

SUBMISSION GREATER MACARTHUR 2040 INTERIM PLAN

FEBRUARY 2019



Prepared for
Walker Corporation



HiIPDA
CONSULTING

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Quality Assurance

Report Contacts

William Tzaikos
Consultant
William.tzaikos@hillpda.com

Virginia Phillips

Associate

Adv Dip Val, MProDev, PMAPI
Virginia.Phillips@hillpda.com

Supervisor

Elizabeth Griffin
Principal, Strategic Planning and Policy
Elizabeth.griffin@hillpda.com

Quality Control

This document is for discussion purposes only unless signed and dated by a Principal of HillPDA.

Reviewer

Signature		Dated	08/02/19
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1.0 BACKGROUND

The NSW Department of Planning and Environment has placed on public exhibition a draft strategic planning framework for the Greater Macarthur Growth Area entitled *Greater Macarthur 2040 Interim Plan* (“Interim Plan”). The Interim Plan is supported by a draft Structure Plan and informed by an extensive range of technical studies. Once finalised, the Interim Plan will guide precinct planning within the Growth Area. A Special Infrastructure Contribution (SIC) is proposed in the Growth Area to fund new infrastructure, in addition to Wollondilly Council’s developer contributions.

Walker Corporation has considerable land holdings in the Appin Precinct, within the Greater Macarthur Growth Area. Walker has commenced investigations to facilitate the creation of a new residential community supported by social infrastructure and good access to jobs.

Figure 1: Appin Precinct with Walker landholdings



Walker has engaged HillPDA to review the draft Interim Plan and supporting documents, with particular regard to any implications for the orderly and sustainable development of Appin Precinct. This submission sets out those findings.

2.0 A STRATEGIC PLANNING FRAMEWORK

Walker and HillPDA support the comprehensive planning process the Department has applied to the Growth Area. Greater Macarthur is strategically located relative to western Sydney and the Illawarra and its relationship to existing and proposed urban areas in south west Sydney. The area already enjoys access to existing infrastructure that can be augmented and expanded to serve the new urban area, and simultaneously its agricultural enterprises are experiencing declining viability associated with rising land values and the removal of the dairy quota system.

The Interim Plan provides for the progressive implementation of augmented and new physical and social infrastructure, including koala and biodiversity corridors that will accommodate and connect rivers, gorges vegetation and wildlife movement corridors. New transport infrastructure connecting neighbourhoods and centres will contribute to the achievement of the '30 Minute City'.

A secure supply of housing will be facilitated within south west Sydney and Illawarra markets, with the potential for downward pressure of house and land prices resulting from increased competition. A variety of housing types in different locations will support the varied needs of the future population, including affordable housing schemes, subject to project viability and potentially secured by Voluntary Planning Agreements.

The Interim Plan envisages new urban areas that are closely connected to Macarthur – Campbelltown, supporting its role as a 'metropolitan hub' and providing services and employment opportunities for future residents.

Adoption of the Interim Plan will provide owners with certainty regarding the area's future, after decades of uncertainty associated with planning processes that at times, included then excluded their land from metropolitan strategic plans.

In particular, Walker supports the Interim Plan's approach allowing *"landowners to have the opportunity to bring forward the release and rezoning of land so long as there is no financial impost to government."* (page 5)

3.0 REQUESTED AMENDMENTS TO THE INTERIM PLAN

While the Interim Plan provides a strong framework for the ongoing implementation of the Growth Centre, aspects that specifically relate to the Appin Precinct where corrections or revisions are appropriate have been identified:

1. The timing of the Appin Precinct's delivery is 'long term'
2. Gazettal of the Growth Area boundary in SEPP (*Sydney Region Growth Centres*)
3. The designation of the northern part of the Appin Precinct as 'employment and mixed use – subject to further investigation'
4. The alignment of the east-west sub-arterial through the Appin Precinct
5. Heritage planning principles that will prevent any development of heritage items, with particular implications for Northamptondale House within the Appin Precinct
6. The proposed SIC.

3.1 The Appin Precinct can be delivered in the short term

The Interim Plan sets the timing for delivery of the Appin Precinct for the 'long term' (page 19), while no timing constraints have been imposed on other Greater Macarthur Growth Area land release precincts, and Gilead north has been set as a 'first priority' (page 5).

However, new residential land can be delivered in the Appin Precinct within the short term, subject to completed strategic planning and development approvals. Accordingly, Walker is currently undertaking preparatory investigations and specialist studies to inform the necessary plans for the area.

The final Interim Plan should therefore permit flexible staging of delivery of all the Growth Centre's land release precincts in response to:

- Market and construction conditions
- The programmes of land owners and developers
- The optimal delivery and use of physical and social infrastructure, which can be resolved during detailed planning processes, and will be guided by the Interim Plan's Structure Plan.

A responsive and flexible approach to delivery as described will secure a steady supply of housing and improve the choice of housing type, price and location available to future residents, with associated downward pressure on house prices.

Further, the delivery of the Appin Precinct in the short term will fund the early construction of the draft Structure Plan's sub-arterial road connection from the Hume Highway into the 'Macquariedale Neighbourhood', within the Appin Precinct.

The new sub-arterial connection will provide another access into the Growth Area from the north, providing additional capacity on Appin Road, which in turn will support growth in the Gilead Precinct.

3.1.1 Requested amendment

The reference to Appin Precinct as ‘long term’ on page 19 be deleted so that the precinct can be delivered simultaneously with the other land release precincts and support the early delivery of an additional east west sub-arterial connection into the Growth Area.

3.2 Gazettal of the Growth Area boundary in SEPP (Sydney Region Growth Centres)

The gazettal of the Greater Macarthur Growth Area boundary in SEPP (*Sydney Region Growth Centres*) is required, as a matter of urgency, to provide stakeholders with the legal framework, certainty and confidence needed to commit significant resources for further planning processes. The Growth Area boundary was exhibited in 2016 and the statutory steps required prior to gazettal have been completed. The Department’s 2018 *Proposed Greater Macarthur Growth Area Post Exhibition Planning Report* considers all submissions made in relation to the proposed SEPP amendment and supports the recommendation to the Minister for Planning to declare the Growth Area. This report states:

“The Preliminary Strategy and Growth Centres SEPP amendments are the first steps in delivering new growth areas at Wilton, Menangle Park, Gilead and Appin”

The Department and Greater Sydney Commission strategic publications all refer to the Greater Macarthur Growth Area as a declared Growth Area. The declaration of the Growth Area boundary and accompanying SEPP amendment are required to give the Growth Area legal standing to deliver the Department’s planning objectives for this area.

3.3 The Appin Precinct ‘Mixed Use and Employment Investigation Area’

The Interim Plan shows the ‘Macquariedale Neighbourhood’, within the Appin Precinct as ‘Mixed Use Residential and Employment – subject to further investigation’ (see Figure 2).

The requirements for additional employment or mixed use land within the Growth Centre, and the physical suitability of the Macquariedale Neighbourhood for these developments have been analysed and it was found that:

1. There is already adequate land zoned or planned for employment, industrial and/or services, mixed use and centres within the region and the Macquariedale Neighbourhood is not required for these purposes. There are two types of employment that must be accommodated within the region:
 - a. Employment in businesses and activities that are generated by the growing community’s need for services
 - b. Employment opportunities for the growing community’s workers.

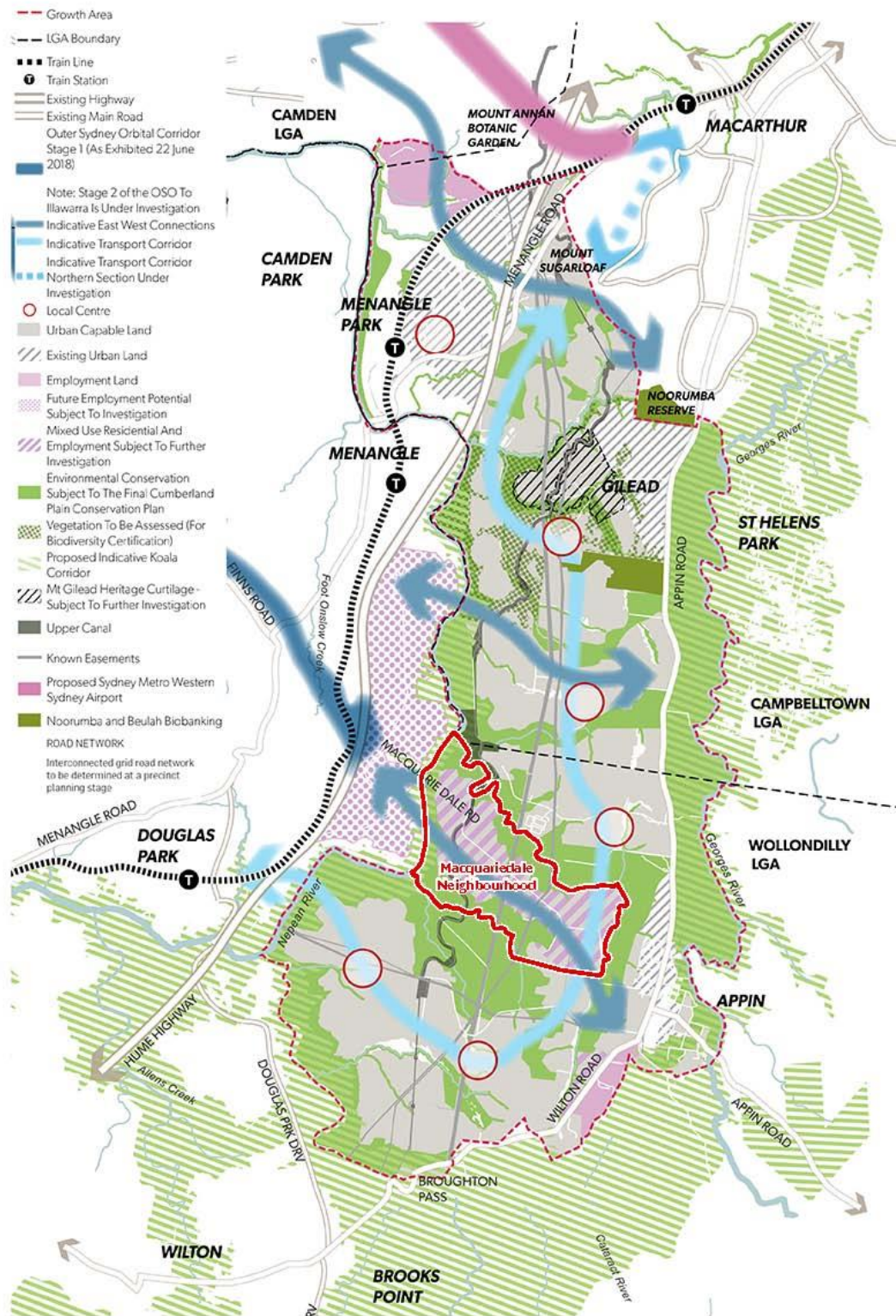
Land within the Macquariedale Neighbourhood is not required to accommodate the types of jobs located in neighbourhood or town centres as the Interim Plan’s draft Structure Plan incorporates six local centres, and the Macarthur-Campbelltown Metropolitan Hub is highly accessible.

Accordingly, the analysis contained in this report only considered the amount of land required to accommodate industrial and/or service type employment uses.

2. Employment or mixed uses will not generate the funding required to construct the east west sub-arterial into the Macquariedale Neighbourhood.
3. Land within the Macquariedale Neighbourhood enjoys natural and physical qualities that make it ideal for the creation of high quality residential environments. It would be an inefficient use of this resource if the Neighbourhood were designated for employment or mixed use.

- The varied and sometimes steep topography within the majority of the Neighbourhood is unsuitable for employment development, and road access for larger vehicles cannot be provided to other parts of the neighbourhood.

Figure 2: Draft Structure Plan with the 'Macquariedale Neighbourhood' identified



Source: DPE, Walker

3.3.1 Existing and planned employment, mixed use and centres land in the region

a. Accommodating jobs generated by the growing population

Urbis (2017) *Future Employment Analysis* concluded new resident populations in Greater Macarthur's land release precincts of Glenlee, Gilead, Menangle, Appin and North Appin, as well as the Wilton new town to the south, will generate 25,900 to 26,100 jobs, of which 8,500 (24%) will be industrial related jobs.

Western Sydney employment land currently accommodates jobs at a density of 31.2 jobs/hectare¹.

The 8,500 industrial type jobs generated would require 272.5 hectares of employment land when this density is applied.

While only 272.5 hectares of employment land is required to accommodate jobs generated by the new population, there are 464.7 hectares of existing or planned employment land within Greater Macarthur's land release precincts and the Wilton new town, and another 469 hectares in Moreton Park Road is shown as under investigation on the Interim Plan's draft Structure Plan.

Therefore, there is an adequate supply of zoned or planned employment land within Greater Macarthur's land release precincts and the Wilton new town to accommodate employment uses that will be generated by the growing resident population.

Land within the Macquariedale Neighbourhood is therefore not required to accommodate employment generated by the growing population.

Centre and mixed use employment has not been considered in this analysis as the Structure Plan (Figure 2) includes 6 Local Centres on the Indicative Transit Corridor, where it is intended business, shops and services demanded by the growing population will be focused. The Macarthur-Campbelltown Metropolitan Hub will be connected to the north, and will provide higher order education, recreation, health, retail and commercial facilities to serve the growing population.

A detailed analysis is at Appendix A.

b. Accommodating employment opportunities for new residents

Employment opportunities for new residents can be accommodated in the Growth Centre in accordance with the '30-minute city' principle. SGS Economics (2015) *Economic and Employment Analysis* determined that 46,000 new regional jobs should be targeted and would provide 0.6 jobs/working resident.

However, only a proportion of the 46,200 'target' jobs would require new employment land. To determine the number, the proportion of Camden and Campbelltown workers employed in sectors that require employment land from 2016 Census was applied.

Twenty nine percent of the Campbelltown/Camden workforce are employed in industries that require employment land.

Therefore, 13,398 jobs (29% of the 46,200 target) will require existing, planned or investigated employment lands within Greater Macarthur's land release precincts or Wilton new town.

This translates to a requirement for 429 hectares of employment land within Greater Macarthur, when a job density of 31.2 jobs/hectare is applied to the 13,398 jobs.

¹ (<https://www.planning.nsw.gov.au/Research-and-Demography/Employment-Lands-Development-Monitor/Employment-Land-Precincts>, accessed 13 December 2018).

While 429 hectares of employment land is required to accommodate job opportunities for the new population, there are 464.7 hectares of existing or planned employment land within Greater Macarthur’s land release precincts and the Wilton new town, and another 469 hectares in Moreton Park Road is shown as under investigation on the Interim Plan’s draft Structure Plan.

Therefore, there is an adequate supply of zoned or planned employment land within Greater Macarthur’s land release precincts and the Wilton new town to accommodate employment opportunities for workers within the growing communities.

Notwithstanding, attracting employing businesses to the employment lands will require a concerted and coordinated effort between the private sector, the state government and Campbelltown and Wollondilly Councils. SCG (2015) provided ideas for attracting business, including providing infrastructure, particularly public transport and ICT, innovative approaches to statutory planning, establishing government agencies and focused marketing (page 57).

A detailed analysis is at Appendix B.

3.3.2 Employment land and infrastructure funding

The draft Structure Plan includes a sub-arterial that connects M39 Hume Highway with Wilton Road through the Macquariedale Neighbourhood. The new sub-arterial connection will provide another access into the Growth Area from the north, providing additional capacity on Appin Road to support growth in Gilead

The draft Special Infrastructure Contribution (SIC) Plan includes the sub-arterial as:

R9 – Macquariedale Rd – Sub-arterial upgrade Appin Rd/Menangle Rd	\$209,495,000
R11 - Macquariedale Rd – Interchange ramps to Hume Highway	\$34,038,000
TOTAL	\$243,533,000

Residential development within the Macquariedale Neighbourhood will fund the sub-arterial, either as a Work in Kind, or through SIC. This transfers risks from government and allows its early implementation, which will provide additional capacity along Appin Road as described above.

Further, a potential 15,000 lots can be delivered in the Appin Precinct, without relying on Appin Road for access. Capacity on Appin Road would be available for the Gilead and Appin North Precincts.

Conversely, if the Macquariedale Neighbourhood is employment or mixed use land SIC contributions will not be made to government to fund the sub-arterial. As a consequence, this piece of connecting road will be deferred until sufficient SIC is collected from residential projects. Housing supply may be affected as delivery of lots within the Appin Precinct will rely of Appin Road for access, and Appin Road capacity will be limited.

More detail is provided in Appendix C.

3.3.3 Physical and access constraints

Conversely, Design + Planning undertook an urban design analysis of the Macquariedale Neighbourhood at Appendix D. The analysis showed that the Neighbourhood’s topography is not suitable for employment or mixed use land uses, aside from approximately 107 hectares in the northern tip.

However, the utility of those 107 hectares for employment uses is limited by:

- The Upper Canal, which bisects the area, is a heritage item and carries potable water to Sydney. It constrains the ability to provide efficient road access for industrial vehicles, and also the types of industry that may be appropriate so close to such a sensitive piece of infrastructure

- The Nepean River gorge and associated natural vegetation, which encloses it on three sides. This presents a range of environmental and water quality issues associated with employment uses
- Its isolation results in limited visibility for customers and visitors
- The potential impact of competition from the North Douglas Park employment area, which will be larger, have better accessibility and be more visible.

3.3.4 Residential uses in the Macquariedale Neighbourhood

Design + Planning reviewed the suitability of the Macquariedale Neighbourhood for residential estates, and concluded:

Positive urban outcomes for residential estates can be achieved in the Macquariedale Neighbourhood by responding to physical characteristics, particularly topography, and natural vegetation and associated river gorges. Together with a more suitable alignment for a sub-arterial road connection, better urban outcome can be achieved with residential land uses. (page 11)

The Design + Planning report is at Appendix D.

3.3.5 Requested amendment

The Macquariedale Neighbourhood be shown only as 'Urban Suitable', and the reference to 'Employment and Mixed-Use Investigation' be deleted.

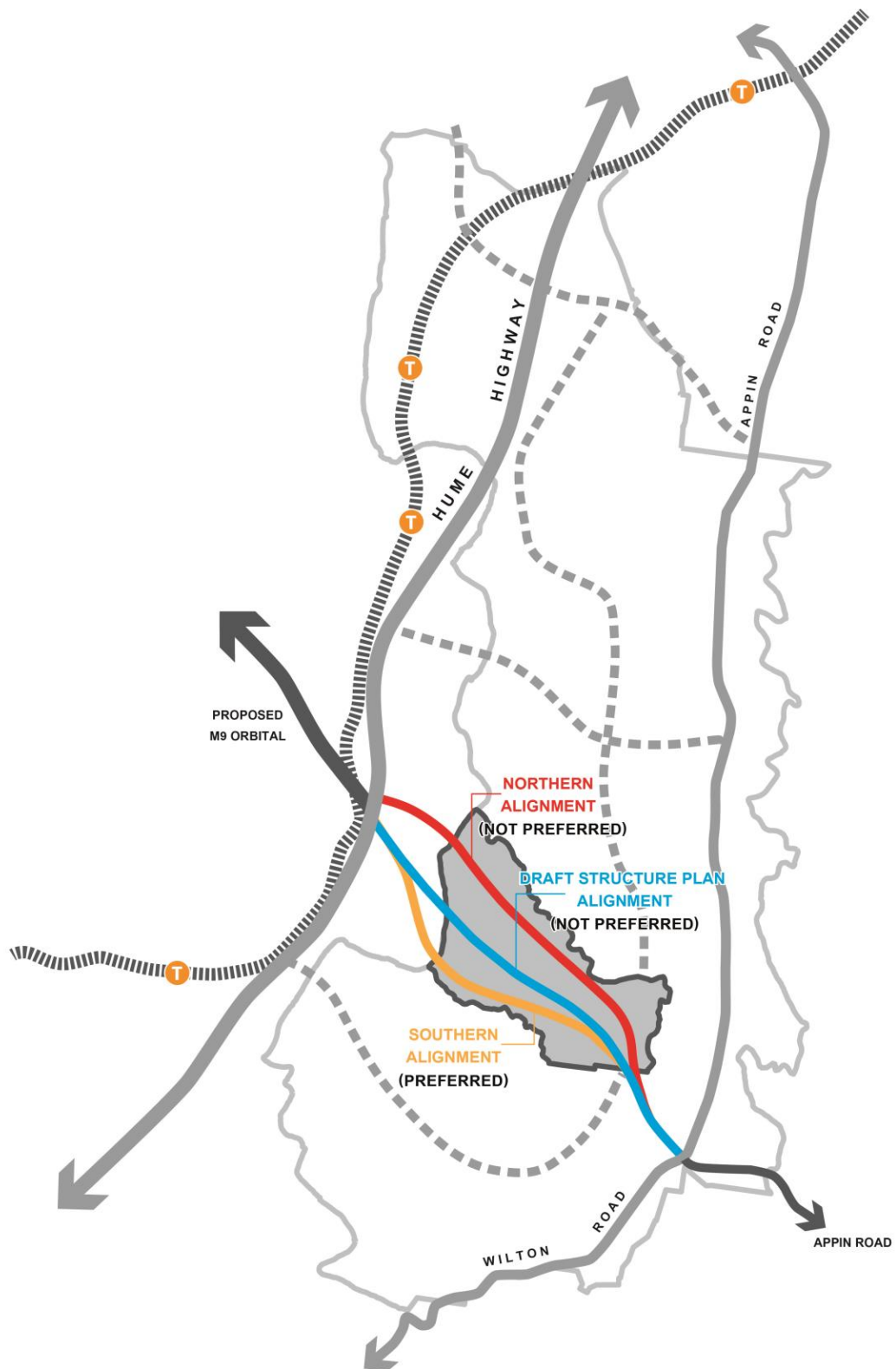
3.4 The east west sub-arterial through the Appin Precinct

Design + Planning analysed three potential alignments for the east west sub-arterial road relative to the physical assets that will contribute to the character of the completed Neighbourhood, and the creation of efficient and connected development parcels.

HillPDA notes that while the analysis is at a high level, Option C (the Sub-arterial Southern Alignment) presents considerably greater advantages by:

- Allowing the land with the highest visual amenity to be available for residential uses
- Allowing for more efficient use of land
- Reducing noise attenuation requirements to homes and improved north south connectivity throughout the neighbourhood
- Creating regular, reasonable sized development parcels, capable of efficiently accommodating new estates, and leaving only one small inefficient parcel, which could potentially be integrated into another Neighbourhood adjoining to the south
- Requiring only 1 crossing over the Upper Canal.

Figure 3: Sub-arterial route options considered by Design + Planning



3.4.1 Requested amendment

The final Structure Plan should show the east west sub-arterial following the ‘Southern Alignment’ to facilitate more logical and efficient development parcels, and also to avoid impacts on the Macquariedale Neighbourhood’s physical features.

3.4.2 The proposed Outer Sydney Orbital

The potential extension of a 100 metre wide Outer Sydney Orbital (OSO) corridor through the Macquariedale Neighbourhood has been considered, although it is noted that this is not proposed in the Interim Plan.

An OSO corridor in this location has implications for the functioning of the draft Structure Plan, and the creation of a new, cohesive urban area within Greater Macarthur’s land release areas, as it would sever north south connectivity through the area, or require significant investment in bridge structures.

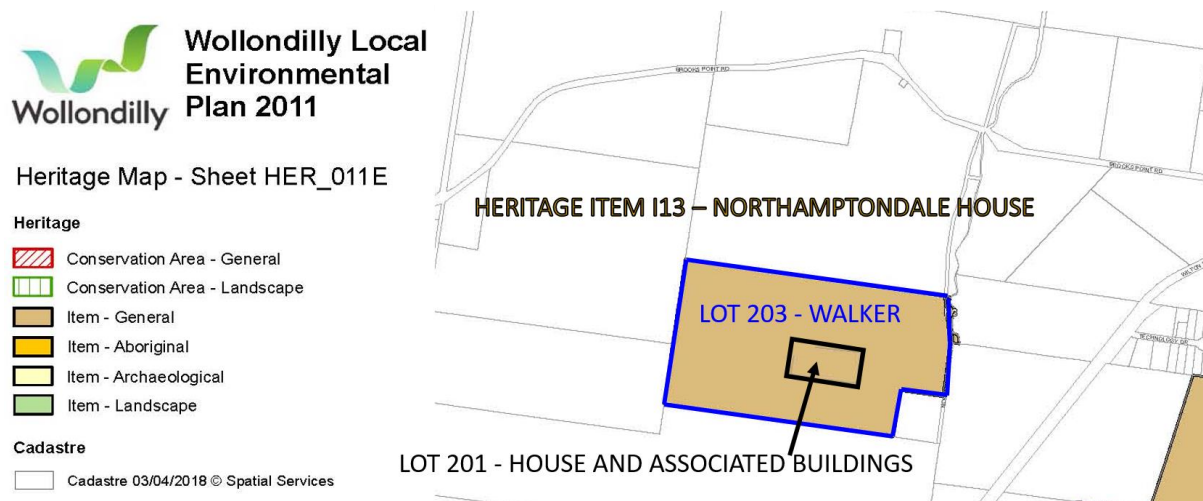
There would also be an impact on the orderly and efficient implementation of high quality residential areas within the Macquariedale Neighbourhood as it would:

- Cut the Neighbourhood into two separate and unconnected residential areas
- Impose environmental impacts associated with noise, air quality and visual impacts
- Impact on the physical assets of the Neighbourhood, in particular, high points.

3.5 Heritage Planning Principles and Northamptondale House

The Interim Plan identifies Northamptondale House as a Heritage Item with significant heritage value. The Item comprises 2 separate lots, being the lot that accommodates Northamptondale House and a larger Lot 203, which Walker owns and which encloses the heritage building and its curtilage.

Figure 4: Northamptondale House listing



Source: Wollondilly LEP

Walker commissioned Niche Environment and Heritage to provide specialist advice on the heritage aspects of Lot 203 with a view to determining how this land can best be integrated into a new urban area whilst maintaining its intrinsic heritage value. A copy of that advice is provided at Appendix F and includes statements of significance for the various heritage inventory listings on the Northamptondale lots.

Niche Environment and Heritage point out that the curtilage around Northamptondale house aligns with the legal boundary of Lot 203, rather than being representative of the area required to protect the heritage value of Northamptondale house and outbuildings.

Niche Environment and Heritage indicated that:

A reduced curtilage in Lot 203 would also be suitable for Northamptondale, as long as the curtilage maintains the sense and language of the region's early pastoral times, but in particular the mid-19th Century period of the house and other buildings. The reduced curtilage would be unlikely to be smaller than Lot 201. An example of a reduced boundary that may retain all the significant elements and features (including landscape values and views and vistas) which is based on extant structures and the 230 m contour.

The reduced curtilage will need to be informed by Heritage Impact Assessments and a Conservation Management Plan that seeks to address adaptive re-use for the Northamptondale Group and an interpretation plan that clearly articulates the heritage values present (including both Aboriginal and European archaeological values for Lots 201 and 203), and how these are best preserved and presented.

The 'reduced curtilage' identified by Niche is shown in Figure 6.

Figure 5: Northamptondale House Reduced curtilage



Northamptondale Group - key heritage elements
Prepared for Walker Corporation

Source: Niche Environment and Heritage

Niche further conclude:

Rather than the Lot 203 boundary the reduced curtilage should seek to take advantage of: any requirements for open space ratios; the rolling nature of the countryside; the position of trees; and key view lines to allow urban development in areas of Lot 203 where significant heritage values, and views and vistas will not be deleteriously effected. A goal of the reduced curtilage should be to integrate with detailed urban planning to retain and conserve the built structures, landscape and archaeological

heritage values of the Northamptondale Group by incorporating the structures and heritage values into a living community.

While Niche found that the curtilage should be determined after analysis of a range of factors, the heritage planning principles contained in the Interim Plan may unreasonably prevent the integration of Northamptondale House into new neighbourhoods and landscapes. In particular, the interim Plan states on page 21 that:

*“Areas set aside for long term protection from development will need to preclude **any activities** and require active management within the curtilage area.” (our emphasis)*

Further, on page 23 the Interim Plan states a planning principle that Precinct Plans must “protect **all** heritage items from development.” This statement suggests that no development is appropriate on any land incorporated into a heritage item, including Walker’s Lot 203. This is counter to recent practice that encourages adaptive reuse of heritage items while protecting their value.

In addition, this principle potentially conflicts with the Interim Plan’s other planning principles that require development proposals to:

- *Include investigation to **define appropriate design of precincts** to protect heritage significance*
- *Address sympathetic **adaptive re-use** of heritage items consistent with their significance opportunities for using heritage item curtilages for open space or environmental conservation and where appropriate, to preserve the character of the area and identified cultural values.* (page 23)

This principle is also more onerous than the current LEP provisions protecting Northamptondale House, which permit a range of uses and activities subject to detailed investigation and heritage impact assessment.

3.5.1 Requested amendment

It is suggested that planning principles applying to heritage items on Page 23 of the final Interim Plan be revised as follows:

Precinct planning will:

- *Be informed by Aboriginal Cultural Heritage Assessments, prepared in consultation with the Aboriginal Community conducted in accordance with guidelines prepared by the Office of Environment and Heritage and the National Parks and Wildlife Act 1974.*
- *Promote local character by integrating Heritage Items into the built and open space components of new neighbourhoods, through context analysis that considers requirements for curtilage, view lines, topography, vegetation, adaptive re-use, the character of an area, identified cultural values and the location of roads.*
- *Protect all heritage items.*

Northamptondale House and other heritage items within the Growth Area can accommodate development and be incorporated into new urban areas, subject to detailed analysis and urban design that will ensure their heritage and character value is maintained.

3.6 Special Infrastructure Contributions

An analysis of the proposed SIC compared to other greenfield locations is provided at Appendix G. The SICs being proposed in Greater Macarthur are around six times more than in the North West Growth Area. When compared on a sale price per lot basis to the North West Growth Area, the proposed SIC in the Greater Macarthur area accounts for 12% of sales price in Appin compared to only 2% in North Kellyville.

To assess the impact of the SIC in the Appin area, a hypothetical development assessment assuming a 16 dwelling per hectare subdivision was undertaken. This assessment resulted in the appropriate market value and SIC levy a developer can afford to pay in the Appin area. The four options tested included:

- Option 1: No SIC levy
- Option 2: 5% of Market Value
- Option 3: SIC Tipping point
- Option 4: Proposed SIC in West Appin.

The hypothetical development assessment demonstrates that Option 4 - the proposed \$43,432 SIC levy reduces the viability of a development in Appin. For a developer to absorb the SIC in a proposed development, and to ensure project viability and therefore housing supply, our modelling suggests that the maximum SIC that can be levied is \$25,000 per residential lot.

The SIC charge has moved from a per hectare to a per dwelling rate. While it is understood that this change was intended to improve simplicity of the SIC and enable funding of infrastructure for greater than expected densities, the approach could also introduce a disincentive for medium or higher density development.

4.0 CONCLUSION

Walker looks forward to continuing to work with the Department to progress the planning of the Appin Precinct. A critical next step will be the progression of the planning intent in the Interim Plan into a statutory planning framework, subject to resolution of the key points of Walker's submission, which are summarised below.

1. The Appin Precinct can be delivered in the short term

The final Interim Plan should facilitate the flexible staging of Precinct delivery in accordance with:

- Market and construction conditions
- The programmes of land owners and developers
- The optimal timing of delivery of physical and social infrastructure.

This will provide potential residents with additional choice regarding housing types, residential environments and geographic locations, and will contribute to a more secure supply of housing from Greater Macarthur with associated potential downward pressure on house prices.

In particular, the Appin Precinct can be delivered simultaneously with other Greater Macarthur land release precincts. This will support, and be supported by, the construction of the east-west sub arterial, which will be funded from Special Infrastructure Contributions.

Accordingly, references on page 19 of the final Interim Plan to the Appin Precinct being a 'long term' release should be deleted, so that it reads as follows:

Appin

- *Achieve higher density residential development around the future centres and along the transport corridor*
- *Rezone and release land for urban development*
- *Deliver around 15,000 new homes.*

2. Gazettal of the Greater Macarthur Growth Area boundary is a priority

This will provide the statutory foundation for planning work, and provide the community, Councils, infrastructure agencies and land owners with the confidence and certainty required to progress planning processes.

3. The Appin Precinct must be identified only as 'urban capable'

The Macquariedale Neighbourhood within the Appin Precinct is not required to accommodate employment or mixed uses.

There is adequate existing or planned employment land within Greater Macarthur's land release precincts and the Wilton new town to accommodate:

- Employment that will be generated by the new residential community
- Job opportunities within a 30 minute commute for the new residential community.

Further, employment or mixed uses will not generate the SIC contributions required to fund the efficient delivery of infrastructure. In particular, delivery of the east west sub-arterial connection through the Appin Precinct would be delayed, with negative impacts of the security of housing supply and road capacity in the network.

The topography and physical constraints of Macquariedale Neighbourhood make it unsuitable for employment or mixed use, while conversely its high quality physical environment make it ideal to accommodate residential environments that will enjoy a high level of residential amenity.

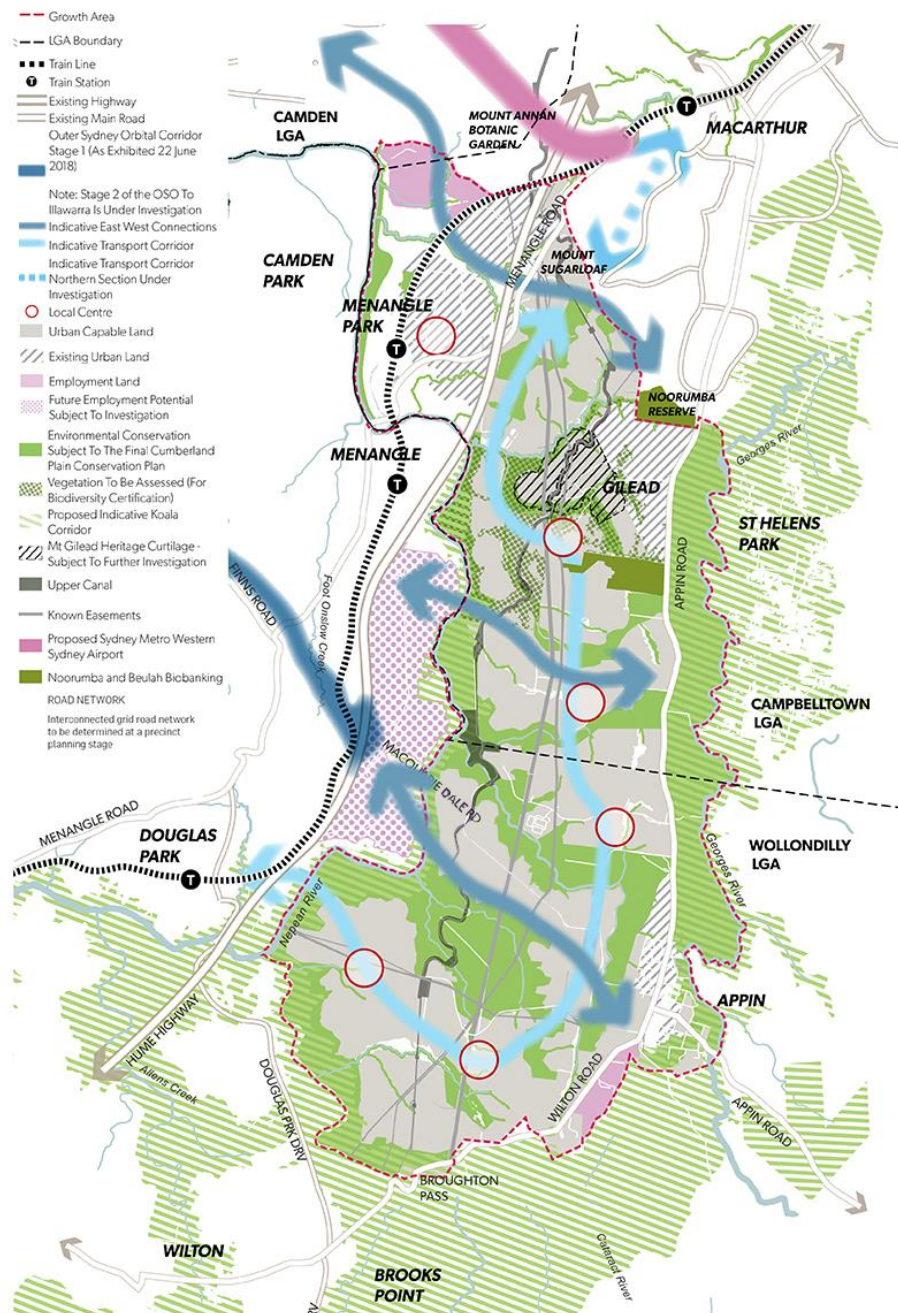
Accordingly, the Macquariedale Neighbourhood should be identified in the final Structure Plan as 'Urban Capable', and the designation of 'Employment or Mixed Use Investigation' deleted.

4. The east west sub-arterial must be shown on a southern alignment

The proposed alignment of the east-west sub-arterial through the Macquariedale Neighbourhood should be moved to the south to facilitate more efficient and attractive development parcels, and to protect the Neighbourhood's high amenity land.

Accordingly, it is requested the final Interim Plan's Structure Plan show the land uses and sub-arterial alignment provided in Figure 6.

Figure 6: Recommended final Structure Plan for insertion in the final Interim Plan



5. Heritage planning principles to facilitate well designed urban development on Heritage Listed Properties

The heritage principles on page 23 of the final Interim Plan should allow for detailed analysis and urban design that integrates heritage items effectively into new neighbourhoods, and does not impose a blanket prohibition on ‘any development’.

Accordingly, it is requested that the following heritage principles be applied:

Precinct planning will:

1. Be informed by Aboriginal Cultural Heritage Assessments, prepared in consultation with the Aboriginal Community conducted in accordance with guidelines prepared by the Office of Environment and Heritage and the National Parks and Wildlife Act 1974.

2. Promote local character by integrating Heritage Items into the built and open space components of new neighbourhoods, through context analysis that considers requirements for curtilage, view lines, topography, vegetation, adaptive re-use, and the location of roads.

3. Protect all heritage items.

In respect of Point 2, Niche concludes that urban development can be delivered within the Northamptondale Walker Lot (Lot 203), subject to the consideration of requirements for open space, the 'rolling nature of the countryside', existing trees and key view lines to ensure significant heritage values and views and vistas will not be deleteriously effected.

A goal of the reduced curtilage should be to integrate with detailed urban planning to retain and conserve the built structures, landscape and archaeological heritage values of the Northamptondale Group by incorporating the structures and heritage values into a living community. (page 4)

6. The Special Infrastructure Contribution

The investigation of SICs across greenfield residential developments revealed that:

- The SICs being proposed in Greater Macarthur are on average four times more than in the North West Growth Area. It is noted that:
 - The proposed SIC in Greater Macarthur is only applicable to residential land when other growth areas also typically include a SIC for employment (industrial) lands.
 - The Department of Planning and Environment has not specified whether the costs of infrastructure area to be borne in full by the developer or shared with Government as in the North West and Warnervale Growth Centres. Consequently, it is unclear if the higher SICs in Macarthur South are related to a reduction in the Government's burden of costs.
- The SIC charge has moved from a per hectare to a per dwelling rate. While it is understood that this change was intended to improve simplicity of the SIC and enable funding of infrastructure for greater than expected densities, the approach could also introduce a disincentive for medium or higher density development.
- For a developer to absorb the SIC in a proposed development, and to ensure project viability and therefore housing supply, our modelling suggests that the maximum SIC that can be levied is \$25,000 per residential lot.

Appendix A: Land required to accommodate employment generated by new residents

Land required to accommodate employment generated by the growing population

There will be a clear need to deliver jobs in the Greater Macarthur Growth Centre to support the growing population. Urbis (2017) *Future Employment Analysis* considers the employment needs in Greater Macarthur's land release precincts of Glenlee, Gilead, Menangle, Appin and North Appin, as well as the Wilton new town to the south. The projections in Table 1 indicate around 25,900 to 26,100 jobs will result from population growth and strategic investments. Of those jobs 8,500 (24%) will be industrial related jobs.

Table 1: Urbis Greater Macarthur Employment Creation

Centres (local population driven)	Jobs - low case	Jobs - high case
Retail	4,900	4,900
Non-Retail	1,100	1,100
Bulky Goods	500	500
<i>Total - Centres</i>	<i>6,500</i>	<i>6,500</i>
Commercial	1,500	1,700
Education	3,100	3,100
Community Services	1,000	1,100
Health Centres	100	100
Aged Care	200	100
Recreational	400	400
Home Workers	9,100	9,100
Construction	2,200	2,200
Public Administration	400	400
Utilities (Elec, Water, Gas, Internet)	400	400
Property Maintenance Services	500	500
Waste Collection Services	100	100
Correctional / Security Services	400	400
TOTAL	25,900	26,100

Urbis (2017)

The Department of Planning and Environment notes that western Sydney employment land supports 31.2 jobs/hectare². When this rate is applied to the 8,500 industrial jobs created generates a requirement for 272.5 hectares of employment land.

As shown in Table 2, there are 464.7 hectares of existing or planned employment land within Greater Macarthur's land release precincts and the Wilton new town, which exceeds the required 274 hectares. In addition, a further 469 hectares is under investigation along Moreton Park Road, which is shown on the draft Structure Plan.

Table 2: Location and area of existing, planned or investigated employment land

EXISTING OR PLANNED EMPLOYMENT LANDS	AREA (HECTARES)
Appin (existing)	10.5 ¹
Appin (in draft Structure Plan)	46.4 ²
Menangle Park	28.1 ¹

² (<https://www.planning.nsw.gov.au/Research-and-Demography/Employment-Lands-Development-Monitor/Employment-Land-Precincts>, accessed 13 December 2018).

EXISTING OR PLANNED EMPLOYMENT LANDS	AREA (HECTARES)
Condell Park Road, Wilton	13.1 ¹
Maldon	160.0 ¹
Glenlee	107.6 ³
Douglas Park North	99.0 ⁴
<i>Sub-total existing or planned employment land</i>	464.7 hectares
INVESTIGATION EMPLOYMENT LANDS	AREA (HECTARES)
Moreton Park (adjoining Douglas Park North)	469.0 ⁵
<i>Sub-total investigated employment land</i>	469.0 hectares
TOTAL	933.7 HECTARES

- Sources:
1. Department of Environment & Planning <https://www.planning.nsw.gov.au/Research-and-Demography/Employment-Lands-Development-Monitor/Resources> "Total Industrial And B5, B6 And B7 Zoned Land Stocks By District And LGA At January 2018"
 2. Measured by Walker on Nearmaps from the draft Structure Plan
 3. Report to Camden Council "Planning Proposal Amendment No. 15 – Glenlee" January 2018, page 4
 4. SGC Economics (2015) "Economic and Employment Analysis", page 363
 5. Measured by Walker on CAD from the draft Structure Plan.

There is an adequate supply of zoned or planned employment land within Greater Macarthur's land release precincts and the Wilton new town to accommodate the employment uses and demand for services that will be generated by new resident population.

Therefore, land within the Macquariedale Neighbourhood is not required to accommodate this employment component.

Appendix B: LAND TO ACCOMMODATE EMPLOYMENT OPPORTUNITIES FOR NEW RESIDENTS

There are two planning principles regarding access to employment opportunities for new residents:

1. There will be 0.6 jobs/working resident, or a target of 46,200 jobs, based on a projection of 77,000 workers ultimately living in Greater Macarthur’s land release precincts and Wilton new town (SGS Economics (2015) *Economic and Employment Analysis* (page 53).

This ratio of jobs to worker residents is relatively high.

2. Job opportunities will be available to residents within a 30 minute trip of their homes.

However, only a proportion of these ‘target’ 46,200 jobs would be accommodated in employment land. While it impossible to predict what work will be like by 2040, it would be reasonable to assume that the future Greater Macarthur and Wilton new town communities will be similar in character to Camden and Campbelltown Local Government Areas (LGAs).

Camden and Campbelltown are in the same Sydney region as Greater Macarthur and the Wilton new town. They have grown into urban areas over the past 40 years, and comprise established, new and emerging neighbourhoods, as well as low and medium density areas. These are characteristics that can be expected to be replicated in Greater Macarthur and the Wilton new town as they grow over coming decades.

Therefore the employment characteristics of Camden and Campbelltown provide a gauge of the proportion of the target 46,200 jobs that will require employment land within the future Greater Macarthur and Wilton areas.

Retail and commercial uses were not considered in this analysis, as the Interim Plan intends these jobs and services will be concentrated in the six local centres shown in the draft Structure Plan, or the Macarthur-Campbelltown Metropolitan Hub, which is highly accessible to the Neighbourhood.

Table 3: 2016 Resident Employment sectors - Campbelltown and Camden Local Government Areas

INDUSTRY SECTOR	CAMPBELLTOWN	CAMDEN	TOTAL	
Agriculture, Forestry and Fishing	219	379	598	1%
Mining	134	194	328	0%
Manufacturing	6,493	3,058	9,551	9%
Electricity, Gas, Water and Waste Services	690	444	1,134	1%
Construction	5,811	4,904	10,715	10%
Retail Trade	7,432	4,252	11,684	11%
Wholesale trade	2,464	1,460	3,924	4%
Accommodation & Food Services	4,327	2,075	6,402	6%
Transport, Postal and Warehousing	5,605	2,681	8,286	8%
Information Media & Telecommunications	988	489	1,477	1%
Financial and Insurance Services	3,062	1,490	4,552	4%
Rental, Hiring and Real Estate Services	979	765	1,744	2%
Professional, Scientific & Technical Services	3,279	2,022	5,301	5%
Administrative & Support Services	2,506	1,142	3,648	3%
Public Administration and Safety	4,262	2,773	7,035	6%
Education & Training	4,823	3,714	8,537	8%

INDUSTRY SECTOR	CAMPBELLTOWN	CAMDEN	TOTAL	
Health Care & Social Assistance	8,543	4,135	12,678	12%
Arts & Recreation Services	771	540	1,311	1%
Other Services	2,414	1,603	4,017	4%
Inadequately described or not stated	4,040	1,908	5,948	5%
Total employed persons aged 15+	68,842	40,028	108,870	100

Source: Australian Bureau of Statistics, Census of Population and Housing 2011 and 2016. Compiled and presented by .id, the population experts. <http://www.id.com.au>, adapted by Walker.

It can be seen that 21% of the Campbelltown/Camden workforce are employed in industries that require employment lands:

- 'Manufacturing'
- 'Wholesale Trade and Transport'
- 'Postal and Warehousing'

A further 8% are employed in sectors that may be present in employment land:

- 'Professional, Scientific & Technical Services'
- 'Administrative & Support Services'

Although in reality, not all residents employed in the second group will be based in employment lands, for the purpose of this exercise it has conservatively been assumed that they will.

Therefore, it is assumed that 29% of the targeted 46,200 jobs, or 13,398 jobs, will be accommodated in existing, planned or investigated employment lands within Greater Macarthur's land release precincts or Wilton new town.

At an employment density of 31.2 jobs/hectare this represents a requirement of 429 hectares of employment land.

As shown in Table 2, there are approximately 418 hectares existing or planned employment land in the area, which is adequate to accommodate the estimated number of jobs targeted for employment lands, particularly as the 13,398 job target is most certainly an over-estimation.

Therefore, employment land in the Macquariedale Neighbourhood is not required to achieve a maximum 30 minute trips to and from work, nor the target ratio of 0.6 jobs/resident worker.

Notwithstanding this conclusion, attracting employing businesses to the employment lands will require a concerted and coordinated effort between the private sector, the state government and Campbelltown and Wollondilly Councils.

SGS (2015) provided ideas for attracting business, including:

- The provision of supporting infrastructure, particularly public transport and ICT
- Innovative approaches to the planning concepts of 'permissible' and 'prohibited' activities
- Locating public services in the areas
- Concerted and focused marketing (page 57).

Market confidence is also an important requirement is to attract investment in businesses and jobs to an area. Councils, the state, infrastructure agencies and private developers must be seen to be planning and investing in an area to engender that confidence.

The first step in building confidence is therefore the gazettal of the Growth Area boundary in SEPP (*Sydney Region Growth Centres*). Then investment in the short, medium and long term and a growing population will make Greater Macarthur an investment destination for a broader range of business employers.

Appendix C: EMPLOYMENT LAND AND FUNDING INFRASTRUCTURE

The draft Structure Plan includes a sub-arterial road that connects the M39 Hume Highway with Wilton Road through the Macquariedale Neighbourhood. The new sub-arterial connection will provide another access into the Growth Area from the north, providing additional capacity on Appin Road to support growth in Gilead.

The draft Special Infrastructure Contribution (SIC) Plan includes the sub-arterial as:

R9 – Macquariedale Rd – Sub-arterial upgrade Appin Rd/Menangle Rd	\$209,495,000
R11 - Macquariedale Rd – Interchange ramps to Hume Highway	\$34,038,000
TOTAL	\$243,533,000

There are two options for delivering this crucial road connection:

1. It is constructed with the Macquariedale Neighbourhood, funded by developers as a credit against SIC obligations. This transfers the responsibility for design and construction, and the associated risks, from the government to the developer.

This also facilitates its early delivery, with other associated benefits:

- The connection will facilitate the delivery of the Appin Precinct, without reliance on Appin Road capacity, which will remain available to facilitate growth in the Gilead and North Appin Precincts potentially postponing road upgrades
- An estimated 4,200 new residential lots could be delivered in the Macquariedale Road Neighbourhood, and at completion, the Appin Precinct could deliver 15,000 new lots
- The additional road capacity would allow the simultaneous delivery of the Appin Precinct with the Wilton new town to the south and Gilead, Appin North and Menangle Precincts to the north
- Having several land release active simultaneously will contribute to a steady and timely housing supply, because even if one area or developer slows or stops, others will still be contributing new lots
- Steady supply and a choice of residential estates and locations will put downward pressure on sales prices
- Undertaking planning processes, and determining land uses within the Appin Precinct simultaneously with other Precincts allows for a coordinated approach to securing affordable housing, centres, transport and open space connections, biodiversity and fauna corridors.

However to achieve these benefits the Macquariedale Neighbourhood must be capable of development for solely residential purposes, which will enable the cost of the connecting road to be offset against SIC obligations. This option is not available under ‘employment’ or ‘mixed use’ scenarios, as these purposes do not attract SIC obligations.

2. The connecting road is funded from SIC collected from other residential Growth Area land release precincts, as the Macquariedale Neighbourhood is employment land or mixed use.

This option has disadvantages:

- The government will be responsible for designing and constructing the connection, with the associated risks

- The burden of funding the connection will fall to the residential community, while the employment lands will benefit
- The connection will be delayed until sufficient SIC has been collected, and the benefits associated with implementing Option 1 will not be achieved.

Therefore, incorporating the Macquariedale Precinct as employment land would have detrimental impacts on the orderly and effective implementation of the Growth Area's land release precincts.

It will result in disjointed and disconnected planning for urban and biodiversity areas across the Growth Area.

Further, the government and other residential areas will be burdened with the cost of the connecting road, which could otherwise be funded from a residential area, and housing supply and choice would be limited with potential upward pressure on prices.

Appendix D: DESIGN + PLACE REPORT

The Appin Precinct

Greater Macarthur 2040 - Land Use Analysis

2018.12.18

Contents

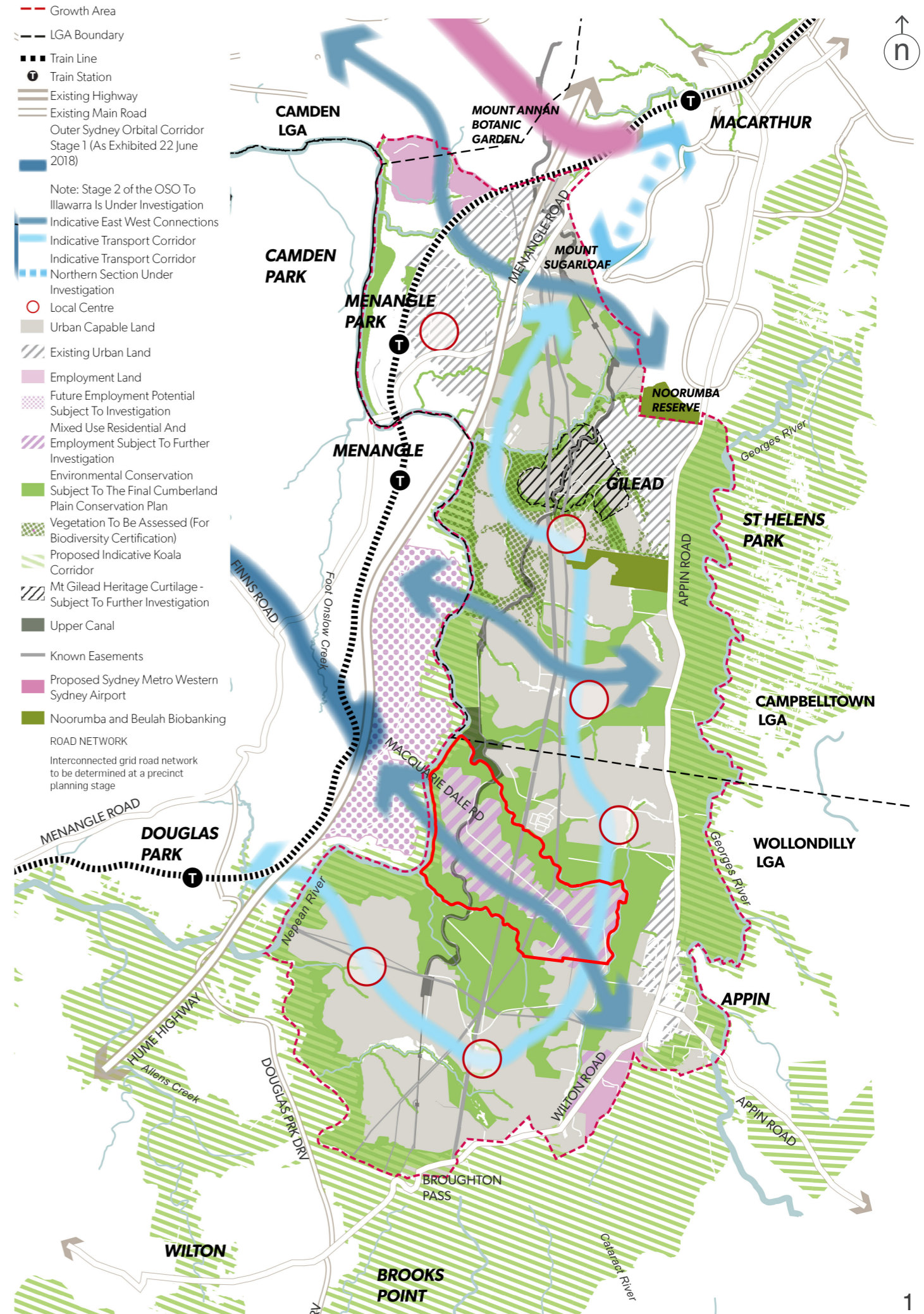
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1 Introduction

Greater Macarthur 2040 is the Land Use and Infrastructure Implementation Plan (LUIIP) that establishes the vision for the Greater Macarthur Growth Area. Importantly, it provides the strategic land use and infrastructure framework to guide and support the future development of Greater Macarthur as the Region grows.

The LUIIP promotes a broad land use structure plan for the region, highlighting areas suitable for urban development, potential areas for employment, key movement infrastructure corridors and conservation areas.

This Report provides an assessment of the Greater Macarthur Structure Plan, focusing on the Macquariedale Neighbourhood located within the Appin Precinct, in the south of the Greater Macarthur Growth Area. Specifically, this Report has undertaken an analytical review to determine the appropriateness the proposed land uses and road alignment of the east-west road connection from the Outer Sydney Orbital (OSO) interchange with the Hume Motorway to Appin Road. The analysis considers the land's physical and locational constraints and opportunities to determine the highest and best use of the land.



2 Neighbourhood Context

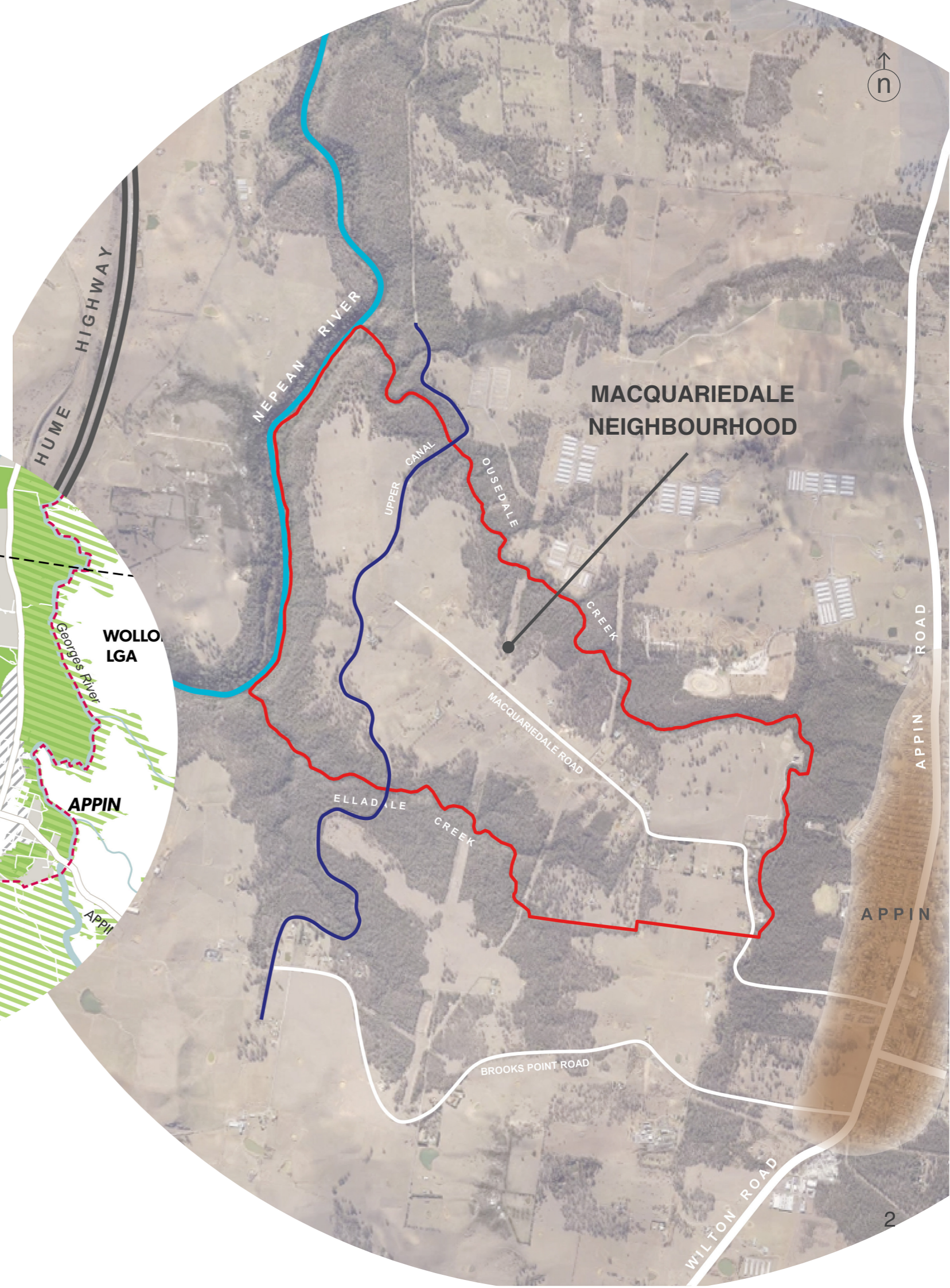
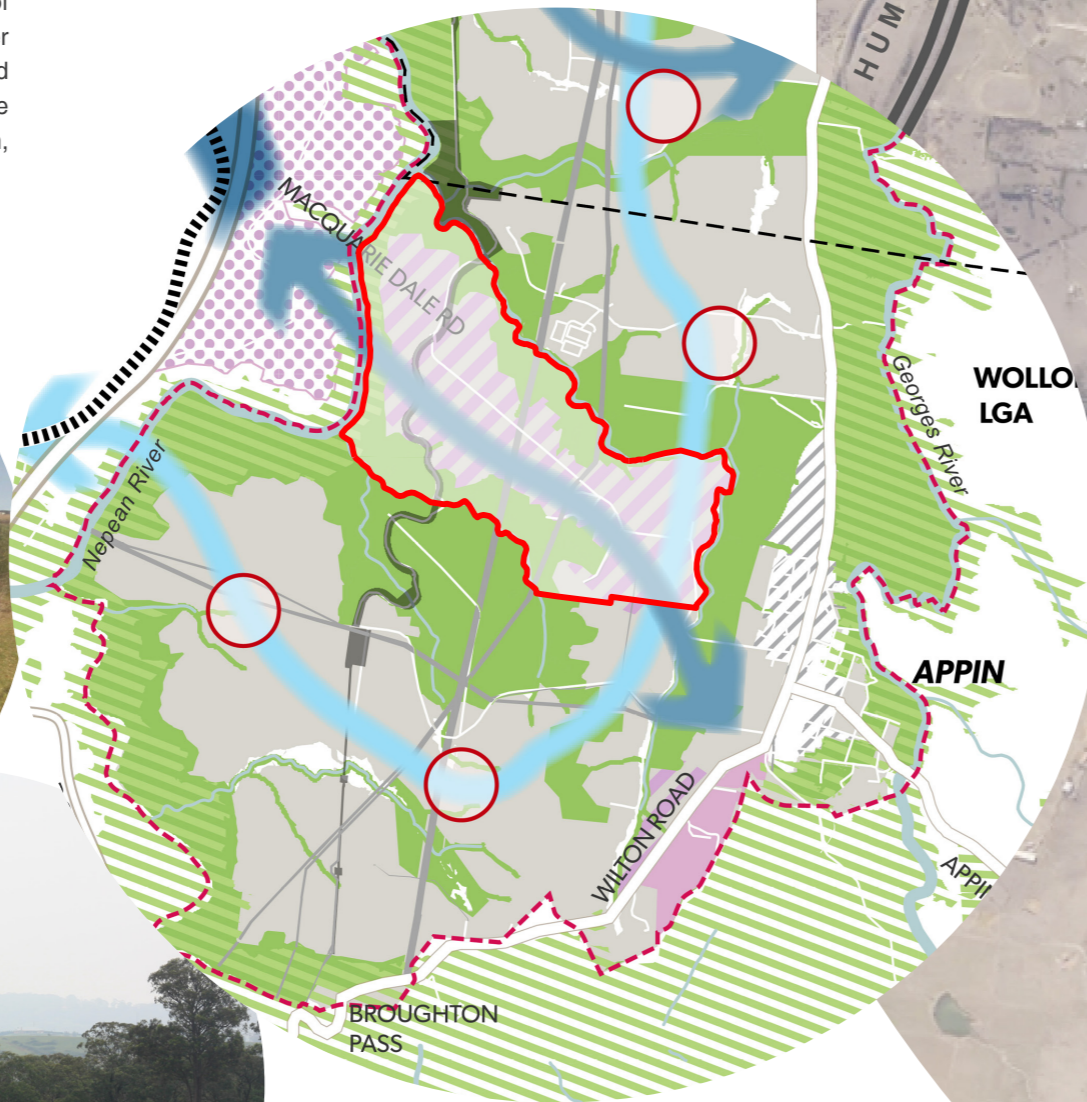
The Macquariedale Neighbourhood is located in the southern portion of the Greater Macarthur Growth Area. The site is bound by Ousedale Creek to the north and east, Elladale Creek to the south and the Nepean River to the west.

With an area of 573 ha, the Neighbourhood represents a significant opportunity to deliver infrastructure and land uses that are compatible with its physical characteristics and context within the Greater Macarthur Growth Area.

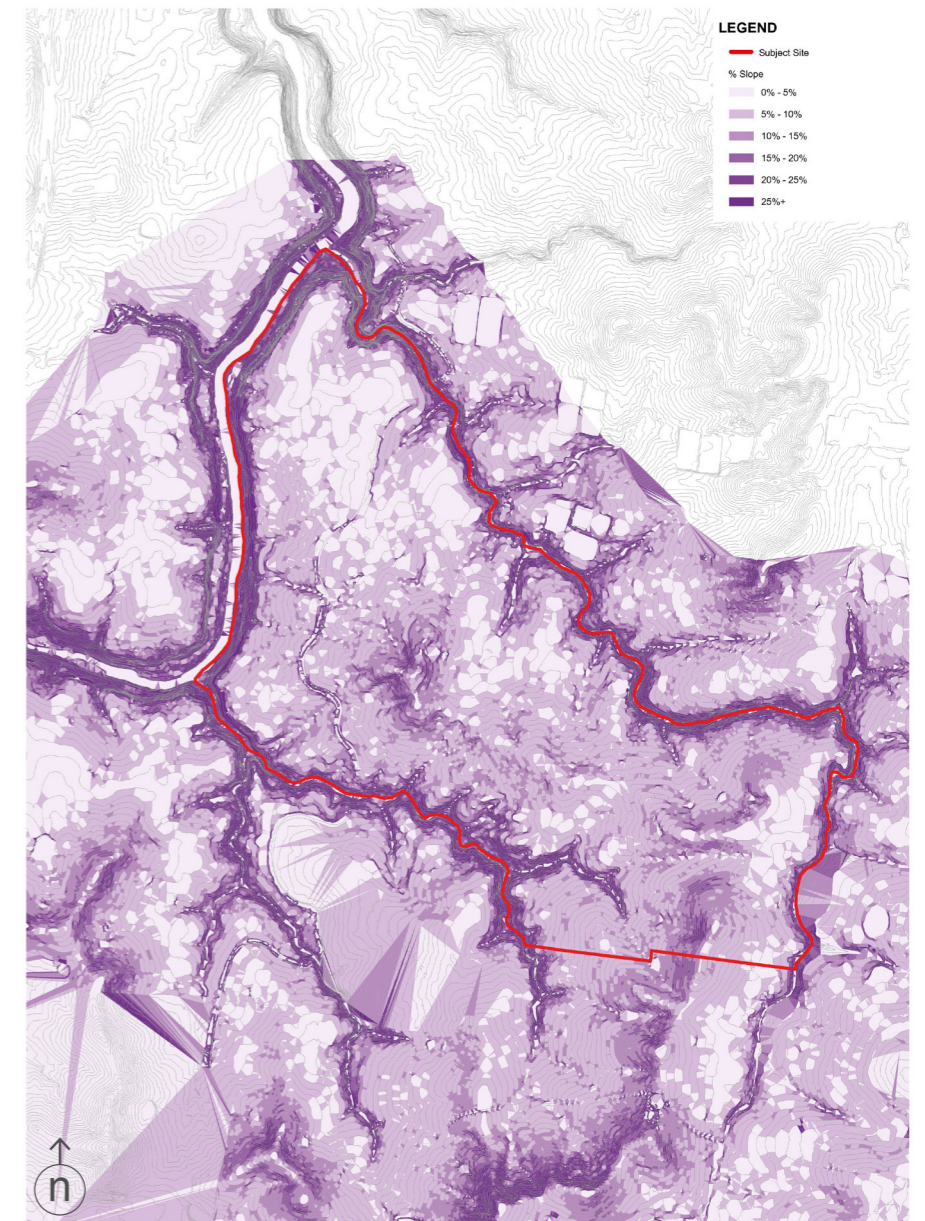
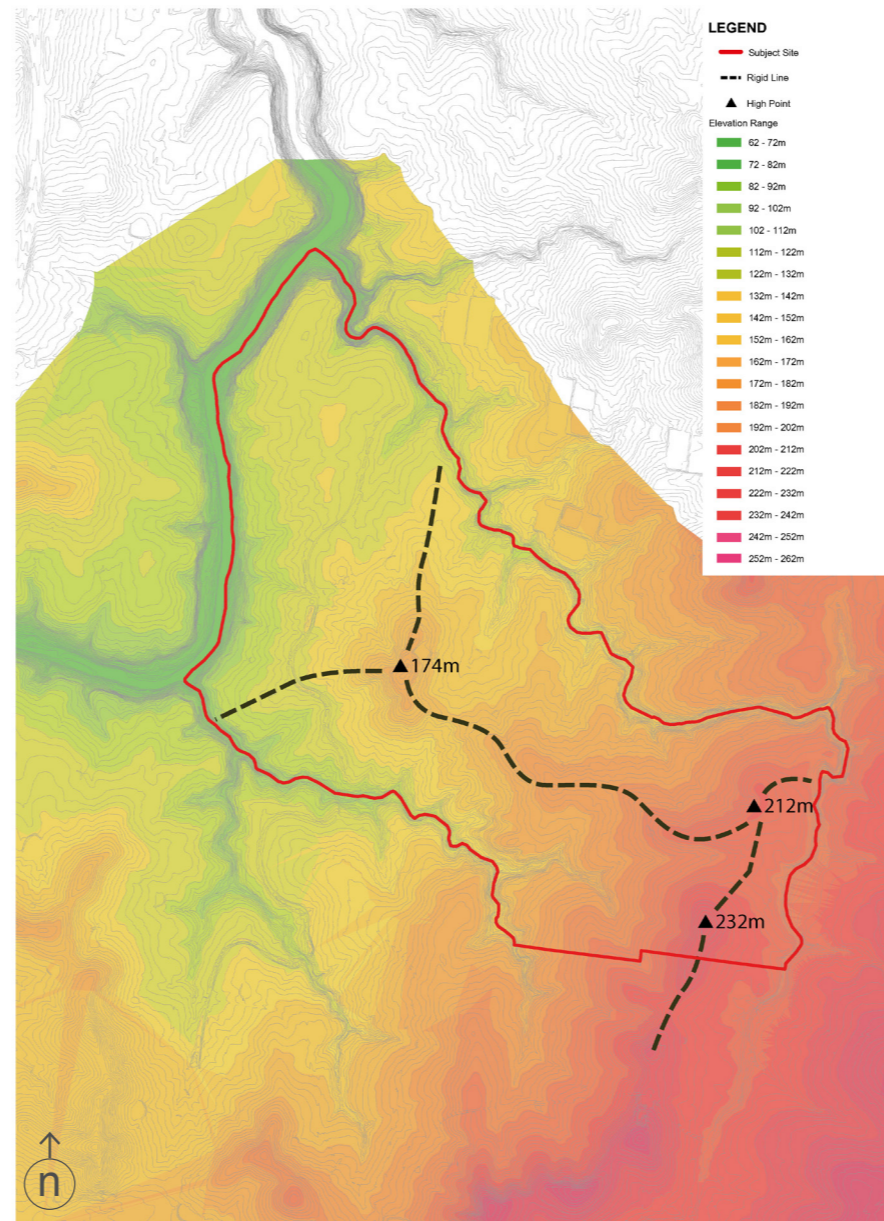
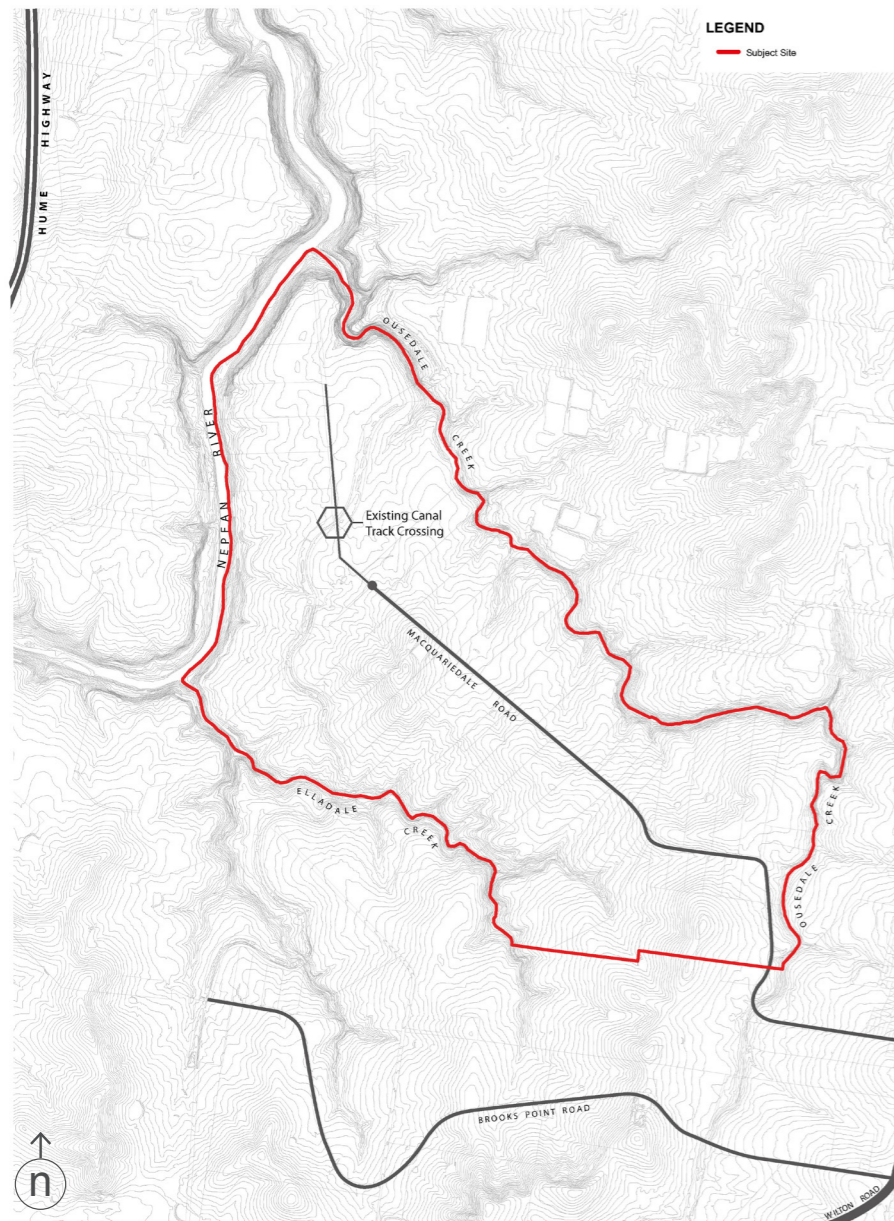
The Neighbourhood is predominantly cleared of vegetation having been used for agricultural purpose over a prolonged period of time. Currently, the Neighbourhood comprises a number of large rural residential lifestyle allotments, with little agricultural activity being undertaken, apart from grazing of livestock.

The Upper Canal, a listed State Heritage item, traverses the eastern portion of the Neighbourhood. An electricity transmission and a gas easement are aligned north-south through the central portion.

Macquariedale Road runs through the centre of the Neighbourhood and provides the primary access from Appin Road. Appin Road provides direct access to the Campbelltown CBD 20km to the north and Wollongong 40km to the south-east.



3 Land Characteristics



Roads

Macquariedale Road provides the primary access for the Neighbourhood and links to Appin Road at the Appin Village Centre. Macquariedale Road is predominately sealed from Appin Road up to a short distance from the Upper Canal. Macquariedale Road continues northward, with access to the land in the north-west an existing access bridge over the Upper Canal.

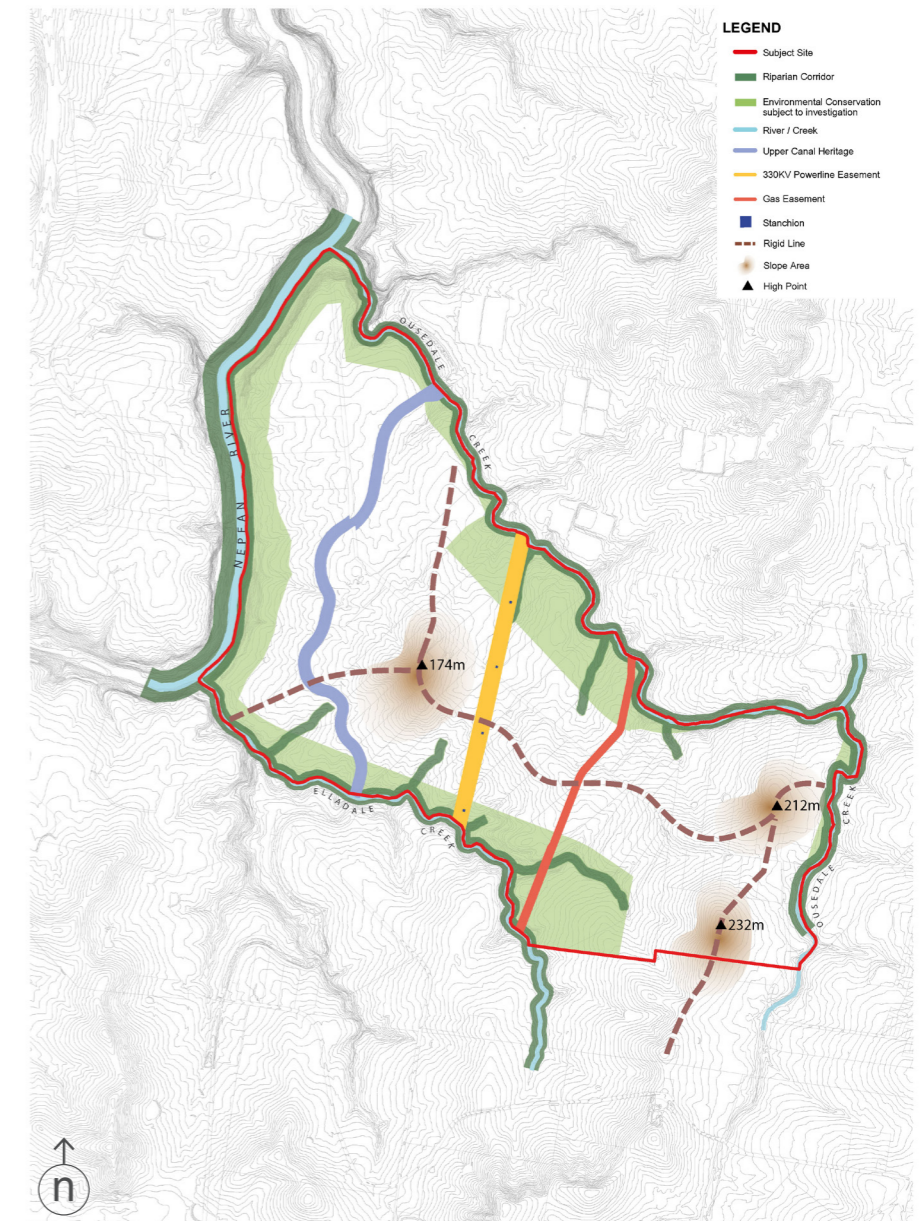
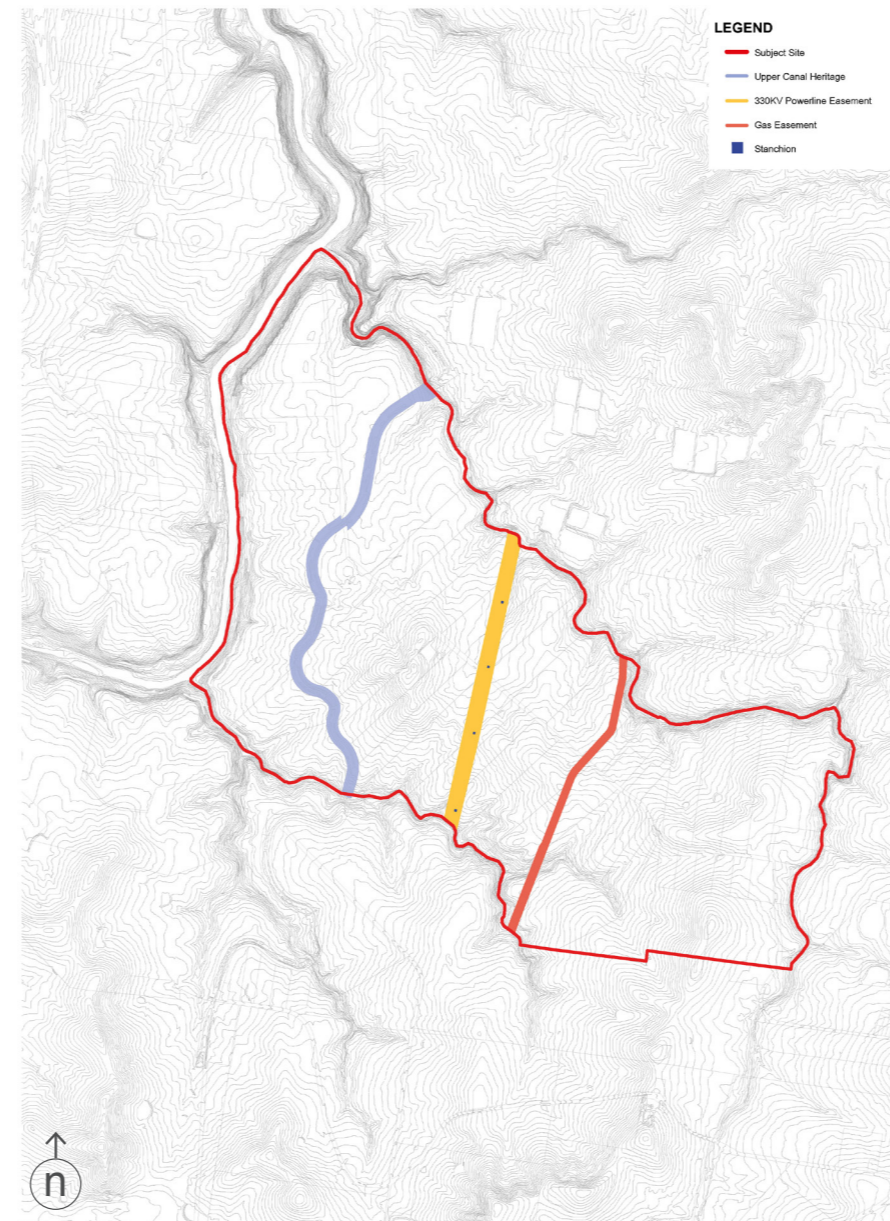
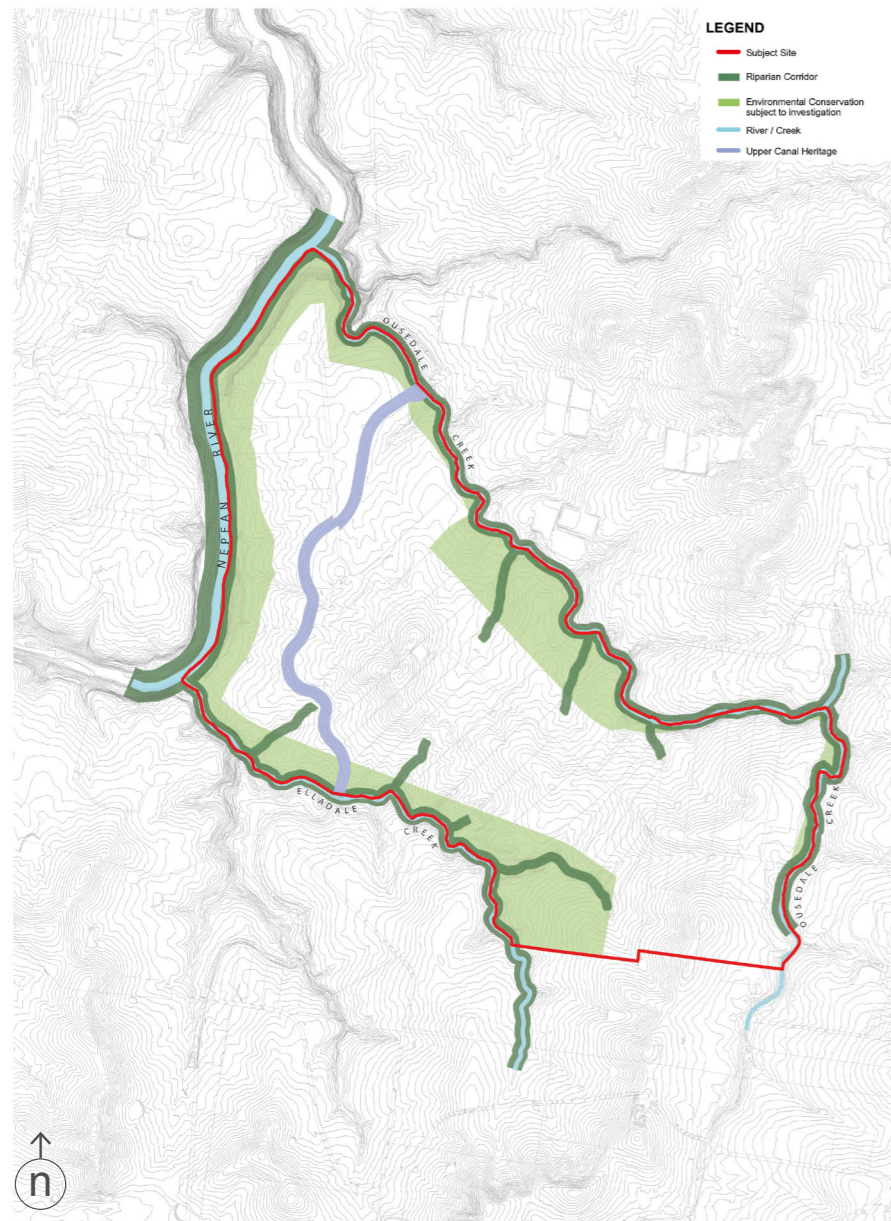
Elevation

The Elevation Plan shows that the Neighbourhood rises up eastward from the Nepean River. There are a number of highpoints, including one in the centre, and two at the eastern end. These highpoints provide district views and act as a focal point for the Neighbourhood.

Topography

The topography of the Neighbourhood is undulating. The Slope Analysis shows that 75% of the site has a slope of 5% or greater, with some areas showing slopes of up to 15 – 20%.

3 Land Characteristics



Riparian Environment + Vegetation

The Neighbourhood is bound by River and Creek corridors. The Nepean River is the most significant water feature and provides the western boundary. Ousedale Creek forms the northern and eastern boundary. Elladale Creek forms the southern boundary. The Upper Canal also traverses through the eastern portion.

Vegetation is focused along the riparian corridors of the Nepean River, Ousedale and Elladale Creeks. The remainder is predominantly cleared of vegetation.

Heritage + Easements

The Upper Canal traverses the eastern portion of the Neighbourhood. Built in the 1880s it is a functioning water transfer system that remains as the only way of transferring water to Sydney from the four Upper Nepean dams. The Upper Canal is a listed State Heritage item. Macquariedale Road crosses the Canal via an existing vehicular bridge, enabling access to properties in the north western portion.

An electricity transmission and a gas easement run north-south through the central area.

Summary of Constraints

The analysis of the physical characteristics of the Macquariedale Neighbourhood demonstrates that there are a number of key features that need to be considered to determine the most appropriate land use and alignment of the east-west road connection, including:

- Topography
- Riparian corridor and vegetation constraints,
- Heritage items
- Location of easement

4 Land Use and Infrastructure Analysis

Introduction

The Greater Macarthur Structure Plan provides the broad land use and infrastructure configuration for the Growth Area. It provides a high-level representation of the key activities, constraints and road infrastructure corridors.

The Structure Plan identifies the Macquariedale Neighbourhood as 'Employment Subject to Further Investigation' as well as indicating the route for an east-west road connection between the OSO / Hume Motorway Interchange and Appin Road. An analysis of the land use designation as well as the alignment of the east-west road connection has been undertaken to ensure the most appropriate land use and road infrastructure outcome is achieved.

The suitability of the Macquariedale Neighbourhood to accommodate urban land uses has been considered as part of the Land Use Analysis. The physical characteristics of the Neighbourhood have been used as the key factors driving the land use and infrastructure outcomes. The constraints the physical characteristics have on the deliverability of urban land uses, including employment and residential land uses, have been considered to determine the most appropriate land use for the Macquariedale Neighbourhood.

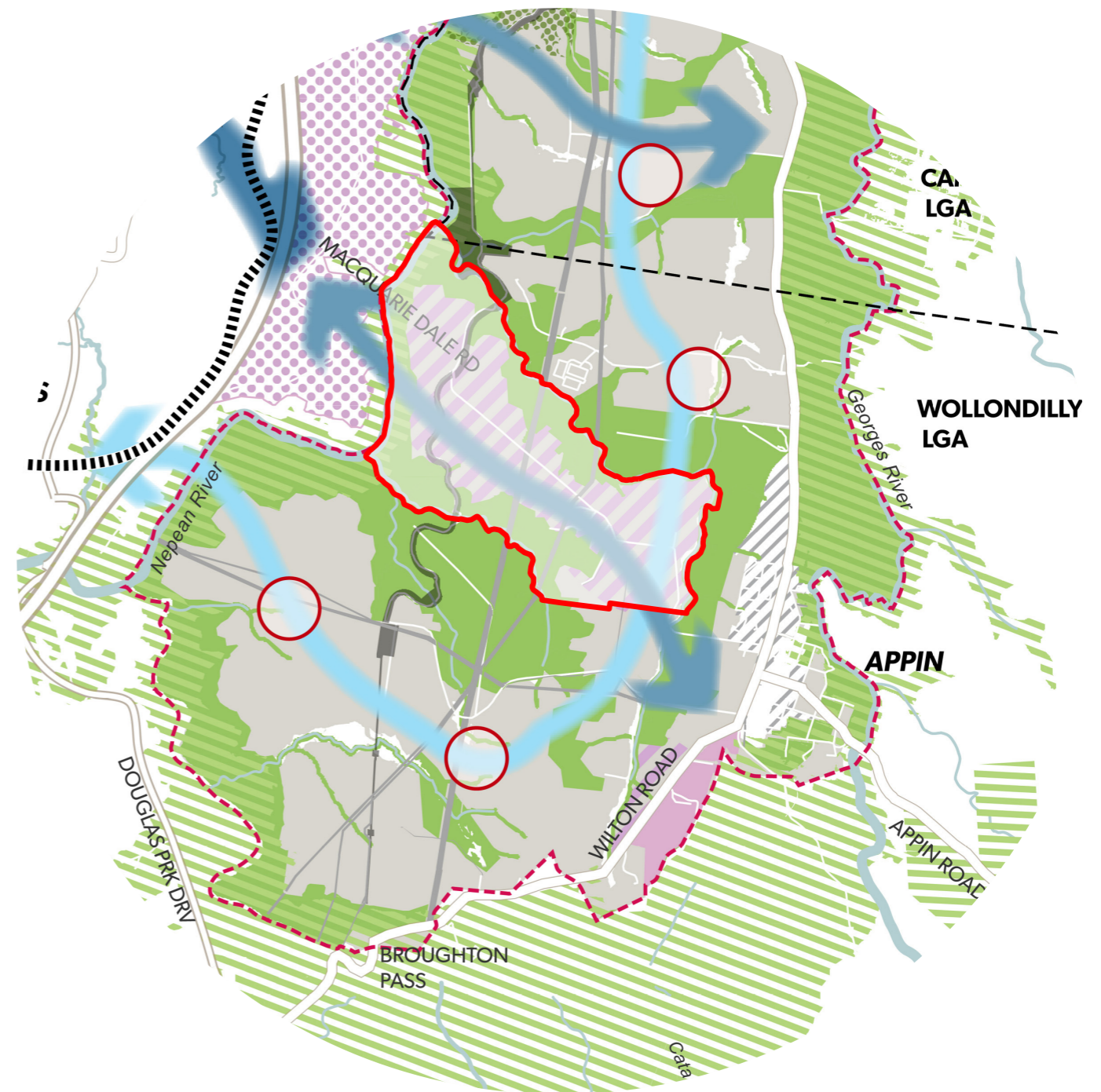
An important component of the land use analysis is the investigation into the east-west connection running through the land and the impact this may have (both positive and negative) on achieving an efficient development outcome. The Structure Plan indicates a route for an east-west road connection between the OSO / Hume Motorway Interchange and Appin Road. The road connection is a sub-arterial, which will deliver accessibility and connectivity, and is appropriate for the land use. An extension of OSO beyond the Hume Highway interchange, regardless of alignment would have a number of detrimental impacts to the achievement of a desirable urban outcome, including:

- Limiting access into the Neighbourhood as a result of the ability to deliver only one single interchange on the land;
- Severing of the land into two precincts, creating disconnected outcome with limited opportunity to create meaningful connections between the two areas;
- Limited opportunity for north-south connectivity. Any north-south connections would also require significant investment in bridge structures;

The negative impact of an extension of the OSO through the Macquariedale Neighbourhood is not considered to be appropriate and will not deliver the most effective road network outcome.

A more appropriate east-west road connection would be a sub-arterial road, which can adequately cater for traffic volumes, improve accessibility and opportunities for effective north-south connectivity.

Section 5 investigates a number of sub-arterial road alignment and land use scenarios to determine the most appropriate road alignment for the Macquariedale Road Neighbourhood.



4 Land Use and Infrastructure Analysis

Land Use Analysis

An analysis of the physical attributes of the Macquariedale Neighbourhood and its context within the Growth Area has been undertaken to determine the most appropriate use of the land. To undertake the assessment, a number of key criteria have been identified, including:

- **Topography:** Identification of the slope characteristics of the land that may preclude certain types of development.
- **Land Use Context:** Identification of land uses surrounding the Neighbourhood and any conflicts.
- **Connectivity:** Opportunity for a variety of access points and opportunities for connectivity within and around the Neighbourhood.

An assessment of the Macquariedale Neighbourhood against the above criteria has been prepared to assist in the determine of the most appropriate land use.

The topography of the Neighbourhood is the key limiting factor to delivering a successful employment precinct. Based on the analysis against key criteria and appreciating the Neighbourhood's physical characteristics, in particular its topography, it is considered to be an appropriate location for residential uses.

Together with a reconsideration of the road alignment (refer to Section 5 for further detail), a more efficient development outcome is possible. It also presents an opportunity to consider the Neighbourhood for residential purposes as a more suitable land use, particularly given the context of the Neighbourhood's location and its physical attributes.

Transport Corridor Access

The Structure Plan designates the Macquariedale Neighbourhood and a corridor of land between the Hume Motorway and Nepean River, outside of the Greater Macarthur Growth Area and to the west of the Neighbourhood as 'Employment Investigation'. While a concentration of employment uses would typically be positive, the two areas are dissected by the Nepean River, creating a significant barrier to generating positive economic and land use synergies between the two areas.

The North Douglas Park 'Employment' land to the west of the Neighbourhood is relatively flat and will have direct access to the Hume Motorway and the OSO. Conversely, the economic viability of employment activity within the Macquariedale Neighbourhood is questionable given physical constraints, specifically its topography and limited direct access to a major planned road transport corridor. While characteristics of the north-west of the Neighbourhood can accommodate employment uses, this area is comparatively small (approximately 107ha) and has problems with access.

The Structure Plan designates land to the north and south of the Macquariedale Neighbourhood as 'Urban Capable', which will include a variety of uses such as residential, local centre and open space. Given this context, a more appropriate land use designation would be to match the 'Urban Capable' land use identified for the land to the north and the south of the Neighbourhood. This would allow for a variety of uses including residential.

Land Use Context

Up to 75% of the site has a slope of 5-10%, with some areas exceeding 15 – 20% gradients. A small pocket of land in the north-west has an average gradient of 0 – 5%. The topographical features of the Macquariedale Neighbourhood limit the ability to deliver certain land uses.

For instance, an employment use would be difficult to deliver in this area as these activities are preferably located in areas that are less impacted by changes in topography, providing the opportunity to establish large and relatively flat land parcels. To achieve the desirable lots with minimal slope, significant earthworks would be required, including site benching and retaining walls. This would impact the viability of an employment precinct in this area.

Further, it is common practice across the Growth Area Councils to ensure the employment land road network can appropriately service the activities. To achieve this aim, the desirable longitudinal gradient of 6%, with an absolute maximum of 10%, is applied to ensure that service and heavy vehicles can effectively navigate the road network without significantly impacting on traffic movements.

Connectivity

The Macquariedale Neighbourhood is identified to be serviced by an east-west road connection between the OSO and Hume Motorway Interchange, and Appin Road. This will connect the Neighbourhood with the 'Employment' land to the west and the Appin Village Centre to the east.

The Neighbourhood will also be linked to Macarthur/Campbelltown Strategic Centre through the Transport Corridor that skirts its eastern boundary. This connectivity would be beneficial for a variety of land uses, particularly residential development.

5 Road Analysis

The Greater Macarthur Structure Plan identifies the alignment of the OSO from the west to the Hume Highway, however the indicative east-west road link to the Illawarra is not shown. Nevertheless, its potential to traverse the Macquariedale Neighbourhood was analysed.

The 'Land Use Analysis' undertaken in Section 4 concludes that extending the OSO through the Macquariedale Neighbourhood from the OSO and Hume Motorway Interchange to Appin Road is not suitable or practical.

An investigation into the east-west road type and alignment has been undertaken as part of this analysis to identify a road type and alignment that:

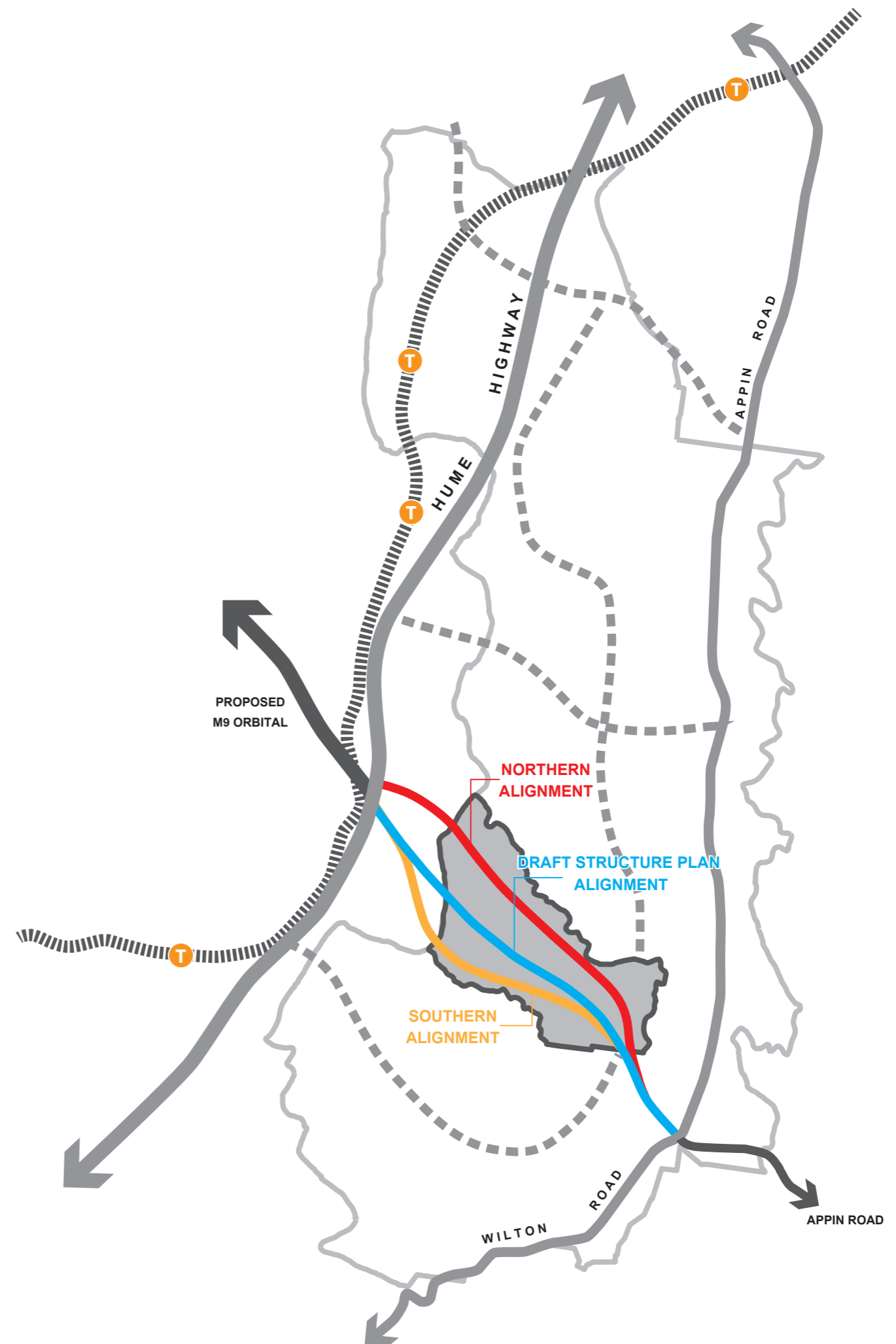
- Promotes the most efficient use of the land with an alignment that maximises the land area for development;
- Complements the land use of the Neighbourhood;
- Facilitates a high degree of accessibility within and through the Neighbourhood;
- Can accommodate a high volume of traffic, while maintaining a sufficient level of amenity; and
- Appropriately considers the environmental and physical constraints of the Neighbourhood.

An appropriate road type would be a sub-arterial road that facilitates improved accessibility into and out of the Neighbourhood, as well as connectivity within the Neighbourhood while able to accommodate a high volume of traffic.

An analysis of three east-west road alignments and type has been undertaken to demonstrate alternative alignments to the provision of suitable road infrastructure across the Macquariedale Neighbourhood. This includes:

- Option A: Sub-Arterial Road – Draft Structure Plan Alignment
- Option B: Sub-Arterial Road – Northern Alignment
- Option C: Sub-Arterial Road – Southern Alignment

An analysis of each road alignment option is provided in the following Section.



6 Development Options

Option A: Sub-Arterial Road – Draft Structure Plan Alignment

Road Type	Sub-Arterial
Alignment	Draft Structure Plan Alignment
Corridor Width	35.6m
Land Use	Employment: 101.5ha Residential: 248.6ha
Site Access	Signalised intersections

Advantages

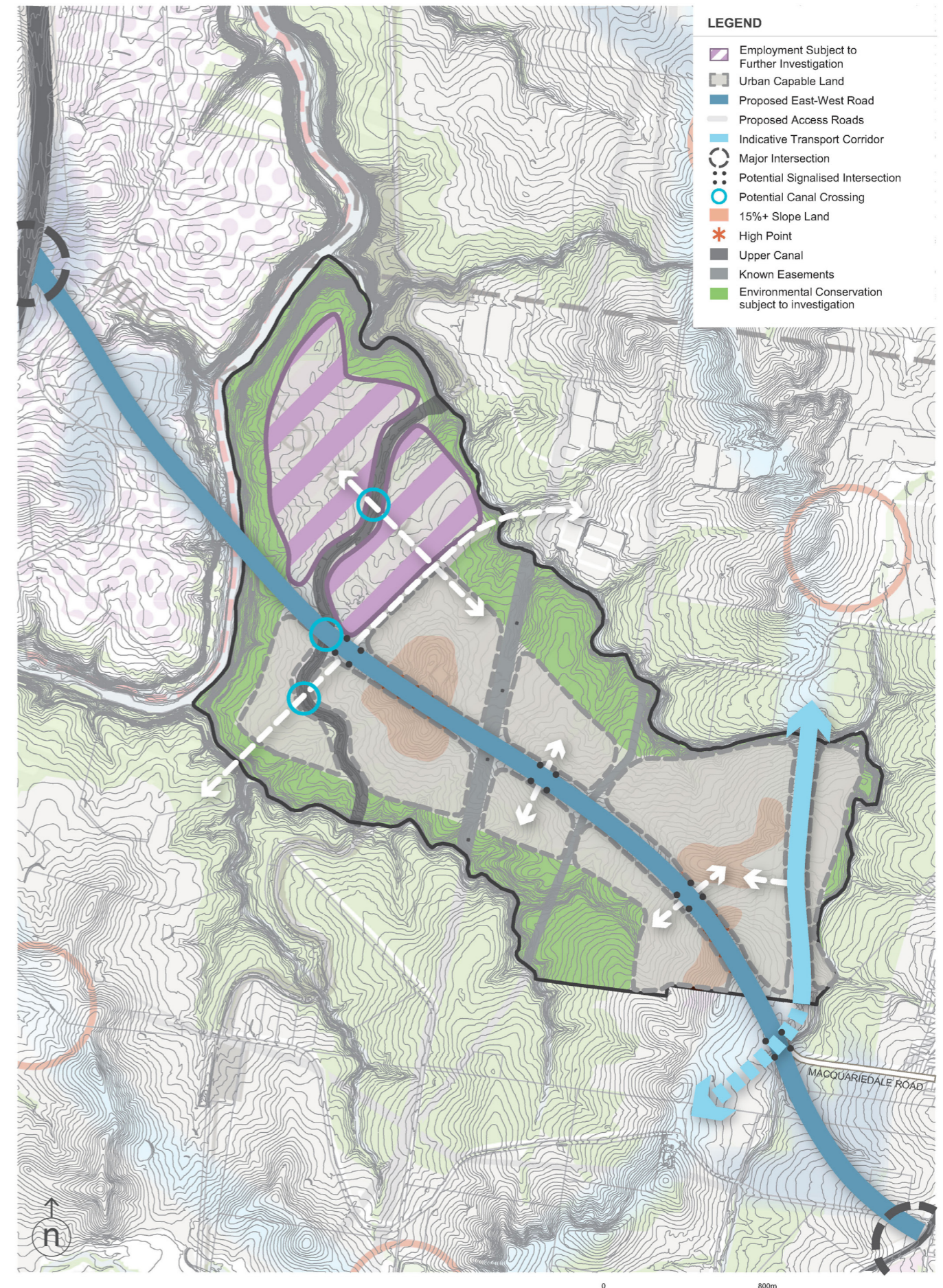
- A sub-arterial is more compatible with a residential land use.
- A sub-arterial has the capacity to carry traffic with minimum take of urban suitable land.
- A sub-arterial Road provides the opportunity to increase accessibility into the Neighbourhood via signalised intersections, slip lanes, etc.
- The alignment facilitates the opportunity to utilise the existing alignment of Macquriedale Road.
- Noise attenuation could be integrated into the housing, limiting the need for noise attenuation walls.
- Good north-south connectivity between other neighbourhoods achieved.

Disadvantage

- The draft Structure Plan alignment runs through the highpoints of the Neighbourhood, requiring significant and avoidable earthworks, that would not be required with an alternative alignment.
- The alignment creates small disconnected residential pockets on either side, inhibiting the ability to create meaningful communities.
- At least three crossings over the Upper Canal would be needed to facilitate efficient movement of heavy vehicles to an employment area in the north-west.
- Suitable access to the employment area is constrained by the presence of the canal.
- Economic feasibility of delivering employment in the north-west needs to be considered as it is comparatively small (101.5ha) and would be competing with a better located employment area identified to the west.
- Noise attenuation integrated into housing would be required on both sides of the sub-arterial through the residential areas. This would impose a significant additional cost on dwelling construction and impact affordability.

Conclusion

A sub-arterial road from the Hume Motorway would deliver a high capacity road that would facilitate improved access to the Neighbourhood. However, the alignment of the road would divide the Neighbourhood and create disconnected residential pockets and a disconnected neighbourhood outcome.



6 Development Options

Option B: Sub-Arterial Road – Northern Alignment

Road Type	Sub-Arterial
Alignment	Northern Alignment
Corridor Width	35.6m
Land Use	Employment: 0ha Residential: 348.3ha
Site Access	Signalised intersections

Advantages

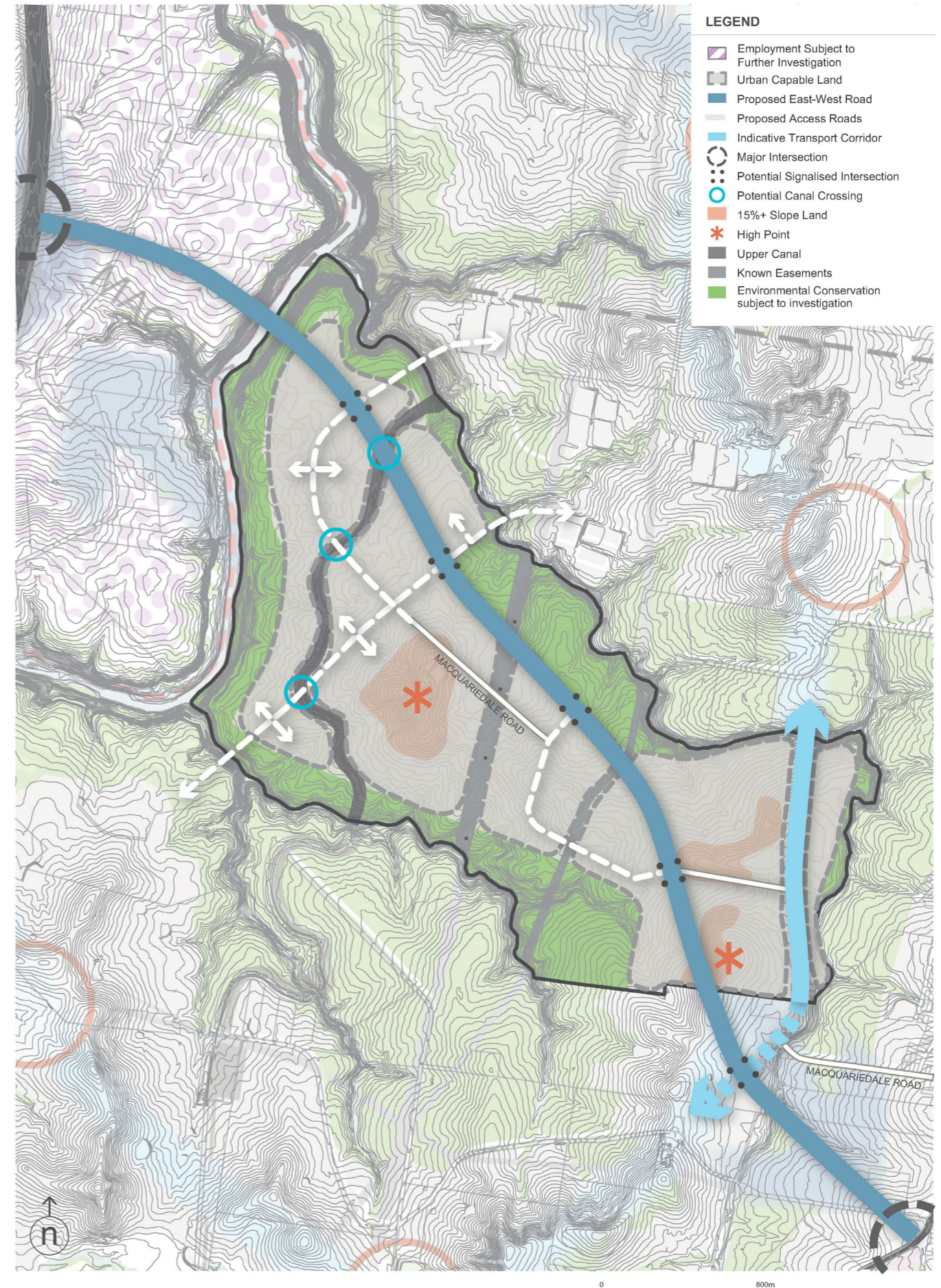
- The Neighbourhood's highpoints are able to be developed.
- A sub-arterial has the capacity to carry traffic with minimum take of urban capable land.
- A sub-arterial is more compatible with a residential land use.
- The alignment is responsive to the topography of the Neighbourhood.
- The sub-arterial promotes a more efficient use of the land by creating large development areas, facilitating the delivery of a more efficient road network and residential estates.
- The alignment provides the potential for connections to northern neighbourhoods within the Structure Plan area.
- With a sub-arterial Road, there is increased opportunity to provide access to the Neighbourhood via signalised intersections, slip lanes, etc.
- Noise attenuation of homes is limited to only one side of the sub-arterial.
- North-south connectivity between the other neighbourhoods within the Appin Precinct is improved with a sub-arterial Road.

Disadvantages

- The northern aligned sub-arterial traverses an area of that is highly desirable for development.
- The alignment creates small unusable pockets in the north-eastern portion of the Neighbourhood.
- At least three crossings over the Upper Canal would be needed to facilitate efficient vehicle movements to and from the north east area.

Conclusion

A Sub-Arterial road from the Hume Motorway would deliver a high capacity road that would facilitate improved access to the Neighbourhoods. The northern alignment responds to the constraints and topography and delivers a more efficient use of the land.



6 Development Options

Option C: Sub-Arterial Road – Southern Alignment

Road Type	Sub-Arterial
Alignment	Southern Alignment
Corridor Width	35.6m
Land Use	Employment: 0ha Residential: 350.6ha
Site Access	Signalised intersections

Advantages

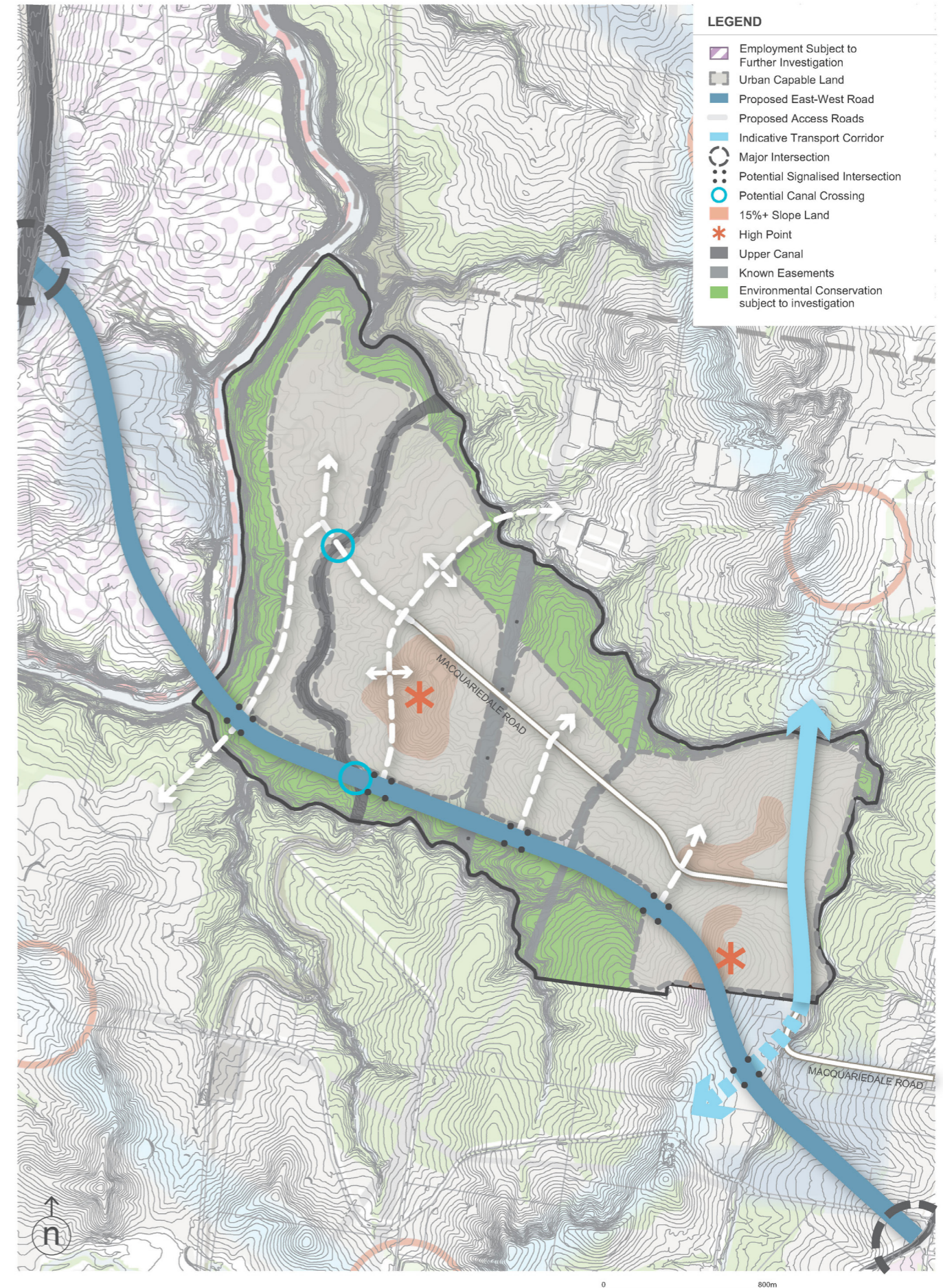
- High points in the Neighbourhood that enjoy outlook are available for residential estates.
- A sub-arterial has the capacity to carry traffic with minimal take of urban capable land.
- A sub-arterial is more compatible with a residential land use.
- It promotes a more efficient use of the land by creating large development areas, facilitating the delivery of a more efficient development.
- The alignment facilitates the opportunity to utilise the existing alignment of Macquariedale Road and potential use and embellishment of the existing access over the Upper Canal.
- The southern alignment would create the opportunity to introduce an intersection on land east of the Upper Canal, reducing the number of crossings.
- A sub-arterial provides increased opportunity to provide access to the Neighbourhood via signalised intersections, slip lanes, etc.
- Noise attenuation of homes is limited to only one side of the sub-arterial.
- North-south connectivity between the precincts is improved with a sub-arterial.

Disadvantages

- The alignment is in an area that is characterised by more undulating terrain and would require additional engineering consideration.

Conclusion

A sub-arterial road from the Hume Motorway would deliver a high capacity road that would facilitate improved access to the Neighbourhood. The southern alignment responds to the constraints and topography of the Neighbourhood and delivers a more efficient use of the land.



7 Conclusion

This Report has analysed the land use and road infrastructure proposed as part of the Greater Macarthur Structure Plan and Greater Macarthur 2040. The analysis has considered the constraints and opportunities of the Macquariedale Neighbourhood and its context within the Growth Area to determine the most appropriate land uses and efficient sub-arterial alignment to facilitate a good urban outcome.

It is clear from this Land Use Analysis that only 107 hectares in the north east portion of the Neighbourhood has suitable topography and land ownership arrangements to support the type of industrial and/or business buildings that can accommodate employment activities. However, there are disadvantages associated with an employment area in this location:

1. It is uncertain whether the employment area would be economically viable, especially given the potential for a larger, more accessible, visible and topographically suitable Employment Area to be established on the opposite side of the Nepean.
2. A sub-arterial road through the centre of the Neighbourhood would not facilitate suitable access into an employment area, as only one intersection for an east-west road connection into the employment area is likely to be achieved. This would be even more constrained if the OSO extended through the Neighbourhood.
3. The Upper Canal is a constraint that would dissect the employment area, making it more difficult to develop in the first instance, and limit future industrial uses in order to minimize risks associated with industrial activity in proximity to Sydney's potable water supply.
4. Similarly, the employment area would be enclosed on three sides by bushland and the Nepean River, which are important environmental constraints. An employment area on the opposite side of the Nepean would be larger, and more capable of addressing these constraints.

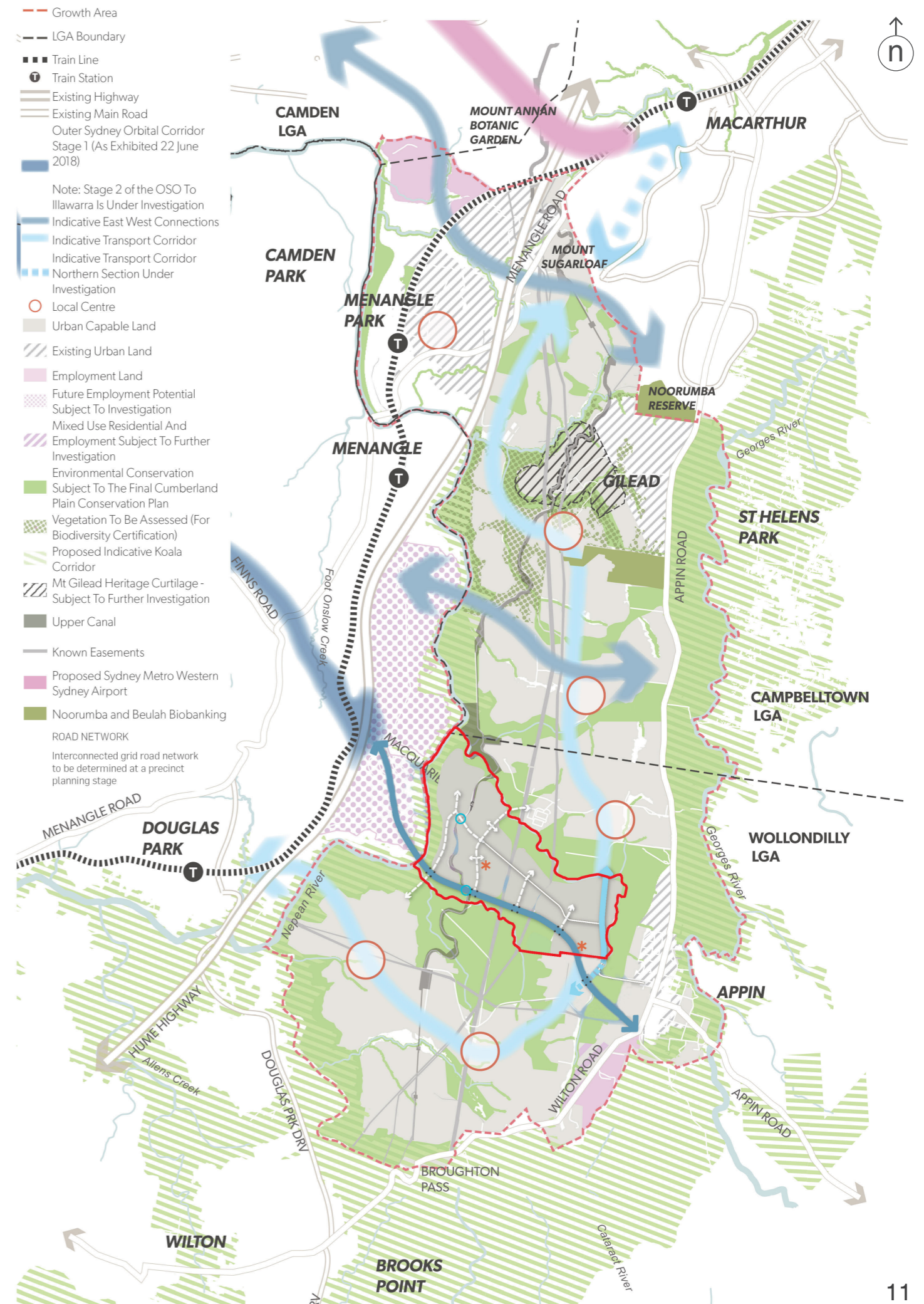
It is concluded that residential uses are more suitable for the Neighbourhood's north west portion, given its high quality amenity and natural context and limited access.

Given topographical constraints, the remaining parts of the Neighbourhood are not suitable for employment uses. Conversely, the constraining hills and slopes will contribute to high quality residential estates.

The Road Alignment Analyses shows that Option C - Southern Alignment would deliver a superior road network than Option A - Central Alignment, and would promote a more efficient use of urban capable land in the Macquariedale Neighbourhood. Option B - Northern Alignment is also superior to Option A, and offers the potential for a connection to the residential neighbourhoods and estates in the Appin North Precinct. However, under Option B, residential estates in the north pocket would require careful design.

Extending the OSO through the Neighbourhood would undermine the ability to successfully design high quality residential estates. The OSO would require a substantial take of urban suitable land, would undermine amenity with noise walls required, and would only allow a limited number of access points into the Neighbourhood. Further an OSO extension in this location would limit the ability to create north south connections through the Growth Area.

Positive urban outcomes for residential estates can be achieved in the Macquariedale Neighbourhood by responding to physical characteristics, particularly topography, and natural vegetation and associated river gorges. Together with a more suitable alignment for a sub-arterial road connection, better urban outcome can be achieved with residential land uses.





Appendix E: PROPOSED EAST-WEST ROAD CONNECTION

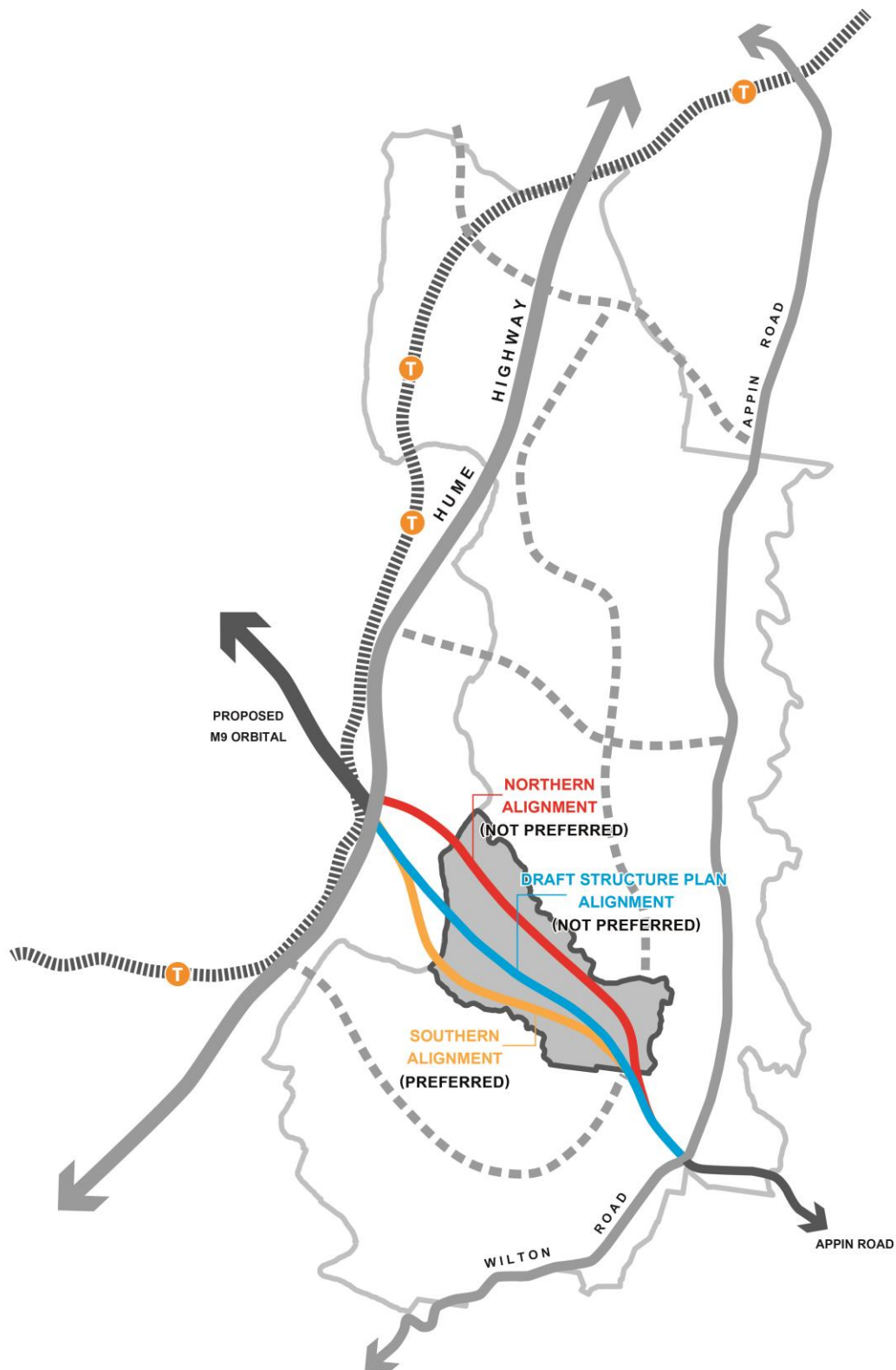
The Interim Plan makes provision for an east west sub-arterial road connection through the Appin Precinct. This connection is considered a key infrastructure item to support the Precinct's future development. Walker has been investigating the alignment of the proposed road has been investigated and the potential to fund the construction of the road, in order to unlock the development potential of the Appin Precinct considered.

The proposed alignment of the east west connection through Macquariedale Neighbourhood will result in disconnected pockets of urban development, impacting on the key physical assets that will contribute to the character of the completed Neighbourhood. Design + Planning was engaged to assess options for the alignment of the sub-arterial road.

Three options were assessed, including the alignment proposed in the Interim Plan. A copy of the assessment by Design+Planning is provided in Appendix B. HillPDA notes that while the analysis is at a high level, Option C (the Sub-arterial Southern Alignment) presents considerably greater advantages by:

- Allowing the land with the highest visual amenity to be available for residential uses
- Allowing for more efficient use of land
- Reducing noise attenuation to homes and improved north south connectivity throughout the neighbourhood
- Creating regular, reasonable sized development parcels, capable of efficiently accommodating new estates, and leaving only one small inefficient parcel, which could potentially be integrated into another Neighbourhood adjoining to the south
- Requiring only 1 crossing over the Upper Canal.

Figure 7: Sub-arterial route options considered by Design + Planning



The proposed Outer Sydney Orbital

Design + Planning considered a potential extension of a 100 metre wide Outer Sydney Orbital (OSO) corridor through the Macquariedale Neighbourhood, although it is noted that this is not proposed in the Interim Plan.

An OSO corridor in this location has implications for the functioning of the draft Structure Plan, and the creation of a new, cohesive urban area within Greater Macarthur's land release areas, as it would sever north south connectivity through the area, or require significant investment in bridge structures.

There would also be an impact on the orderly and efficient implementation of high quality residential areas within the Macquariedale Neighbourhood as it would:

- Cut the Neighbourhood into two separate and unconnected residential areas
- Impose environmental impacts associated with noise, air quality and visual impacts
- Impact on the physical assets of the Neighbourhood, in particular, high points.

Appendix F: NICHE REPORT

20 December 2018

Sally Lewis
Principal Planner
Walker Corporation
Level 21, Governor Macquarie Tower
1 Farrer Place Sydney NSW 2000

Via e-mail:

Sally.Lewis@walkercorp.com.au

Re: Northamptondale Heritage Curtilage

Dear Sally

As per your commissioning e-mail dated 3 December 2018 please find below our preliminary advice with regard to the matter of the heritage curtilage for the Northamptondale property, near Appin NSW.

Properties discussed in this preliminary advice are:

80 Northamptondale Rd Appin NSW 2560 (Lot201 DP819476)
60 Northamptondale Rd Appin NSW 2560 (Lot203 DP819476)

Lot 201 is a subdivision of approximately 2 ha entirely contained within Lot 203, which comprises approximately 36 ha.

Heritage Listings

There are four heritage listings present on the properties under consideration. The heritage items are listed in the Wollondilly Local Environmental Plan 2011:

1. Northamptondale Group – House, Feed Shed, Trees, Stable, Tank (ID: 2690076)
2. Northamptondale House: Northamptondale Group (ID: 2690075)
3. Northamptondale Slab Farm Outbuildings: Northamptondale Group (ID: 2690077)
4. Northamptondale Trees: Northamptondale Group (ID: 2690078)

Item 1, the Northamptondale Group, is identified as being present within both Lot 201 and Lot 203. No site inspection has been conducted to prepare this preliminary report, however from the detail of the listings and aerial photograph inspection the following is preliminarily concluded:

- Lot201 DP819476 contains Items 1, 2, 3 and partially Item 4 (all buildings and structures, some trees);
- Lot203 DP819476 contains Item 4 (the trees) only.

Northamptondale House is in very poor condition, and requires major restoration work for its ongoing survival.

The Slab Farm Outbuildings are in generally better condition than the house.

The trees are claimed to be remnants of the original woodland, although inspection of photographs suggests they are too young to be original trees, and are most likely regrowth. They do, nevertheless, to some extent provide the character of the original woodland.

Greater Macarthur 2040 an interim plan for the Greater Macarthur Growth Area

The Greater Macarthur 2040 plan includes specific reference to the area's heritage. The Plan recognises the importance of the area's Aboriginal and European heritage to the character of the Greater Macarthur, and seeks to conserve the heritage to maintain the heritage characteristics for cultural connection and the enjoyment of future generations. The plan lists several key Aboriginal and European heritage places, however Northamptondale is not one of these identified key places.

In particular the plan says:

Where appropriate, significant heritage items will be preserved for long-term protection from development with adequate curtilages.

... conservation and enhancement of the District's heritage by stating that planning authorities should:

engage with the community early in the planning process to understand heritage values and how they contribute to the significance of the place

apply adaptive re-use and interpreting of heritage to foster distinctive local places

manage and monitor the cumulative impact of development on the heritage values and character of places.

Areas set aside for long-term protection from development will need to preclude any activities and require active management within the protection curtilage. Mechanisms to ensure this will be determined at precinct planning stage and will include:

public or trustee ownership and funding for conservation of significant sites

agreements for the adaptive re-use and management of sites by the private sector including commitments to funding for ongoing conservation.

include further investigation to define appropriate design of precincts to protect heritage significance.

address sympathetic adaptive re-use of heritage items consistent with their significance opportunities for using heritage item curtilages for open space or environmental conservation and where appropriate, to preserve the character of the area and identified cultural values.

protect all heritage items from development.

The goals of the Plan are not inconsistent with the potential further future sub-division of Lot 203, inasmuch as the best conservation outcome may be to incorporate Northamptondale House into any proposed future development through adaptive re-use. Restoration and adaptive re-use of the house (and possibly out buildings) could incorporate the structures into the wider living community and neighbourhood designs, ensuring continuance of use and maintenance. Guidelines for both subdivision in the vicinity of heritage items and adaptive re-use are also contained within the Wollondilly DCP 2012.

Identified Heritage Values

The following Statements of Significance are provided on the Heritage Inventory Listings for the Northamptondale items.

Northamptondale Group – House, Feed Shed, Trees, Stable, Tank (ID: 2690076)

The Northamptondale property has historic and social significance through its associations with the history of development of the Appin area, its ownership by the pioneering Broughtons and subsequently by the Percival family in whose hands it has remained for over 150 years.

It provides evidence of the initial settlement and pastoral activities in the Appin area.

It also has local aesthetic significance as a notable landmark on the approach road into Appin - its buildings set in a large and attractive stand of mature Eucalypts sited on a low knoll - as well as for its individual building components. The main homestead is particularly noteworthy for its use of jerkin head gables - atypical for the period but evident elsewhere in Appin. Items of significance include the sandstone house, stables and the feed shed, and water tank, all built c.1856, and the trees.

Northamptondale House: Northamptondale Group (ID: 2690075)

Northamptondale has regional historic and social significance through its associations with the history of development of the area and the early pioneering families, the Broughtons and the Percivals. It also has local and regional aesthetic significance as a substantial and good representative example of the early stone cottages in the area, and is, in fact, renowned locally as typifying the early Appin house style. This aesthetic significance is further enhanced by the unusual and relatively rare tooling detail / ribbed decoration of the stonework to the front wall of the house as well as the building's overall retention of much of its original character and fabric.

Northamptondale Slab Farm Outbuildings: Northamptondale Group (ID: 2690077)

The Northamptondale slab farm outbuilding has local historic and aesthetic significance as a good typical representative of this traditional building type and as an integral component of the rural activities on Northamptondale. The building's significance is considerably enhanced by its good condition and degree to which it has retained original features / fabric and usage.

Northamptondale Trees: Northamptondale Group (ID: 2690078)

The eucalypts on the knoll at Northamptondale are likely to be remnants of the original vegetation of the Lachlan Vale grant and together with the garden plantings form an important tree grouping in the pastoral landscape.

Heritage Curtilage

The purpose of a heritage curtilage is to establish an area of land surrounding heritage items and structures that provides for the retention and interpretation of the heritage items' significance.

The current curtilage for the Northamptondale Group (including all of its components) is the legal boundary of Lot 203 DP819476. The lot boundary provides for a large area of land surrounding the Northamptondale

structures that the heritage listing claims to be reminiscent of the landscape as it would have presented during the initial land grants period of the early 19th Century.

There are examples of locally significant heritage items with curtilages that have been reduced from lot boundaries in the region, including the Mountbatten Homestead and Gardens and Outbuildings at Morton Park.

It is envisaged that a reduced curtilage in Lot 203 would also be suitable for Northamptondale, as long as the curtilage maintains the sense and language of the region's early pastoral times, but in particular the mid-19th Century period of the house and other buildings. The reduced curtilage would be unlikely to be smaller than Lot 201. An example of a reduced boundary that may retain all the significant elements and features (including landscape values and views and vistas) is presented in Figure 1, which is based on extant structures and the 230 m contour.

The reduced curtilage will need to be informed by Heritage Impact Assessments and a Conservation Management Plan that seeks to address adaptive re-use for the Northamptondale Group and an interpretation plan that clearly articulates the heritage values present (including both Aboriginal and European archaeological values for Lots 201 and 203), and how these are best preserved and presented. The *Statements of Heritage Impact Guideline* provides the following prompts for consideration of curtilages when sub-dividing land:

How is the proposed curtilage allowed around the heritage item appropriate?

Could future development that results from this subdivision compromise the significance of the heritage item? How has this been minimised?

Could future development that results from this subdivision affect views to, and from, the heritage item? How are negative impacts to be minimised?

Rather than the Lot 203 boundary the reduced curtilage should seek to take advantage of: any requirements for open space ratios; the rolling nature of the countryside; the position of trees; and key view lines to allow urban development in areas of Lot 203 where significant heritage values, and views and vistas will not be deleteriously effected. A goal of the reduced curtilage should be to integrate with detailed urban planning to retain and conserve the built structures, landscape and archaeological heritage values of the Northamptondale Group by incorporating the structures and heritage values into a living community.

Yours sincerely



Jamie Reeves
Managing Director
Niche Environment and Heritage



Northamptondale Group - key heritage elements
 Prepared for Walker Corporation
FIGURE 1

Appendix G: SIC ANALYSIS

G.1 Background

Special infrastructure contributions (SICs) were introduced into the Environmental Planning and Assessment Act 1979 in 2006 to allow the State Government to secure funds from developers for Sydney's Growth Areas. The introduction of SICs recognised the intensity of development proposed for these areas and thereby, the need for substantial infrastructure delivery by the State Government. Schedule 4 of the Act current specifies that SICs apply to the following areas:

- The Western Sydney Growth Area
- Wyong Employment Zone
- Warnervale Town Centre
- Gosford City Centre.

Proposals for SICs have been exhibited, but are yet to be implemented, for:

- | | |
|-----------------------|---------------------------|
| ■ Lower Hunter | ■ Greater Macarthur |
| ■ West Lake Illawarra | ■ Bayside West |
| ■ Wilton | ■ St Leonards/Crows Nest. |

The SIC's were initially implemented with the intent of covering 100% of the State's infrastructure costs (as identified by the relevant Metropolitan Plan or Metropolitan Development Program). However, the SIC approach was reformed so that developers were required to pay 75% of the SIC estimate with the remaining 25% of infrastructure costs to be covered by the State³. Later, a further temporary reduction was made for all levies paid prior to 30 June 2011, splitting the infrastructure costs 50/50 between the developer (via a SIC) and State Government. However, the temporary reduction still applies in the Western Sydney Growth Area⁴.

Further amendments were made to the SIC approach in 2011 to help stimulate housing supply including:

- The simplification of the indexing mechanism that had been designed to account for changes in economic conditions between the time of consent and when the contributions were made
- The introduction of arrangements to allow for deferred payments before the end of 3 years, with the Minister's approval.

G.2 Previous applications of SICs in Greenfield areas

Existing and proposed SICs have been reviewed for greenfield locations. The results are summarised in Table 1. The proposed SIC for Greater Macarthur Growth Area is higher than for most any other greenfield areas.

³ HillPDA (2015)

⁴ Department of planning and Environment cited at <<https://www.planning.nsw.gov.au/Policy-and-Legislation/Infrastructure/Infrastructure-Funding/Special-Infrastructure-Contributions-SIC/Western-Sydney-Growth-Area-Special-Infrastructure-Contribution>>

Table 1: Comparison of greenfield residential SICs

Status	Location	Year introduced / exhibited	Cost of Infrastructure	% SIC	% Government	Rate / Net Developable Area	Rate /Lot or dwelling	Infrastructure included
IN FORCE	Warnervale Town Center	2008	\$6.45M	75%	25%	\$140,000 per hectare (2008)	-	Roads, biodiversity, public transport.
	North West Growth Area	2011	\$4.698M	50%	50%	\$269,649 per hectare (2011) \$214,511 per hectare (2018)	\$14,583 (2018)	Roads, public transport, emergency services, education, health, biodiversity conservation and regional open space
	North West Growth Area- Balmoral Road	2011		50%	50%	\$213,989 per hectare (2011) \$170,232 per hectare (2018)	\$11,573 (2018)	
PROPOSED	North West Growth Area (Revised)	2018	\$3,014M	50%	50%	n.a.	\$15,426	Roads, public transport, active transport, emergency services, education, health, biodiversity conservation and regional open space
	North West Growth Area – Balmoral Road (Revised)	2018		50%	50%	n.a	\$15,267	
	West Lake Illawarra	2011	\$0.693M	Variable		\$73,219 per hectare (2011)	-	Roads
	Lower Hunter	2011	\$2.23M	25-50%	50-75%	\$105,340 per hectare (2011)	-	Roads
	Hunter Region: Lower Hunter	2017	\$332.6M	n.a.	n.a	n.a	\$10,664	Roads, emergency services, education, health
	Hunter Region: Mid Coast	2017				n.a	\$658	
	Hunter Region: Upper Hunter	2017				n.a	\$658	
	Wilton	2018	\$771.46M	n.a	n.a	n.a	\$59,274	Roads, public transport, education, health, emergency services, biodiversity conservation and regional open space

Status	Location	Year introduced / exhibited	Cost of Infrastructure	% SIC	% Government	Rate / Net Developable Area	Rate /Lot or dwelling	Infrastructure included
	Greater Macarthur: North	2018	\$1,580M	n.a.	n.a.	n.a.	\$39,710	Roads, public transport, education, health, emergency services, biodiversity conservation and regional open space
	Greater Macarthur: Central	2018				n.a.	\$43,985	
	Greater Macarthur: South	2018				n.a.	\$43,432	

Compiled from information at <https://www.planning.nsw.gov.au/Policy-and-Legislation/Infrastructure/Infrastructure-Funding/Special-Infrastructure-Contributions-SIC>

When compared to the North West Growth Area on a sale price per lot basis, the proposed SIC in the Greater Macarthur area is even higher, accounting for 10%-11.5% of sales price in Greater Macarthur compared to only 2% in North Kellyville.

Table 2: SIC and sale values per lot

Estate	Lot Size (sqm)	Sale Price	Proposed SIC Levy	% of SIC
Appin	450	\$350,000-\$360,000	\$43,432	12%
Menangle Park	400-450	\$377,000-\$384,000	\$39,710	10% -11%
Wilton	450-500	\$370,000-\$400,000	\$60,000	15.5%
Greater Macarthur - North	450-500	\$370,000-\$400,000	\$39,710	10.4%
Greater Macarthur - Central	450-500	\$370,000-\$400,000	\$43,985	11.5%
Greater Macarthur - South	450-500	\$370,000-\$400,000	\$43,432	11.5%
Tahmoor	450	\$345,000-\$350,000	\$13,406	4%
Oran Park	300-550	\$365,000 -\$535,000	\$13,406	2.5%-4%
Gregory Hills	300-430	\$378,500- \$446,500	\$13,406	3%-3.5%
Gledswood Hills	400-420	\$384,900 -\$419,000	\$13,406	3.1% - 3.4%
Macarthur Heights	438-634	\$410,000-\$540,000	\$13,406	2.4%-3.2%
Spring Farm	436-551	\$439,000- \$565,000	\$13,406	2.3%-3%
Box Hill	333-546	\$465,000-\$700,000	\$5,426	2.2%-3%
North Kellyville	374-489	\$590,000-\$619,000	\$15,426	2%
Schofields	265-526	\$365,000-\$590,000	\$15,426	2%-4%
Riverstone	233-550	\$340,000-\$502,000	\$15,426	3%- 4.5%
Marsden Park	280-558	\$416,900-\$658,000	\$15,426	2%- 4%

Source: RPdata and HillPDA research 2018. Sales values and lot sizes are based on HillPDA market research in December 2018.

Sales prices in Greater Macarthur are considerably less than in the North Western Growth Area. The proposed SIC for Greater Macarthur is considerably higher and is to be applied to some of the lowest priced greenfield areas, indicating that the approach is inequitable when compared to other areas.

SIC levies are between 2% to 5% of the sales price per lot in the North West Growth Area. The proposed SIC for Greater Macarthur is around 10.5% to 12%.

G.3 Key findings

While developer contributions aim to introduce equity through infrastructure cost being directed to those that benefit, there is potential for inequity to arise from existing homeowners in an area benefiting from the new infrastructure without having to contribute towards its cost. Inequities can also arise through the contributions varying across geographic areas and over time.

In addition, developer contributions are determined separate from any assessment of market conditions. In a situation where the market is at its peak, developers will be achieving the maximum price that the market will accept at this point in time⁵. Any increases to development costs will need to be absorbed by the developer. In other market conditions, the cost may in part be passed on through lower land purchase price, or through higher quality developments to recoup costs through higher sales prices⁶.

The investigation of SICs across greenfield residential developments above has revealed that:

- The SICs being proposed in Greater Macarthur are around three times more than in the North West Growth Area. It is noted that:
 - The proposed SIC in Greater Macarthur is only applicable to residential land when other growth areas also typically include a SIC for employment (industrial) lands.
 - The Department of Planning and Environment has not specified whether the costs of infrastructure area to be borne in full by the developer or shared with Government as in the North West and Warnervale Growth Centres. Consequently it is unclear if the higher SICs in Macarthur South are related to a reduction in the Government's burden of costs
- The SIC charge has moved from a per hectare to a per dwelling rate. While it is understood that this change was intended to improve simplicity of the SIC and enable funding of infrastructure for greater than expected densities, the approach could also introduce a disincentive for medium or higher density development.

G.4 Implications for development

This section outlines a hypothetical development feasibility to ascertain the market value and appropriate SIC levy a developer can afford to pay in the West Appin area.

G.4.1 Methodology

In existing areas where rezoning has occurred and the residential land values are established, the hypothetical development method is used to assess new development. To undertake the feasibility modelling, we have used the proprietary software Estate Master which is an industry benchmark used by developers, financiers and property valuers. This method calculates the residual land value by subtracting from the anticipated net sales revenue, the anticipated costs of development plus a margin for its profit and risk.

A feasibility assessment is based on profit and risk factors. These two factors are subjective elements that determine the minimum level a developer is willing to purchase a site, factoring in the risk associated with a proposed development. To assess a development and its profitability the primary performance criteria that has been used to determine viability is the **Project Internal Rate of Return (IRR)**. This is the actual return on the

⁵ PWC (2018)

⁶ *Ibid.*

investment on an annualised basis and expressed as a percentage. This approach considers the cost of time in its calculation within a cash flow and indicating average returns over a period of time. As a rule of thumb, we have used a project hurdle rate of 18% p.a.

Any unpredicted change, such as an increase in developer contributions or development costs in the short term could have a notable effect on development feasibility; unless it could be absorbed by either making allowances in the project contingency or increases in market sale values for the developed product.

G.4.2 Market Sounding

To test the viability of a development, it is important to understand the existing market value. The **'market value'** is the estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm's length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion⁷.

To arrive at a market value for our hypothetical feasibility assessment we have undertaken research on englobo developments and compared their sites' attitudes by employing the direct comparison approach. The **'direct comparison'** approach is *the relative merits of the subject site are compared against similar development sites having regard to factors such as location, aspect, site constraints such as topography, size of the land and scale of development, consent status and relativity of time to current market conditions. This comparison is based on a rate per sqm of hectare common to the analysed sales and the subject property.*

Englobo development sites, while offering the benefits of size, flexibility and opportunity, represent the riskiest of all property classes. Large (raw) englobo sites are traded at price levels reflective of the perceived risks associated with development planning (rezoning and consent, infrastructure, environmental constraints, etc.) which is typically a function of unknown variables.

HillPDA's research revealed limited englobo development site sales over the last two years, with only two sites for sale since mid-Dec 2018. The sites for sale include:

- **512 Appin Road, Appin:** This site is currently rural zoned land. The land is 1.87 hectares in size. The advertisement reads with the "potential rezoning in the future". On this basis the selling agent indicated that the property would likely sell for approximately \$1m per hectare plus. This sale is an example of a rural zoned site being offered to the market as a speculated residential value. Demonstrating additional development charges on this value may make development not viable.
- **Lot 1, Illawarra Road, Appin:** This site is approximately 4 hectares in size and RU2 zoned. The selling agent indicated that the landowner is asking \$1.5 million dollars. This equates to a rural value of \$375,000 per hectare. The selling agent revealed that the interested parties for this site are local farmers looking to build a large residential house and farm. The site, in accordance with the Greater Macarthur Growth Area Structure Plan, is shown as being subject to the final Cumberland Plain Conservation Plan and within the Indicative Koala Corridor. Therefore, it is highly unlikely to be rezoned to residential.

In addition to the sales above, research undertaken in December 2017 identified a site for sale at 10-12 Bulli Appin Road, Appin. Discussions with the local agent revealed the site had been recently rezoned to R2 Low Residential Density. The site offered a concept plan for 23 residential land lots. The asking price was for \$2m to \$2.5m per hectare. Current investigations has revealed that the sale price was not disclosure to the public.

Discussions with agents indicated that the limited number of transactions within West Appin was due to the uncertainty of land being rezoned to residential use as well as the various land restrictions (e.g. coal licenses).

With little evidence available, agents suggested that rural zoned land with the potential to be rezoned to R2 Low Density Residential typically are selling for \$1 million to \$1.8 million dollars per hectare. Agents revealed that smaller subdivision land lots (400sqm to 500sqm) would likely sell for \$320,000 to \$360,000. The evidence provided demonstrates lower sale prices to those achieved in Wilton. This is mainly due to the Wilton being a more established renewal area.

With the limited market evidence, we have had to broaden our search to more established areas such as Wilton, Cawdor, St Helens Park, Douglas Park and Menangle Park. Discussions with local agents revealed that developers such as Lendlease, Stockland and overseas Chinese developers are the main investors for rural zoned land to residential zoned land developments in areas such as Wilton.

Agents revealed that Wilton R2 zoned residential development sites are likely to achieve \$1.75 million to \$2 million per hectare, although the speculated value from landowners is around \$3 million per hectare. Sites zoned RU2 with no speculated value are likely to achieve \$400,000 to \$800,000 per hectare. Agents confirmed that a rural value with no speculation in this area is highly unlikely, as all landowners are aware of the proposed planning control. In Menangle Park two rural zoned sites are in negotiation for land values ranging from \$1.5m to \$1.7m. These prices are an indicated of speculated R2 zones.

Our research revealed developers – namely The Fraser Property Group and Country Garden purchased two separate rural zoned sites in Cawdor. Recently it was announced that the two sites would remain RU2 and not be granted rezoning to R2 low density residential. The purchase prices of the two sites were based on a speculated R2 low Density Residential zoning and not their existing zone thereby, creating the market value as a speculated value.

In summary, our investigation revealed there are currently limited development site sales in West Appin due to the slow nature of the market, uncertainty over future rezoning and existing land restrictions. Surrounding areas have seen sales occur, however with new planning controls proposed in areas such as Wilton, landowners are speculating over higher values on sites earmarked for potential rezoning to residential. This, in turn, has created a market value for these areas and therefore new developments find it difficult to absorb additional costs.

To avoid any loss in housing being developed in the South West Region, all future land subdivision acquisitions and any further increases in developer contribution charges could be absorbed, but they would need to be flagged well in advance to the property industry so they could be priced into the residual land valuation negotiations at that time.

G.4.3 Englobo Land Value

The cost of land is a critical variable that underpins the feasibility in greenfield areas. Our research revealed limited sales in the Appin region, however, to arrive at a current purchase price for this assessment, recent sales in Appin and its surrounds were analysed. It was found that englobo land in Appin would achieve \$1.5m to \$1.8m per hectare. To be conservative, \$1.5m was adopted in the financial modelling.

G.4.4 Development Options

To quantify a residential subdivision and the impact the \$43,475 SIC levy may have on the viability, we have tested the sensitivity of the four options.

1. **Option 1: No SIC levy** This option tested a 16 dwelling per hectare Residential Subdivision with no SIC levy
2. **Option 2: 5% of Market Value:** This is a similar proposed development to Option 1, however we have assumed the SIC levy would be 5% of the market value for a single residential land lot. In this instances, we have assumed \$18,000 per lot

3. **Option 3: SIC Tipping point:** This is a similar proposed development to Option 1, however we tested the point at which a residential subdivision development can absorb the SIC levy we have assumed \$25,000 per lot
4. **Option 4: Proposed SIC in West Appin:** This is a similar proposed development to Option 1, however we tested the point at which a residential subdivision development with a SIC of \$43,475 per lot.

G.4.5 Assumptions

For the purpose of this modelling we have assumed the following:

Table 5: Financial Assumptions

Assumption	Input	Assumption	Input
Development yield	16 dwellings per hectare	Land Development Costs	\$80,000 per lot
Saleable land (ha)	7.2	Professional fees	7,200
Local roads (ha)		State Infrastructure Levy	\$0 to \$43,475
Section 7.11	\$20,000	Revenue	\$360,000
Open Space	We have assumed no dedication to open space	Marketing fees	\$9,000

G.4.6 Financial Results

The results are as follows:

Table 6: Feasibility Testing of SIC levies

Revenue and Cost Per Lot	Option 1: No SIC	Option 2: \$18k SIC	Option 3: \$25k SIC	Option 4: \$43k SIC
Project Revenue				
Gross Sale	\$380,000	\$380,000	\$380,000	\$380,000
Less GST	-\$35,000	-\$35,000	-\$35,000	-\$35,000
Less selling costs @ 2.5%	-\$9,625	-\$9,625	-\$9,625	-\$9,625
Net Revenue	\$340,375	\$340,375	\$340,375	\$340,375
Project Costs				
Construction	\$80,000	\$80,000	\$80,000	\$80,000
Professional Fees @ 9%	\$7,200	\$7,200	\$7,200	\$7,200
Section 7.11	\$20,000	\$20,000	\$20,000	\$20,000
Marketing & Advertising @ 2.5%	\$9,000	\$9,000	\$9,000	\$9,000
SIC Levy	\$0	\$18,000	\$25,000	\$43,432
Project Contingency @ 5%	\$5,810	\$6,710	\$7,310	\$7,982
Finance and Interest	\$3,544	\$4,093	\$4,877	\$4,868
Total Costs	\$122,010	\$140,910	\$148,260	\$167,614
Target Profit/Risk @ 18%	\$48,550	\$48,550	\$48,550	\$48,550
Gross Residual Land Value	\$144,169	\$124,720	\$117,156	\$97,241
Less acquisition costs @ 5.5%	-\$7,929	-\$6,860	-\$6,444	-\$5,348
Net Residual Land Value	\$115,690	\$100,083	\$94,013	\$78,032
RLV per hectare	\$1,851,040	\$1,601,328	\$1,504,208	\$1,248,000

Source: HillPDA 2019

The above results show that:

- Option 1 would not pay the SIC levy and achieve a residual land value of \$1.85million per hectare
- Option 2 is the maximum SIC levy that could be paid to achieve an RLV of \$1.5m per developable hectare is \$25,000 per residential lot
- Option 3 demonstrates that a SIC levy representing 5% of the market value equating to \$18,000 per dwelling would increase the residual land value of \$1.6m per hectare
- Option 4, demonstrates that the proposed \$43,432 SIC levy, compared to no SIC levy, decreases the residual land value (RLV) from around \$1.85m per developable hectare to \$1.24m

What does it all mean? When a developer considers a site’s viability, the developer calculates the project costs, revenues and profit to arrive at residual land value that delivers a viable project. Our modelling suggest that a viable project could afford to pay a SIC levy of \$25,000 per lot.

G.5 Key findings

While developer contributions aim to introduce equity through infrastructure cost being directed to those that benefit, there is potential for inequity to arise from existing homeowners in an area benefiting from the new infrastructure without having to contribute towards its cost. Inequities can also arise through the contributions varying across geographic areas and over time.

In addition, developer contributions are determined separate from any assessment of market conditions. In a situation where the market is at its peak, developers will be achieving the maximum price that the market will accept at this point in time⁸. Any increases to development costs will need to be absorbed by the developer. In other market conditions, the cost may in part be passed on through lower land purchase price, or through higher quality developments to recoup costs through higher sales prices⁹.

The investigation of SICs across greenfield residential developments above has revealed that:

- The SICs being proposed in Greater Macarthur are around three times more than in the North West Growth Area. It is noted that:
 - The proposed SIC in Greater Macarthur is only applicable to residential land when other growth areas also typically include a SIC for employment (industrial) lands.
 - The Department of Planning and Environment has not specified whether the costs of infrastructure area to be borne in full by the developer or shared with Government as in the North West and Warnervale Growth Centres. Consequently it is unclear if the higher SICs in Macarthur South are related to a reduction in the Government’s burden of costs.
5. The SIC charge has moved from a per hectare to a per dwelling rate. While it is understood that this change was intended to improve simplicity of the SIC and enable funding of infrastructure for greater than expected densities, the approach could also introduce a disincentive for medium or higher density development.

⁸ PWC (2018)

⁹ *Ibid.*

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SYDNEY

Level 3, 234 George Street
Sydney NSW 2000
GPO Box 2748 Sydney NSW 2001
t: +61 2 9252 8777
f: +61 2 9252 6077
e: sydney@hillpda.com

MELBOURNE

Suite 114, 838 Collins Street
Docklands VIC 3008
t: +61 3 9629 1842
f: +61 3 9629 6315
e: melbourne@hillpda.com

WWW.HILLPDA.COM