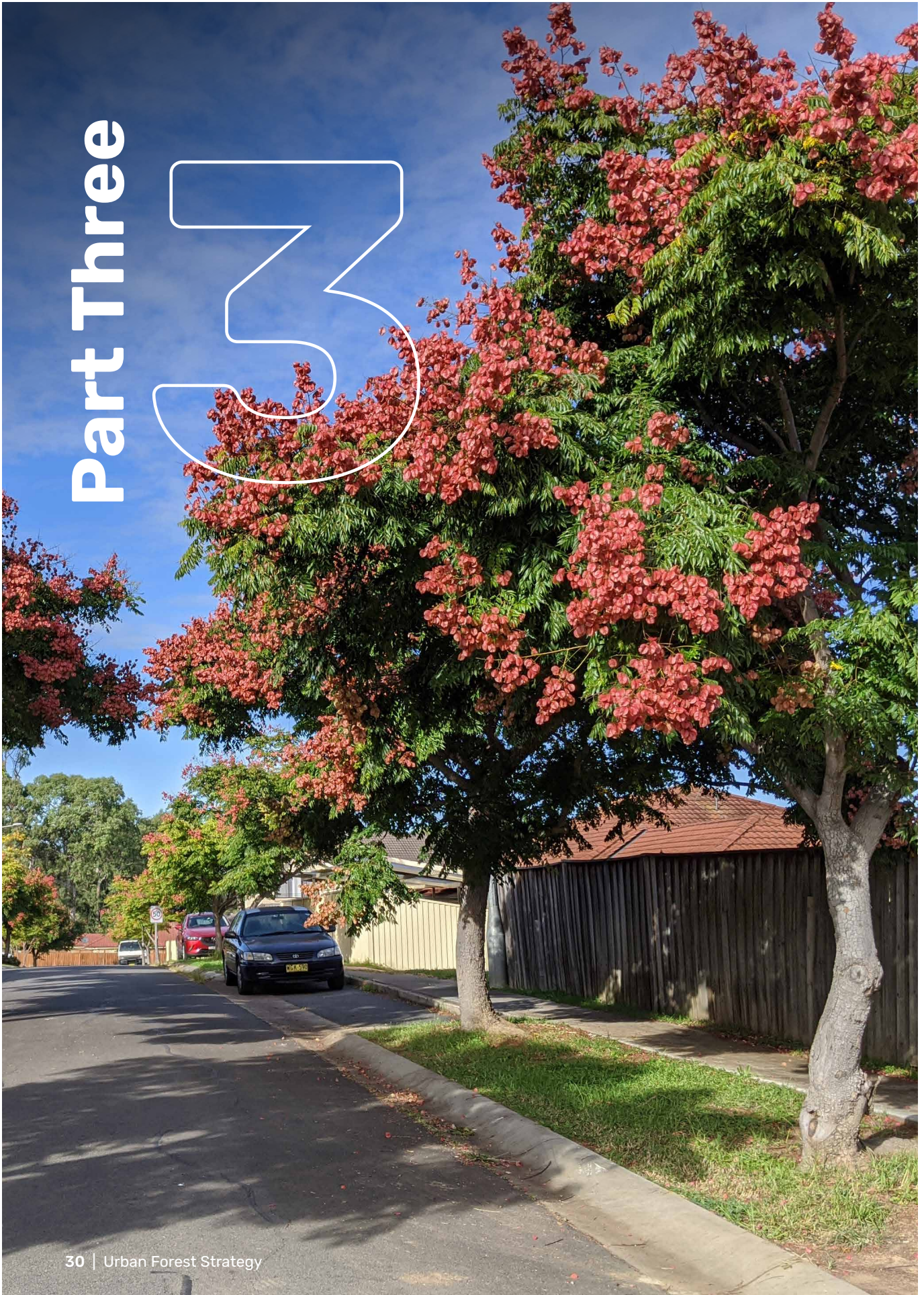
- GOVERNANCE AND LEADERSHIP**  
 A learning and innovation culture exists and is supported by formal policy and day-to-day behaviours. There are performance plans in place that support collaboration and integration.
  - ENGAGEMENT**  
 There is a strong track record of successful engagement processes and participatory decision-making for complex urban issues. There is in-house, expert support for engagement of stakeholders.
  - GOALS AND TARGETS**  
 Clear drivers exist which are formal and well described for both public and private land. Relevant statements are included in the CSP and LSPS. There are corresponding objectives in the Delivery Program (DP), Operational Plans (OP) and budgets of several teams across Council. Management are driving better practice and participate at key stages in decision- making and planning.
  - DATA AND EVIDENCE**  
 There is a wealth of data and information available across disciplines and the organisation to enable and inform decision making and management.
- Council’s capacity in relation to the four themes of best practice urban forestry was assessed to be at the beginner level. This information has been used to help set the objectives and actions that will focus attention on the areas of concern and drive improvements in the management of the urban forest.



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# Part Three

# 3





## Strategy

The Camden Urban Forest Strategy 2023 will guide action by Council, the community and others to deliver improved urban forestry to public and private landscapes across the Camden LGA.

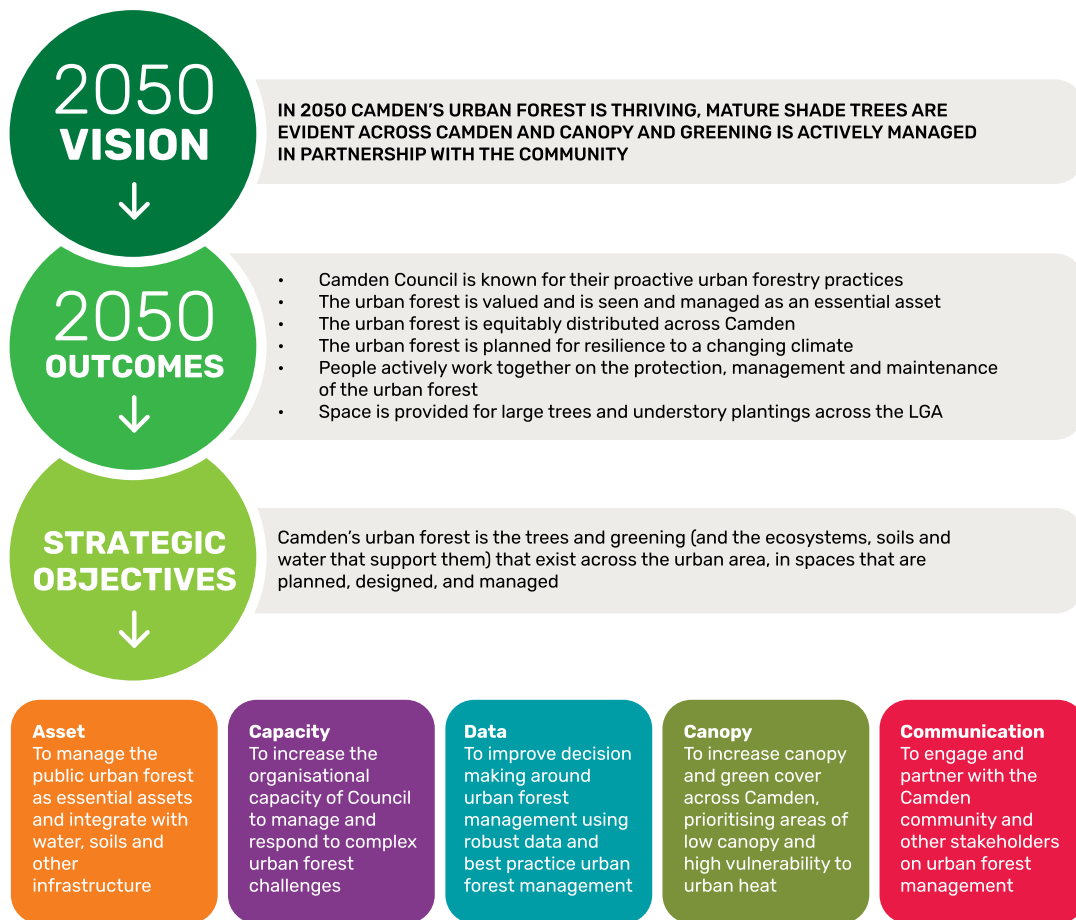
Camden Council has gathered available evidence about the urban forest and Council’s own capacity to deliver best practice management. This evidence has influenced the Strategy, its long-term vision and outcomes, the strategic objectives, and major actions.

## Strategic Framework at a Glance

Camden has set a long-term **vision** to 2050 for this Strategy in the knowledge that it takes more than ten years to achieve the outcomes desired.

There are six **outcomes** that will determine if Camden has achieved its vision for a thriving urban forest. They are statements to guide efforts by Council and the community in managing and growing the urban forest. They provide a link to the strategic objectives and a structure for long-term reporting on indicators.

The five **strategic objectives** will guide activity and actions by Council and their partners around the protection, enhancement and growth of the urban forest. The objectives respond to the current challenges and pressures faced by the urban forest in Camden in 2023. They are designed to be revised within five years.





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# Part Four







# Action Plan

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## Purpose

Council has committed to creating a healthy urban and natural environment and improving sustainability. This action plan details the various activities Council plans to undertake through the next five years and beyond, to recognise the importance of the urban forest in Camden and identify the actions we will take to protect, enhance and support the urban forest.

## Achieving the Vision and Outcomes

This action plan is linked to the vision and outcomes for each strategic objective:

1. Assets

2. Capacity

3. Data

4. Canopy

5. Communications

## Prioritising Actions

Actions will be targeted for implementation over the short term (0-2 years), medium term (3-5 years) or ongoing.

## Resourcing

The urban forest requires ongoing maintenance and significant resourcing will be needed to protect, enhance and support the urban forest. Where possible, Council will seek funding support through partnerships, grants and other initiatives to support and enhance our actions.

## Monitoring and Review

Council will report annually on the key achievements, highlights and challenges associated with implementing this action plan. This Strategy and action plan will be reviewed in 2028 to ensure we are on target to reach the outcome and vision and to make changes as needed.



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# 1. Asset

**To manage the urban forest as an essential asset and integrate with water, soils and other infrastructure**

You need to know what you have, to know how to manage it. The ability to map, track, manage and monitor public tree assets will allow Council to identify and mitigate risk, plan and budget for future maintenance and renewal programs and inform future planning and strategic directions more readily and proactively.

**How will we measure our success?**

- Council has access to good data and information with a complete inventory of all trees on public land

# Asset

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Ref	Action	Priority	Outcomes
ASSET.01	<p>Complete an inventory of all trees on public land including streets and parks:</p> <ul style="list-style-type: none"> <li>• Prioritise data collection in the higher risk areas (town centres, bus stops, parks with playgrounds) and those areas with lowest canopy or greatest vulnerability</li> <li>• Data being collected to include genus, species, age class, useful life expectancy (ULE), risk, priority works and vacant tree sites</li> </ul>	Short	Baseline data and information about public tree assets
ASSET.02	<p>Develop an internal network to determine the future methods for:</p> <ul style="list-style-type: none"> <li>• Including urban forestry elements (trees, vegetation, soils and water) in the design of new infrastructure</li> <li>• Workflows for renewal and maintenance of all assets</li> </ul>	Short	Trees are included with other asset management planning and delivery processes
ASSET.03	Identify and document a procedure to address conflicts between trees and hard assets that prioritise tree retention, use new approaches that demonstrate better outcomes between trees and infrastructure conflicts.	Short	Shifts in practices for integrated asset maintenance
ASSET.04	Require developers to provide an inventory of all new public trees as part of their works as executed and include new trees into the Camden Tree Asset Management System.	Short	Integrated and current urban forest asset data base
ASSET.05	Develop an Asset Management Plan for public trees – Street Tree Masterplan or Precinct Plans.	Medium	Trees recognised as an asset
ASSET.06	Integrate maintenance and tree management programs into tree asset management systems.	Medium	Integrated and current urban forest asset data base
ASSET.07	Quantify species diversity and resilience of the urban forest.	Medium	Climate resilience of tree populations



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## 2. Capacity

### **To increase the organisation's capacity to manage and respond to urban forestry challenges**

Improving Council's capacity in the four main themes of Governance and leadership; Engagement; Goals and Targets; and Data and Evidence will enable Council to deliver and manage a more sustainable urban forest.

#### **How will we measure our success?**

- Council's capacity for urban forest management is increased



# Capacity



Ref	Action	Priority	Outcomes
CAP.01	Develop a plan to build the capacity of staff across Camden. Focus on priority areas: <ul style="list-style-type: none"> <li>• Knowledge and innovation</li> <li>• Awareness and integration</li> <li>• Data, evidence and monitoring</li> <li>• Sharing information</li> <li>• Engagement of community and other partners</li> </ul>	Short	Training needs are mapped and resources allocated
CAP.02	Identify champions at all levels of Council to advocate for protecting and enhancing the urban forest to achieve its vision around core issues: <ul style="list-style-type: none"> <li>• Transition to a climate resilient urban forest</li> <li>• Innovations in planting in new developments and in public streets</li> <li>• Data and information</li> <li>• Community literacy around the urban forest</li> </ul>	Short	Urban forest outcomes are achieved across the Council
CAP.03	Regularly review progress against the urban forest capacity assessment.	Medium	Continuous improvement and best practice management
CAP.04	Foster partnerships with key stakeholders including the Australian Botanic Gardens Mount Annan, to increase knowledge and capacity of staff and the community about urban forestry.	Ongoing	Increased knowledge for Camden Expanded capacity to deliver urban forestry actions
CAP.05	Utilise best practice examples from both within and outside of Council to profile as demonstration sites to build the capacity and understanding of key staff.	Ongoing	Evidence of best practice and innovation

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# 3. Canopy

**To increase canopy cover and urban forest across the LGA especially in priority areas**

An increase in canopy will provide significant environmental and health benefits for the community including shading and cooling, healthier communities and increased biodiversity. However, challenges and pressures such as rapid population growth and associated development resulting in increased competition for space and impacts of climate change will need to be carefully managed to progress towards achieving canopy cover targets.

**How will we measure our success?**

- Canopy cover increases across the LGA

# Canopy

Ref	Action	Priority	Outcomes
CAN.01	Investigate the pathway to including tree canopy and greening into the LEP.	Short	Statutory directions provided for urban forestry
CAN.02	Review and establish procedures and criteria that will be used to assess tree removals for tree retention on private property.	Short	Maintenance of canopy cover in the private domain
CAN.03	Establish compliance processes for tree protection (conditions and illegal removals) and replacement tree planting.	Short	Maintenance of canopy cover in the private domain
CAN.04	Adopt a species selection framework and undertake a comprehensive review of species lists with regards to climate risk .	Short	Climate resilience in tree populations
CAN.05	Council projects incorporate minimum tree planting requirements in line with the NSW Greener Neighbourhoods Guide for canopy cover.	Short	Increased canopy cover
CAN.06	Adopt the NSW Government's Greener Neighbourhoods Guide land use targets.	Short-medium	Developer led provision of future canopy and urban forest assets aligned with Council's Strategy
CAN.07	Prepare Urban Forest Guidelines to guide best practice tree and urban forest delivery.	Short-medium	Developer led provision of future canopy and urban forest assets aligned with Council's Strategy
CAN.08	Review existing street design guidelines for public and private domain and adopt for Camden Council.	Medium	Trees integrated into capital works
CAN.09	Develop an urban forest prioritisation process and prepare tree planting plans for priority sites.	Medium	Council resources allocated to highest need areas
CAN.10	Identify opportunities and sites to increase structural diversity of the urban forest in open space and road reserve and support expansion of native vegetation (understorey planting) from natural areas into the surrounding urban streets and neighbourhoods.	Medium	Increased diversity of the urban forest
CAN.11	Seek opportunities to enhance tree planting programs through partnerships, grants and other opportunities.	Ongoing	Increased canopy cover



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## 4. Data

### **To improve decision making around the urban forest through the use of robust data and best practice analysis**

Successful management of the urban forest relies on the availability of high quality and locally relevant data. Significant improvements have already been made towards building understanding of the urban forest; however, opportunities exist to build on this data and increase analysis to enable decision making, project planning and monitor the success of initiatives to improve the urban forest.

#### **How will we measure our success?**

- Locally relevant canopy targets established and monitored
- Urban forest data used as an input for decision making and project planning



# Data

Ref	Action	Priority	Outcomes
DATA.01	Understand the data being captured for private tree removal and replacements and how this information can assist with improving tree retention and replacements.	Short	Increased canopy on private property
DATA.02	Establish a baseline measure of canopy cover percentage at various scales including locally relevant and realistic targets.	Short	Ability to report on canopy targets
DATA.03	Develop a process to capture plantings undertaken by staff from across the organisation.	Short	Ability to report on tree plantings
DATA.04	Review and identify priority areas for planting projects based on latest available data from the NSW Government.	Short	Priority areas identified for project delivery
DATA.05	Integrate data across roads and footpath upgrades and or renewals, traffic planning and traffic calming devices, stormwater management to identify opportunities to include large tree plantings and urban forestry outcomes.	Medium	Integrated multifunctional outcomes and more large trees in the public domain
DATA.06	Review and report on canopy cover and canopy cover change every 4 years using standard methodology to allow comparisons.	Medium	Known changes and improvements in canopy cover
DATA.07	Estimate canopy growth in focus or priority areas, and assess capital up-front costs and maintenance costs for priority precincts and sites (e.g. West Invest project sites) to compare various options of increasing canopy.	Medium	Confidence that efforts made now will positively impact future canopy cover
DATA.08	Integrate datasets to improve analysis and decision making to create a baseline.	Medium	Robust baseline data and data management

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## 5. Communications

### To communicate with and engage the community and key stakeholders in urban forest management

Building community awareness, understanding and support for the urban forest will be crucial to the delivery of this Strategy on both public and private land.

#### How will we measure our success?

- The community values and understands the urban forest
- Increased community participation in urban forestry

# Communications



Ref	Action	Priority	Outcomes
COMM.01	Develop a community engagement program to promote the benefit of trees.	Short	Council has a clear plan and actions for communications and engagement
COMM.02	Increase understanding of community barriers and develop incentives.	Short	Increase community participation in urban forestry
COMM.03	Develop or find relevant case studies and/or local demonstration projects to promote best practice urban forestry.	Short	Increase awareness and capacity
COMM.04	Investigate the opportunity to include urban forestry and trees as a category in the Annual Garden Competition.	Medium	Increase awareness of the importance trees
COMM.05	Engage the community and other stakeholders on trees and urban forestry planting in parks and open space.	Medium	Increase community participation in urban forestry
COMM.06	Promote private tree application process and FAQs.	Medium	Increase community awareness
COMM.07	Leverage opportunities at the new community nursery to provide trees to the local community and deliver workshops to increase engagement around the value of trees.	Medium	Increase awareness and capacity
COMM.08	Align community campaigns with on ground works.	Ongoing	Increase community awareness



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**Investment Summary Report  
May 2023**



Camden Council Executive Summary - May 2023

Investment Holdings Sources of Funds

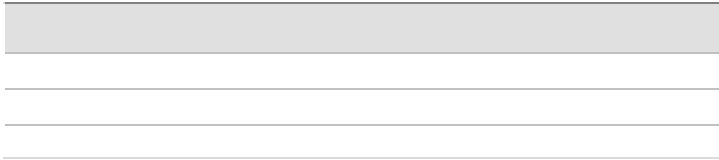
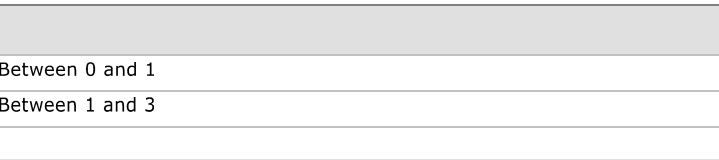


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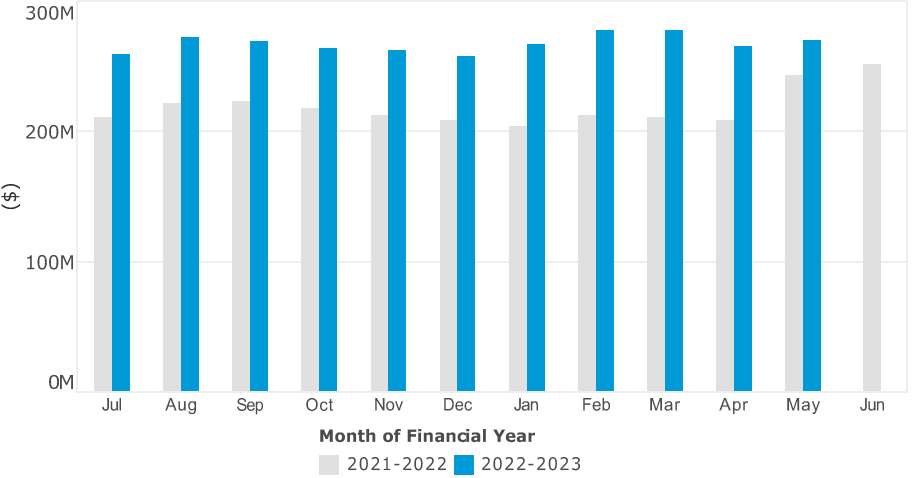
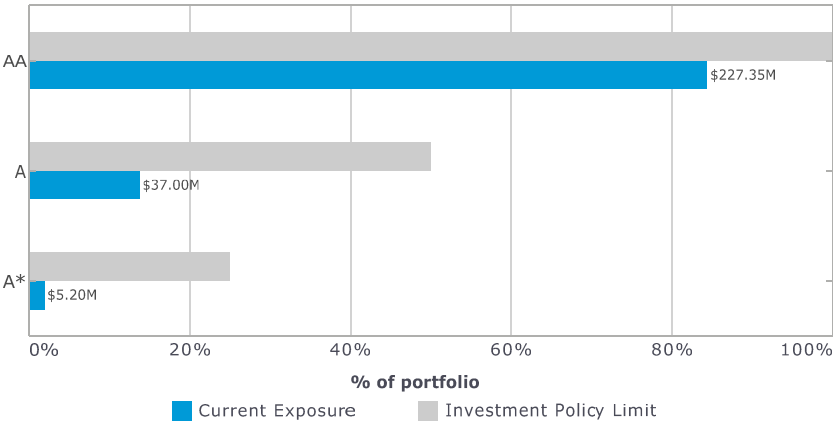
Term to Maturity



Total Funds In Council's investment portfolio has increased by \$4.7m since the reporting period. The increase primarily relates to developer con received during the month of Ma

Percentages in this report may not add up to 100% due to rounding

Total Credit Exposure Investment Portfolio Balance



\*Council's investment policy limits investments in foreign subsidiary banks which are monitored by APRA to a maximum 25% of the total portfolio



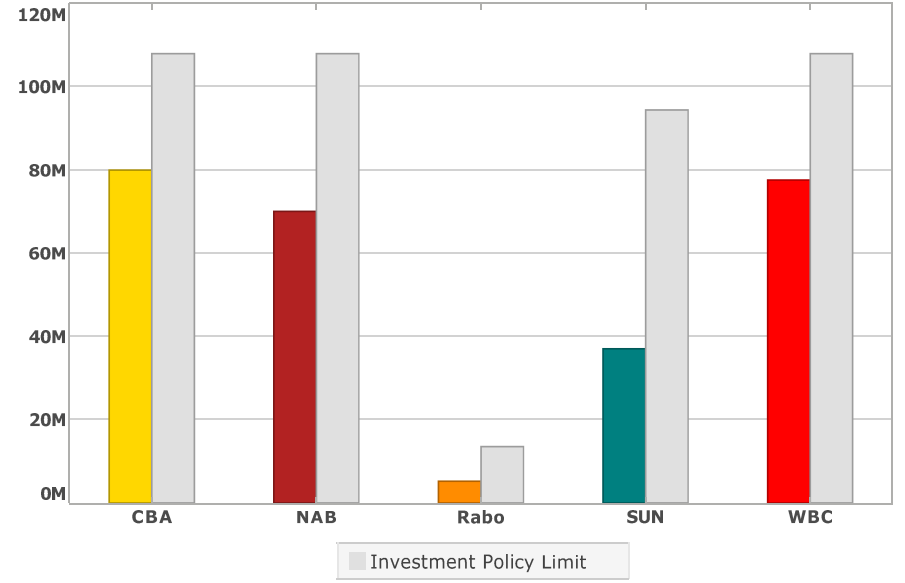
# Camden Council

## Individual Institutional Exposures Report - May 2023



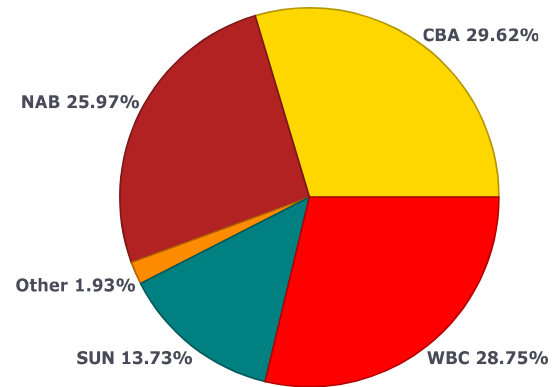
### Individual Institutional Exposures Individual Institutional Exposure Charts

Current Expos
Commonwealth Bank of Australi
National Austral
Rabobank Aus [Foreign Sub] (A
Suncorp Bank (
Westpac Group (



*\*Council's investment policy limits investments in foreign subsidiary banks which are monitored by APRA to a maximum 5% of the total portfolio in any single entity*

Council's portfolio is within its individual institutional investment  
 Council's portfolio is within its term to maturity investment polic  
 Council's portfolio complies with the NSW Ministerial Investment O









**Camden Council**  
Investment Holdings Report - May 2023

**Cash Accounts**

Commonwealth Bank of Australi

**Term Deposits**

	Accrued Int (\$)
Commonwealth Bank of Australi	
Commonwealth Bank of Australi	
Commonwealth Bank of Australi	
Commonwealth Bank of Australi	
Commonwealth Bank of Australi	
National Austral	
National Austral	
Commonwealth Bank of Australi	
National Austral	
National Austral	
National Austral	







**Camden Council**  
Investment Holdings Report - May 2023

	<b>Accrued Int (\$)</b>
Rabobank Austr	
National Austral	
Rabobank Austr	
Commonwealth Bank of Australi	
<b>263,700,000.0</b>	<b>268,377,223.2</b>



ORD09

Attachment 1



**AUDIT, RISK AND  
IMPROVEMENT  
COMMITTEE TERMS  
OF REFERENCE  
C.001.5**



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**ORD09**

**Attachment 1**

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## AUDIT, RISK AND IMPROVEMENT COMMITTEE TERMS OF REFERENCE

**DIVISION:** GENERAL MANAGER

**BRANCH:** INTERNAL AUDIT

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Council has established an Audit, Risk and Improvement Committee (Committee) in compliance with section 428A of the *Local Government Act 1993* and the Departmental Chief Executive's **approved** *Draft Guidelines for risk management and internal audit for local government in NSW*. These terms of reference set out the committee's objectives, authority, composition and tenure, roles and responsibilities, reporting and administrative arrangements.

### 1. Objective

1.1 The objective of Council's Audit, Risk and Improvement Committee is to provide independent assurance to the governing body of Council by monitoring, reviewing and providing advice about the Council's governance processes, compliance, risk management and control frameworks, external accountability obligations and overall performance.

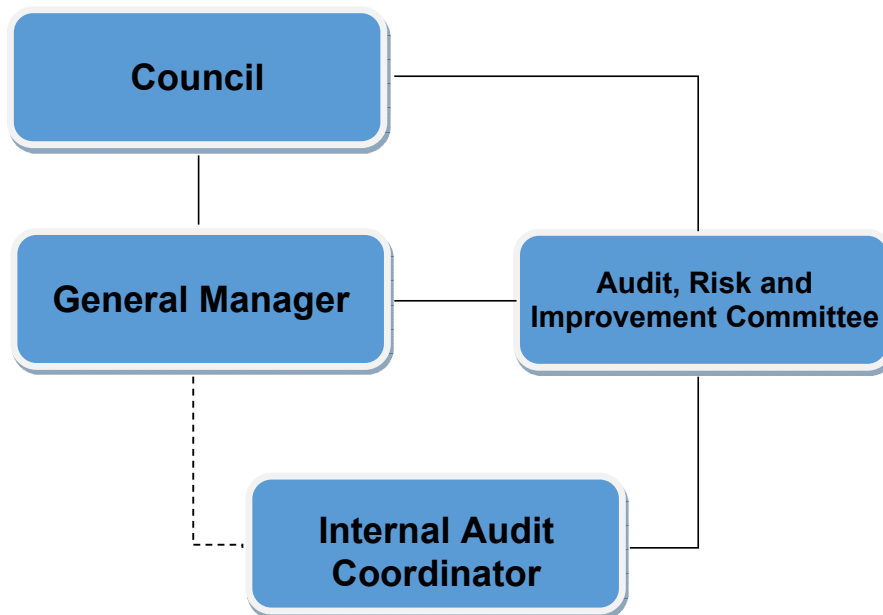
### 2. Independence

2.1 The Committee is to be independent to ensure it has no real or perceived bias or conflicts of interest that may interfere with its ability to act independently and to provide Council with robust, objective and unbiased advice and assurance.

2.2 The Committee is to have an advisory and assurance role only and is to exercise no administrative functions, delegated financial responsibilities or any management functions of the Council. The Committee will provide independent advice to the Council that is informed by the Council's internal audit and risk management activities and information and advice provided by staff, relevant external bodies and subject matter experts.

2.3 The Committee must always ensure it maintains a direct reporting line to and from the Council's internal audit function and act as a mechanism for internal audit to report to the governing body and the General Manager on matters affecting the performance of the internal audit function.

2.4 The following reporting line is prescribed where the dotted line represents 'administrative' reporting line, and the bold line represents the 'functional' reporting line:



### 3. Authority

3.1 The governing body of Council authorises the Committee, for the purposes of exercising its responsibilities, to:

- Access any information it needs from the Council
- Use any Council resources it needs
- Have direct and unrestricted access to the General Manager and senior management of the Council
- Seek the General Manager permission to meet with any other Council staff member or contractor
- Discuss any matters with the external auditor or other external parties
- Request the attendance of any employee at Committee meetings, and
- Obtain external legal or other professional advice in line with councils' procurement policies and procedures (following budgetary consideration and consultation with the General Manager).

3.2 Information and documents pertaining to the Committee are confidential and are not to be made publicly available with the exception of Committee meeting minutes. The Committee may only release Council information to external parties that are assisting the Committee to fulfil its responsibilities with the approval of the General Manager, except where it is being provided to an external investigative or oversight agency for the purpose of informing that agency of a matter that may warrant its attention.

3.3 **Committee members will be bound by confidentiality requirements under Council's Code of Conduct. All attendees are responsible and accountable for maintaining the confidentiality of the information they receive during the course of these meetings.**

- 3.4 Members and attendees may be entrusted with highly sensitive information at times, as well as personal information regarding staff members. Therefore, they must maintain confidentiality at all times, displaying a high level of ethics and professionalism.
- 3.5 The Committee Chair and independent members are not authorised to make public statements with regards to Council matters. Any media inquiries should be directed to the General Manager for action in accordance with Council's Media Policy.
- 3.6 Any requests for disclosure of information relating to the Committee will be managed by the Governance Team and in accordance with the *Government Information (Public Access) Act 2009* and the *Privacy and Personal Information Protection Act 1998*.

#### 4. Composition and tenure

- 4.1 The Committee consists of an independent chair and two independent members who have voting rights and two voting councillors, as required under the **approved** draft *Guidelines for risk management and internal audit for local government in NSW*.
- 4.2 The governing body is to appoint the chair and members of the Committee. Current voting Committee members are:

Elizabeth Gavey	Independent chair
Michael Quirk	Independent member
Barry Husking	Independent member
Councillor Paul Farrow	Councillor member
Councillor Russell Zammit	Councillor member

- 4.3 All independent members must meet the independence and eligibility criteria prescribed in the approved draft *Guidelines for risk management and internal audit for local government in NSW*. Once a year, independent members must provide a written declaration that they meet the independence requirements outlined in the draft approved Guidelines.
- 4.4 The Mayor cannot be appointed as a Councillor member of Council's Audit, Risk and Improvement Committee.
- 4.5 Independent members will be appointed for up to a four-year term. Independent members can be reappointed for one further term, but the total period of continuous membership cannot exceed eight years. This includes any term as chair of the Committee. Independent members who have served an eight-year term (either as a member or as chair) must have a two-year break from serving on the Committee before being appointed again. To preserve the Committee's knowledge of the Council, ideally, no more than one member should retire from the Committee because of rotation in any one year.
- 4.6 The terms and conditions of each independent member's appointment to the Committee are to be set out in a letter of appointment.
- 4.7 Councillor members are appointed for the term of Council. Councillor member positions will be declared vacant on the date of the Council general election with new Councillor members to be appointed at the next available Council meeting.
- 4.8 New independent and Councillor members will be thoroughly inducted to their role and receive relevant information and briefings on their appointment to assist them to meet their responsibilities.



- 4.9 Prior to approving the reappointment or extension of the chair's or an independent member's term, the governing body is to undertake an assessment of the chair's or independent member's performance. Reappointment of the chair or an independent member is also to be subject to that person still meeting the independence and eligibility requirements.
- 4.10 Members of the Committee must possess and maintain a broad range of skills, knowledge and experience relevant to the operations, governance and financial management of the Council, the environment in which the Council operates, and the contribution that the Committee makes to the Council. At least one independent member of the Committee must have accounting or related financial management experience with an understanding of accounting and auditing standards in a local government environment. All members should have sufficient understanding of the Council's financial reporting responsibilities to be able to contribute to the Committee's consideration of the Council's annual financial statements.

#### 4.11 Selection of Members

The selection criteria and process for the appointment of the independent members shall ordinarily be as follows:

- (a) Council shall seek expressions of interest from persons interested in being appointed to the available position.
- (b) Council Management will assess the expressions of interest and shortlisted applicants may be interviewed by Council Management and an independent member prior to a selection decision.
- (c) Independent member appointments are to be approved by Council resolution.

Council must undertake a criminal record and a financial status (bankruptcy) check of Audit, Risk and Improvement Committee Chairs and independent members before their appointment.

The Councillor members on the Committee will be nominated by the governing body at an Ordinary meeting of Council.

## 5. Role

- 5.1 As required under section 428A of the *Local Government Act 1993* (the Act), the role of the Committee is to review and provide independent advice to the Council regarding the following aspects of the Council's operations:
- Compliance
  - Risk management
  - Fraud control
  - Financial management
  - Governance
  - Implementation of the strategic plan, delivery program and strategies
  - Service reviews
  - Collection of performance measurement data by the Council, and
  - Internal audit.
- 5.2 The Committee must also provide information to the Council for the purpose of improving the Council's performance of its functions.

- 5.3 The Committee's specific audit, risk and improvement responsibilities under section 428A of the Act are outlined in Schedule 1 to this terms of reference.
- 5.4 The Committee will act as a forum for consideration of the Council's internal audit function and oversee its planning, monitoring and reporting to ensure it operates effectively.
- 5.5 The Committee has no power to direct external audit or the way it is planned and undertaken but will act as a forum for the consideration of external audit findings.
- 5.6 The Committee is directly responsible and accountable to the governing body for the exercise of its responsibilities. In carrying out its responsibilities, the Committee must at all times recognise that primary responsibility for management of the Council rests with the governing body and the General Manager.
- 5.7 The responsibilities of the Committee may be revised or expanded in consultation with, or as requested by, the governing body from time to time.

## 6. Responsibilities of members

### 6.1 Independent members

The chair and independent members of the Committee are expected to understand and observe the requirements of the **approved** draft *Guidelines for risk management and internal audit for local government in NSW*. Independent members are also expected to:

- Make themselves available as required to attend and participate in meetings
- Contribute the time needed to review and understand information provided to it
- Apply good analytical skills, objectivity and judgement
- Act in the best interests of the Council
- Have the personal courage to raise and deal with tough issues, express opinions frankly, ask questions that go to the fundamental core of the issue and pursue independent lines of inquiry
- Understand the relevant legislation and regulatory requirements appropriate to Council
- Maintain effective working relationships with the Council
- Have strong leadership qualities (chair)
- Lead effective committee meetings (chair), and
- Oversee the Council's internal audit function (chair).

### 6.2 Councillor member

Their role is to:

- Relay to the Committee any concerns the governing body may have regarding the Council and issues being considered by the Committee
- Provide insights into local issues and the strategic priorities of the Council that would add value to the Committee's consideration of agenda items
- Advise the governing body (as necessary) of the work of the Committee and any issues arising from it, and
- Assist the governing body to review the performance of the Committee.

Issues or information the Councillor members raises with or provides to the Committee must relate to the matters listed in Schedule 1 and issues being considered by the Committee.

The Councillor members of the Committee must conduct themselves in a non-partisan and professional manner. The Councillor members of the Committee must not engage in any conduct that seeks to politicise the activities of the Committee or the internal audit function or that could be seen to do so.

If the Councillor members of the Committee engages in such conduct or in any other conduct that may bring the Committee and its work into disrepute, the chair of the Committee may recommend to the governing body of Council, that the Councillor member be removed from membership of the Committee. Where the governing body of Council does not agree to the Committee chair's recommendation, the Council must give reasons for its decision in writing to the chair.

### 6.3 Conduct

Independent members are required to comply with the Council's Code of Conduct.

Complaints alleging breaches of the Council's Code of Conduct by an independent member are to be dealt with in accordance with the *Procedures for the Administration of the Model Code of Conduct for Local Councils in NSW*. The General Manager must consult with the governing body before taking any disciplinary action against an independent member in response to a breach of the Council's Code of Conduct.

### 6.4 Conflicts of interest

Once a year, independent members must provide written declarations to the Council stating that they do not have any conflicts of interest that would preclude them from being members of the Committee. Independent members are 'designated persons' for the purposes of the Council's Code of Conduct and must also complete and submit returns of their interests.

Committee members and observers must declare any pecuniary or non-pecuniary conflicts of interest they may have in a matter being considered at the meeting at the start of each meeting or as soon as they become aware of the conflict of interest. Where a Committee member or observer declares a pecuniary or a significant non-pecuniary conflict of interest, they must remove themselves from Committee deliberations on the issue. Details of conflicts of interest declared at meetings must be appropriately minuted.

### 6.5 Standards

Committee members are to conduct their work in accordance with the International Standards for the Professional Practice of Internal Auditing issued by the Institute of Internal Auditors and AS ISO 31000:2018 Risk Management Guidelines where applicable.

## 7. Work plans

- 7.1 The work of the Committee is to be thoroughly planned and executed. The Committee must develop a strategic work plan every four years to ensure that the matters listed in Schedule 1 are reviewed by the Committee and considered by the internal audit function when developing their risk-based program of internal audits. The strategic work plan must be reviewed at least annually to ensure it remains appropriate.

- 7.2 The Committee may, in consultation with the governing body, vary the strategic work plan at any time to address new or emerging risks. The governing body may also, by resolution, request the Committee to approve a variation to the strategic work plan. Any decision to vary the strategic work plan must be made by the Committee.
- 7.3 The Committee must also develop an annual work plan to guide its work, and the work of the internal audit function over the forward year.
- 7.4 The Committee may, in consultation with the governing body, vary the annual work plan to address new or emerging risks. The governing body may also, by resolution, request the Committee to approve a variation to the annual work plan. Any decision to vary the annual work plan must be made by the Committee.
- 7.5 When considering whether to vary the strategic or annual work plans, the Committee must consider the impact of the variation on the internal audit function and **Management's** existing workload and the completion of pre-existing priorities and activities identified under the work plan.

## 8. Assurance reporting

- 8.1 The Committee must regularly report to the governing body of Council to ensure that it is kept informed of matters considered by the Committee and any emerging issues that may influence the strategic direction of the Council or the achievement of the Council's goals and objectives.
- 8.2 The Committee will provide an update to the governing body and the General Manager of its activities and opinions after every Committee meeting. **This may be undertaken by providing the governing body with the minutes to Committee meetings, in accordance with clause 9.4.**
- 8.3 The Committee will provide an annual assessment to the governing body and the General Manager on the Committee's work and its opinion on how the Council is performing. **This may be included in the Audit, Risk and Improvement Committee Annual Report.**
- 8.4 The Committee will provide a comprehensive assessment every Council term of the matters listed in Schedule 1 to the governing body and to the General Manager **in accordance with the Strategic Work Plan developed.**
- 8.5 The Committee may at any time report to the governing body or the General Manager on any other matter it deems of sufficient importance to warrant their attention. The Mayor and the chair of the Committee may also meet at any time to discuss issues relating to the work of the Committee.
- 8.6 Should the governing body require additional information, a request for the information may be made to the chair by resolution. The chair is only required to provide the information requested by the governing body where the chair is satisfied that it is reasonably necessary for the governing body to receive the information for the purposes of performing its functions under the *Local Government Act 1993*. Individual councillors are not entitled to request or receive information from the Committee.



## 9. Administrative arrangements

### 9.1 Meetings

The Committee will meet at least four times per year, including a special meeting to review the Council's financial statements.

The Committee can hold additional meetings when significant unexpected issues arise, to meet the requirements of the work plan, or if the chair is asked to hold an additional meeting by a Committee member, the General Manager or the governing body.

Committee meetings can be held in person, by telephone or videoconference. Proxies are not permitted to attend meetings if a Committee member cannot attend.

A quorum will consist of a majority of independent members. Where the vote is tied, the chair has the casting vote.

A meeting of the Committee must be adjourned if a quorum is not present within 15 minutes after the time designated for the holding of the meeting or at any time during the meeting. In either case, the meeting must be adjourned to a time, date and place fixed by the Chairperson, or in his or her absence, by the majority of independent members present.

It must be recorded in the minutes the circumstances relating to the absence of a quorum (including the reasons for the absence of quorum) at or arising during a meeting, together with the names of the independent members present.

Where, prior to the commencement of a meeting, it becomes apparent that a quorum may not be present, or that the health, safety or welfare of Committee members or Council staff may be put at risk by attending the meeting because of a natural disaster or public health emergency, the Chair may, in consultation with the General Manager, cancel the meeting. Where a meeting is cancelled under this section, another meeting must be set to a time, date and place fixed by the Chair, in consultation with the General Manager, to consider the business listed on that agenda.

The chair of the Committee will decide the agenda for each Committee meeting. Each Committee meeting is to be minuted to preserve a record of the issues considered and the actions and decisions taken by the committee.

The General Manager and the Internal Audit Coordinator should attend Committee meetings as non-voting observers. The external auditor (or their representative) is to be invited to each Committee meeting as an independent observer. The chair can request the Council's Chief Financial Officer, Manager Safety and Risk, Directors and other members of the Senior Management Team, any Councillors, any employee/contractor of the Council and any subject matter expert to attend committee meetings. Where requested to attend a meeting, persons must attend the meeting where possible and provide any information requested. Observers have no voting rights and can be excluded from a meeting by the chair at any time.

The Committee can hold closed meetings whenever it needs to discuss confidential or sensitive issues with only voting members of the Committee present.

The Committee must meet separately with the Internal Audit Coordinator and the Council's external auditor at least once each year.

A voting member shall no longer be a voting member of the Committee if they fail to attend three consecutive meetings without a leave of absence being granted.

### 9.2 Chairperson to have precedence

The Chairperson is to have precedence over the control and management of the meetings.

The Chairperson may call any member to order whenever in the opinion of the Chairperson it is necessary to do so.

In the instance that the Chairperson is unavailable to chair a meeting, the remaining members will vote an independent member to act as Chairperson. The voted independent member shall serve as the Chair for the period of absence of the duly nominated Chair or, where the Chairperson is no longer able to chair Committee meetings, until such time as Council appoints a replacement Chairperson.

### 9.3 Dispute resolution

Members of the Committee and the Council's management should maintain an effective working relationship and seek to resolve any differences they may have in an amicable and professional way by discussion and negotiation.

In the event of a disagreement between the Committee and the General Manager or other senior managers, the dispute is to be resolved by the governing body.

Unresolved disputes regarding compliance with statutory or other requirements are to be referred to the Departmental Chief Executive in writing.

### 9.4 Secretariat

The General Manager will nominate a staff member to provide secretariat support to the Committee. The secretariat will ensure the agenda for each meeting and supporting papers are circulated after approval from the chair at least one week before the meeting and ensure that minutes of meetings are prepared and maintained. Minutes must be approved by the chair and circulated within three weeks of the meeting to each member.

Draft minutes are to be reported to Councillors via the Councillor Update within one month of circulation to Committee members. The minutes are to be approved at the next Committee meeting and subsequently reported to the governing body of Council for noting. After the minutes are confirmed as an accurate record of the meeting, they will be signed by the Chair.

### 9.5 Resignation and dismissal of members

Where the chair or an independent member is unable to complete their term or does not intend to seek reappointment after the expiry of their term, they should give **90 days' notice, wherever possible**, to the chair and the governing body prior to their resignation to ensure a smooth transition to a new chair or independent member.

The governing body can, by resolution, terminate the appointment of the chair or an independent member before the expiry of their term where that person has:

- Breached the Council's Code of Conduct
- Performed unsatisfactorily or not to expectations
- Declared, or is found to be in, a position of a conflict of interest which is unresolvable

- Been declared bankrupt or found to be insolvent
- Experienced an adverse change in business status
- Been charged with a serious criminal offence
- Been proven to be in serious breach of their obligations under any legislation
- Experienced an adverse change in capacity or capability, or
- **No longer met the independence requirements.**

The position of a Councillor member on the Committee can be terminated at any time by the governing body by resolution.

#### 9.6 Review arrangements

At least once every Council term, the governing body must review or arrange for an external review of the effectiveness of the Committee.

These terms of reference must be reviewed annually by the Committee and once each Council term by the governing body. Any substantive changes are to be approved by the governing body.

#### 9.7 Further information

For further information on Council's Audit, Risk and Improvement Committee, contact Council's Internal Audit Coordinator on [michelle.brockwell@camden.nsw.gov.au](mailto:michelle.brockwell@camden.nsw.gov.au) or by phone 02 4654 7777.

Reviewed by chair of the audit, risk and improvement committee

[signed]  
[date]

Reviewed by Council in accordance with Council resolution [insert resolution number] on [insert Council meeting date].

ORD09

**RELEVANT LEGISLATIVE INSTRUMENTS:** *Local Government Act 1993*  
*Local Government Amendment (Governance and Planning) Act 2016*  
*Local Government (General) Regulation 2021*

**RELATED POLICIES, PLANS AND PROCEDURES:** Internal Audit Charter

**RESPONSIBLE PERSON:** Internal Audit Coordinator

**APPROVAL:** Once each Council term by Council on recommendation of Audit Risk and Improvement Committee; and annually by the Audit, Risk and Improvement Committee

**HISTORY:**

Version	Approved by	Changes made	Date	EDMS Number
1	Camden Council	NA	10/06/2014	14/81253
2	Camden Council on recommendation of Business Assurance and Risk Committee	Yes	13/10/2015	15/305521
3	Camden Council on recommendation of Business Assurance and Risk Committee	Yes	09/04/2019	19/139987
4	Camden Council on recommendation of Audit, Risk and Improvement Committee	Yes	08/06/2021	21/263628
5	Audit, Risk and Improvement Committee	In line with Model Terms of Reference		
	Council			

Attachment 1



## 10. Schedule 1 – Audit, Risk and Improvement Committee responsibilities

### Audit

#### Internal audit

- Provide overall strategic oversight of internal audit activities
- Act as a forum for communication between the governing body, General Manager, senior management, the internal audit function and external audit
- Coordinate, as far as is practicable, the work programs of internal audit and other assurance and review functions
- Review and advise the Council, **where appropriate:**
  - On whether the Council is providing the resources necessary to successfully deliver the internal audit function
  - If the Council is complying with internal audit requirements, including conformance with the International Professional Practices Framework
  - If the Council's internal audit charter is appropriate and whether the internal audit policies and procedures and audit/risk methodologies used by the Council are suitable
  - Of the strategic four-year work plan and annual work plan of internal audits to be undertaken by the Council's internal audit function
  - If the Council's internal audit activities are effective, including the performance of the Internal Audit Coordinator and the internal audit function
  - Of the findings and recommendations of internal audits conducted, and corrective actions needed to address issues raised
  - Of the implementation by the Council of these corrective actions
  - On the appointment of the Internal Audit Coordinator and **any long term contracted** external providers
  - If the internal audit function is structured appropriately and has sufficient skills and expertise to meet its responsibilities
- Committee Chair to contribute to the Internal Audit Coordinator's regular performance review.
- Provide advice to the General Manager on the results of any external assessments of the internal audit function.

#### External audit

- Act as a forum for communication between the governing body, General Manager, senior management, the internal audit function and external audit
- Coordinate as far as is practicable, the work programs of internal audit and external audit
- Provide input and feedback on the financial statement and performance audit coverage proposed by external audit and provide feedback on the audit services provided
- Review all external plans and reports (including closing reports and management letters) in respect of planned or completed audits and monitor Council's implementation of audit recommendations
- Provide advice to the governing body, and/or General Manager on action taken on significant issues raised in relevant external audit reports and better practice guides.

## Risk

### Risk management

Review and advise the Council, **where appropriate**:

- If the Council has in place a current and appropriate risk management framework that is consistent with the Australian risk management standard
- Whether the Council is providing the resources necessary to successfully implement its risk management framework
- Whether the Council's risk management framework is adequate and effective for identifying and managing the risks the Council faces, including those associated with individual projects, programs and other activities
- **Whether emerging risks are being identified and addressed by management**
- **The risk maturity of Council's risk management framework** and whether risk management is integrated across all levels of the Council and across all processes, operations, services, decision-making, functions and reporting
- Of the adequacy of risk reports and documentation, for example, the Council's risk register and risk profile
- Whether a sound approach has been followed in developing risk management plans for major projects or undertakings
- If there is a positive risk culture within the Council and strong leadership that supports effective risk management
- Of the adequacy of staff training and induction in risk management
- How the Council's risk management approach impacts on the Council's insurance arrangements
- Of the effectiveness of the Council's management of its assets, and
- Of the effectiveness of business continuity arrangements, including business continuity plans, disaster recovery plans and the periodic testing of these plans.

### Compliance

Review and advise the Council, **where appropriate**, of the adequacy and effectiveness of the Council's compliance framework, including:

- If the Council has appropriately considered legal and compliance risks as part of the Council's risk management framework
- How the Council manages its compliance with applicable laws, regulations, policies, procedures, codes, and contractual arrangements,
- Whether appropriate processes are in place to assess compliance, and
- Whether Council's processes to monitor new and emerging regulatory requirements that will impact risk management, governance and ARIC responsibilities are appropriate.

### Fraud control and ethics

Review and advise the Council, **where appropriate**:

- Of the adequacy and effectiveness of the Council's fraud and corruption prevention framework and activities, including whether the Council has appropriate processes and systems in place to capture and effectively investigate fraud-related information.
- Whether management has taken steps to embed a culture which is committed to ethical and lawful behaviour.

## Financial management

Review and advise the Council, **where appropriate**:

- If the Council is complying with accounting standards and external accountability requirements
- Of the appropriateness of the Council's accounting policies and disclosures
- Of the implications for the Council of the findings of external audits and performance audits and the Council's responses and implementation of recommendations
- Whether the Council's financial statement preparation procedures and timelines are sound
- **Of the adequacy of its long term financial planning; through the annual consideration of the ten year long term financial plan, its underlying planning assumptions, risk considerations and projected operating performance and position**
- **The accuracy of the Council's annual financial statements, including:**
  - Management compliance/representations, **including sign off by the Chief Financial Officer on the effectiveness of internal controls over financial information**
  - Significant accounting and reporting issues
  - The methods used by the Council to account for significant or unusual transactions and areas of significant estimates or judgements
  - Appropriate management signoff on the statements
- If effective processes are in place to ensure financial information included in the Council's annual report is consistent with signed financial statements
- If the Council's financial management processes are adequate
- The adequacy of cash management policies and procedures
- If there are adequate controls over financial processes, for example:
  - Appropriate authorisation and approval of payments and transactions
  - Adequate segregation of duties
  - Timely reconciliation of accounts and balances
  - Review of unusual and high value purchases
- If policies and procedures for management review and consideration of the financial position and performance of the Council are adequate **(including the approach taken to address variances and budget risks and overall budgetary management)**
- If the Council's grants and tied funding policies and procedures are sound.

## Governance

Review and advise the Council of the adequacy of the Council's governance framework, including **where appropriate**:

- If Council has in place relevant policies and procedures and that these are periodically reviewed and updated
- Whether appropriate policies and procedures are in place for the management and exercise of delegations
- Whether staff are informed of their responsibilities and processes and procedures to implement controls are complied with
- If the Council's monitoring and review of controls is sufficient
- **Whether Council has effective decision-making processes in place**
- **If reporting lines and accountability and management oversight responsibilities across Council are appropriate**
- **On activities including** human resources and performance management activities; reporting and communication activities; and information and communications technology (ICT) governance, and
- **On the** management and governance of the use of data, information and knowledge.

## Improvement

### Strategic planning

Review and advise the Council, **where appropriate**:

- Of the adequacy and effectiveness of the Council's integrated, planning and reporting (IP&R) processes
- If appropriate reporting and monitoring mechanisms are in place to measure progress against objectives, and
- Whether the Council **is effectively monitoring that** it is successfully implementing and achieving its IP&R objectives and strategies.

### Service reviews and business improvement

- Review and advise the Council, **where appropriate**:
  - If the Council has robust systems to set objectives and goals to determine and deliver appropriate levels of service to the community and business performance
  - If appropriate reporting and monitoring mechanisms are in place to measure service delivery to the community and overall performance,
  - **If appropriate mechanisms are in place to periodically review Council's services to determine effectiveness of the service,** and
  - How the Council can improve its service delivery.
- Satisfy itself there are appropriate mechanisms in place to review and implement, where appropriate, reports and recommendations from authoritative bodies including:
  - State and Federal Government
  - Independent Commission against Corruption
  - NSW Ombudsman
  - Australian Institute of Company Directors
  - Other relevant accounting and legislative bodies.

### Performance data and measurement

Review and advise the Council, **where appropriate**:

- If the Council has a robust system to determine appropriate performance indicators to measure the achievement of its strategic objectives
- If the performance indicators the Council uses are effective, and
- Of the adequacy of performance data collection and reporting.





# AUDIT, RISK AND IMPROVEMENT COMMITTEE CHARTER

## C.001.2

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Version C.001.3

ORD09

Attachment 2

**ORD09**

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## AUDIT, RISK AND IMPROVEMENT COMMITTEE CHARTER

**DIVISION:** INTERNAL AUDIT

**BRANCH:** INTERNAL AUDIT

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### PART 1 - INTRODUCTION

This Charter sets out the Audit, Risk and Improvement Committee's objectives authority, roles and responsibilities, composition and tenure, reporting and administrative arrangements.

#### 1. OBJECTIVE

- 1.1 The objective of the Audit, Risk and Improvement Committee ("Committee" or "ARIC") is to provide independent assistance to Camden Council by monitoring, reviewing and providing advice about Camden Council's governance processes; risk management and control frameworks; and external accountability obligations.
- 1.2 In addition, the purpose and function of this Committee is to ensure that there is an adequate and effective system of internal control throughout Council and to assist in the operation and implementation of the Internal and External Audit Plans.

### PART 2 - AUTHORITY

- 2.1 The Council authorises the Committee, within the scope of its role and responsibilities to:
  - obtain any information it needs from any employee or external party (subject to their legal obligations to protect information);
  - discuss any matters with the External Auditor or other external parties (subject to confidentiality considerations);
  - request the attendance of any relevant employee or Councillor at Committee meetings; and
  - obtain external legal or other professional advice considered necessary to meet its responsibilities (following budgetary consideration and consultation with the General Manager).
- 1.3 The Committee is mandated under section 428A of the *Local Government Amendment (Governance & Planning) Act 2016*, once prescribed. The Committee acts primarily as an advisory body to the Council. The Committee does not have the power or authority of the Council in dealing with the matters on which it advises, except where certain powers are specifically set out in this Charter or are otherwise delegated by the Council.
- 1.4 Subject to any regulatory obligations, it is not the responsibility of the members of the Committee to determine that the Council's financial

statements and disclosures are complete and accurate and in accordance with laws regulations and accounting standards, or to plan or conduct audits. Generally speaking, these matters are the responsibility of management and/or the external auditor.

## PART 3 ROLES AND RESPONSIBILITIES

### ROLES AND RESPONSIBILITIES

- 3.1 The Committee has no executive powers, except those expressly provided by the Council.
- 3.2 The Committee is directly responsible and accountable to the Council for the exercise of its responsibilities. In carrying out its responsibilities, the Committee must at all times recognise that the primary responsibility for management of Council rests with the Council and the General Manager as defined by the *Local Government Act 1993*.
- 3.3 The responsibilities of the Committee may be revised or expanded, in consultation with, or as requested by the Council from time to time. In accordance with Section 428A of the *Local Government Amendment (Governance & Planning) Act 2016*, the Committee must keep under review the following aspects of Council operations:
  - Compliance
  - Risk Management
  - Fraud Control
  - Financial Management
  - Governance
  - Implementation of Strategic Plan, Delivery Program & Strategies
  - Service Reviews
  - Collection of Performance Measurement Data by the Council
  - Any other matters prescribed by regulations.

The Committee will also provide information to Council that the Committee believes will assist Council to improve the performance of its functions.

These responsibilities are further defined below.

#### Compliance

- Determine whether management has appropriately considered legal and compliance risks as part of its risk assessment and management arrangements.
- Review the effectiveness of the system for monitoring compliance with relevant laws, regulations, and associated government policies.
- Seek assurance that changes in key laws, regulations, internal policies, and Accounting Standards affecting Council's operations are being monitored at least once a year, and appropriately addressed.



- Review Council's processes to monitor new and emerging regulatory requirements that will impact risk management, governance, and ARIC responsibilities.

#### **Risk Management**

- Review whether management has in place a current and comprehensive risk management framework that is consistent with *AS ISO 31000:2018*. Review and advise on the maturity of Council's risk management framework and its risk culture.
- Consider the adequacy and effectiveness of the internal control and risk management frameworks by reviewing reports from management, internal audit and external audit, and by monitoring management responses and actions to correct any noted deficiencies.
- Review whether a sound and effective approach has been followed in developing strategic risk management plans for major projects or undertakings.
- Seek assurance from management that emerging risks (including, but not limited to, climate risk and cyber risk) are being identified and addressed.
- Review the impact of the risk management framework on its control environment and insurance arrangements.
- Review whether a sound and effective approach has been followed in establishing disaster recovery and business continuity planning arrangements, including whether plans have been tested periodically.

#### **Fraud Control and Ethics**

- Review Council's fraud and corruption control framework including the fraud and corruption prevention plan and be satisfied that Council has appropriate processes and systems in place to capture and effectively investigate fraud related information.
- Review whether management has taken steps to embed a culture which is committed to ethical and lawful behaviour.
- Review Council's process for communicating the code of conduct to staff and seek assurance as to compliance with the code.

#### **Financial Management**

- Consider the policies and procedures for management review and consideration of the financial position and performance of Council including the frequency and nature of that review (including the approach taken to address variances and budget risks and overall budgetary management)
- Review the annual financial statements and provide advice to the Council (including whether appropriate action has been taken in response to audit recommendations and adjustments) and recommend their adoption by Council.
- Consider contentious financial reporting matters in conjunction with council's management and external auditors.
- Review the processes in place designed to ensure financial information included in the annual report is consistent with the signed financial statements.

**Governance**

- Review whether management has in place relevant policies and procedures, and these are periodically reviewed and updated.
- Progressively review whether appropriate processes are in place to assess whether policies and procedures are complied with.
- Review whether appropriate policies and procedures are in place for the management and exercise of delegations.
- Review policies and processes for identifying, analysing, and addressing complaints.
- Satisfy itself there are appropriate mechanisms in place to review and implement, where appropriate, reports and recommendations from authoritative bodies including:
  - State and Federal Government
  - Independent Commission against Corruption
  - NSW Ombudsman
  - Australian Institute of Company Directors
  - Other relevant accounting and legislative bodies.

**Implementation of Strategic Plan, Delivery Program & Strategies**

- Review that Council is meeting its integrated planning and reporting obligations in accordance with legislative requirements.

**Service Reviews**

- Monitor that service reviews, or other appropriate improvement reviews, are undertaken where appropriate to ensure a focus on continuous improvement.

**Collection of performance measurement data by Council**

- Review that Council is collecting appropriate performance measurement data and reporting its performance measures in accordance with the integrated, planning and reporting framework.

**Any other Matters Prescribed by Regulations**Internal Audit

- Act as a forum for communication between the Council, General Manager, senior management, internal audit and external audit.
- Review the internal audit policies and procedures including the risk-based audit methodology.
- Review the internal audit coverage and Internal Audit Plan, ensure the plan is based on Council's Enterprise Risk Management Framework, and approve the Internal Audit Plan.
- Advise on the adequacy of Internal Audit's resources to carry out its responsibilities, including completion of the approved Internal Audit Plan.
- Review all audit reports and provide advice on significant issues identified in audit reports and action taken on issues

raised, including identification and dissemination of better practices.

- Monitor the implementation of internal audit recommendations by management.
- Meet separately with the Internal Audit Coordinator, without Management present, at least once per year.
- Review and endorse the Internal Audit Charter to ensure appropriate organisational structures, authority, access, and reporting arrangements are in place.
- Consider the overall effectiveness and performance of the Internal Audit Coordinator and internal audit function.
- Committee Chair to contribute to the Internal Audit Coordinator's regular performance review.
- Provide advice to the General Manager on the results of any external assessments of the internal audit function.

#### External Audit

- Act as a forum for communication between the Council, General Manager, senior management, internal audit and external audit.
- Provide input and feedback on the financial statement and performance audit coverage proposed by the External Auditor.
- Review all external plans and reports (including closing reports and management letters) in respect of planned or completed external audits and monitor the implementation of audit recommendations by management.
- Consider significant issues raised in relevant external audit reports and better practice guides, and ensure appropriate action is taken
- 
- Meet separately with the External Auditor, without Management present, at least once per year.

The Committee may, at any time, consider any other matter it deems of sufficient importance to do so. In addition, at any time an individual Committee member may request a meeting with the Chair of the Committee.

### **RESPONSIBILITIES OF MEMBERS**

- 3.4 Members of the Committee are expected to:
- Make themselves available as required to attend and participate in meetings.
  - Understand the relevant legislation and regulatory requirements appropriate to Camden Council.
  - Contribute the time needed to study and understand the papers provided.
  - Apply good analytical skills, objectivity, and good judgment.
  - Express opinions frankly, ask questions that go to the fundamental core of issues, and pursue independent lines of enquiry.

The Council will appoint the Chair and members of the Audit, Risk and Improvement Committee.

## PART 4 COMPOSITION AND TENURE

4.1 The Committee will consist of:

### Members (voting):

- 2 x Councillors
- 3 x Independent external members (not employees or elected representatives of the Council)
- Chairperson to be one of the Independent members

### Attendee (non-voting):

- General Manager
- Manager Safety and Risk
- Internal Audit Coordinator
- Chief Financial Officer
- Internal Audit Analyst (Secretariat)

### Invitees (non-voting):

- Representatives of the External Auditor
- Members of the Executive Leadership Group not already in attendance
- Other officers may attend by invitation as requested by the Chair.

Councillors that are not members of the Committee are to have a standing invitation to attend any meeting of the Audit Risk and Improvement Committee, as an observer only.

### Skills and Experience

4.2 The members of the Committee should collectively develop, possess and maintain a broad range of skills and experience relevant to the operations, governance and financial management of Camden Council, the environment in which Council operates and the contribution that the Committee makes to Camden Council.

4.3 At least one external independent member of the Committee shall have accounting and related financial management experience, as well as an understanding of accounting and auditing standards in a public sector environment.

4.4 The selection criteria for external independent members may include (but is not limited to):

- knowledge of internal audit and governance frameworks;
- relevant experience in senior management or governance roles;
- high levels of financial literacy and if possible, accounting, financial, legal, compliance and/or risk management experience;
- high levels of personal integrity and ethics;
- knowledge of local government;
- strong communication skills;
- previous experience serving on similar committees;
- sufficient time available to devote to responsibilities as a Committee member; and



- independence and freedom from contractual arrangements with Camden Council.

#### **Selection of Members**

- 4.5 The selection criteria and process for the appointment of the independent external members shall ordinarily be as follows:
- (a) Council shall seek expressions of interest from persons interested in being appointed to the available position.
  - (b) Council Management will assess the expressions of interest and shortlisted applicants may be interviewed by Council Management prior to a selection decision.
  - (c) Independent external member appointments are to be approved by Council resolution.
- 4.6 The Councillor representatives on the Committee will be nominated at an ordinary meeting of Council.

#### **Term of Office**

- 4.7 Subject to the following paragraph, appointments to the Committee shall be for a period of up to 4 years (or as determined by the Council), ensuring that continuity of independent membership is maintained over each general Council election period where possible. Independent external members may be reappointed through this process for a further term/s subject to a formal review of their performance nothing that their total term on the Committee will not exceed 8 years.
- 4.8 Upon the appointment of an independent member, Council may set the initial term of that member for a period less than four years, so that the changeover of the independent members on the ARIC is staggered with independent members being replaced or reappointed at different times. This will allow for continuity and transfer of corporate knowledge.
- 4.9 Notwithstanding this, positions will be declared vacant and new members will be sought on the date of the Council general election for Councillor members and at least six months after that date for independent external members.
- 4.10 The Chair must be an independent external member and may be appointed as Chair for a maximum of 5 years. The total term of the Chair as an independent external member of the Committee is not to exceed 8 years.
- 4.11 In the case of resignation from the Committee by an independent external member, a new independent member will be selected following the process outlined in this Charter.
- 4.12 In the case of resignation by the Chair, the remaining members will vote an acting Chair from the external members until such time as the Council appoints a replacement Chair.

**Code of Conduct**

- 4.13 All members of the Audit, Risk and Improvement Committee are to abide by Camden Council's Code of Conduct.

**Remuneration**

- 4.14 Remuneration for independent members of the Committee will be determined by the Council.
- 4.15 Councillors appointed as elected representatives on the Committee are paid for duties as Councillors from their Councillor allowance determined each year.

**PART 5 ADMINISTRATIVE ARRANGEMENTS****Meetings**

- 5.1 The Committee will meet at least four times per year. A special meeting may be held to review of the Council's annual audited financial reports.
- 5.2 The need for any additional meetings will be decided by the Chair of the Committee, though other Committee members and the General Manager may make requests to the Chair for additional meetings.
- 5.3 Meetings can be held in person, by telephone or by video conference.
- 5.4 A forward meeting plan, including meeting dates and agenda items, will be agreed by the Committee each year. The forward meeting plan will cover all Committee responsibilities as detailed in this Audit, Risk and Improvement Committee Charter.
- 5.5 Where internal audit priorities change between meetings or new urgent issues arise, and where it is not possible to schedule an additional meeting, the Audit, Risk and Improvement Committee will be kept fully informed of all changes via email.

**Quorum**

- 5.6 A quorum will consist of a majority of Committee members, including at least two independent external members.
- 5.7 A meeting of the Committee must be adjourned if a quorum is not present within 15 minutes after the time designated for the holding of the meeting or at any time during the meeting. In either case, the meeting must be adjourned to a time, date and place fixed by the Chairperson, or in his or her absence, by the majority of members present.
- 5.8 It must be recorded in the minutes the circumstances relating to the absence of a quorum (including the reasons for the absence of quorum) at or arising during a meeting, together with the names of the members present.

- 5.9 A voting member shall no longer be a voting member of the Committee if they fail to attend three (3) consecutive meetings without a leave of absence being granted.

**Chairperson to have precedence**

- 5.10 The Chairperson is to have precedence over the control and management of the meetings.
- 5.11 The Chairperson may call any member to order whenever in the opinion of the Chairperson it is necessary to do so.
- 5.12 In the instance that the Chairperson is unavailable to chair a meeting, the remaining members will vote an external member to act as Chairperson. The voted independent external member shall serve as the Chair for the period of absence of the duly nominated Chair or, where the Chairperson is no longer able to chair Committee meetings, until such time as Council appoints a replacement Chairperson.

**Attendance of non-members**

- 5.13 The attendance of non-members is subject to invitation by the Chair.
- 5.14 The Internal Audit Coordinator will be invited to attend each meeting unless requested not to do so by the Chair.
- 5.15 The General Manager may attend each meeting but will permit the Committee to meet separately with the Internal Audit Coordinator and the External Auditor in the absence of management on at least one occasion per year.

**Secretariat Support**

- 5.16 Secretariat support is provided to the Committee.
- 5.17 The Secretariat will ensure the agenda for each meeting and supporting papers are circulated, at least one week before the meetings, and ensure that minutes of the meetings are prepared and maintained.
- 5.18 Draft minutes shall be approved by the Chair and circulated to each member within three weeks of the meeting being held. These draft minutes are to be reported to Councillors via the Councillor Update within one month of circulation to voting Committee members. The minutes are to be approved at the next Committee meeting and subsequently reported to Council for noting.

**Confidentiality**

- 5.19 Committee members will be bound by confidentiality requirements under Council's Code of Conduct. All attendees are responsible and accountable for maintaining the confidentiality of the information they receive during the course of these meetings.

- 5.20 Members and attendees may be entrusted with highly sensitive information at times, as well as personal information regarding staff members. Therefore, they must maintain confidentiality at all times, displaying a high level of ethics and professionalism.
- 5.21 The Committee Chair and independent members are not authorised to make public statements with regards to Council matters. Any media inquiries should be directed to the General Manager for action in accordance with Council's Media Policy.
- 5.22 Any requests for disclosure of information relating to the Committee will be managed by the Governance Team and in accordance with the *Government Information (Public Access) Act 2009* and the *Privacy and Personal Information Protection Act 1998*.

#### **Conflict of Interests**

- 5.23 Once a year the Committee independent members will provide written declarations to the General Manager stating that they do not have any conflicts of interest that would preclude them from being members of the committee.
- 5.24 Annually, independent members will provide a list of other organisations with which they are involved. Any amendments to this list are to be made as appropriate at the next meeting after a change occurs.
- 5.25 Committee members must declare any conflict of interests at the start of each meeting or before discussion of a relevant agenda item or topic. Details of any conflicts of interest should be appropriately minuted.
- 5.26 Where members or invitees at Committee meetings are deemed to have a real or perceived conflict of interest, it may be appropriate they be excused from Committee deliberations on the issue where the conflict of interest may exist. The final arbiter of such a decision is the Chair of the Committee.

#### **Induction**

- 5.27 New members will receive relevant information and briefings on their appointment to assist them to meet their Committee responsibilities.

## **PART 6 REPORTING**

### **Reporting Requirements**

- 6.1 In addition to providing the Committee minutes to Council as outlined at 5.18, the Committee shall report at least annually, to the governing body of Council on the management of risk and internal controls.
- 6.2 At the first meeting after the financial statements are considered each year by the Committee, the Internal Audit Coordinator will provide a

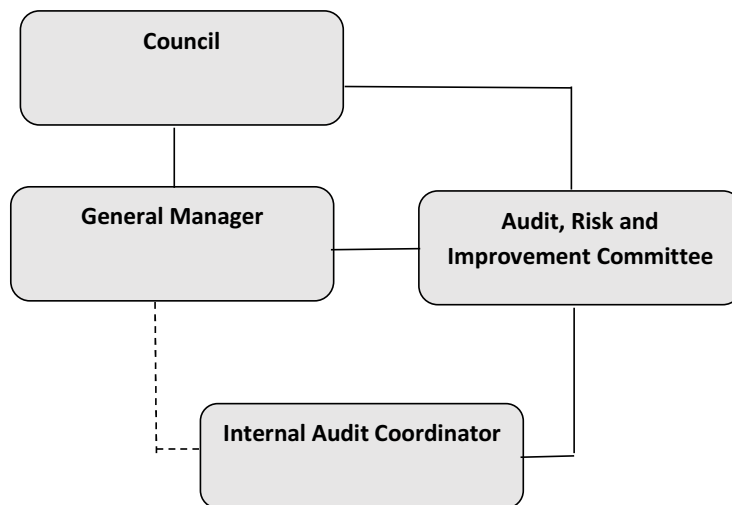
joint performance report of the internal audit function and the ARIC covering:

- the performance of the internal audit function for the period of review as measured against agreed key performance indicators;
- the approved Internal Audit Plan of work for the period of review showing the status of each audit;
- a summary of Council’s progress in addressing the findings and recommendations made in the internal and external audit reports; and
- a summary of the work the Committee performed to fully discharge its responsibilities during the preceding year.

**Reporting Lines**

6.3 The Committee shall at all times ensure it maintains a direct reporting line to and from internal audit and acts as a mechanism for internal audit to report to the General Manager and Council on functional matters.

The following reporting line is prescribed where the dotted line represents ‘administrative’ reporting line and the bold line represents the ‘functional’ reporting line:



**Decision Making**

- 6.4 The Committee makes decisions by resolutions, which are to be recorded in the minutes.
- 6.5 Each member of the Audit, Risk and Improvement Committee shall be entitled to one vote only. In the case of an inequality of votes on any issue, the Chair shall have the casting vote.
- 6.6 For the purpose of clarity, the Internal Audit Coordinator, External Auditor, General Manager, Chief Finance Officer, Manager Safety and



Risk and Internal Audit Analyst are not voting members of the Committee.

#### Assessment Arrangements

- 6.7 The Chair of the Committee will initiate a review of the performance of the Committee, including the performance of the Chair, annually.
- 6.8 The review will be conducted on a self-assessment basis (unless otherwise determined by the General Manager), with appropriate input from management and any other relevant stakeholders.
- 6.9 When reviewing the Committee's performance, the Chair should be satisfied that an effective, comprehensive and complete service is being provided.

#### Review of Audit, Risk and Improvement Charter

- 6.10 At least once a year the Audit, Risk and Improvement Committee will review this Audit, Risk and Improvement Committee Charter.
- 6.11 The Audit, Risk and Improvement Committee will be responsible for recommending any substantive changes to this Audit, Risk and Improvement Committee Charter subject to Council approval.

#### RELEVANT LEGISLATIVE INSTRUMENTS:

Local Government Act 1993  
Local Government Amendment (Governance and Planning) Act 2016  
Internal Audit Guidelines issued in September 2010 under Section 23A of the Local Government Act 1993  
Internal Audit Charter

#### RELATED POLICIES, PLANS AND PROCEDURES:

#### RESPONSIBLE PERSON:

Internal Audit Coordinator

#### APPROVAL:

Council on recommendation of Audit Risk and Improvement Committee

#### NEXT REVIEW DATE:

June 2022

#### HISTORY:

Version	Approved by	Changes made	Date	EDMS Number
1	Camden Council	NA	10/06/2014	14/81253
2	Camden Council on recommendation of Business Assurance and Risk Committee	Yes	13/10/2015	15/305521
3	Camden Council on recommendation of Business Assurance and Risk Committee	Yes	09/04/2019	19/139987

4	Camden Council on recommendation of Audit, Risk and Improvement Committee	Yes	08/06/2021	21/263628
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ORD09

Attachment 2

ORD09

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# INTERNAL AUDIT CHARTER

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## INTERNAL AUDIT CHARTER

**DIVISION:** INTERNAL AUDIT

**BRANCH:** INTERNAL AUDIT

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Council has established Internal Audit as a key component of the Council's governance and assurance framework, considering the Departmental Chief Executive's **approved** Draft *Guidelines for risk management and internal audit for local government in NSW*. This charter provides the framework for the conduct of Internal Audit in the Council and has been approved by the governing body taking into account the advice of the Council's Audit, Risk and Improvement committee.

### 1. Purpose of internal audit

- 1.1 Internal audit is an independent, objective assurance and consulting activity designed to add value and improve the Council's operations. It helps the Council accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes<sup>1</sup>.
- 1.2 Internal audit provides an independent and objective review and advisory service to provide advice to the governing body, General Manager and Audit, Risk and Improvement Committee about the Council's governance processes, risk management and control frameworks and its external accountability obligations. It also assists the Council to improve its business performance.

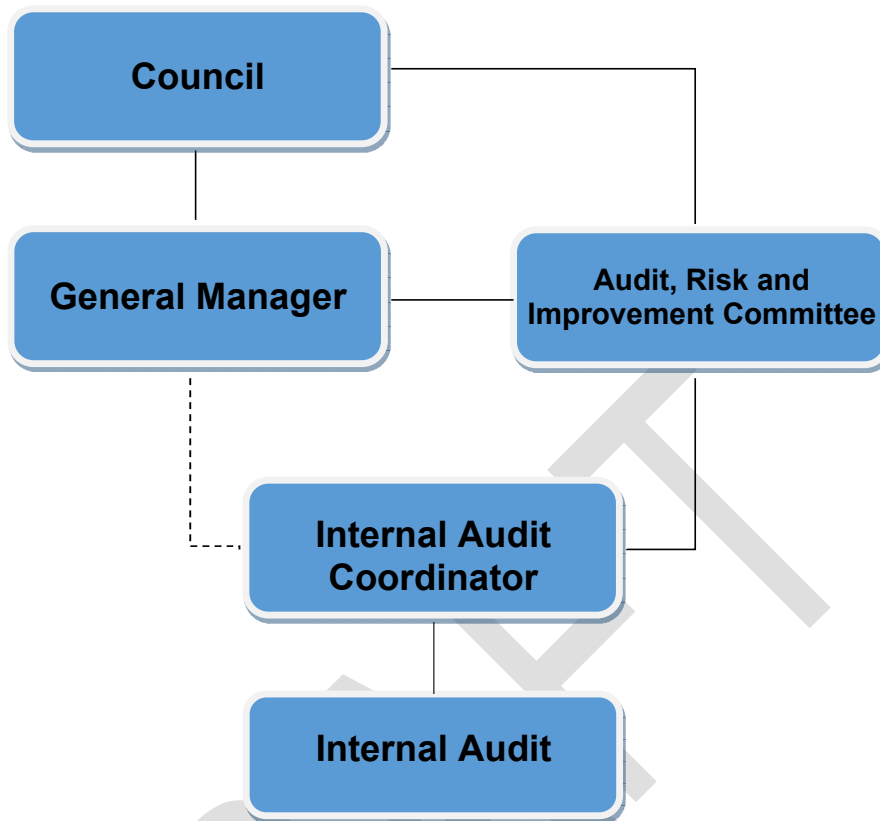
### 2. Independence

- 2.1 Council's Internal Audit function is to be independent of the Council so it can provide an unbiased assessment of the Council's operations and risk and control activities.
- 2.2 Internal Audit reports functionally to the Council's Audit, Risk and Improvement Committee on the results of completed audits, and for strategic direction and accountability purposes, and reports administratively to the General Manager to facilitate day-to-day operations. Internal audit activities are not subject to direction by the Council and the Council's management has no role in the exercise of the Council's internal audit activities.
- 2.3 **The following dual reporting line is prescribed where the dotted line represents the 'administrative' reporting line and the bold line represents the 'functional' reporting line:**

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<sup>1</sup> As defined by the International Standards for the Professional Practice of Internal Auditing (2017)





- 2.4 The Audit, Risk and Improvement Committee is responsible for communicating any internal audit issues or information to the governing body. Should the governing body require additional information, a request for the information may be made to the chair by resolution. The chair is only required to provide the information requested by the governing body where the chair is satisfied that it is reasonably necessary for the governing body to receive the information for the purposes of performing its functions under the *Local Government Act 1993*. Individual Councillors are not entitled to request or receive information from the Committee.
- 2.5 The General Manager must consult with the chair of the Council's Audit, Risk and Improvement Committee before appointing or making decisions affecting the employment of the head of the internal audit function. For the purposes of Council's organisational structure, the head of internal audit is the Internal Audit Coordinator. If the Internal Audit Coordinator is dismissed, the General Manager must report the reasons for their dismissal to the governing body.
- 2.6 Where the chair of the Council's Audit, Risk and Improvement Committee has any concerns about the treatment of the Internal Audit Coordinator, or any action taken that may compromise their ability to undertake their functions independently, they can report their concerns to the governing body.
- 2.7 The Internal Audit Coordinator is to confirm at least annually to the Audit, Risk and Improvement Committee the independence of internal audit activities from the Council.

### 3. Authority

- 3.1 Council authorises Internal Audit to have full, free and unrestricted access to all functions, premises, assets, personnel, records and other documentation and information that the Internal Audit Coordinator considers necessary for Internal Audit to undertake its responsibilities.
- 3.2 All records, documentation and information accessed while undertaking internal audit activities are to be used solely for the conduct of those activities. The Internal Audit Coordinator and individual internal audit staff are responsible and accountable for maintaining the confidentiality of the information they receive when undertaking their work.
- 3.3 All internal audit documentation is to remain the property of Council, including where internal audit services are performed by an external third-party provider.
- 3.4 Information and documents pertaining to Internal Audit are not to be made publicly available. Internal Audit may only release Council information to external parties that are assisting Internal Audit to undertake its responsibilities with the approval of the General Manager, except where it is being provided to an external investigative or oversight agency for the purpose of informing that agency of a matter that may warrant its attention.

### 4. Role

- 4.1 Internal Audit is to support the Council's Audit, Risk and Improvement Committee to review and provide independent advice to the Council in accordance with section 428A of the *Local Government Act 1993*. This includes conducting internal audits of Council and monitoring the implementation of corrective actions.
- 4.2 Internal Audit is to also play an active role in:
- Developing and maintaining a culture of accountability and integrity
  - Assisting with facilitating the integration of risk management into day-to-day business activities and processes, and
  - Promoting a culture of cost-consciousness, self-assessment and adherence to high ethical standards.
- 4.3 Internal Audit has no direct authority or responsibility for the activities it reviews. Internal Audit has no responsibility for developing or implementing procedures or systems and does not prepare records or engage in Council functions or activities (except in carrying out its own functions).
- 4.4 The work of Internal Audit does not relieve the staff of Council from their accountability to discharge their responsibilities. All Council staff are responsible for risk management and the operation and enhancement of internal control. This includes responsibility for implementing remedial action endorsed by management following an internal audit.

### 5. Internal Audit Coordinator

- 5.1 Council's Internal Audit is to be led by a member of Council's staff with sufficient skills, knowledge and experience to ensure it fulfils its role and responsibilities to the Council and the Audit, Risk and Improvement Committee. The Internal Audit Coordinator must be independent, impartial, unbiased and objective when performing their work and free from any conflicts of interest.

5.2 Responsibilities of the Internal Audit Coordinator include:

- Managing the day-to-day activities of Internal Audit
- Managing the Council's internal audit budget
- Supporting the operation of the Council's Audit, Risk and Improvement Committee
- Approving internal audit project plans, conducting or supervising audits and assessments and providing independent advice to the Audit, Risk and Improvement Committee
- Monitoring the Council's implementation of corrective actions that arise from the findings of audits
- **Implementing the Internal Audit annual work plan and four-year strategic work plan approved by the Audit, Risk and Improvement Committee**
- **Disseminating across Council better practice and lessons learnt arising from its audit activities and from applicable findings of NSW Audit Office audits**
- Ensuring the Council's internal audit activities comply with the **approved** draft *Guidelines for risk management and internal audit for local government in NSW* (effective 1 July 2024), and
- Contract management and oversight of supplementary external providers (where required)

## 6. Internal Audit

6.1 Members of the Internal Audit team are responsible to the Internal Audit Coordinator.

6.2 Individuals that perform internal audit activities for Council must have:

- An appropriate level of understanding of the Council's culture, systems and processes
- The skills, knowledge and experience necessary to conduct internal audit activities in the Council
- Effective interpersonal and communication skills to ensure they can engage with Council staff effectively and collaboratively, and
- Honesty, integrity and diligence.

6.3 **To supplement Internal Audit resources, the Internal Audit Coordinator may engage the services of specialist external contractors. The contractors will be engaged in accordance with Council's procurement policies and procedures.**

6.4 **Internal Audit staff and contractors shall report to the Internal Audit Coordinator any situations where they feel their objectivity may be impaired.**

6.5 **In accordance with the International Standards for the Professional Practice of Internal Auditing, to maintain independence and objectivity, Internal Audit will not provide audit services for work which they have been responsible for in the previous 12 months. Internal audit involvement after this timeframe will be carefully assessed on a case by case basis.**

## 7. Performing internal audit activities

7.1 The work of Internal Audit is to be thoroughly planned and executed. Internal Audit is to recommend a risk based four year strategic internal audit work plan that considers all matters listed in Schedule 1. The internal audit work plan shall include a program of audits divided into four 12-month periods clearly demonstrating the coverage for each year. The strategic internal audit work plan must be reviewed by the Internal Audit Coordinator at least annually to ensure it remains appropriate.

ORD09

Attachment 3

- 7.2 The strategic internal audit work plan is to be reviewed and approved by the Audit, Risk & Improvement Committee. The internal audit work plan shall be based on an assessment of the goals, objectives, and business risks of Council, and shall take into consideration any special requirements of the Audit, Risk & Improvement Committee and the Executive Leadership Group.
- 7.3 The Internal Audit Coordinator has discretionary authority to adjust the annual work plan as a result of receiving special requests from the Executive Leadership Group to conduct reviews that are not on the plan, with these to be endorsed at the next meeting of the Audit, Risk & Improvement Committee.
- 7.4 All internal audit activities are to be performed in a manner that is consistent with relevant professional standards including the International Standards for the Professional Practice of Internal Auditing issued by the Institute of Internal Auditors.
- 7.5 On completion of each internal audit engagement, Internal Audit shall issue a report to its audit customers detailing the objective and scope of the audit, and resulting issues based on the outcome of the audit. Internal Audit shall seek from the responsible Senior Executive or Manager an agreed or endorsed action plan outlining remedial action to be taken, along with an implementation timetable and Responsible Officers for the action.
- 7.6 Responsible Officers shall have ten working days to provide written management responses and action plans in response to issues and recommendations contained in internal audit reports.
- 7.7 Internal Audit shall also provide the appropriate Senior Executive or Manager with a client feedback form requesting feedback on the conduct of the audit to enable an assessment of client satisfaction.
- 7.8 The Internal Audit Coordinator is to provide the findings and recommendations of internal audits to the Audit, Risk and Improvement Committee at the end of each audit. Each report is to include a response from the relevant senior manager.
- 7.9 The Internal Audit Coordinator is to establish an ongoing monitoring system to follow up Council's progress in implementing corrective actions.
- 7.10 In addition to the normal process of reporting on work undertaken by Internal Audit, the Internal Audit Coordinator shall draw to the attention of the Audit, Risk & Improvement Committee all matters that, in the Internal Audit Coordinator's opinion, warrant reporting to the Audit, Risk & Improvement Committee.
- 7.11 The General Manager, in consultation with the Audit, Risk and Improvement Committee, is to develop and maintain policies and procedures to guide the operation of the Council's Internal Audit function.
- 7.12 Internal audit activities include the provision of advice for example: on the development of new programs and processes and/or significant changes to existing programs and processes including the design of appropriate controls. Internal audit activities also include special investigations as directed by the General Manager or the Audit, Risk and Improvement Committee via the General Manager.

- 7.13 The Internal Audit Coordinator is to ensure that the Audit, Risk and Improvement Committee is advised at each of the committee's meetings (excluding the financial statement specific meeting) of the internal audit activities completed in between meetings, progress in implementing the annual work plan and progress made implementing corrective actions.

## 8. Conduct

- 8.1 Internal audit personnel must comply with the Council's Code of Conduct. Complaints about breaches of Council's Code of Conduct by internal audit personnel are to be dealt with in accordance with the *Procedures for the Administration of the Model Code of Conduct for Local Councils in NSW*. The General Manager must consult with the Council's Audit, Risk and Improvement Committee before any disciplinary action is taken against the Internal Audit Coordinator in response to a breach of the Council's Code of Conduct.
- 8.2 Internal auditors must also comply with the Code of Ethics for the Professional Practice of Internal Auditing issued by the Institute of Internal Auditors.
- 8.3 Conflicts of Interest are to be managed in accordance with Council's Code of Conduct and relevant policies and procedures. Instances of perceived or actual conflicts of interest by the Internal Audit Coordinator are to be reported to the General Manager and further reported to the Audit, Risk & Improvement Committee where such conflicts cannot be managed.
- 8.4 When engaging internal audit contractors, the Internal Audit Coordinator shall take steps to identify, evaluate the significance, and manage any perceived or actual conflicts of interest that may impinge upon internal audit work.

## 9. Administrative arrangements

### 9.1 Audit, risk and improvement committee meetings

The Internal Audit Coordinator will attend Audit, Risk and Improvement Committee meetings as an independent non-voting observer. The Internal Audit Coordinator can be excluded from meetings by the committee at any time.

The Internal Audit Coordinator must meet separately with the Audit, Risk and Improvement Committee at least once per year.

The Internal Audit Coordinator can meet with the chair of the Audit, Risk and Improvement Committee at any time, as necessary, between committee meetings.

### 9.2 External audit

Internal and external audit activities will be coordinated to help ensure the adequacy of overall audit coverage and to minimise duplication of effort.

Periodic meetings and contact between internal and external audit shall be held to discuss matters of mutual interest and to facilitate coordination.

External audit will have full and free access to all internal audit plans, working papers and reports.



### 9.3 Dispute resolution

Internal Audit should maintain an effective working relationship with the Council and the Audit, Risk and Improvement Committee and seek to resolve any differences they may have in an amicable and professional way by discussion and negotiation.

In the event of a disagreement between Internal Audit and the Council, the dispute is to be resolved by the General Manager and/or the Audit, Risk and Improvement Committee. Disputes between Internal Audit and the Audit, Risk and Improvement Committee are to be resolved by the governing body.

Unresolved disputes regarding compliance with statutory or other requirements are to be referred to the Departmental Chief Executive in writing.

### 9.4 Review arrangements

The Council's Audit, Risk and Improvement Committee must review the performance of the internal audit function each year and report its findings to the governing body. A strategic review of the performance of Internal Audit must be conducted each council term that considers the views of an external party with a strong knowledge of internal audit and reported to the governing body.

To facilitate this, the Internal Audit Coordinator shall oversee the development and implementation of a quality assurance and improvement program for internal audit, to provide assurance that internal audit work conforms to the Standards and is focused on continuous improvement.

The Internal Audit Coordinator shall develop performance measures (key performance indicators) for consideration and endorsement by the Audit, Risk & Improvement Committee, as a means for the performance of internal audit to be periodically evaluated.

This charter is to be reviewed annually by the committee and once each council term by the governing body. Any substantive changes are to be approved by the governing body.

## 10. Further information

- 10.1 For further information on Council's internal audit activities, contact Michelle Brockwell on michelle.brockwell@camden.nsw.gov.au or by phone 02 4664 7777.

Reviewed by Internal Audit Coordinator

[sign and date]

Reviewed by chair of the Council's Audit, Risk and Improvement Committee

[sign and date]

Reviewed by General Manager

[sign and date]

Reviewed by Council in accordance with Council resolution [resolution reference] on [insert Council meeting date].

**RELEVANT LEGISLATIVE INSTRUMENTS AND STANDARDS:**

*Local Government Act 1993*  
*Local Government Amendment (Governance and Planning) Act 2016*  
*Independent Commission against Corruption Act 1988*  
*Local Government (General) Regulation 2021*  
*Standards of professional practice issued by the Institute of Internal Auditors Australia*

**RELATED POLICIES, PLANS AND PROCEDURES:**

Audit, Risk and Improvement Committee Terms of Reference  
 Internal Audit Manual

**RESPONSIBLE PERSON:**

Internal Audit Coordinator

**APPROVAL:**

Once each Council term by Council on recommendation of Audit Risk and Improvement Committee; and Annually by the Audit, Risk and Improvement Committee

**HISTORY:**

Version	Approved by	Changes made	Date	EDMS Number
1	Council on recommendation of Business Assurance and Risk Committee	Nil	13/10/2015	
2	The Audit, Risk & Improvement Committee	Minor updates	06/03/2019	
3	Council on recommendation of Audit, Risk and Improvement Committee	Various to comply with best practice	08/06/2021	
4	Audit, Risk and Improvement Committee	In line with Model Charter		
	Council			

## 11. Schedule 1 – internal audit function responsibilities

### Audit

#### Internal audit

- Conduct internal audits as directed by the Council's Audit, Risk and Improvement Committee.
- Implement the Council's annual and four-year strategic internal audit work plans.
- Monitor the implementation by the Council of audit recommendations from past audits.
- Assist the Council to develop and maintain a culture of accountability and integrity.
- **Promote** the integration of risk management into day-to-day business activities and processes **via recommendations in internal audits and advice**.
- Promote a culture of high ethical standards.

#### External audit

- Review all external plans and reports in respect of planned or completed audits and consider when developing internal audit plan to avoid duplication
- Facilitate the monitoring of the Council's implementation of audit recommendations.
- Provide advice, **where appropriate**, on action taken on significant issues raised in relevant external audit reports and better practice guides.

### Risk

#### Risk management

**Internal audit should consider when developing its program of internal audits and/or advise on:**

- If the Council has in place a current and appropriate risk management framework that is consistent with the Australian risk management standard
- Whether the Council's risk management framework is adequate and effective for identifying and managing the risks the Council faces, including those associated with individual projects, programs and other activities
- If risk management is integrated across all levels of the Council and across all processes, operations, services, decision-making, functions and reporting
- Of the adequacy of risk reports and documentation, for example, the Council's risk register and risk profile
- Whether a sound approach has been followed in developing risk management plans for major projects or undertakings
- If there is a positive risk culture within the Council and strong leadership that supports effective risk management
- The adequacy of staff training and induction in risk management
- The effectiveness of the Council's management of its assets, and
- The effectiveness of business continuity arrangements, including business continuity plans, disaster recovery plans and the periodic testing of these plans.

## Compliance

Internal audit should consider when developing its program of internal audits and/or advise on the adequacy and effectiveness of the Council's compliance framework, including:

- If the Council has appropriately considered legal and compliance risks as part of the Council's risk management framework
- How the Council manages its compliance with applicable laws, regulations, policies, procedures, codes, and contractual arrangements, and
- Whether appropriate processes are in place to assess compliance.

## Fraud and corruption

Internal audit should consider when developing its program of internal audits and/or advise on:

- the adequacy and effectiveness of the Council's fraud and corruption prevention framework and activities
- If the Council has taken steps to embed a culture which is committed to ethical and lawful behaviour.

## Financial management

Internal audit should consider when developing its program of internal audits and/or advise on specific financial areas including:

- If the Council is complying with accounting standards and external accountability requirements for specific areas requested
- Of the appropriateness of the Council's accounting policies
- Of the implications for the Council of the findings of external audits and performance audits and the Council's responses and implementation of recommendations
- If the Council's financial management processes are adequate
- The adequacy of cash management policies and procedures
- If there are adequate controls over financial processes, for example:
  - Appropriate authorisation and approval of payments and transactions
  - Adequate segregation of duties
  - Timely reconciliation of accounts and balances
  - Review of unusual and high value purchases
- If policies and procedures for management review and consideration of the financial position and performance of the Council are adequate
- If the Council's grants and tied funding policies and procedures are sound.

## Governance

Internal audit should consider when developing its program of internal audits and/or advise on the adequacy of the Council's governance framework, including:

- If Council has in place relevant policies and procedures and that these are periodically reviewed and updated
- Whether appropriate policies and procedures are in place for the management and exercise of delegations
- Whether staff are informed of their responsibilities and processes and procedures to implement controls are complied with
- If the Council's monitoring and review of controls is sufficient

- Whether Council has effective decision-making processes in place
- If reporting lines and accountability and management oversight responsibilities across Council is appropriate
- On activities including human resources and performance management activities; reporting and communication activities; and information and communications technology (ICT) governance, and
- On the management and governance of the use of data, information and knowledge.

## Improvement

### Strategic planning

Internal audit should consider when developing its program of internal audits and/or advise on:

- the adequacy and effectiveness of the Council's integrated, planning and reporting (IP&R) processes
- If appropriate reporting and monitoring mechanisms are in place to measure progress against objectives, and
- Whether the Council is successfully implementing and achieving its IP&R objectives and strategies.

### Service reviews and business improvement

Internal audit should consider when developing its program of internal audits and/or advise on:

- If the Council has robust systems to set objectives and goals to determine and deliver appropriate levels of service to the community and business performance
- If appropriate reporting and monitoring mechanisms are in place to measure service delivery to the community and overall performance, and
- How the Council can improve its service delivery and the Council's performance of its business and functions generally.

### Performance data and measurement

Internal audit should consider when developing its program of internal audits and/or advise on:

- If the Council has a robust system to determine appropriate performance indicators to measure the achievement of its strategic objectives
- If the performance indicators the Council uses are effective, and
- Of the adequacy of performance data collection and reporting.





# INTERNAL AUDIT CHARTER

ORD09

Attachment 4

ORD09

Attachment 4

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## INTERNAL AUDIT CHARTER

**DIVISION:** INTERNAL AUDIT

**PILLAR:** INTERNAL AUDIT

**VERSION:** C.002

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### 1. INTRODUCTION

- 1.1 Council has established Internal Audit as a key component of Camden Council's governance framework.

This Charter provides the framework for the conduct of the internal audit function and has been approved by Council taking into account the advice of the Audit, Risk and Improvement Committee.

- 1.2 Internal Audit at Camden Council is managed by the person appointed from time to time by the General Manager as the Head of Internal Audit within Council. For the purposes of Camden Council's organisational structure, the Head of Internal Audit is the Internal Audit Coordinator.

- 1.3 This Internal Audit Charter is a formal statement of purpose, authority and responsibility for an internal auditing function within Camden Council. This Charter:

- establishes Internal Audit within Camden Council and recognises the importance of such an independent and objective service to Council;
- outlines the legal and operational framework under which Internal Audit will operate;
- authorises Internal Audit to promote and direct a broad range of internal audits across Camden Council.

### 2. PURPOSE

Internal audit is an independent, objective assurance and consulting activity designed to add value and improve Camden Council's operations. It helps Council accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes.

### 3. AUTHORITY

- 3.1 The objectives of Internal Audit are to assist the General Manager to identify operational improvement opportunities; identify unsound practices; and recognise potential cost savings and performance improvements.

- 3.2 The scope of Internal Audit encompasses the examination and evaluation of the adequacy and effectiveness of the Council's internal controls, risk management and process

improvement against existing policies, procedures, legislative requirements and best practice.

- 3.3 Internal Audit is authorised to direct a comprehensive program of internal audit work in the form of reviews, consultancy advice, evaluations, appraisals, assessments and investigations of functions, processes, controls and governance frameworks in the context of the achievement of Council's objectives.
- 3.4 Internal auditors are authorised to have full, free and unrestricted access to all functions, premises, assets, personnel, records, and other documentation and information that the Head of Internal Audit considers necessary to enable the internal audit function to meet its responsibilities. When responding to requests, Council staff and contractors should cooperate with the internal audit function and must not knowingly mislead the internal audit function or willfully obstruct any audit activity.
- 3.5 All records, documentation and information accessed in the course of undertaking internal audit activities are to be used solely for the conduct of these activities. The Head of Internal Audit and individual internal audit staff are responsible and accountable for maintaining the confidentiality of the information they receive during the course of their work.

All internal audit documentation is to remain the property of Council, including where internal audit services are performed by an external third-party provider.

#### **4. INDEPENDENCE**

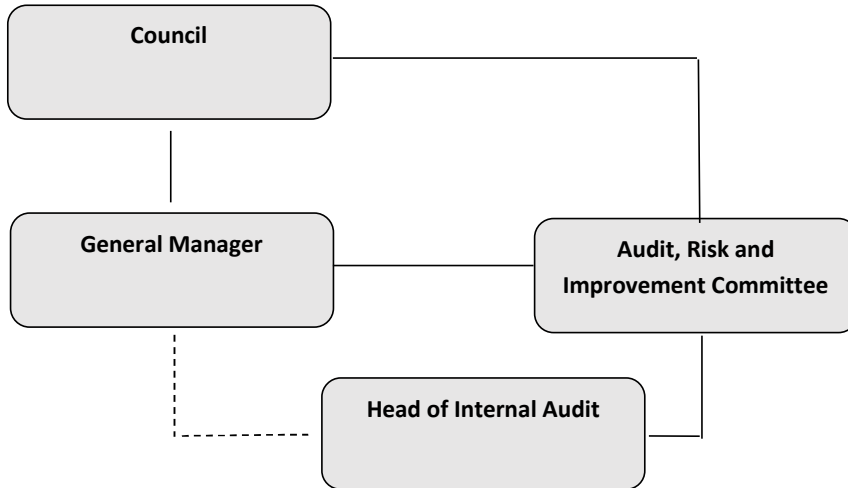
- 4.1 Independence is essential to the effectiveness of the internal audit function. Internal audit activity shall be independent, and internal auditors shall be objective in performing their work. Internal auditors shall have an impartial, unbiased attitude and avoid any conflicts of interest.

The internal audit function has no direct authority or responsibility for the activities it reviews. The internal audit function has no responsibility for developing or implementing procedures or systems and does not prepare records or engage in line processing functions or activities [except in carrying out its own functions].

- 4.2 Internal Audit staff and contractors shall report to the Head of Internal Audit any situations where they feel their objectivity may be impaired. Similarly, the Head of Internal Audit should report any such situations to the Audit, Risk & Improvement Committee.
- 4.3 The work of Internal Audit does not relieve the staff of Camden Council from their accountability to discharge their responsibilities. All Camden Council staff are responsible for risk management and the operation and enhancement of internal control. This includes responsibility for implementing remedial action endorsed by management following an internal audit.
- 4.4 Internal Audit shall not be responsible for operational activities on a daily basis, or in detailed development or implementation of new or changed systems, or for internal checking processes.
- 4.5 The internal audit function, through the Head of Internal Audit, reports functionally to the Audit and Risk Committee on the results of completed audits, and for strategic direction

and accountability purposes, and reports administratively to the General Manager to facilitate day to day operations. The Head of Internal Audit has direct access to the General Manager to discuss audit and risk issues when required.

The following dual reporting line is prescribed where the dotted line represents the 'administrative' reporting line and the bold line represents the 'functional' reporting line:



**5. ROLES AND RESPONSIBILITIES**

5.1 The internal audit function shall evaluate and contribute to the improvement of governance, risk management, and control processes using a systematic and disciplined approach.

In the conduct of its activities, the internal audit function will play an active role in:

- developing and maintaining a culture of accountability and integrity,
- facilitating the integration of risk management into day-to-day business activities and processes, and
- promoting a culture of cost-consciousness, self-assessment and adherence to high ethical standards.

Internal audit activities will encompass the following areas:

**Audit activities** including audits with the following orientation:

*Risk Management*

- evaluate the effectiveness, and contribute to the improvement, of risk management processes
- provide assurance to the General Manager and the Audit, Risk and Improvement Committee on the effectiveness of the risk management framework including the design and operational effectiveness of internal controls



- provide assurance that risk exposures relating to the Council's governance, operations, and information systems are correctly evaluated, including:
  - i. reliability and integrity of financial and operational information,
  - ii. effectiveness, efficiency and economy of operations, and
  - iii. safeguarding of assets
- evaluate the design, implementation and effectiveness of the Council's ethics-related objectives, programs and activities
- assess whether the information technology governance of the Council sustains and supports the Council's strategies and objectives.

*Compliance*

- assess compliance with applicable laws, regulations, policies and procedures.

*Performance improvement*

- evaluate the efficiency, effectiveness and economy of Council's business systems and processes.

**Advisory services**

The internal audit function can advise the Council's management on a range of matters including:

*New programs, systems and processes*

- providing advice on the development of new programs and processes and/or significant changes to existing programs and processes including the design of appropriate controls.

*Risk management*

- assisting management to identify risks and develop risk treatment and monitoring strategies as part of the risk management framework

*Fraud and corruption control*

- evaluating the potential for the occurrence of fraud and corruption and how the Council manages fraud and corruption risk
- assisting the General Manager to investigate fraud and corruption, identify the risks of fraud and corruption and develop fraud and corruption prevention and monitoring strategies
- providing advice on developing, implementing, and maintaining a fraud and corruption control framework to prevent, detect and manage fraud and corruption.

*Other*

- conduct any other special investigations as directed by the General Manager or the Audit, Risk and Improvement Committee via the General Manager.

5.2 The Head of Internal Audit is also responsible for the following audit supporting activities:

- managing the internal audit function
- assisting the Audit, Risk & Improvement Committee to discharge its responsibilities
- monitoring the implementation of agreed recommendations
- disseminating across Camden Council better practice and lessons learnt arising from its audit activities

## 6. INTERNAL AUDIT METHODOLOGY

6.1 Internal Audit shall apply an internal audit methodology consistent with the Standards for each internal audit engagement, considering the nature of the activity and the pre-determined parameters for the engagement. Generally, internal audits will include:

- planning;
- reviewing and assessing risks in the context of the audit objectives;
- examination and evaluation of information;
- communicating results; and
- following up on implementation of audit recommendations.

## 7. OPERATING PRINCIPLES

7.1 Internal audit activities will be conducted in accordance with:

- this Charter;
- International Standards for the Professional Practice of Internal Auditing issued by the Institute of Internal Auditors (the Standards);
- the Code of Ethics issued by the Institute of Internal Auditors; and
- regulatory requirements including any requirements of the *Local Government Act 1993* and associated regulations and the *Independent Commission against Corruption Act 1988*

## 8. REQUIREMENTS OF INTERNAL AUDIT

8.1 Internal Audit shall:

- possess the knowledge, skills, and technical proficiency essential to the performance of internal audits. This includes consideration of current activities, trends and emerging issues, to enable relevant advice and recommendations;
- be skilled in dealing with people and in communicating audit, risk management and related issues effectively;
- maintain their technical competence through a program of continuing education;
- exercise due professional care in performing internal audit engagements.

8.2 Internal audit staff shall:

- comply with Camden Council's Code of Conduct
- comply with relevant professional Standards of conduct
- conduct themselves in a professional manner; and
- conduct their activities in a manner consistent with the concepts expressed in the Standards and the Code of Ethics.

## 9. REPORTING REQUIREMENTS

9.1 Internal Audit shall at all times report functionally to the Audit, Risk & Improvement Committee. At each Audit, Risk & Improvement Committee meeting, the Head of Internal Audit shall submit a report on:

- audits completed
- time spent on other audit activities
- progress in implementing the annual audit work plan; and
- the implementation status of agreed internal and external audit recommendations.

9.2 On completion of each internal audit engagement, Internal Audit shall issue a report to its audit customers detailing the objective and scope of the audit, and resulting issues based on the outcome of the audit. Internal Audit shall seek from the responsible Senior Executive or Manager an agreed or endorsed action plan outlining remedial action to be taken, along with an implementation timetable and Responsible Officers for the action. Responsible Officers shall have ten working days to provide written management responses and action plans in response to issues and recommendations contained in internal audit reports.

Internal Audit shall also provide the appropriate Senior Executive or Manager with a client feedback form requesting feedback on the conduct of the audit to enable an assessment of client satisfaction.

9.3 Internal Audit shall make available all internal audit reports to the Audit, Risk & Improvement Committee. However, the work of the Internal Auditor is solely for the benefit of Camden Council and is not to be relied on or provided to any other person or organisation, except where this is formally authorised by the Audit, Risk & Improvement Committee.

9.4 In addition to the normal process of reporting on work undertaken by Internal Audit, the Head of Internal Audit shall draw to the attention of the Audit, Risk & Improvement Committee all matters that, in the Head of Internal Audit's opinion, warrant reporting to the Audit, Risk & Improvement Committee.

9.5 At least annually, Internal Audit shall provide a report to the Audit, Risk & Improvement Committee outlining the results of the Internal Audit function. This should include an assessment against the performance measures endorsed by the Committee as per paragraph 13.2.

9.6 At least annually, the Head of Internal Audit shall meet separately with the Audit, Risk and Improvement Committee without Council's management present.

## 10. PLANNING REQUIREMENTS

10.1 Internal Audit shall use a risk-based rolling program of internal audits to establish a three-year audit plan to be reviewed annually. The program of audits is to be divided into three 12-month periods clearly demonstrating the coverage for each year. This approach is designed to be flexible, dynamic and more timely in order to meet the changing needs and priorities of Camden Council.

10.2 The Head of Internal Audit shall prepare an Internal Audit Plan annually for review and

approval by the Audit, Risk & Improvement Committee, showing the proposed areas for audit. The Internal Audit Plan shall be based on an assessment of the goals, objectives, and business risks of Camden Council, and shall take into consideration any special requirements of the Audit, Risk & Improvement Committee and the Executive Leadership Group.

- 10.3 The Head of Internal Audit has discretionary authority to adjust the Internal Audit Plan as a result of receiving special requests from the Executive Leadership Group to conduct reviews that are not on the plan, with these to be approved at the next meeting of the Audit, Risk & Improvement Committee.

## **11. CONTRACT AUDIT RESOURCES**

- 11.1 To supplement Internal Audit resources, the Head of Internal Audit may engage the services of specialist external contractors. The contractors will be engaged through Council's approved procurement processes. The independent external contractors will operate under the supervision of the Head of Internal Audit.
- 11.2 At least annually, contract internal auditors will confirm their independence and compliance with the Standards.

## **12. COORDINATION WITH EXTERNAL AUDIT**

- 12.1 Periodic meetings and contact between internal and external audit shall be held to discuss matters of mutual interest, coordinate audit activity and reduce duplication of audit effort.
- 12.2 External audit will have full and free access to all internal audit plans, working papers and reports.

## **13. QUALITY ASSURANCE AND IMPROVEMENT PROGRAM**

- 13.1 The Head of Internal Audit shall oversee the development and implementation of a quality assurance and improvement program for internal audit, to provide assurance that internal audit work conforms to the Standards and is focused on continuous improvement.
- 13.2 The Head of Internal Audit shall develop performance measures (key performance indicators) for consideration and endorsement by the Audit, Risk & Improvement Committee, as a means for the performance of internal audit to be periodically evaluated.
- 13.3 Internal Audit shall also be subject to an internal quality review every two years and an independent quality review at least every five years. Such review shall be in line with the Standards and be commissioned by and reported to the Audit, Risk & Improvement Committee.

## **14. CONFLICTS OF INTEREST**

- 14.1 Internal Audit is not to provide audit services for work for which they may previously have been responsible. Whilst the Standards provide guidance on this point and allow this to occur after 12 months, each instance should be carefully assessed.
- 14.2 When engaging internal audit contractors, the Head of Internal Audit shall take steps to identify, evaluate the significance, and manage any perceived or actual conflicts of interest

that may impinge upon internal audit work.

- 14.3 Instances of perceived or actual conflict of interest by the Head of Internal Audit are to be immediately reported to the Audit, Risk & Improvement Committee by the Head of Internal Audit.

#### 15. REVIEW OF INTERNAL AUDIT CHARTER

- 15.1 The Head of Internal Audit shall periodically review the Internal Audit Charter and make recommendations for amendment to the Charter for Audit, Risk and Improvement Committee approval to ensure it remains up to date and reflects the current scope of internal audit work.
- 15.2 This Charter will be reviewed at least annually by the Audit, Risk & Improvement Committee. Any substantive changes will be formally approved by Council on the recommendation of the Audit, Risk and Improvement Committee.

#### RELEVANT LEGISLATIVE INSTRUMENTS AND STANDARDS:

Local Government Act 1993  
 Local Government Amendment (Governance and Planning) Act 2016  
 Independent Commission against Corruption Act 1988  
 Internal Audit Guidelines issued in September 2010 under Section 23A of the Local Government Act 1993  
 Standards or professional practice issued by the Institute of Internal Auditors Australia  
 Internal Audit Charter

#### RELATED POLICIES, PLANS AND PROCEDURES:

#### RESPONSIBLE PERSON:

Internal Audit Coordinator

#### APPROVAL:

Council on recommendation of Audit Risk and Improvement Committee

#### NEXT REVIEW DATE:

June 2022

#### HISTORY:

Issue	Approved by	Changes made	Date
1	<i>Council on recommendation of Business Assurance and Risk Committee</i>	<i>Nil</i>	<i>13/10/2015</i>
2	<i>The Audit, Risk &amp; Improvement Committee</i>	<i>Minor updates</i>	<i>06/03/2019</i>
3	<i>Council on recommendation of Audit, Risk and Improvement Committee</i>	<i>Various to comply with best practice</i>	<i>08/06/2021</i>

\* \* \*



# Minutes

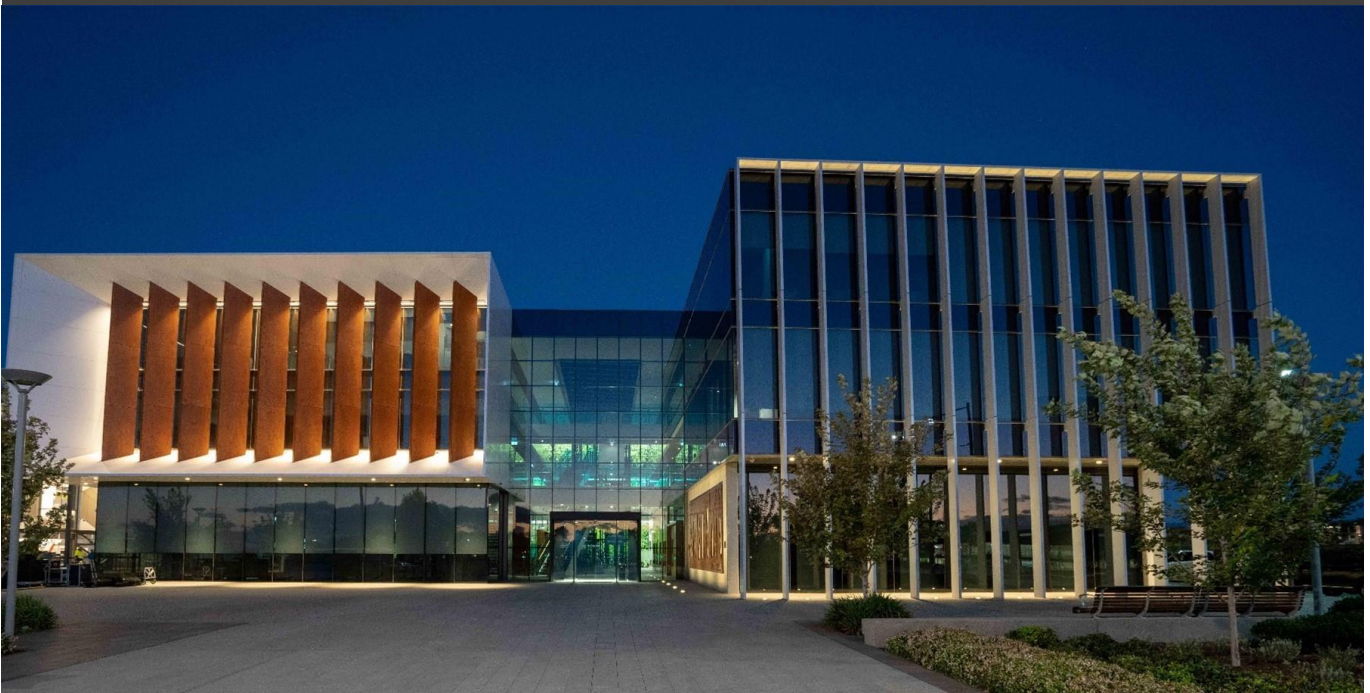
## Audit, Risk and Improvement Committee Meeting

Oran Park Administration Building  
70 Central Avenue  
Oran Park  
4.00pm

22 February 2023

ORD10

Attachment 1



camden  
council



## Audit, Risk and Improvement Committee

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## Audit, Risk and Improvement Committee

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**Meeting started: 3.55pm**

**Voting Members Present:**

Elizabeth Gavey	Independent Member (Chair)
John Gordon	Independent Member
Bruce Hanrahan	Independent Member

**Attendees:**

General Manager  
 Acting Chief Financial Officer  
 Internal Audit Coordinator  
 Internal Audit Analyst

**Invitees:**

Director Community Assets  
 Acting Director Customer and Corporate Strategy  
 Director Planning and Environment  
 Acting Director Sport, Community and Activation  
 Manager Legal and Governance (arrived at 5.13pm and left at 5.45pm)  
 Acting Manager People, Learning and Culture (arrived at 5.45pm and left at 5.50pm)  
 Coordinator Contributions Planning (left at 4.33pm)  
 Manager Open Space and Sustainability (arrived at 4.56pm and left at 5.06pm)  
 Mary Yeun                      The Audit Office of NSW (External Auditor) (attended remotely, left at 4.19pm)  
 Penny Corkhill                Director Risk and Assurance Centium (attended remotely, arrived at 4.20pm and left at 4.33pm)

**Apologies:**

Cr Paul Farrow	Camden Council Councillor
Cr Russell Zammit	Camden Council Councillor
Director Customer and Corporate Strategy	
Manager Safety and Risk	

**Welcome**

The Committee welcomed Council's General Manager, Mr Andrew Carfield, to his first Audit, Risk and Improvement Committee meeting.

**Thank you**

The General Manager, Internal Audit Coordinator and Chair of the Committee noted that this was the last meeting for both Mr John Gordon and Mr Bruce Hanrahan and thanked them for their contribution, insights, knowledge and support over the past eight years on Council's Audit, Risk and Improvement Committee.

Attachment 1



## Audit, Risk and Improvement Committee

ORD10

Attachment 1

### **BUS01 Apologies**

#### RECOMMENDED

That leave of absence be granted.

#### DECISION

Leave of absence granted to Cr Paul Farrow and Cr Russell Zammit.

### **BUS02 Declarations of Interest**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee declarations be noted.

#### DISCUSSION

Ms Elizabeth Gavey advised the following declarations:

- Currently, along with John Gordon, sits on the Audit, Risk and Improvement Committee for the Audit Office of NSW however declared no conflict for this meeting.
- Currently sits on the Audit and Risk Committee for Local Government NSW, noting the work that Council has been doing with Local Government Procurement, however declared no conflict for this meeting.

Mr Bruce Hanrahan advised the following declaration removal:

- Ceased position as member on the Salvation Army Advisory Committee.

#### DECISION

The Audit, Risk and Improvement Committee noted the declarations.

### **BUS03 Minutes to the 9 and 23 November 2022 Audit, Risk and Improvement Committee Meetings**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee approve the minutes to the 9 and 23 November 2022 Audit, Risk and Improvement Committee meetings.

#### DISCUSSION

Council's Internal Audit Coordinator provided an update on the outstanding actions noting that the Chair of the Committee is scheduled to present to Council's Senior Management Team on 15 March 2023.

The Committee were advised the Family Day Care assessment was recently undertaken with the outcome to be reported to the next Committee meeting.

The Internal Audit Coordinator advised that after consultation with the Chair, the review of the Internal Audit Plan is now scheduled for the July Committee meeting to allow for the review of the Committee and Internal Audit Charters.



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### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee:

- i. approved the minutes to the 9 and 23 November 2022 Audit, Risk and Improvement Committee meetings; and
- ii. noted the status of actions included in the actions list.

**Moved: Ms Elizabeth Gavey**

**Seconded: Mr John Gordon**

*BUS08 - External Audit Update was dealt with at the conclusion of this item.*

### **BUS04 Section 7.11 Local Infrastructure Contributions Internal Audit Report**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee note the Section 7.11 Local Infrastructure Contributions Internal Audit Report.

### DISCUSSION

*This item was dealt with at the conclusion of BUS08 - External Audit Update.*

Centium's Director Risk and Assurance, Ms Penny Corkhill presented the Section 7.11 Local Infrastructure Contributions Internal Audit Report noting that a great result was achieved with many positive findings and five lower risk findings across two common themes.

The Committee asked what 'secondary dwellings' are and the Coordinator Contributions Planning advised that this essentially refers to granny flats and outlined the steps Council takes to follow up any payments where handled by a private certifier.

The Committee noted the upcoming software implementation and recommended Council undertake a post implementation review.

The Committee commended management on a great result noting that most of the findings were low risk, well controlled and all have plans in place to address.

### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee:

- i. noted the Section 7.11 Local Infrastructure Contributions Internal Audit Report; and
- ii. raised the following action:
  - a. recommended a post implementation review be undertaken after the new Local Infrastructure Contributions software is operational.

*Centium's Director Risk and Assurance, Penny Corkhill and the Coordinator Contributions Planning left after this item, the time being 4.33pm.*

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### **BUS05 General Manager's Update**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee note the General Manager's update.

#### DISCUSSION

The General Manager advised that he commenced with Camden Council late November 2022 and since that time has been learning much about the organisation and the local government area.

The General Manager outlined the significant grant funding totalling \$162 million awarded to Council over the past month and ran through the projects associated with the funding. The General Manager advised that the grant funding is welcomed as it supports Council's planned renewal and program of works and also ran through some of the associated challenges.

The General Manager referred to the four major weather events in the local government area last year and the extensive damage caused to a number of Council bridges. An update on the works on those bridges was provided.

The General Manager advised of the successful response to the vacant Committee members recruitment, noting a recommendation will be reported to Council on 14 March 2023.

The Committee referred to the number of upcoming major projects and suggested that the Committee be provided with risk assessments/updates for the more significant/higher risk major projects.

The Committee asked whether a follow up audit on project management was planned and the Internal Audit Coordinator advised that a budget development and project management follow up audit were scheduled following two audits that are nearing commencement.

The Committee queried whether the long term costs had been considered when applying for grant funding noting that buildings and infrastructure delivered would have to be maintained by Council.

The General Manager referred to Council's current asset base noting that the income streams from predicted growth will assist in maintaining these assets. The Acting Director Customer and Corporate Strategy also discussed the impact on depreciation.

The Committee thanked the General Manager for his update and requested this remain a standing agenda item going forward.

#### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee:

- i. noted the General Manager's update; and
- ii. raised the following action:



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- a. that the Committee be provided with periodical risk assessments/updates on higher risk major projects.

*The Manager Open Space and Sustainability arrived, the time being 4.56pm.*

### **BUS06 Tree Inspections and Maintenance Internal Audit Report**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee note the Tree Inspections and Maintenance Internal Audit report.

#### DISCUSSION

The Internal Audit Coordinator presented the outcome of the Tree Inspections and Maintenance Internal Audit noting that it was the first time that an audit has been conducted in this area. The Internal Audit Coordinator provided context by outlining the number of customer requests and tree permits received by Council. The resourcing at the time of the audit was also explained.

The Internal Audit Coordinator outlined the positive findings and the recommendations for improvement identified.

The Committed noted the good result given the limited resources.

The Committee sought clarification on the difference between public and private trees and asked how Council ensures that all trees are captured as part of the inspection program. The Manager Open Space and Sustainability advised of the difference between how the requests are received for public and private trees and advised that the proactive inspection program currently in place is based on high risk areas with a focus on community safety.

The Committee noted the completion of the service delivery review by June 2023 and asked whether this was achievable and the Manager Open Space and Sustainability advised that the audit recommendations are on track for completion with some already completed and work commenced on the remaining.

The Committee requested that the outcome of the service delivery review be reported/presented back to the Committee.

The Committee asked how the monitoring of the qualifications of contractors is managed and the Acting Director Customer and Corporate Strategy advised that the new contract management software is intended to include reminders to check and update as needed and Council's current "Conserve" system also holds this information.

The Acting Director Customer and Corporate Strategy advised that once the new contract management system is fully operational, a presentation could be provided to the Committee and the Committee agreed.

#### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee:

- i. noted the Tree Inspections and Maintenance Internal Audit report;



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- ii. raised the following actions:
  - a. that the outcome of the service delivery review on Urban Forest Services be presented/reported to the Committee; and
  - b. that the Committee be provided a presentation on the functionality of the new contract management software once it is fully operational.

*The Manager Open Space and Sustainability left after this item, the time being 5.06pm.*

### **BUS07 Enterprise Risk Management**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee note the Enterprise Risk Management update.

#### DISCUSSION

The Acting Director Customer and Corporate Strategy advised the next report to the Committee meeting will include the outcome of the risk register review which is currently underway.

The Committee asked whether the review was examining everything and the Acting Director Customer and Corporate Strategy confirmed that it was and advised that Council is in the process of creating its first risk culture survey to obtain staff views.

#### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee noted the Enterprise Risk Management update.

*BUS13 - Audit Report Recommendations - Implementation Status Update - December 2022 was dealt with at the conclusion of this item.*

### **BUS08 External Audit Update**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee note the external audit update.

#### DISCUSSION

*This item was dealt with after the conclusion of BUS03 – Minutes to the 9 and 23 November 2022 Audit, Risk and Improvement Committee Meetings.*

The Chair invited the Audit Office of NSW to present the management letter. Ms Mary Yuen noted that three moderate and two low risks were found that relate to delays in capitalising completed projects; fair value assessment and valuation adjustments; rural fire-fighting (RFS) assets; purchase orders raised after invoice received; and a loan account issue.

The Committee requested a status update on the engagement letter and Ms Yuen highlighted some focus areas and advised that the draft was recently provided to management for review.



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The Committee noted the annual requirement of the General Manager to make modern slavery disclosures and asked whether the Audit Office will include this as a focus item this year. The Audit Office took this question on notice.

The Committee noted the great result and commended management on addressing the repeat findings.

The Committee asked whether the RFS assets related to the red fleet and the Acting Director Customer and Corporate Strategy confirmed that it was.

The Acting Director Customer and Corporate Strategy provided an outline to the Committee on the plans in place to address the findings.

### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee:

- i. noted the external audit update; and
- ii. raised the following action:
  - a. for the Audit Office to respond to the question taken on notice on whether councils' compliance with modern slavery requirements will be an audit focus area for this year.

*Ms Mary Yuen from the Audit Office of NSW left after this item, the time being 4.19pm.*

*Centium's Director Risk and Assurance, Ms Penny Corkhill arrived after this item, the time being 4.20pm.*

*BUS04 - Section 7.11 Local Infrastructure Contributions Internal Audit Report was dealt with at the conclusion of this item.*

### **BUS09 Update on the Response to the NSW Modern Slavery Act 2018**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee note the update on the response to the NSW *Modern Slavery Act 2018*.

#### DISCUSSION

*This item was dealt with that the conclusion of BUS13 - Audit Report Recommendations - Implementation Status Update - December 2022.*

The Manager Legal and Governance provided an update on the progress of Council's preparedness for addressing new modern slavery requirements.

The Committee were pleased to see Council progressing the more significant issues upfront.

The Committee asked whether councils have been sharing information around this matter and the Manager Legal and Governance advised that Local Government Procurement have been proactive with many councils following their lead.

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The Committee asked if there were any surprises so far with suppliers and the Manager Legal and Governance advised that Council is currently in the exploratory phase and that may come up over time.

The Acting Chief Financial Officer also advised that Local Government Procurement are doing detailed assessments of their suppliers which will assist councils and when Council has finalised the questionnaire, they will work on targeting medium to high risk suppliers for completion.

#### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee noted the update on the response to the NSW *Modern Slavery Act 2018*.

#### **BUS10 Update on Review of Delegations of Authority**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee note the update on the review of the Delegations of Authority.

#### DISCUSSION

The Committee asked whether Council had a policy supporting the delegations register and the Manager Legal and Governance explained the relationship to several intersecting Council policies along with the *Local Government Act 1993*.

The Committee noted the complexity of the delegations register and asked whether there was a way for staff to easily search by position for their delegations. The Manager Legal and Governance advised of the process underway to automate the delegations register to allow searchability noting that it is intended for the system to also manage legislative compliance and the policies and procedures register.

The Committee asked about the approval process that the delegations register has been through and the Manager Legal and Governance outlined the process which included review and approval from the Executive Leadership Group.

The Committee asked several questions on the details of some delegations and the management team responded to each query.

#### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee noted the update on the review of the Delegations of Authority.

#### **BUS11 Governance Information Report - 31 December 2022**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee note the Governance Information Report for the six months to 31 December 2022.

#### DISCUSSION

The Internal Audit Coordinator presented the governance information report noting that additional referral categories had been added as requested by the Committee with the Office of Children's Guardian statistics to be included in the next report.





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The Committee suggested the trends with the customer service statistics be monitored over the coming six months to confirm the relationship between the statistics and adverse weather events.

### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee noted the Governance Information Report for the six months to 31 December 2022.

*The Manager Legal and Governance left after this item, the time being 5.45pm.*

*The Acting Manager People, Learning and Culture arrived, the time being 5.45pm.*

### **BUS12 Work Health and Safety Update - July to December 2022**

### RECOMMENDED

That the Audit, Risk and Improvement Committee note the Work Health and Safety update.

### DISCUSSION

The Committee requested future presentations be scheduled on the Safety Audit Regime and Chain of Responsibility projects that were nearing completion.

The Committee noted the increase in incidents and asked whether this was due to an increase in reporting or were there more incidents occurring. The Acting Manager People, Learning and Culture advised that Council had been educating staff on the importance of reporting incidents and the Acting Director Sport and Community Activation reminded the Committee that the statistics also include incidents reported in Council's open space and park areas.

The Committee noted the unplanned leave statistics and asked whether the LGNSW benchmark was current. The Acting Manager People, Learning and Culture advised that the benchmark is 12 months old and likely to change in the near future.

### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee:

- i. noted the Work Health and Safety update; and
- ii. raised the following action:
  - a. that a presentation be provided to the Committee on the Safety Audit Regime and the Chain of Responsibility projects on completion.

*The Acting Manager People, Learning and Culture left after this item, the time being 5.50pm.*

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### **BUS13 Audit Report Recommendations - Implementation Status Update - December 2022**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee note the Audit Recommendations Implementation Status Update for 31 December 2022.

#### DISCUSSION

*This item was dealt with at the conclusion of BUS07 – Enterprise Risk Management.*

The Internal Audit Coordinator provided an update on the implementation of audit recommendations noting that 92% are on track or complete with 11 audit recommendations completed since last reporting. It was advised that there have been a total of 635 audit recommendations made since commencement of the internal audit function with 611 completed.

The Committee acknowledged the great result and the amount of work completed to address audit recommendations and sought clarification on the appropriateness of the level of audit verification of implemented recommendations. The Internal Audit Coordinator advised that the Internal Audit Plan is currently under review and consideration is being given to including the verification of audit recommendations as an audit within the plan.

#### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee noted the Audit Recommendations Implementation Status Update for 31 December 2022.

*The Manager Legal and Governance arrived, the time being 5.13pm.*

*BUS09 - Update on the Response to the NSW Modern Slavery Act 2018 was dealt with at the conclusion of this item.*

### **BUS14 Quality Assurance and Improvement Program - Internal Audit Annual Survey Results and Balanced Scorecard/KPI Report - December 2022**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee note the:

- i. results of the annual internal audit satisfaction survey; and
- ii. Six Monthly Key Performance Indicator/Balanced Scorecard/Report.

#### DISCUSSION

The Internal Audit Coordinator outlined the results of the Internal Audit annual survey noting that overall response was positive and noting the intention to improve the system used for updating audit recommendations.

The Committee acknowledged the great results achieved.



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The Internal Audit Coordinator also provided an update on the six monthly key performance indicators advising that the majority of areas are on track and providing an explanation for the completion of internal audits key performance indicator. The Internal Audit Coordinator also outlined the priorities that would impact capacity to meet this target over the coming six months.

### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee noted the:

- i. results of the annual internal audit satisfaction survey; and
- ii. Six Monthly Key Performance Indicator/Balanced Scorecard/Report.

### **BUS15 Audit, Risk and Improvement Committee and Internal Audit Annual Report 2022**

### RECOMMENDED

That the Audit, Risk and Improvement Committee approve the Audit, Risk and Improvement Committee and Internal Audit Report for 1 November 2021 to 9 November 2022 for presentation to a Councillor briefing session.

### DISCUSSION

The Internal Audit Coordinator reminded the Committee that this document has already been reviewed by the independent members out of session and is now presented for formal approval. The Committee were advised of one typographical error that was amended on the last page, changing an acronym from 'LGA' to 'OLG'.

### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee approved the Audit, Risk and Improvement Committee and Internal Audit Report for 1 November 2021 to 9 November 2022 for presentation to a Councillor briefing session.

### **BUS16 Internal Audit Plan Status Update**

### RECOMMENDED

That the Audit, Risk and Improvement Committee note the Internal Audit Plan status update.

### DISCUSSION

The Internal Audit Coordinator provided an update on the status of the internal audit plan noting the progress.

The Internal Audit Coordinator advised that the next Committee meeting will include a comparison to the Local Government Internal Audit Network survey results.

### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee noted the Internal Audit Plan status update.

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### **BUS17 Update on Reports from Authoritative Bodies**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee note the update on reports from authoritative bodies.

#### DISCUSSION

The Committee asked whether Council has made a decision regarding the payment of superannuation to remunerated Committee members noting that other Committees they are on have still not made decisions and some have differing views. The Internal Audit Coordinator advised that Council intends to seek legal advice regarding this matter.

The Committee noted that the OLG tendering guidelines were out for comment and they indicate that tender responses and \$ amounts should be published once the tender closes. The Acting Director Customer and Corporate Strategy advised that Council is reviewing this as tender responses are considered commercial in confidence. The Acting Chief Financial Officer further advised that the change is in the *Local Government (General) Regulation 2021* and that Local Government Procurement are also reviewing this matter.

The Internal Audit Coordinator advised that a gap analysis of a number of Audit Office reports will be provided to the next Committee meeting.

#### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee noted the update on reports from authoritative bodies.

### **BUS18 Checklist of Compliance with Committee Requirements**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee note the checklist of compliance with the Audit, Risk and Improvement Committee Charter for the 2023 calendar year.

#### DISCUSSION

The Committee noted that once the new independent members have been recruited and the Audit, Risk and Improvement Committee Charter reviewed, that the checklist of compliance will be revisited.

#### DECISION

Following review and discussion, the Audit, Risk and Improvement Committee noted the checklist of compliance with the Audit, Risk and Improvement Committee Charter for the 2023 calendar year.

### **BUS19 General Business**

#### RECOMMENDED

That the Audit, Risk and Improvement Committee note any General Business items discussed.



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DISCUSSION

The Internal Audit Coordinator thanked Mr John Gordon and Mr Bruce Hanrahan for their support and guidance since the establishment of the Committee.

The Acting Director of Customer and Corporate Strategy also thanked Mr Gordon and Mr Hanrahan for their contribution and assistance in particular in relation to the financial statements audit.

DECISION

Following review and discussion, the Audit, Risk and Improvement Committee noted the General Business items discussed.

**Meeting Closed at 6.11pm****Next Meeting:**

The next meeting of the Audit, Risk and Improvement Committee will be held on 3 May 2023 at 4.00pm in Council's Oran Park Administration Building.

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