



CPG ESTATES

LOCHINVAR URA MASTER PLANNED PRECINCT  
URBAN DESIGN REPORT - MAY 2023





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Wyndella Road Estate, Lochinvar

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Wyndella Road Urban Design Report

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## Acknowledgment Of Country

We, ADW Johnson, acknowledge the Traditional Custodians of the land where we live and work, the country of Awabakal, Darkinjung & the Eora Nation.  
 "We recognised their continuing connection to the land and waters of our beautiful regions. We pay our respects to Aboriginal and Torres Strait Islanders Elders past, present and emerging."

# EXECUTIVE SUMMARY

ADW Johnson has been engaged by Lochinvar Development Pty Ltd to prepare an Urban Design Report for the development of a masterplan over their holdings within the Lochinvar Urban Release Area, situated within the Maitland Local Government Area. The intent of the Urban Design Report is to support a Development Application for the site to facilitate delivery of a residential subdivision and supporting infrastructure.

This Urban Design Report details the in depth works undertaken to understand site characteristics, relevant planning controls, biodiversity, water cycle management, transport, connectivity, open space, market analysis and associated risks/opportunities, along with the overall design objectives and outcomes for the project site.

The final masterplan presented in this Urban Design Report consists of:

- 262 residential allotments, intended to be delivered in a staged approach, incorporating a range of lot sizes to assist in delivering diversity amongst future residents of the development;
- 2 local parks within the development, located at strategic focal points, being along the primary collector road within the heart of the development and also at the north-west corner of the Wyndella Road/New England Highway intersection, providing a soft landscaped feature at the eastern gateway entry into Lochinvar;
- A landscaped network of pathways and cycleways, providing linkages to the local parks and riparian corridor within the development, as well as connectivity to shops, schools, recreation areas and transport access points outside of the development;
- Enhanced biodiversity connectivity through the southern portion of the site through regeneration and enhancement of the existing watercourse, providing visual amenity and ecological benefits;
- Creation of water management facility in the southern portion of the site, directly adjoining the watercourse, providing an increased 'blue/green' footprint in this area and opportunities for passive recreation, along with visual amenity;
- Creation of landscaped buffer along the sites frontage to the New England Highway to help preserve the rural amenity at the gateway entry to Lochinvar; and
- Leverage of Government investment in the area through utilisation of the government funded Wyndella Road/New England Highway intersection to cater for traffic generated by the development.

The final masterplan satisfies all relevant planning controls, provides a productive mix that responds to the abundance of high - amenity open space areas within the site, enhances biodiversity & hydrology linkages and will play a key role in supporting the ever growing township of Lochinvar.





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# PART 1 :PROJECT OVERVIEW



# PART 1 :PROJECT OVERVIEW

## 1.1 PROJECT SITE

The project site is located on the north-west corner of the intersection of The New England Highway (NEH) and Wyndella Road, within the township of Lochinvar, situated within the Maitland Local Government Area (LGA). The project site is situated less than 1km east of the existing Lochinvar village centre and forms part of the wider Lochinvar Urban Release Area (LURA).

The project site has an area of approximately 22.54Ha and consists of 8 allotments, being:

- Lots 2, 3, 4, 5, 6 & 9 in DP 747391; and
- Lots 12 & 13 in DP 1219684.

The northern boundary of the site adjoins rural farmland. The eastern boundary has a frontage of around 658m to Wyndella Road, the southern boundary has a frontage of around 234m to the NEH and the western boundary largely adjoins undeveloped residential zoned land (within the LURA). Further afield, to the east of the site lies rural farmland (not within the LURA) and to the south of the site lies residential zoned land that is currently being delivered through a number of developments.

Further site information is provided in Part 3 of this Urban Design Report.



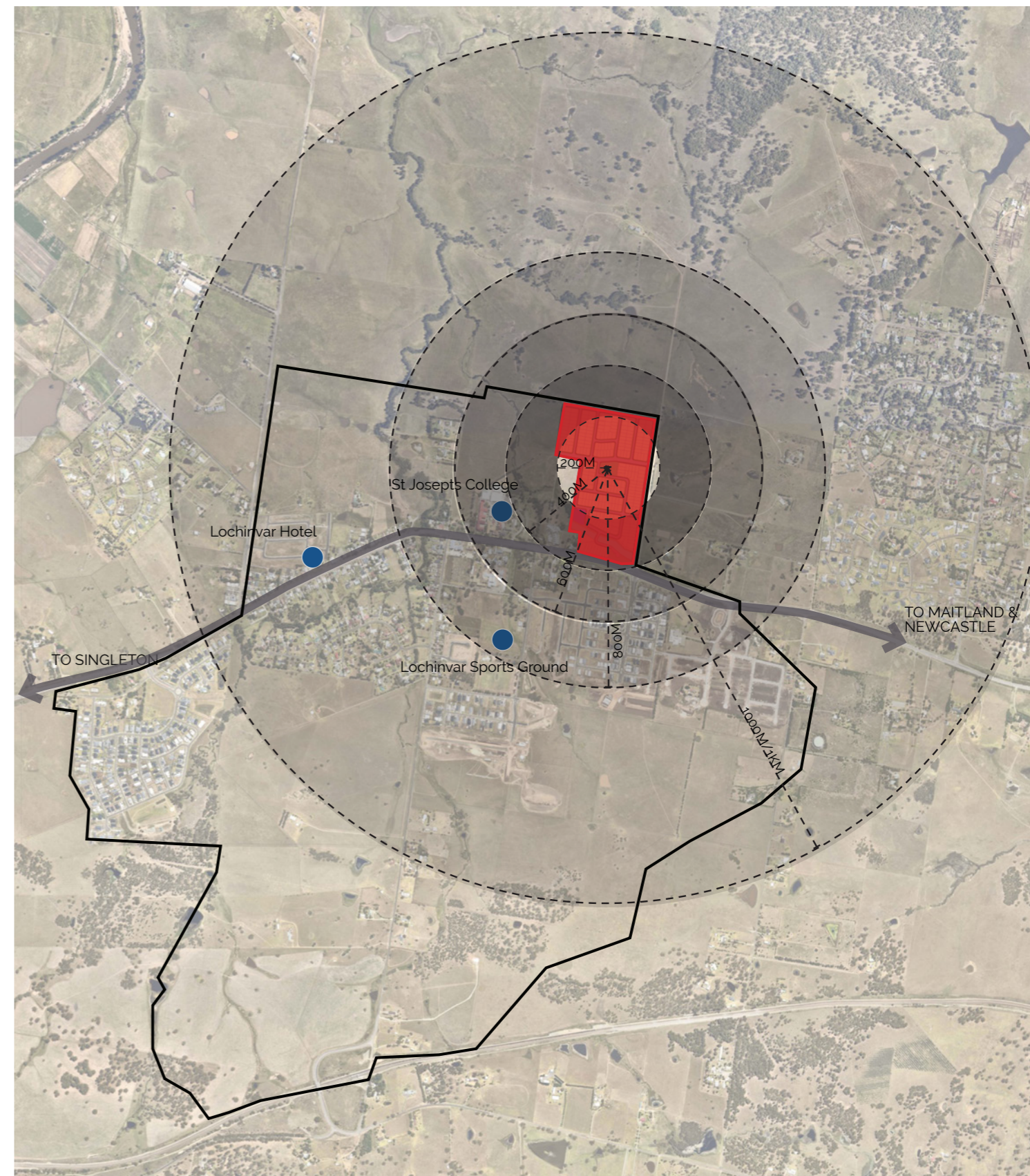
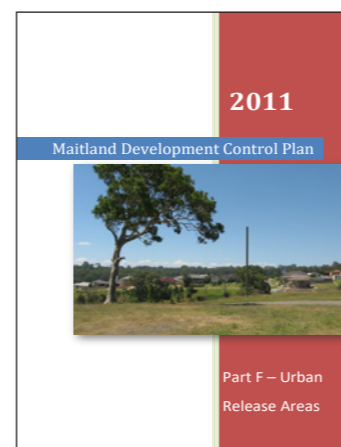
# PART 1 :PROJECT OVERVIEW

## 1.2 OVERVIEW - PROJECT STRATEGY

Maitland Council has a suite of planning documents that are to be used to guide the development of the LURA, including a definitive design strategy and 'place making' ethos, associated with the delivery of new:

- Residential Development;
- Open Space & Recreation Areas;
- Landscape/Buffer Treatments;
- Pedestrian Connectivity and Cycleway Network;
- Educational Facilities;
- Community (town) Centre;
- Road Infrastructure; and
- Transport Hub.

Along with above elements, the evolution of the masterplan for the project site will consider current market trends, in terms of lot sizes and pricing, throughout the LURA to ensure the layout responds to the communities needs and desires.



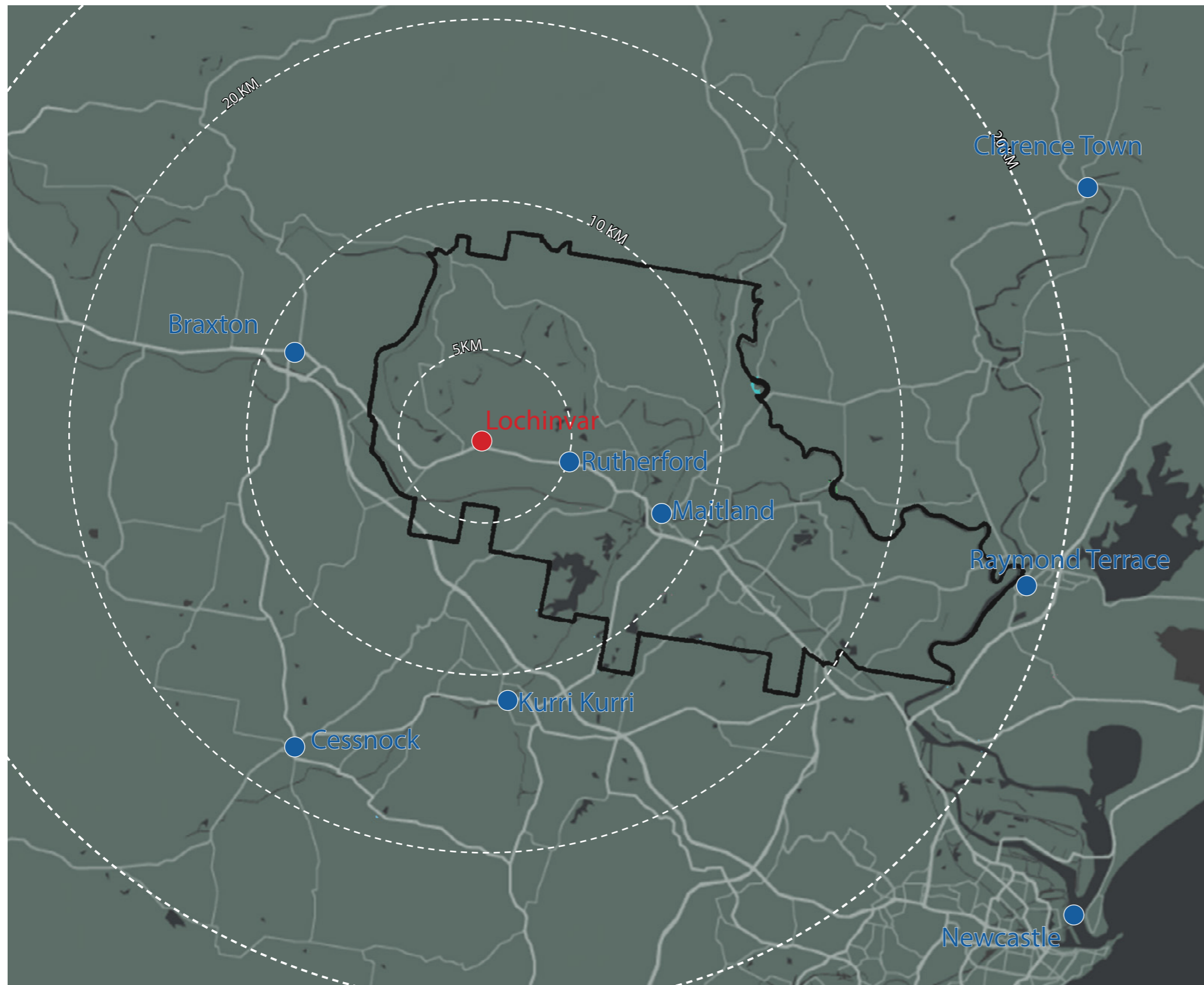
## PART 2:PROJECT SITE





## PART 2:PROJECT SITE

### 2.1 LOCATION - REGIONAL CONTEXT



The project site is located in Lochinvar, within the Maitland LGA in the Hunter Region of New South Wales.

From Lochinvar, Newcastle is around a 50min drive to the east, whilst Sydney is about 2hrs drive to the south. Lochinvar train station can also be used to access other regional destinations such as Singleton to the west, Maitland and numerous others, including Newcastle, to the east.

Maitland is about a 10min drive to the east of Lochinvar and provides an abundance of dining, retail and entertainment options, including the recently delivered Levee lifestyle precinct.

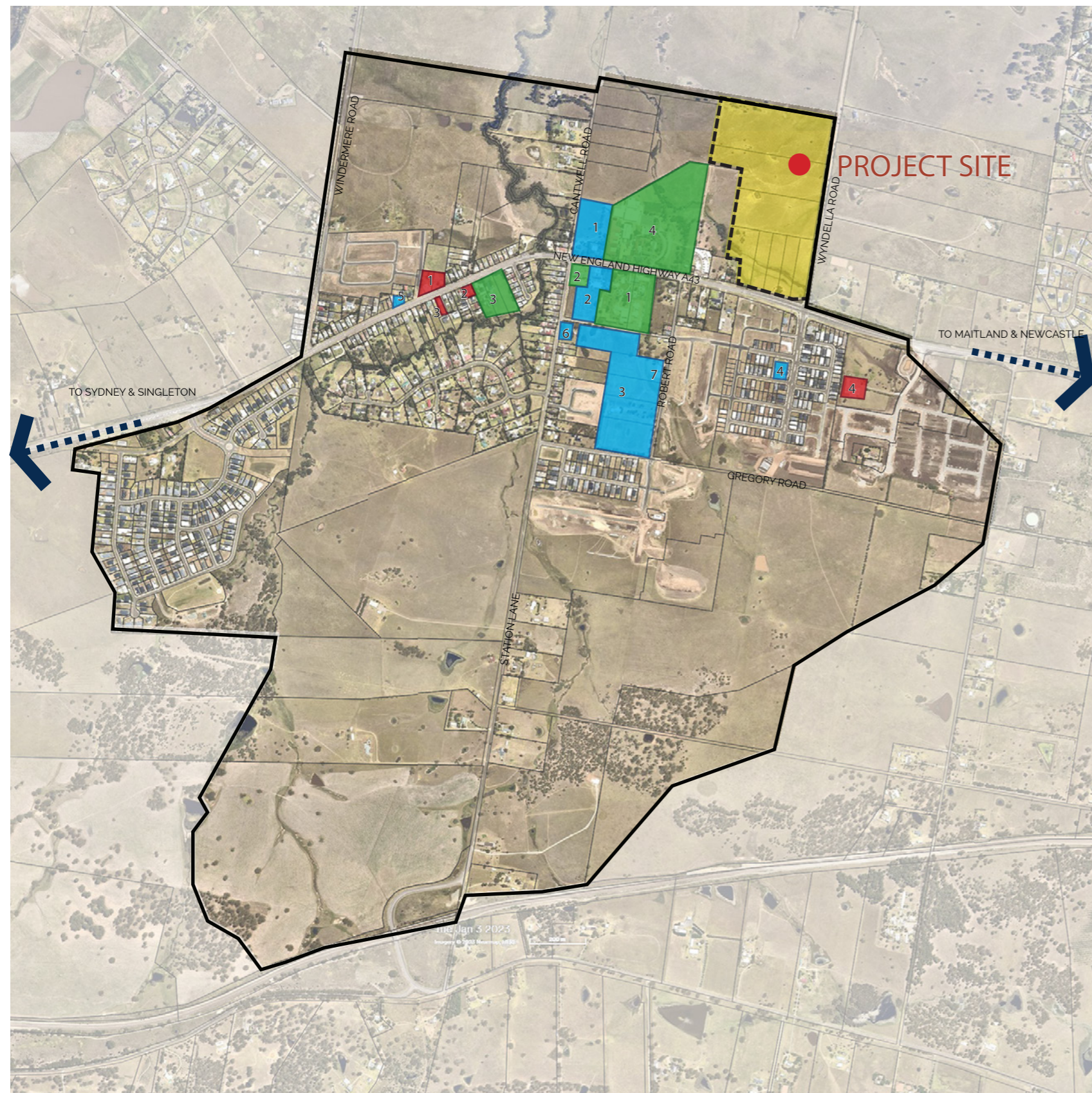
Lochinvar is also a stone's throw away (approx 10min drive) to the world famous Hunter Valley wine region, including an abundance of award winning wineries and supporting tourist attractions – providing great opportunities for both work and play for future residents of the development.

Further afield, future residents will be able to enjoy the pristine waters of Lake Macquarie, as well as an abundance of nearby National Parks to go and explore, by foot or mountain bike (for the more adventurous!).



## PART 2:PROJECT SITE

### 2.2 LOCATION - LOCAL CONTEXT



Lochinvar is a rural village containing several historical landmarks and surrounding farming homesteads overlooking rolling hills. The village itself is split by the busy New England Highway that connects Singleton and Newcastle. The Hunter Expressway is a 5 minute drive to the west of Lochinvar and provides direct access to Sydney and Newcastle. Lochinvar train station is situated 2kms to the south of the village and provides a train link between Sydney and Newcastle.

Located along the highway within the village are several local historic landmarks that help form Lochinvar's distinct character, including:

- Aird's of Lochinvar – family-owned department store operating since 1971;
- The Holy Trinity Church - erected circa 1890;
- Convent of the Sisters of Saint Joseph - founding sisters arrived on 2nd September 1883; and
- Lochinvar Hotel - has stood on the existing site for 150 years.

#### LEGEND

##### Educational Facility

1. St Patrick's School
2. St Nicholas Early Education
3. Lochinvar Public School
4. St Joesphs College

##### Public Facility & Services

1. Holy Trinity Anglican Church
2. St Patrick's Church
3. Lochinvar Sporting Complex
4. Hereford Hill Playground
5. Porter Place Play Area
6. Police Station
7. Lochinvar Rural Fire Station

##### Retail & Hospitality Facility

1. Lochinvar Hotel
2. True Cafe
3. Lochinvar Post Office
4. Airds Of Lochinvar

## PART 2:PROJECT SITE

### 2.3 LOCATION - LOCAL CONTEXT IMAGES



Street view of Lochinvar Hotel



Street view of St Josephs College



Street view of Lochinvar Public School



Street view of Holy Trinity Anglican Church



Street view of St Patrick's Catholic Church



True Cafe



Lochinvar Hall



Porters Place



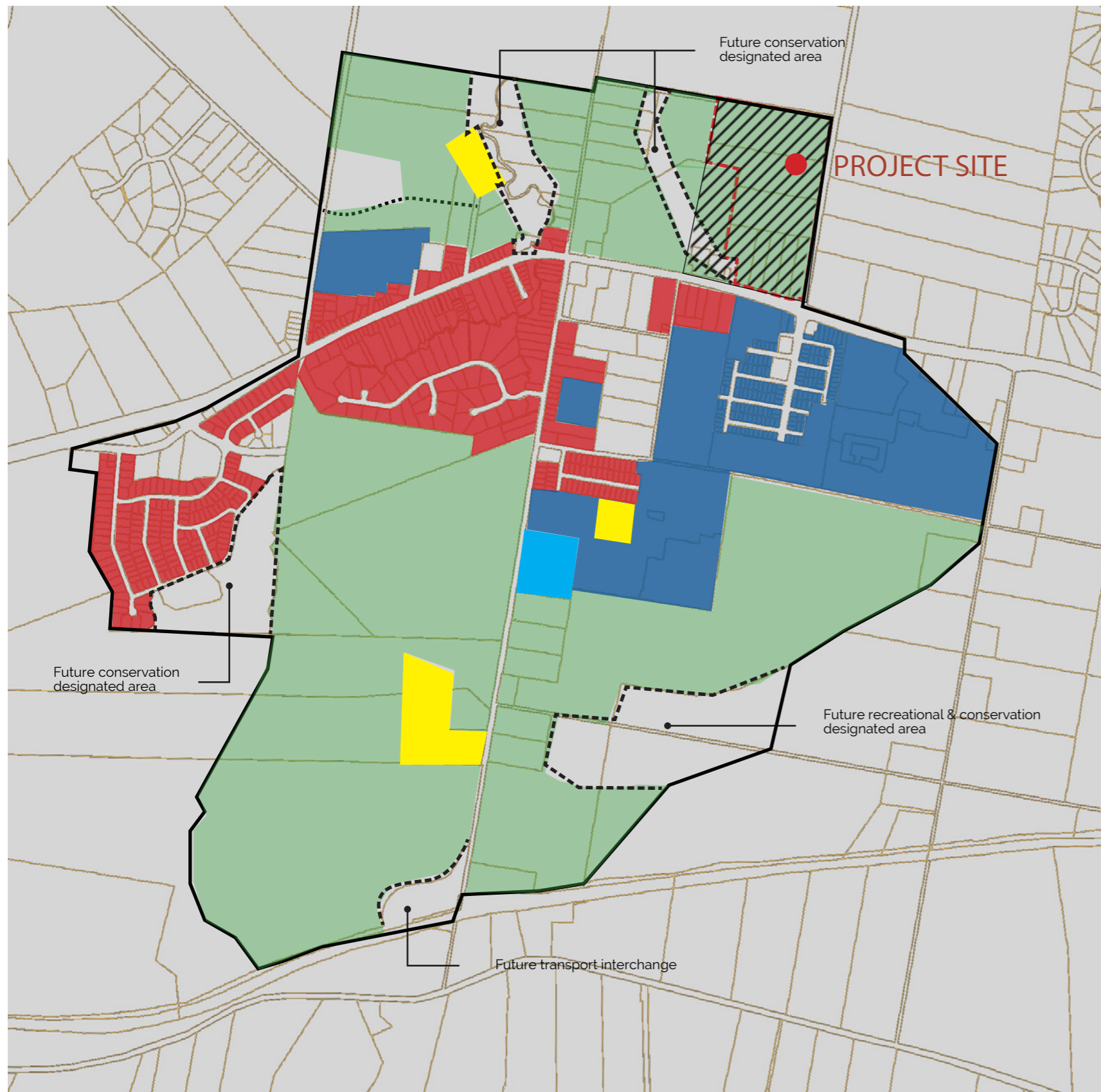
St Nicholas Early Education



Airds of Lochinvar Department Store

## PART 2:PROJECT SITE

### 2.4 LOCATION - URBAN BUILT FORM



The Lochinvar Structure Plan establishes the framework and direction for the LURA, with the project site being identified within the "Masterplan – Stations of the Cross" area.

The Lochinvar Structure Plan aims to provide a number of additional land uses within the LURA, including:

- Public/Private Schools;
- New Town Centre and accompanying business opportunities;
- New recreational areas, including sportsfields, local playgrounds and passive recreation opportunities alongside watercourses/riparian areas; and
- Residential development, including a variety of lot sizes and housing options throughout the area, dependant upon proximity to amenity, topography and other constraints/opportunities.

Within the Lochinvar Structure Plan the project site is identified as having views from the north-eastern corner in a south-westerly direction over the LURA, as well as containing historic elements linked to the Stations of the Cross, however limited details as to the degree of importance of each is provided. It's important to note that all physical attributes in relation to Stations of the Cross are no longer on the project site, having been removed prior to the proponent coming into possession of the land.

#### LEGEND

- Existing residential
- Residential under construction
- Masterplan - Stations of the Cross



#### FUTURE DEVELOPMENT

- Proposed residential
- Proposed School
- Proposed town centre



## PART 2:PROJECT SITE

### 2.5 LOCATION - TRANSPORT INFRASTRUCTURE










The LURA is strategically located along the NEH, being a key state classified arterial road linking many key areas within the Hunter Region. The NEH also provides access to the Hunter Expressway, via Allandale Road, which is part of the national motorway network, providing access to Sydney and beyond.

The LURA also benefits from having Lochinvar train station within it, which has been identified as being transformed into a transport interchange as part of the urbanisation of the area. The train line provides access up the Hunter Valley and also down into Newcastle.






A number of new transport links are proposed to be delivered as part of the development of the LURA, which will provide residents more options for accessing the state road and rail network.

The project site benefits from having direct access to the NEH as well as, through the rollout of the LURA, great connectivity to future shops, schools, open space areas and the Lochinvar train station.

#### LEGEND

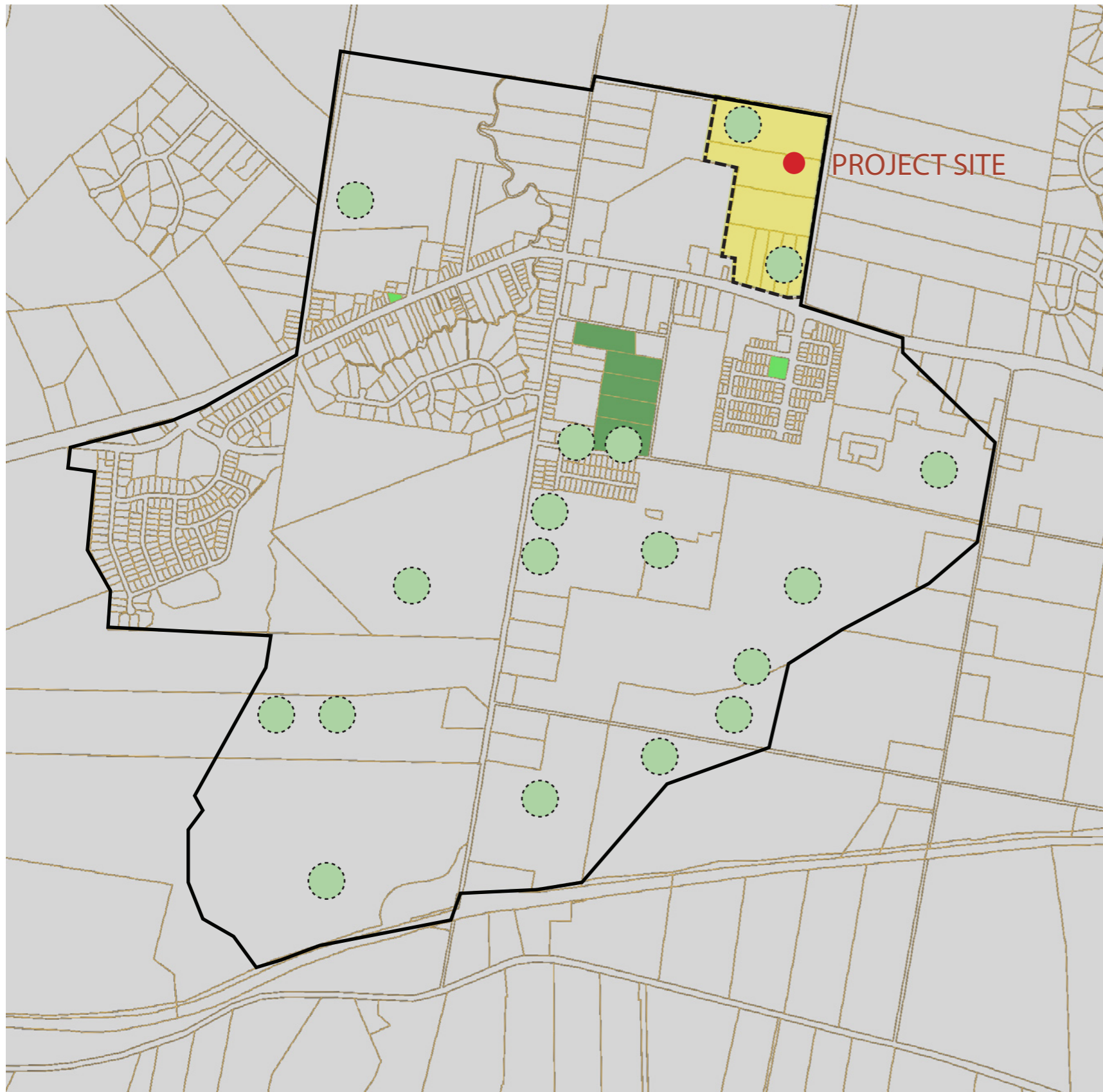
- Arterial Road 
- Local Roads 
- Residential Roads 
- Primary traffic intersection/ junction 
- Rail link 
- Train Station 
- Bus Stop 

#### FUTURE DEVELOPMENT

- Proposed intersection 
- Proposed roundabout 
- Proposed road widening 
- Proposed road 
- Proposed transport interchange 

## PART 2:PROJECT SITE

### 2.6 LOCATION - SOCIAL INFRASTRUCTURE



Upon full development the LURA is proposed to include the following;

- Thirteen neighbourhood playgrounds;
- One local planning area sportsground hub upgrade; and
- Two local neighbourhood sports grounds.

The project site is with 800 meters of the proposed sports ground hub and is proposed to have 2 local neighbourhood playgrounds within it, both of which will be within a 400m walk for future residents.

#### LEGEND

Existing Local Park



Existing Recreational Sports Fields



#### FUTURE DEVELOPMENT

Indicative locations of Future Recreational Facility - Lochinvar Section 94 Plan

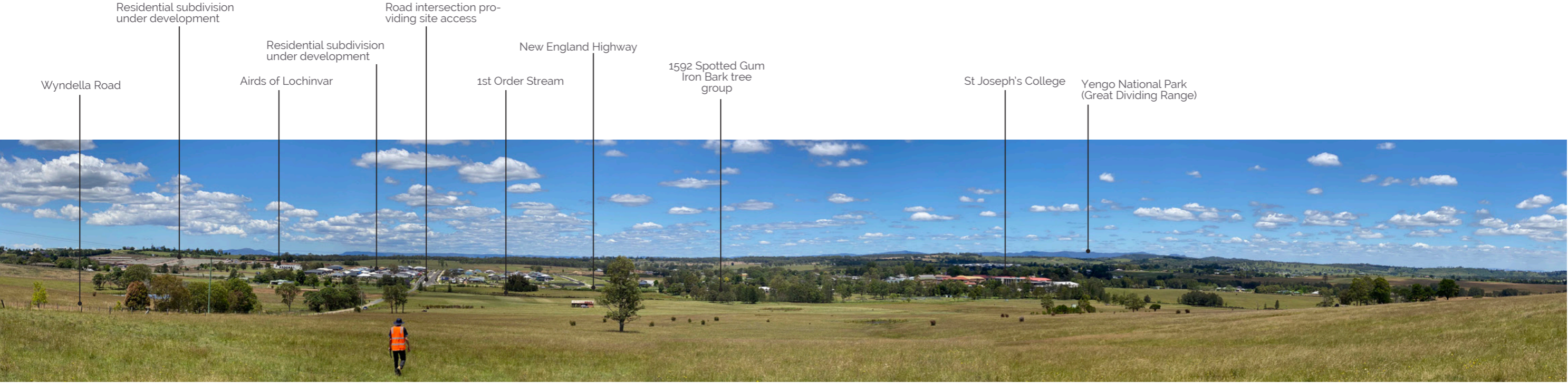


## PART 3: SITE ANALYSIS



# PART 3: SITE ANALYSIS

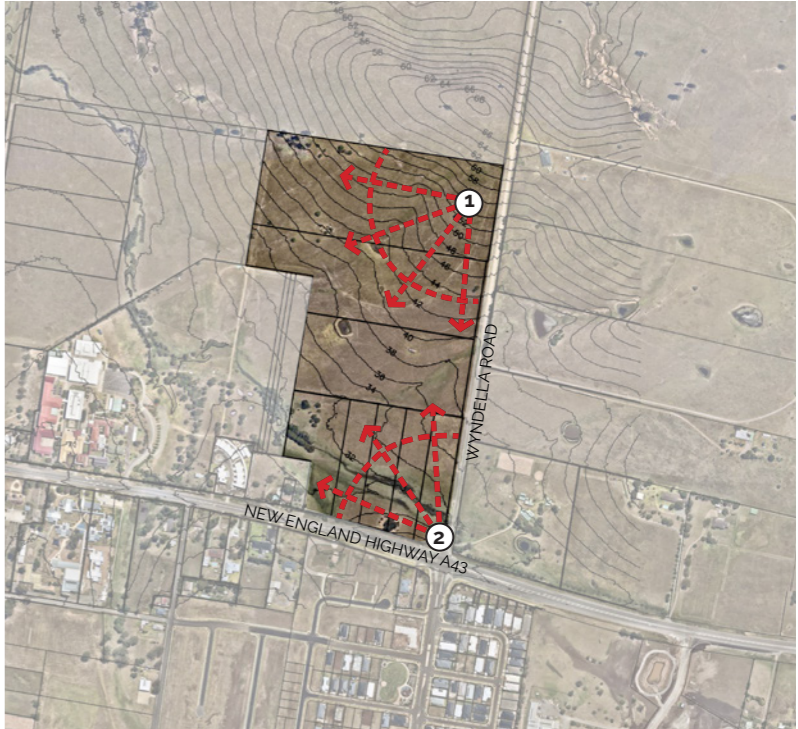
## 3.1 RESEARCH - SITE VIEWS



Panoramic View from North East



Panoramic View from South East





# PART 3: SITE ANALYSIS

## 3.2 RESEARCH - TOPOGRAPHY



The project site generally falls in a south-westerly direction, from a high point of RL 61m in north-east corner to a low point of RL 30m in the south-west corner.

The high point on the ridge line provides opportunities for distant views to the south over the LURA and beyond, whilst also being highly visible from passing traffic on the NEH. Alignment of streets in a north-south direction may help preserve views to and from the top of the ridge line, which is located in the adjoining land to the north of the project site and formed part of the previous Stations of the Cross site.

The steepest areas are in the northern third of the site, with slopes in the order of 7%, grading down to around 1% in the middle third and relatively flat grades in the bottom third around the watercourse. These slopes are typically of those experienced in the wider Maitland LGA and will readily accommodate residential dwellings, albeit with a component of bulk earthworks required to provide flatter pads within the future residential allotments.

# PART 3: SITE ANALYSIS

## 3.3 RESEARCH - BIODIVERSITY

Anderson Environment and Planning (AEP) have undertaken site inspections and associated field work to understand existing vegetation and fauna within the site, with summaries of their findings presented in below sections.

### Flora

The project site is largely cleared rural farmland, with only a few patches of remnant vegetation remaining. The site is dominated by pasture grasses, exotics and weeds, with scattered paddock trees around the watercourse and in the north-west corner.

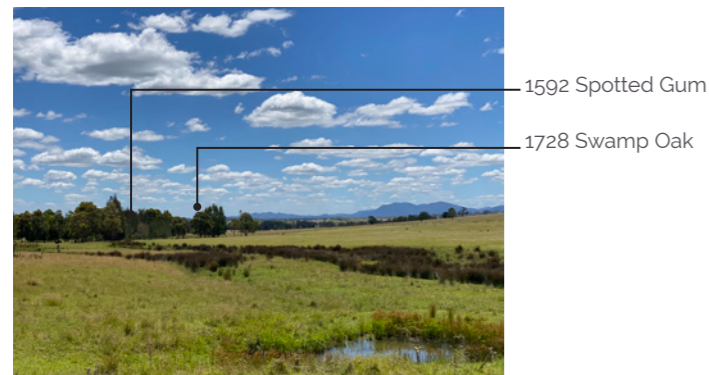
The vegetation along the existing watercourse is largely pasture grasses, exotics and weeds (with the exception of the western end) and hence opportunities exist to revegetate and enhance this as part of the development of the site. The continuation of this revegetation strategy along

the watercourse in adjoining lands as they're developed will help deliver an improved blue/green corridor through the northern part of the LURA and achieve improved biodiversity outcomes in this area.

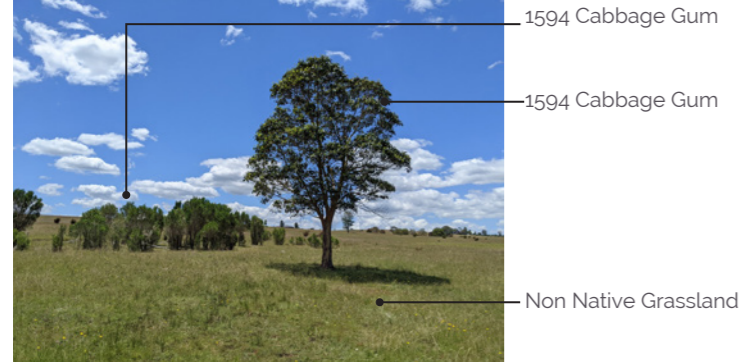
The native vegetation recorded on site has a combined area of around 0.44Ha, the majority of which is located in and around the existing watercourse. As part of the masterplan development, the impacts on the three native vegetation communities on the site will need to be considered and assessed. It's important to note that the site is not mapped as having Biodiversity Values by the online Biodiversity Spatial Viewer. Notwithstanding this, due to the field work locating native vegetation and the minimum lot size applicable to the site, any clearing works greater than 0.25Ha will require a Biodiversity Assessment Report under the Biodiversity Conservation Act 2016. Consideration of avoidance and minimising of clearing of native vegetation should form part of the evolution of the masterplan.

### Fauna

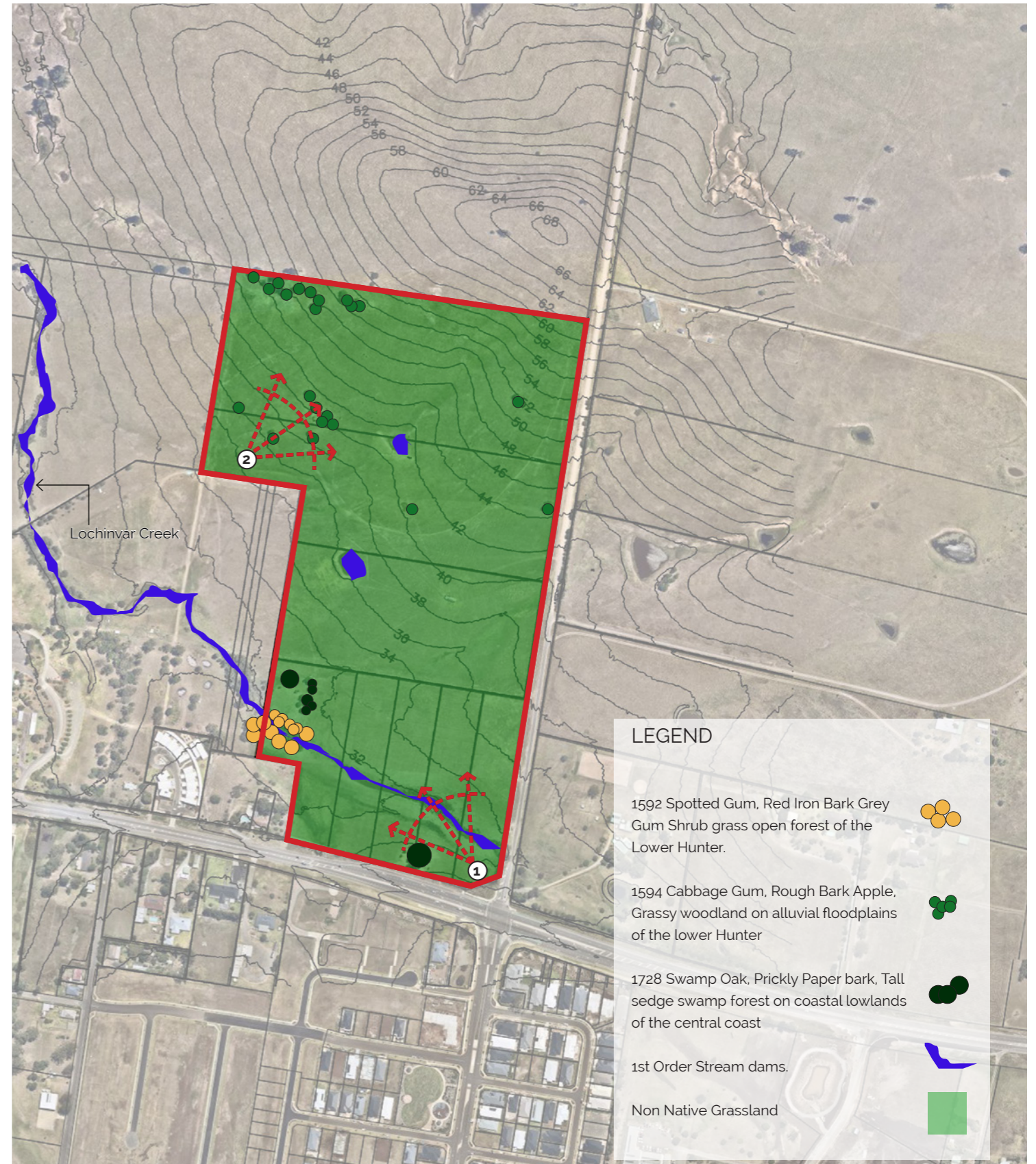
Due to the limited native vegetation on site and lack of any other significant topographical features (ie. rock caves, significant water bodies etc) there is limited to no fauna occupying the site on a permanent or transitional basis. The habitat within the site also does not contain important areas for Swift Parrot, Regent Honeyeater, Plains Wanderer or Migratory Shorebirds. As such, impact on fauna is not considered to be a key factor for consideration in the development of the masterplan.



1- Western view of tree vegetation on boundary



2- North Eastern view of tree group vegetation



# PART 3: SITE ANALYSIS

## 3.4 RESEARCH - RIPARIAN & HYDROLOGY

Anderson Environment and Planning (AEP) have undertaken assessment of watercourses/drainage, with summaries of their findings presented in below sections.

### Flooding

The project site lies outside of the Hunter River Flood Extents for all storm events up to and including the PMF.

Localised inundation occurs within the project site during storm events, limited to the watercourse and existing depression through the site. This inundation is short in duration and recedes as water drains to the Hunter River to the north. Development of the site will likely better contain these small areas of inundation and convey runoff through the site to the watercourse in an efficient manner.

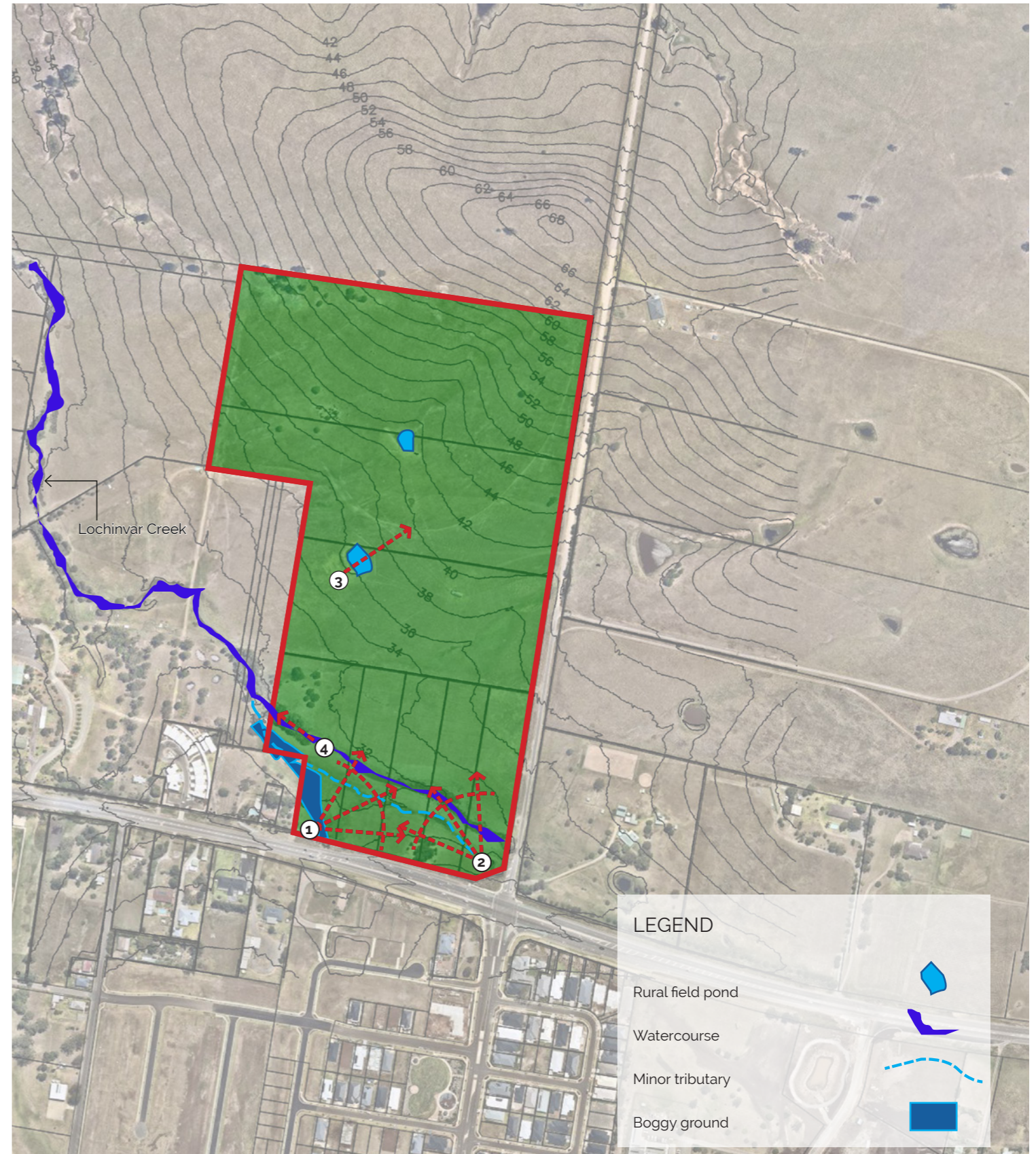
### Watercourse

Whilst the site contains a number of drainage lines, AEP's assessment found that only one watercourse exists within the site, being of first order in the southern portion of the site, draining in an east-west direction.

In the development of the masterplan, it is important that the first order watercourse is retained, along with 10m wide vegetated riparian zones (buffers) either side of the top of bank.

### Drainage

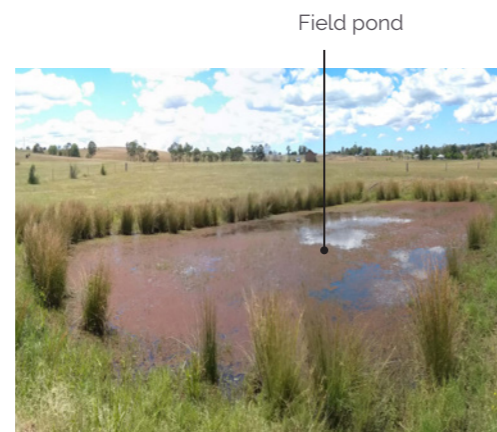
Natural drainage lines (though not watercourses) exist within the site and can be refined during the development of the site. An important component of the masterplan development will be ensuring that any runoff from upstream properties is safely conveyed through/around the site to the first order watercourse - this conveyance can be by piped drainage, overland flow paths, swale drains and the like.



Minor tributary  
Boggy ground  
1st Order Stream



2 - View of 1st Order Stream Tributary



3- View of field pond



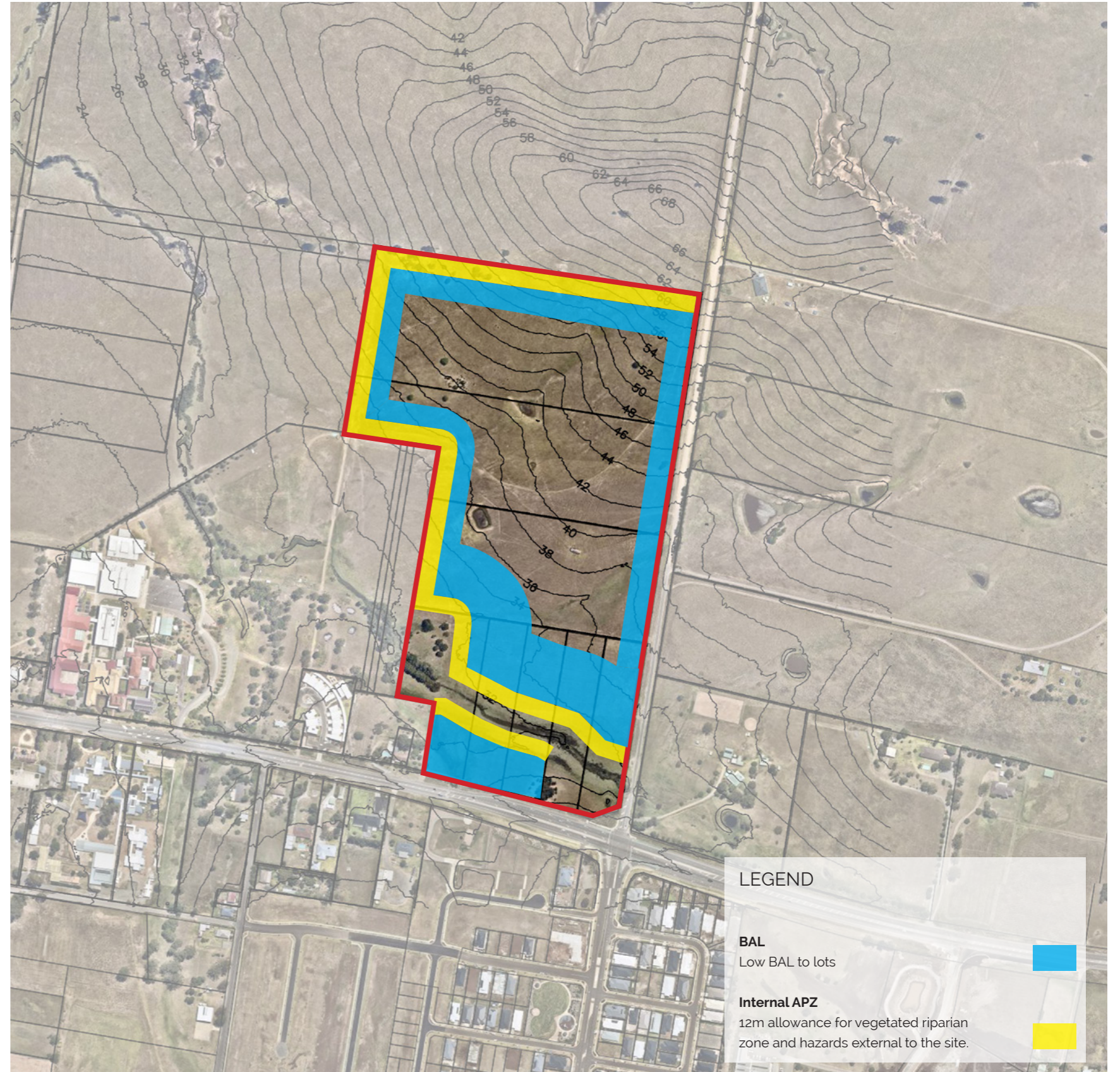
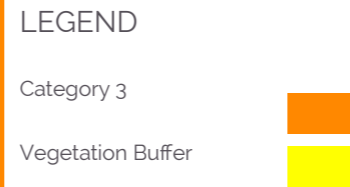
4- View of 1st order stream

# PART 3: SITE ANALYSIS

## 3.5 RESEARCH - BUSHFIRE

The majority of the project site is mapped as Category 3 Bush Fire Prone Vegetation, with only a small patch being Vegetation Buffer. Accordingly, the masterplan will need to be incorporate requirements of Planning for Bushfire Protection 2019 (PBP 2019) and a Bushfire Threat Assessment prepared to accompany future development applications.

To understand the impact of bushfire on the development of the site, Bushfire Hazard Solutions were engaged to undertake an assessment and provide indications of Asset Protection Zones (APZ's), Building Attack Level's (BAL's) and other requirements to satisfy PBP 2019. The findings suggested allowance for a 12m wide APZ around the perimeter of the site and along the frontage to the first order watercourse. Furthermore, at least 2-access points should be available for people to exit the project site in a bushfire emergency. If cul-de-sacs are provided in an APZ area, then an emergency egress way connecting to the public road network should be provided (to PBP 2019 requirements).



# PART 3: SITE ANALYSIS

## 3.6 RESEARCH - HERITAGE

### European Heritage

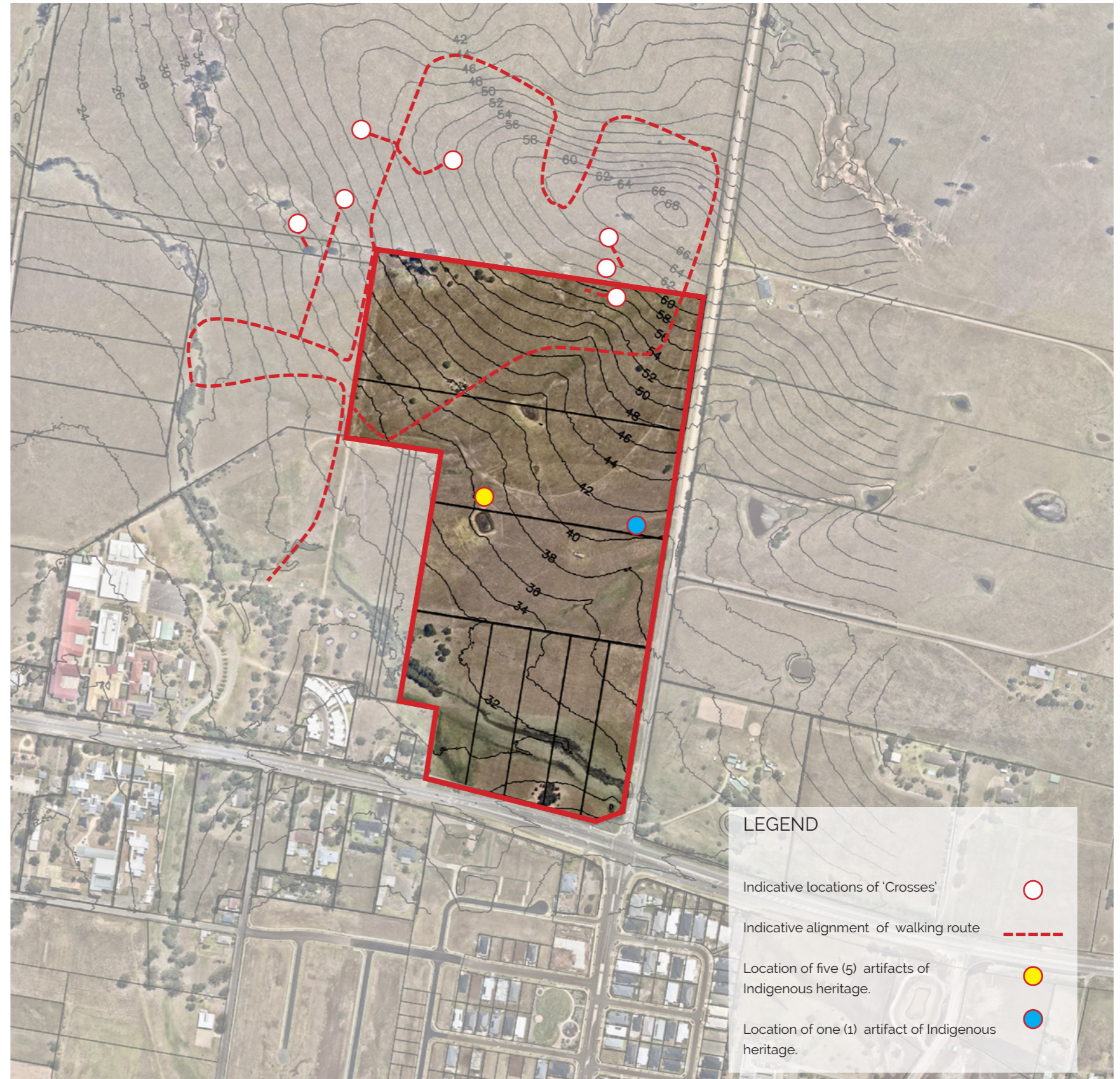
From review of Council's LEP Heritage Map, the site does not contain any European heritage items of local significance. Furthermore, the site is not listed on the State Heritage Register, the National Heritage Register, the Commonwealth Heritage Register or heritage register of the National Trust of Australia (NSW).

The project site previously formed part of the Stations of the Cross reflective walk, consisting of a series of large white crosses placed on the rising hillside behind the Convent. Importantly, the white crosses are no longer on the site, nor are any remnants of the walking track. The stations of the Cross were not heritage listed.

There are a number of European heritage items within Lochinvar itself, though it is considered unlikely that development of the site would impact on them. Furthermore, there are no additional controls placed on development of the site linked to preservation of the European heritage items.

### Indigenous Heritage

Indigenous heritage works completed as part of the preparation of the LURA Structure Plan in 2010 uncovered 6 indigenous heritage artefacts, in 2 locations within the project site. However, these artefacts are typical of those found across the Maitland LGA and no additional controls were placed upon the site for their preservation and/or preservation of wider areas.



# PART 3: SITE ANALYSIS

## 3.7 RESEARCH - TRAFFIC

### Access

The project site shares a frontage to the NEH, a state classified road, however DCP controls prevent direct vehicular access to future residential allotments off this road.

Wyndella Road (currently unformed) extends along the entire eastern boundary of the project site and will provide the primary access (in conjunction with road upgrade works).



1- View of new intersection / site access



2- View north of Wyndella Road



3 - Panoramic View from North East

Pedestrian foot way  
Designated cycle lane  
Traffic light signal

Grass verge  
Gravel rural road

Loose asphalt road  
Gravel rural road

The intersection of Wyndella Road and the NEH will control access into and out of the site. Upgrades are proposed per traffic advice making good connection between the existing intersection and upgrades within Wyndella Road as shown within the Concept Engineering plans.

It is noted that, upon development of the lands to the west of the site, future access through that land to Cantwell Road will become available.

### Traffic Generation

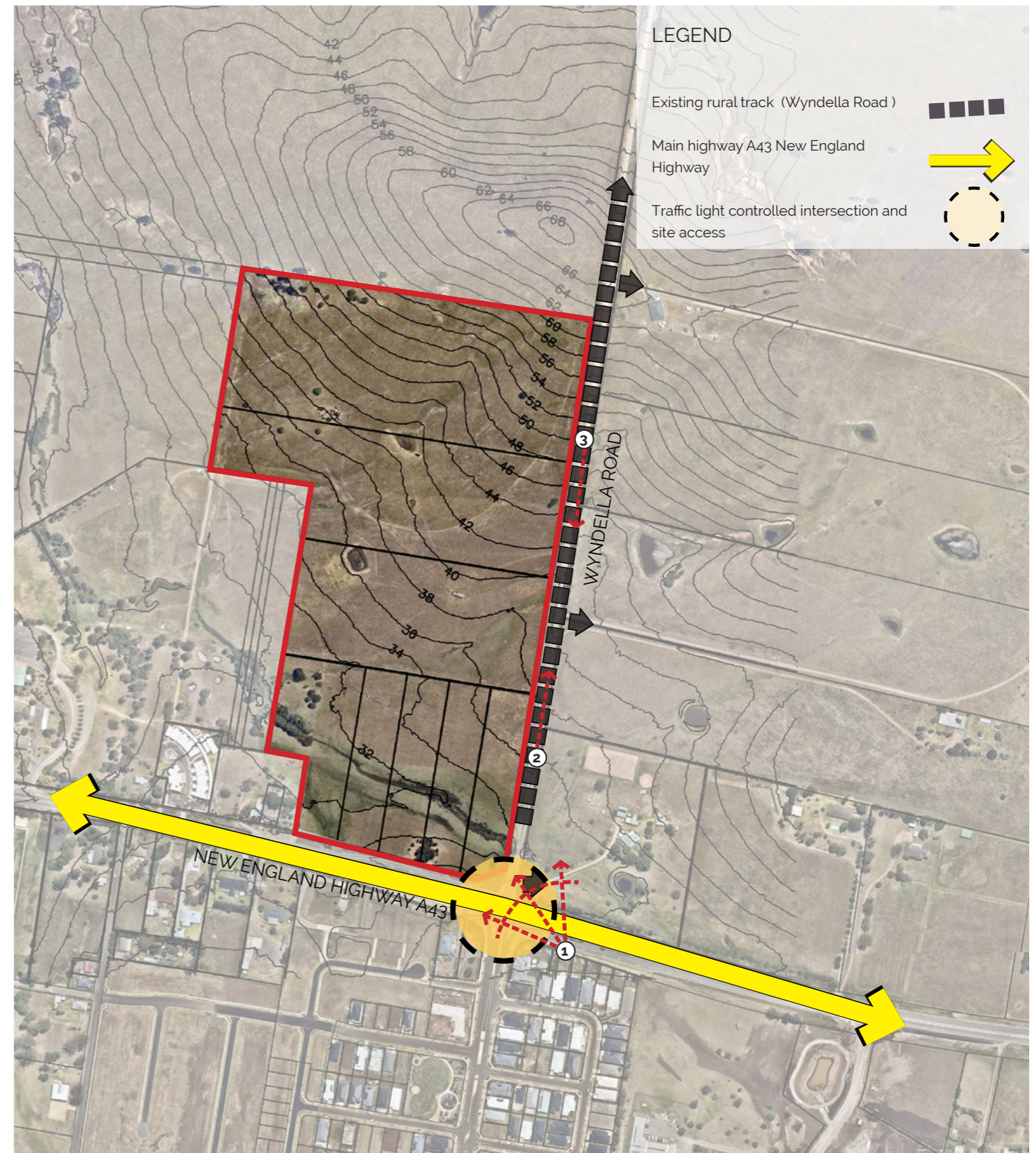
Given the limited access points to the development, 100% of the development traffic will access and egress the site via Wyndella Road to the intersection with the NEH.

As there are no requirements for schools, retail, commercial and the like within the project site, traffic volumes from non-residents entering/leaving the site are likely to be low. Once development to the west is completed, it is likely that a proportion of this traffic will go through the site to access the Wyndella Road/NEH intersection. This has been considered in the DCP requirement for a trunk road to extend through the project site and adjoining lands to the west.

### Noise & Landscape Buffer

The project site is positioned at the eastern end of the LURA and form part of the gateway entry to the area. As such, the Lochinvar chapter of the Maitland DCP delineates a 120m wide Performance-based Development Area around the NEH, which extends into the site. Future dwellings in this area will need to be set back a minimum distance of 30m from the NEH and also have an acoustic assessment undertaken to determine required construction standards.

To assist with maintainin g the rural character of the approaches into Lochinvar, a vegetated/landscaped buffer, with rural style fencing is to be constructed along the frontage to the NEH, within the 120m wide Performance based Development Area.

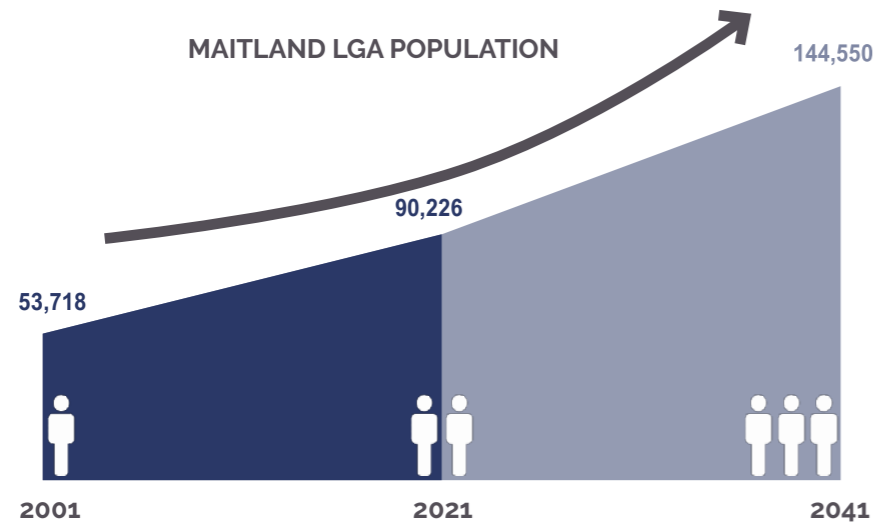


### LEGEND

- Existing rural track (Wyndella Road)
- Main highway A43 New England Highway
- Traffic light controlled intersection and site access

# PART 3: SITE ANALYSIS

## 3.8 RESEARCH - POPULATION PROFILE



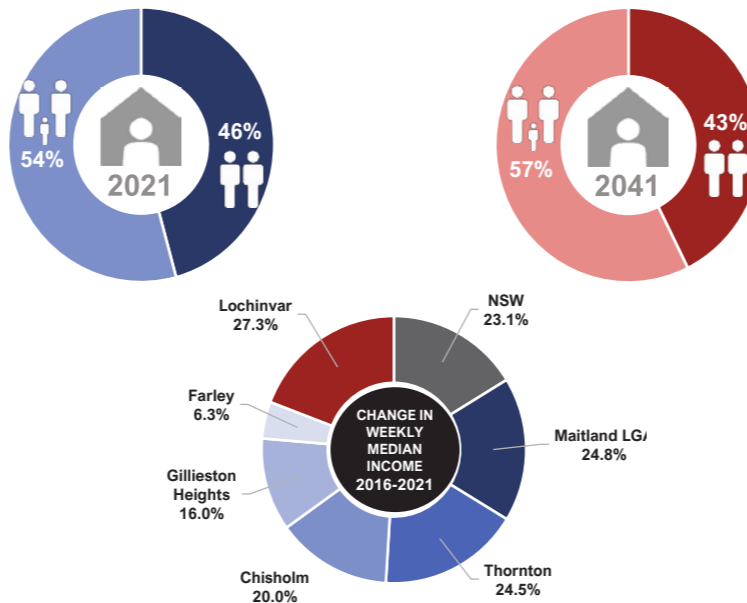
Maitland is home to 90,226 residents (Census 2021), with the Department of Planning (2022) estimating that by 2041, the population will grow by around 54,000 people to 144,550 – representing a growth of 60% and an annual growth rate of 2.4%.

This level and rate of growth is not new to Maitland, with it experiencing a population increase of 68% at an annual growth rate of 2.6% between 2001 to 2021. Whilst the growth rates are comparable, as the population at 2021 is significantly higher than it was at 2001, the quantum of people moving into Maitland over this period is significantly more than the preceding 20 years, 54,324 compared to 36,508.

This growth is anticipated to be driven by natural increase (26%) and migration into the city (74%). It's anticipated that migration will be dominated by families and younger people into the area, which will lead to significant increases in these age cohorts by 2041. Whilst families with children are forecasted to remain the largest household by type in 2041 (43% of total), it is anticipated that households with children will see the biggest increases (57% of total).

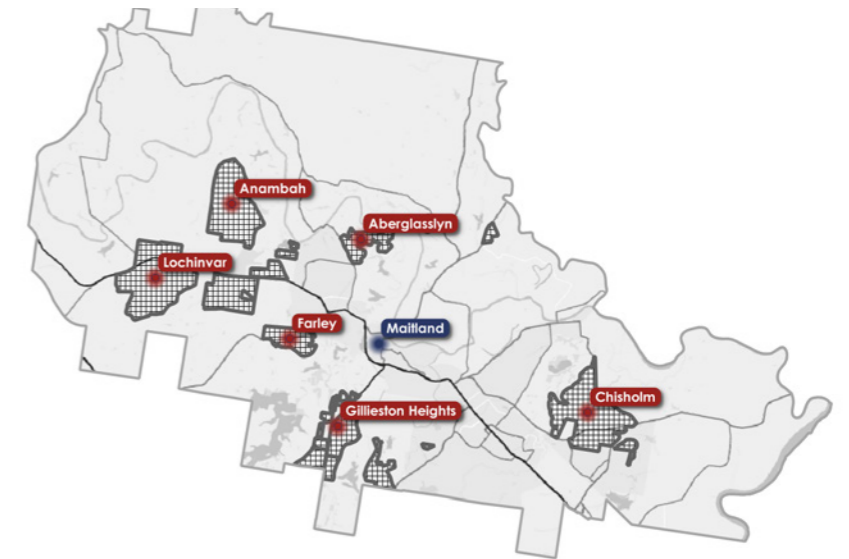
Lochinvar, along with the other urban release areas in Maitland will play a key role in housing the growth. The changing household structure, shrinking household sizes and increasingly smaller households (i.e. lone person and couples) emphasise the need for a greater mix of housing types within the city to meet the needs of smaller and more diverse households. It's anticipated that this change in household structure, coupled with increasing land prices, will lead to increased densities within new development as developers respond to this increasing sector of the market.

### FAMILIES WITH CHILDREN SET TO GROW OVER NEXT 20 YEARS



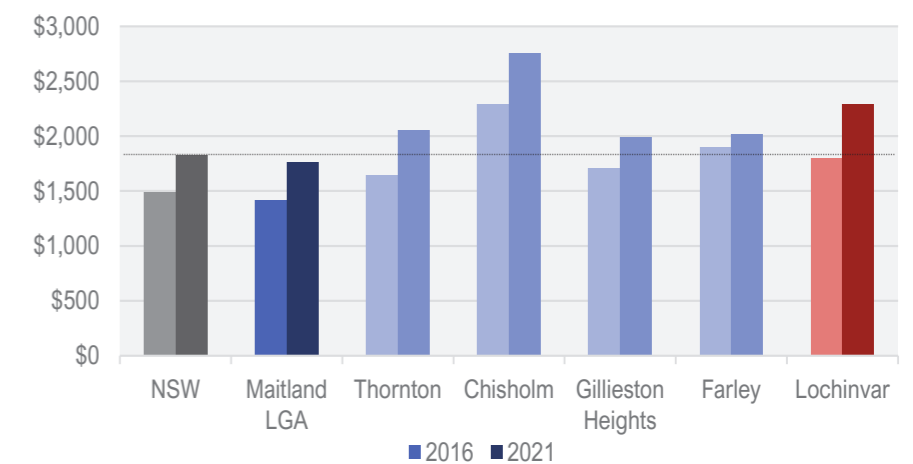
#### Weekly median Income

Weekly median incomes in Maitland (\$1,824) are slightly lower than the NSW average (\$1,829), however, in the new urban release areas they are all above the NSW average – likely a reflection of the younger cohort occupying these and the type of occupations they have. This is supported by the fact that the average weekly median incomes of key urban release areas are above the Maitland LGA average. Chisholm (\$2,755) has the highest weekly median income out of the urban release areas, with Lochinvar (\$2,287) coming in second. As the Lochinvar urban release area is in the early stages of its development, it is likely that it may develop a profile similar to Chisholm as it advances – particularly as Chisholm reaches full development and those cohort of buyers look to the other release area.

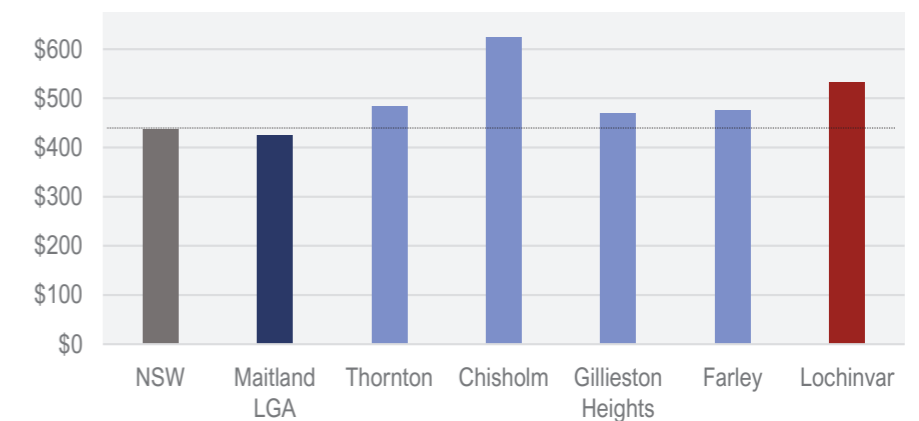


The higher average median incomes also equate to a higher capacity to pay mortgages off, with the 'comfortable' weekly mortgage repayment amount (adopted as being 30% of income after tax) being above the NSW and Maitland LGA averages. This helps offset the higher land prices in the urban release areas.

#### WEEKLY MEDIAN INCOME (net , incl tax)



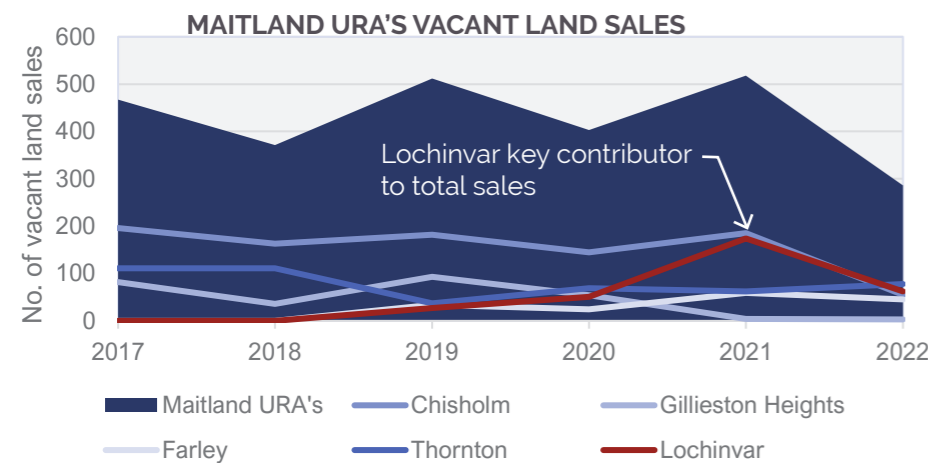
#### 30% OF INCOME AFTER TAX 'COMFORTABLE MORTGAGE REPAYMENT WEEKLY AMOUNT



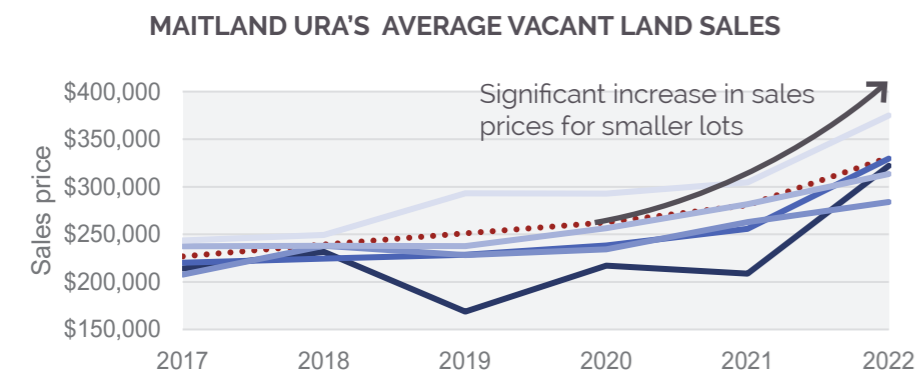
# PART 3: SITE ANALYSIS

## 3.9 RESEARCH - MARKET ANALYSIS

The majority of the vacant land sales within Maitland are contained within the greenfield urban release areas spread throughout the LGA. Accordingly, we have targeted our analysis to these existing areas and for lot sizes up to a maximum of 2,000m<sup>2</sup>. For the majority of our analysis, haven't included 2023 sales data into our analysis due to only being shortly into the year.



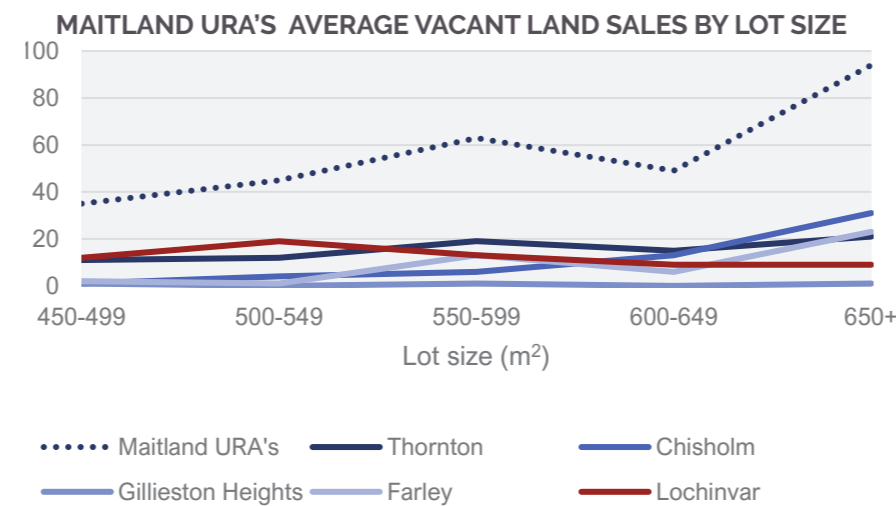
Over the last 5 years, Chisholm has been the largest contributor of vacant land within Maitland, with Thornton supplying a somewhat steady stream of land, albeit at typically far lower volumes. In recent times, Farley and Lochinvar have started supplying vacant land to the market, with Lochinvar being on par with Chisholm in 2021 and 2022. In recent times when purchasing conditions have been favourable (low interest rates, sales price points, working from home shift etc) it is likely that a lack of supply is limiting the volume of land sales, rather than price points or other external market factors. The continued constant population growth within Maitland suggests if land is available it will be purchased.



From 2017 to 2021, vacant land sales within Maitland urban release areas experienced a somewhat constant annual increase of around 5%, however in 2022 this jumped to 18% (note 2023 is currently tracking at 19%). In 2022 the average vacant land sales price in Maitland was \$330,745, compared to \$280,498 in 2021 (an increase of \$50,000 in 12 months).

From 2017 to 2019, vacant land sale prices were generally in a narrow band, however, this started to change from 2019 onwards, with 2022 and 2023 experiencing a much wider range of sales prices. This is likely due to the fact that multiple urban release areas were trading at the same time, with diverse lot size offerings and steep increases in sales prices per m<sup>2</sup> in 2022 and 2023.

The rate of increase has been the highest at the ends of the spectrum – lot sizes from 450m<sup>2</sup> to 550m<sup>2</sup> and those above 650m<sup>2</sup>. Average vacant land sales price for lot sizes between 450-499m<sup>2</sup> are now higher than those between 550-649m<sup>2</sup>.



As average land prices have increased, lot sizes have come down – likely influenced by peoples capacity to pay, developers increasing profitability of project by getting more smaller lots on their sites, as well as a mixture of other external sources. When looking at total vacant land sales from 2017 to 2023, it can be seen that there has been a clear shift downwards in lot sizes and upwards in sales price, with the majority of lots released now in the 450-600m<sup>2</sup> size range.

When looking at a breakdown through the major urban release areas, it can be seen that Lochinvar is the leader in volume of lot sales between 450-550m<sup>2</sup>, with this band also representing 50% of total sales within Lochinvar. Whilst Lochinvar appears significantly cheaper than Chisholm and Gillieston Heights in this price band, it should be noted that these two areas had a combined total of only six sales within this band in 2022, so data is not considered a fair representation of what 'real' m<sup>2</sup> rates may be. For comparison, Thornton had considerable more sales in this band during 2022 and it's m<sup>2</sup> price is similar to Lochinvar's – it is expected that Chisholm and Gillieston Heights would experience similar price points if greater volume was sold.

### Affordability

The significant increase in vacant land prices in recent years has led to an erosion of affordability, not only within Maitland, but throughout NSW in general.

Adopting a 'comfortable' level of mortgage repayments being 30% of weekly income (after tax), it can be seen that all urban release areas within Maitland are above this level (adopting mortgage of 80% of average vacant land value, repaid over a 30yr period, with average standard variable rates taken as those at 1 July each year).

In 2022, Lochinvar and Farley were the most affordable urban release area in Maitland, likely impacted by their location in the western area of Maitland LGA and the fact that they are in the early stages of development with developers setting lower price points to incentivise purchasers. Should land pricing continue to increase, then there'll continue to be downwards pressure on lot sizes in order to keep them at 'affordable' levels. Again, this points towards Lochinvar having higher densities (smaller lot sizes) than those experienced within the existing, more mature, urban release areas in Maitland.

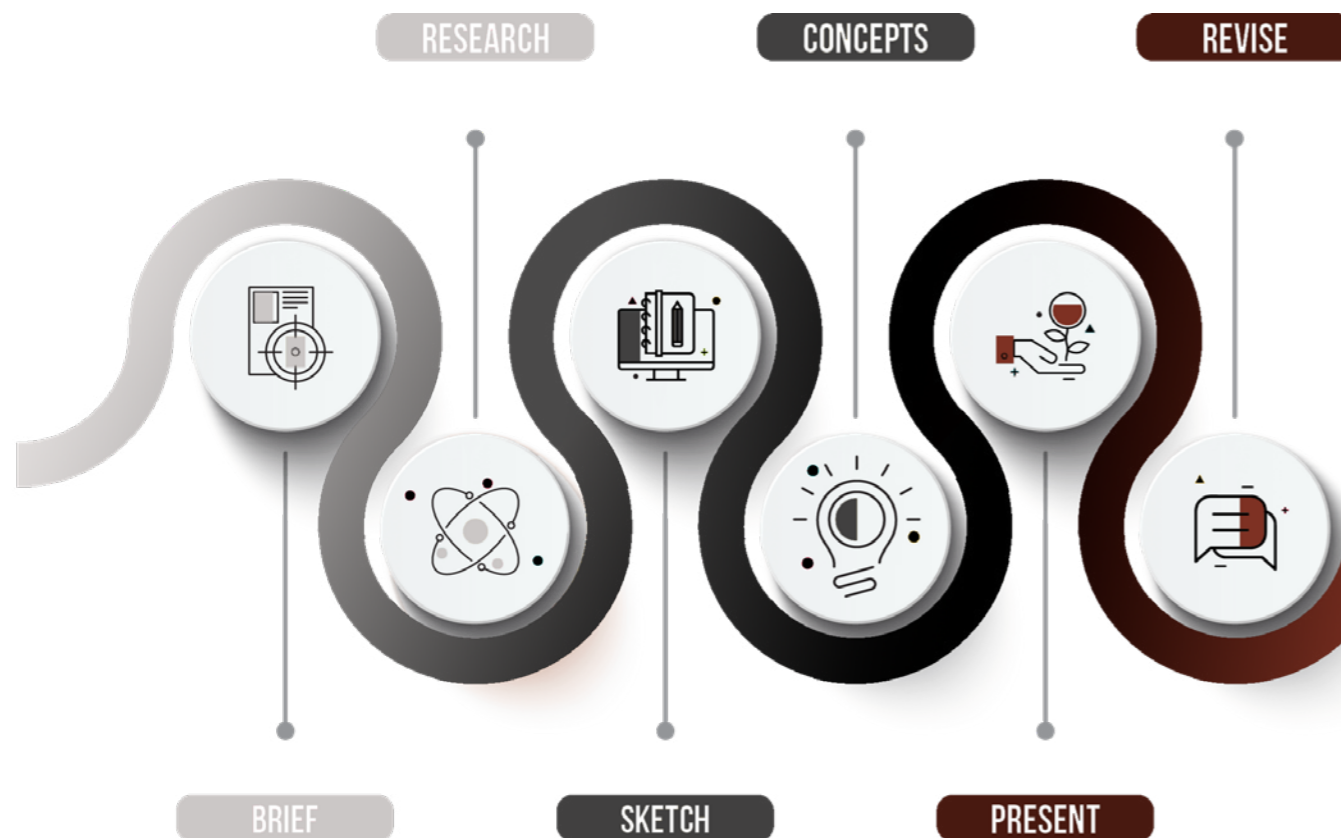


# PART 4: CONCEPT DEVELOPMENT



## PART 4: CONCEPT DEVELOPMENT

### 4.1 VISION - DESIGN PRINCIPLES



#### KEY DESIGN PRINCIPLES

##### LOCATION

The project site is situated at the eastern gateway into Lochinvar with visibility from the NEH and other areas within the LURA.

##### SIZE

The size and topography of the site allow for an increased density and opportunity for a range of future dwellings forms to be accommodated within it, which will help facilitate the establishment of a diverse community.

##### TOPOGRAPHY

The elevated areas of the site provide distant views to the south, whilst alignment of roads may facilitate in providing views from the NEH to the ridge line to the north of the south.

##### HABITAT BIODIVERSITY

The watercourse and water management facilities will provide opportunities to enhance the biodiversity within the site and form the start of a blue/green link that will extend to the north-west, through adjoining properties. Provision of linear open space and activation areas along the watercourse may provide further areas for interaction and enjoyment by the community.

##### RECREATION

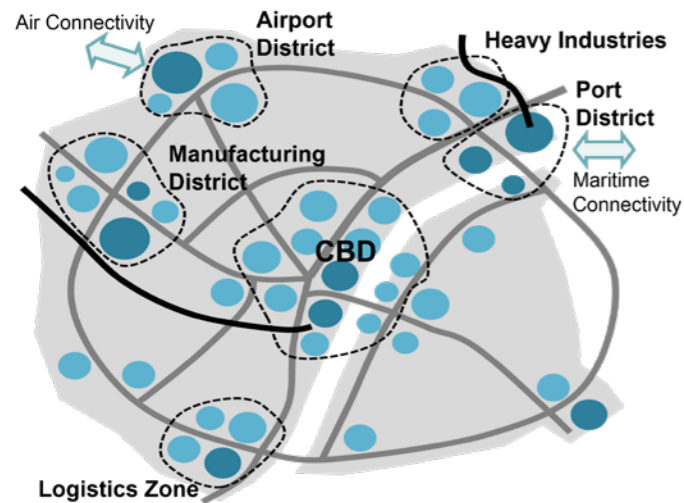
The provision of two local playgrounds within the site, along with rehabilitation of the existing watercourse will be within walking distance of all residents and be accessible to all age groups. Opportunities for increased density will also exist around these higher amenity areas.

##### CONNECTIVITY

Internal pedestrian and cycleways will provide opportunities for residents to connect to the immediate areas within the site, as well as to the trunk network outside of the site and through the LURA, ultimately through to regional open space, shops, schools and transport hub.

# PART 4: CONCEPT DEVELOPMENT

## 4.2 VISION - DESIGN OBJECTIVES



### Connectivity & Access

Access points into the site need to be clear and create a sense of arrival, potentially through the use of signage or structural planting. Circulation within the site is essential to ensure clear paths and connections between key locations, while also delineating vehicle and pedestrian pathways. Connections to the wider surrounding landscape are important to create complete site integration.



### Active Green Space

The two park areas will create a flexible open space for passive and active use connected to pedestrian linkages through the site. These parks will be classified as a 'Local Parks' and will provide opportunities for a variety of activities. Open space will contribute to the character of the development and provide green passive space to meet the needs of the incoming LURA community.



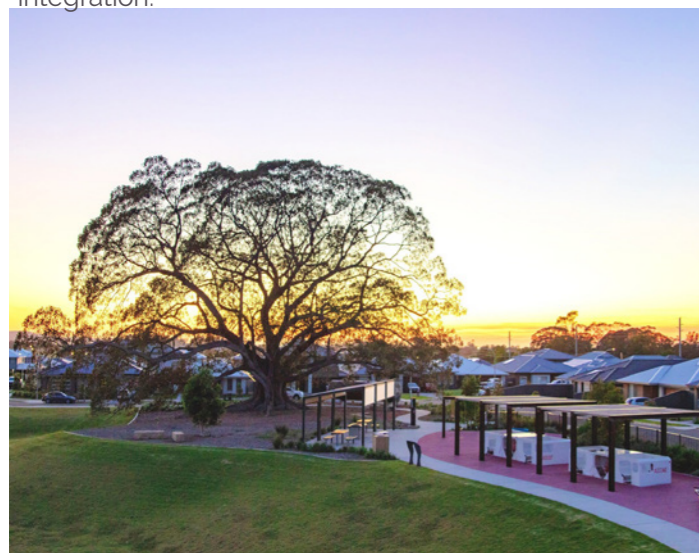
### Place Making

The sites location at the eastern gateway into Lochinvar provides opportunity to create a 'sense of arrival' with the southern local park providing a destination for residents and visitors alike.



### Retaining The Village Character

Retaining the character of Lochinvar should be encouraged through use of landscape treatments and materials.



### Growth Balance

The master plan will need to consider the current built form of Lochinvar the new residential projects that are proposed and under development and recent market trends in terms of lot sizing and pricing.



### Ecology & Sustainability

The existing ecological habitat should be retained and enhanced through the retention of the first order watercourse which will provide the start of a 'blue/green' link that in the future will extend to the northwest of the site.



### Safety by design

The form and layout of the proposal should consider safety in design principles. Demarcation of pedestrian links from trafficable streets are encouraged. Natural surveillance is promoted by the elevated topography which provides natural vantage points along with permeable street design and lot orientation.

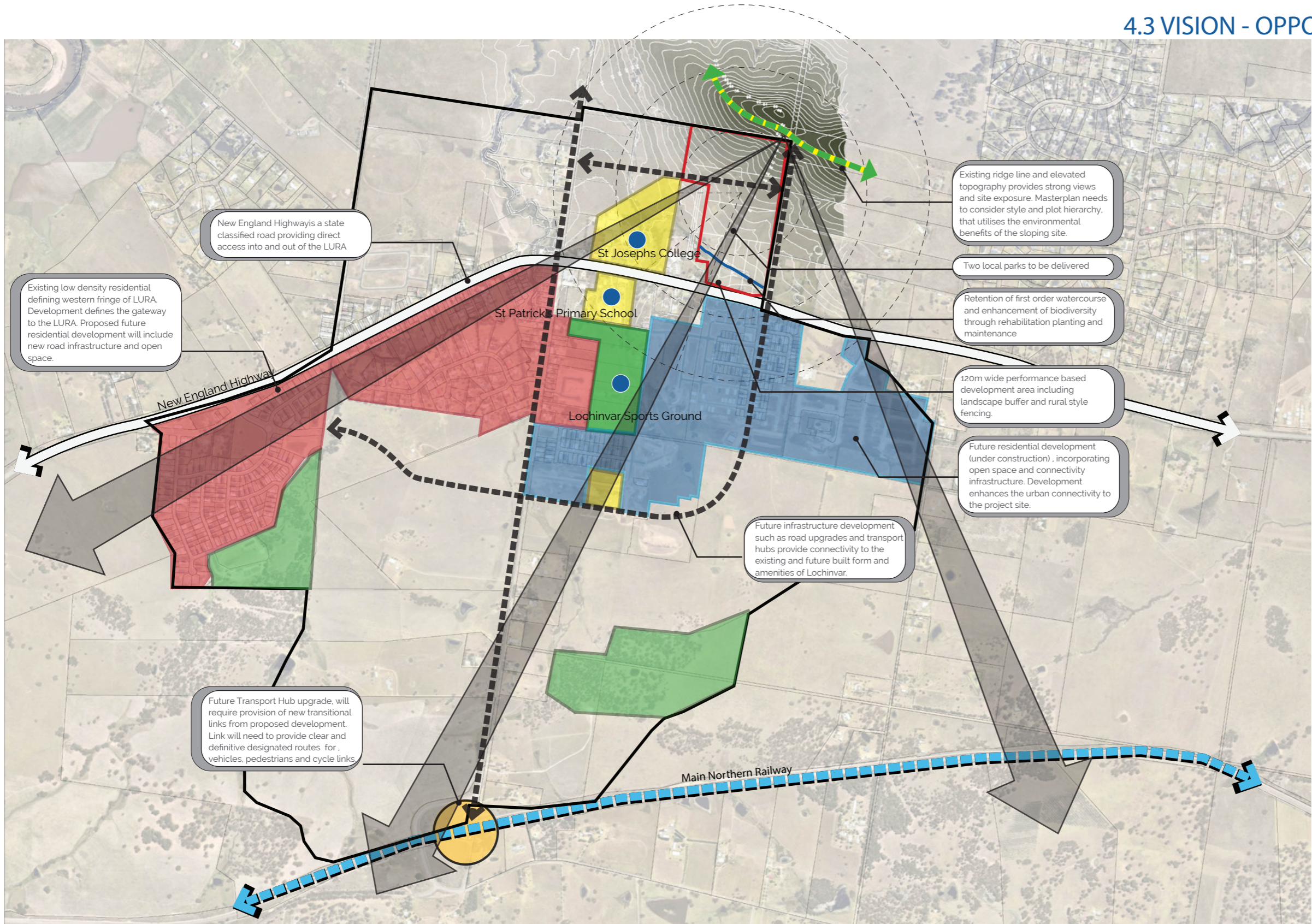


### Community

The two local parks will provide areas for the community to come together and interact. A range of lot sizes will help establish a diverse community within the site and complement the growing community of the wider LURA.

# PART 4: CONCEPT DEVELOPMENT

## 4.3 VISION - OPPORTUNITIES & CONSTRAINTS



### LEGEND

- Proposed development Boundary —
- Ridge line ↔
- Panoramic views ➔
- Primary road proposal & upgrade - - -
- Transport hub ●
- Future open space ■
- Existing residential ■
- Proposed residential ■

## PART 4: CONCEPT DEVELOPMENT

### 4.4 VISION - CONCEPT MASTERPLAN



North-South Roads maintaining view corridors to the northern ridge line

Local park centrally located, with clear defined access from the north south and western edge.

Lots orientated to provide passive surveillance over park

Perimeter roads to suit RFS statutory requirements

Detention basin to accommodate high water flow and to encourage ecological diversity

Realignment of overland flow path to reduce flood impact.

Emergency access and fire egress path to RFS standards.

Riparian corridor incorporating pedestrian links, seating, and native plant species to enhance habitat diversity. Riparian link is linked to southern Local Park enhancing a liner ecological communal space.

Landscape buffer treatment to preserve 'rural character'.

Through consideration of all components presented in the previous site analysis section, multiple iterations of the concept masterplan were prepared, and evaluated in consultation with council, with the masterplan layout adjacent being the final evolution of this process. Details of how this masterplan responds to and incorporates key findings from the site analysis are presented in the following pages.

- ① Entrance from New England Highway via controlled junction
- ② Subdivision access with entry gateway feature
- ③ Main subdivision tree lined arterial road with designated cycle path
- ④ Subdivision access with cycle path connectivity into the subdivision.
- ⑤ Local Park
- ⑥ Detention basin
- ⑦ Temporary Bio retention basin
- ⑧ Retained and enhanced riparian corridor
- ⑨ Grass lined swale
- ⑩ Screen planting / landscape buffer
- ⑪ Emergency Fire access / egress

# PART 4: CONCEPT DEVELOPMENT

## 4.5 VISION - RESPONSE



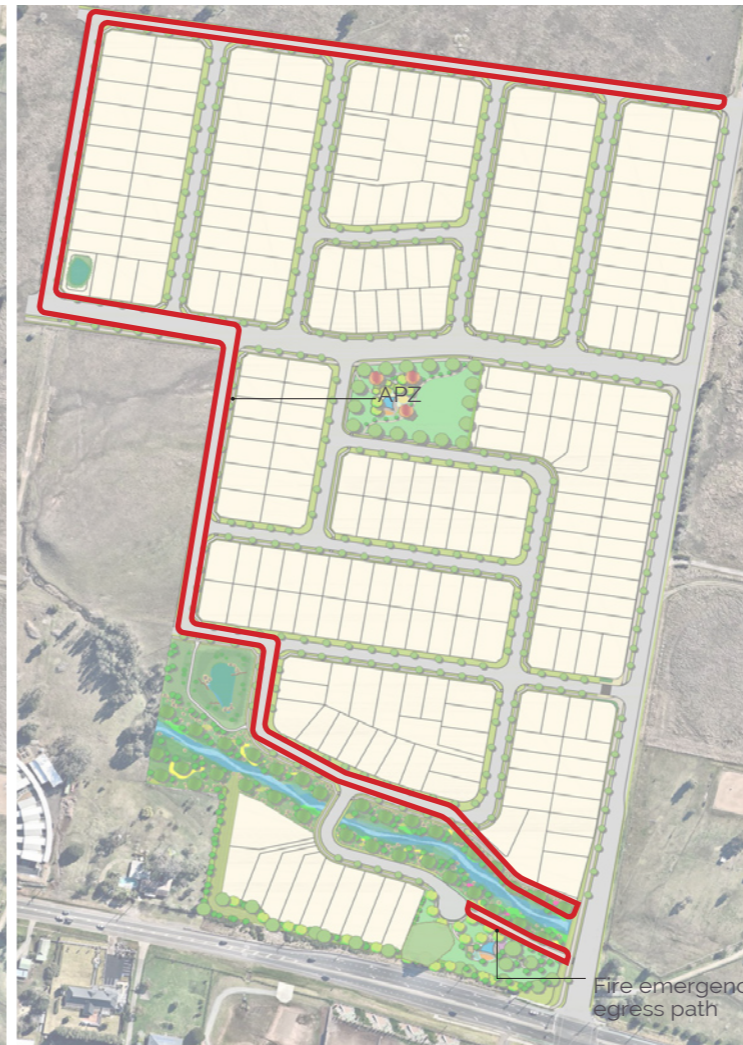
### Riparian & Hydrology

- The existing first order watercourse has been retained, and along with its riparian zones, will be rehabilitated as part of the development.
- A new overland flow path will be built in the SW corner of the site to better convey flows from upstream developments to the watercourse.
- Flows from land to the east of Wyndella Road will be captured and conveyed along with Wyndella Road to the low point at the junction with the watercourse.
- A temporary basin in the north - western area of the site will be required until such time as the land to the west is developed and the site is connected into the wider stormwater network.



### Biodiversity

- Ecological communities of the greatest biodiversity have been avoided and retained and incorporated into the masterplan.
- Impacts on some species were unavoidable when considering site constraints, topography and future earthworks.
- The overall biodiversity value of the site will be enhanced as part of the development through restoration and rehabilitation of the watercourses surrounding riparian zones



### Bushfire

- The layout responds to bushfire threats, through provision of perimeter roads and utilising future dwelling setbacks to accommodate APZ's
- An emergency access/ egress path (doubling as a wider shared path) connects the cul-de-sac to Wyndella Road to provide safe evacuation/ fire fighting ability if / when required.



### Recreational Open Space

- The masterplan includes 2 local parks, located generally in accordance with those presented in the Lochinvar S7.11 Plan, and will be subject to separate DA'S
- The central park is located in the heart of the project site, alongside the main collector road - ensuring it is easily accessed, high visibility and within walking distance to most residents of the site.
- The location of the southern park is such that it is highly visible from the NEH and, when coupled with the landscape buffer area beside, will help soften the visual impact and preserve the rural character at the eastern gateway entry to the LURA. Its prominent location is likely to attract people from outside of the project site to enjoy its amenities.

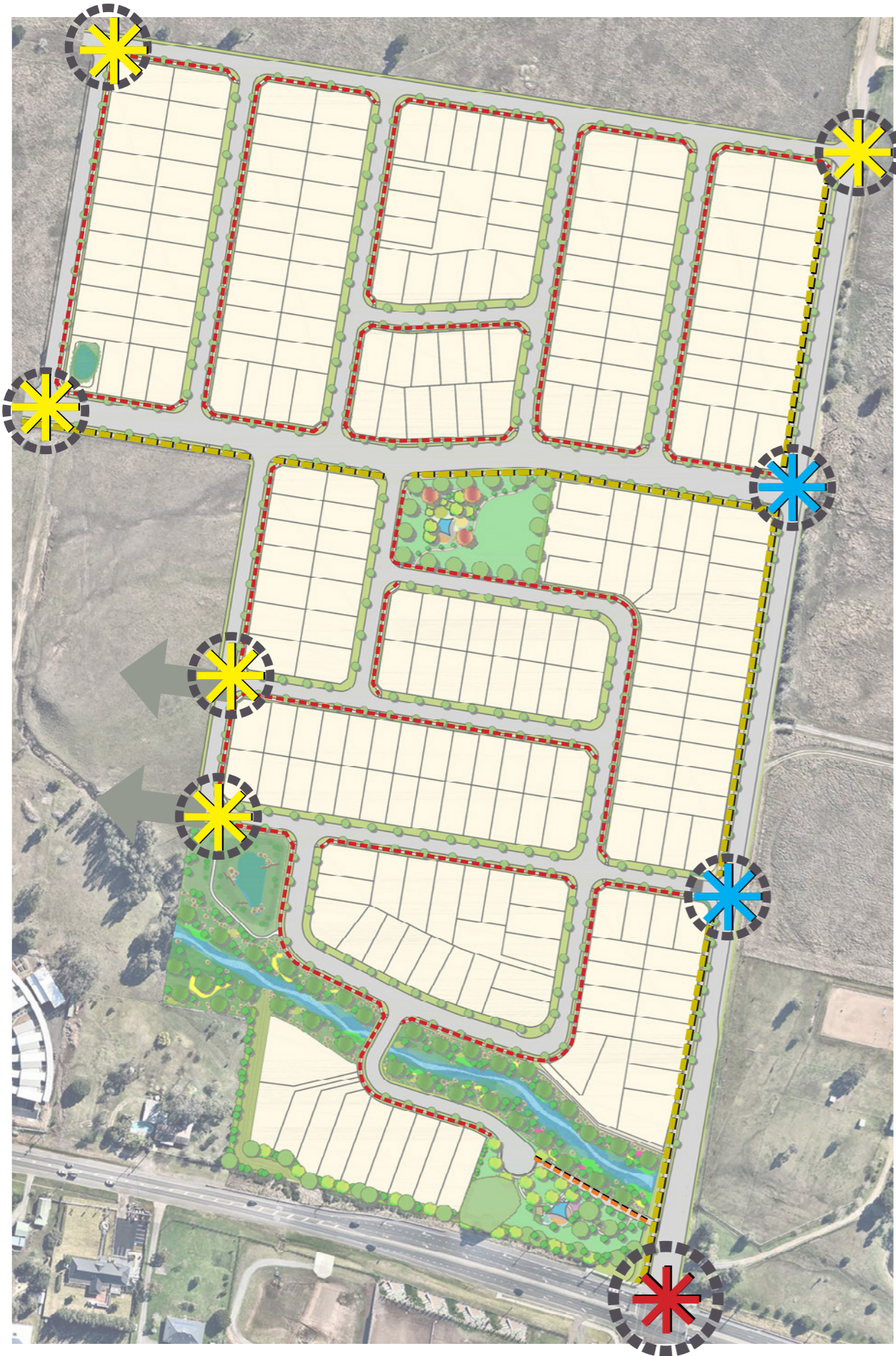
# PART 4: CONCEPT DEVELOPMENT

## 4.6 VISION - CONNECTIVITY

The proposed masterplan incorporates 3 access points off Wyndella Road, including the collector road through the middle of the site (in accordance with DCP requirements) that will link through to future development to the west. All roads have been sized in accordance with Maitland City Council's Manual Of Engineering Standards, based upon the catchments which they service.

Perimeter roads have been included as per RFS requirements, along with multiple access points to the lands to the west, allowing for the development of these lands to connect into the project site.

Pedestrian and shared paths provide connectivity throughout the site and allow residents to access the proposed local parks, along with the wider trunk network at the intersection of Wyndella Road and the NEH.



### LEGEND

Traffic light controlled intersection and site access



Pedestrian and vehicle access



Future development road and vehicle connection intersection



Shared cycle/ pedestrian path



Pedestrian Path



Dual purpose access (shared path / emergency access)



# PART 4: CONCEPT DEVELOPMENT

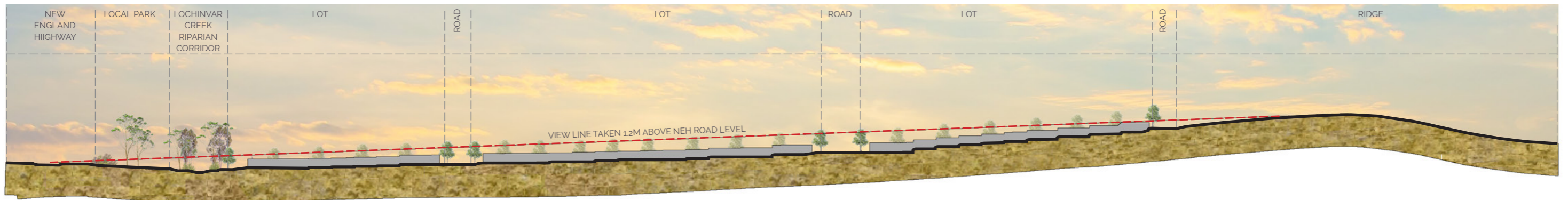
## 4.7 VISION - VISUAL LANDSCAPE



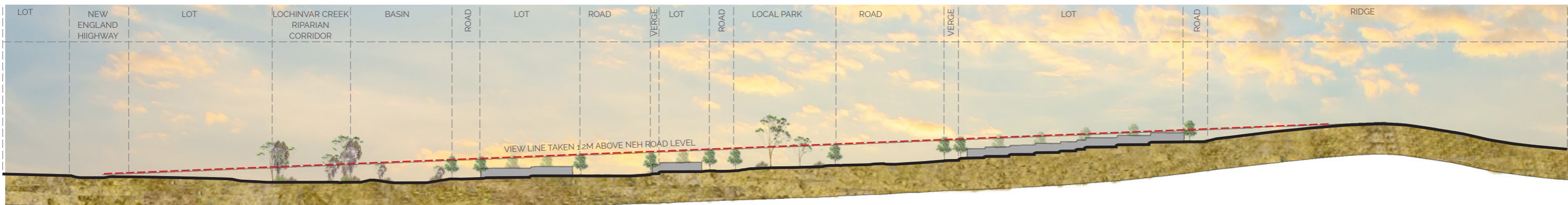
KEY PLAN - NTS

The proposed master plan has been developed with due consideration to its setting within the LURA. The site is located at the eastern gateway of the URA and positioned below a ridgeline. Through consultation with Council, it is understood that maintaining an element of visibility to the ridgeline is an important feature, whilst balancing the development of the land consistent with its zoning.

The sections below provide an indication of views to the development from NEH and the Lochinvar township, once the development is completed. The sections demonstrate that views to the ridgeline will be maintained, particularly where residential development is restricted to single-storey in the north-eastern corner of the site. Views to the development from NEH and the broader LURA will be softened through extensive replanting of the site, including the replanting of Lochinvar Creek, the establishment of a landscape buffer along the NEH interface, the planting of street trees to line the road network throughout the estate and the provision of local parks providing opportunity for additional green space in an urban setting.



SECTION A-AA



SECTION B-BB





## PART 4: CONCEPT DEVELOPMENT

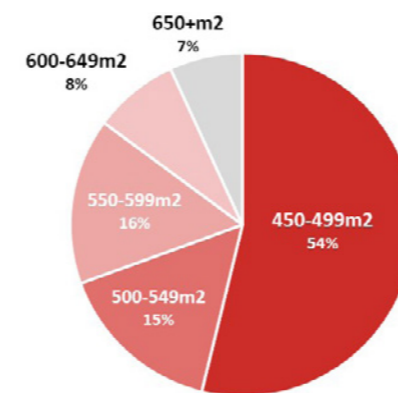
### 4.8 VISION - LOT DENSITY

As presented in previous sections, in order to respond to the significant land price increases, maintain housing affordability and respond to recent planning directions around increased density within the Hunter, Lochinvar is likely to achieve higher densities (smaller lots) than that experienced in existing urban release areas within Maitland.

The project site benefits from having two local parks within it, both of which will be readily accessed by the future residents. Complimenting the two local parks, will also be a re-vegetated watercourse with footpaths and sit down areas traversing its perimeter. This immediate access to high-amenity areas, coupled with the gentle sloping nature of the site, presents a perfect opportunity for achieving higher densities within the site. In recognition of these aspects, lots in the lower size bands have typically been sited around areas of high amenity, with their orientation being designed to provide passive surveillance opportunities over these areas.

The north-eastern area is the steepest area of the site and larger lots have been provided in these areas in response to this and also to reduce impact on vistas to the ridge line to the north of the site.

The southern portion of the site adjoins the New England Highway and larger lots have been provided in these areas to respond to underlying planning requirements as well as helping to preserve the rural interface as people enter the Lochinvar area from the east.



#### LEGEND

- 650m<sup>2</sup> + - 18 LOTS
- 600m<sup>2</sup> - 649m<sup>2</sup> - 21 LOTS
- 550m<sup>2</sup> - 599m<sup>2</sup> - 41 LOTS
- 500m<sup>2</sup> - 549m<sup>2</sup> - 41 LOTS
- 450m<sup>2</sup> - 499m<sup>2</sup> - 141 LOTS



The proposed lot mix is considered appropriate, responding to current market conditions, the sites low density zoning and the sites constraints and opportunities

It's noted that CPG Estates is the development arm of Clarendon Homes and all future buyers will be required to build a Clarendon Home.

Clarendon Homes is proudly Australian made and owned and is a trusted builder, with significant experience within Maitland and the wider Hunter region.

This control of design and quality of the built form will ensure dwellings are sited appropriately within the lots to achieve the objectives of the masterplan.





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