



URBAN DESIGN REPORT

51 STATION LANE LOCHINVAR 3 / DP 564631

134 STATION LANE LOCHINVAR 4 / DP 634523

146 STATION LANE LOCHINVAR 2 / DP 634523 (PART)



REVISION	DATE	DESCRIPTION
1	06/21	Urban Design Report

**ADDRESS:**

Lot 3 in DP 564631,  
 Lot 4 in DP 634523 &  
 Lot 2 in DP634523, &  
 Respectively known as No.  
 51, 134 and 146 Station Lane,  
 Lochinvar

**CLIENT:** Bathla Group

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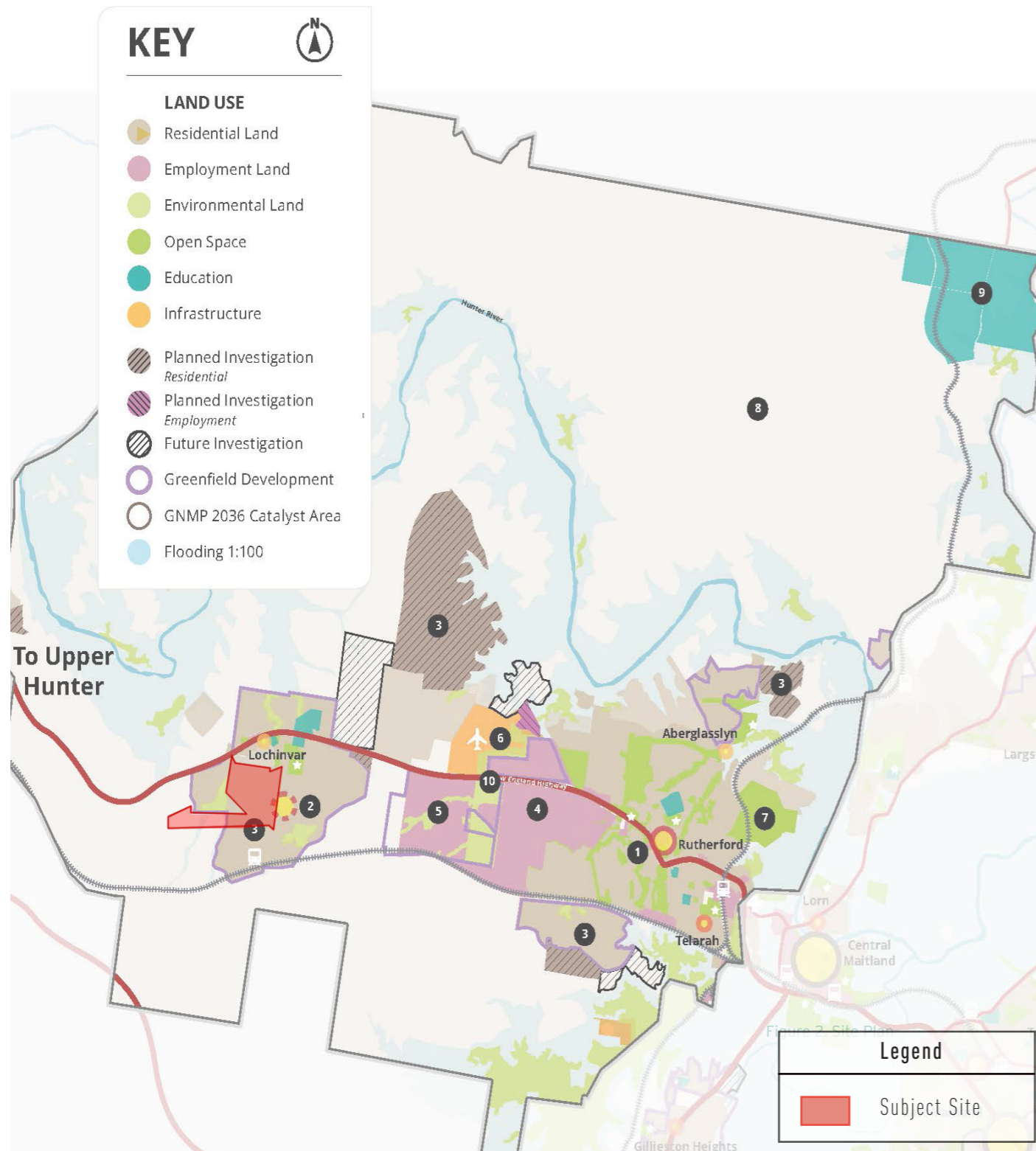
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## 4.0 Summary

# 1.0 OVERVIEW & 2.0 ANALYSIS



# 1.0 OVERVIEW

Sitios Urban Design P/L has been engaged by BATHLA GROUP to prepare this urban design report to accompany a Concept Development Application pursuant to Section 4.22 Environmental Planning & Assessment Act 1979, made to Maitland City Council for proposed residential subdivision.

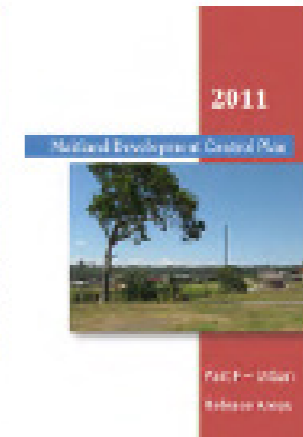
Lochinvar is located within the identified western sector of Maitland LGA as defined in the Maitland Urban Settlement Strategy. Lochinvar was identified as an emerging town centre, suitable location for residential growth and was identified as a 'Proposed Urban Area' and a 'Major Release Site' under the Lower Hunter Regional Strategy 2006.

Below documents that have been considered as part of this report:

- Maitland Urban Settlement Strategy (MUSS)
- Maitland Local Strategic Planning Statement 2040+
- Maitland Development Control Plan

The purpose of this report is to provide a logical and integrated urban design framework that is consistent with the vision set out for Lochinvar.

This report outlines the various site opportunities and constraints and presents the urban design principles that inform the proposed Concept Plan.



Adopted June 2020

## 2.1 OVERALL CONTEXT

Lochinvar is a village in the Hunter Region of New South Wales, eleven kilometres west of the regional centre of Maitland. Lochinvar is within the boundaries of the City of Maitland local government area (LGA)

The proposed development is located to the west of Station Lane within the suburb of Lochinvar as shown in Figure 2. It is located within the Lochinvar Urban Release Area and encompasses three adjoining lots, being:

- 51 Station Lane (Lot 3, DP 564631)
- 134 Station Lane (Lot 4, DP 634523)
- 146 Station Lane (Lot 2, DP 634523)

The site is approximately 1.4 km north from Lochinvar train station, 1.4km from south of Lochinvar Main street, 7km west of Rutherford and 9km east of Greta. The site has easy accessibility to New England Highway (A43), a mayor arterial road and to Allendale Rd, connecting to the Hunter Expressway (M15).

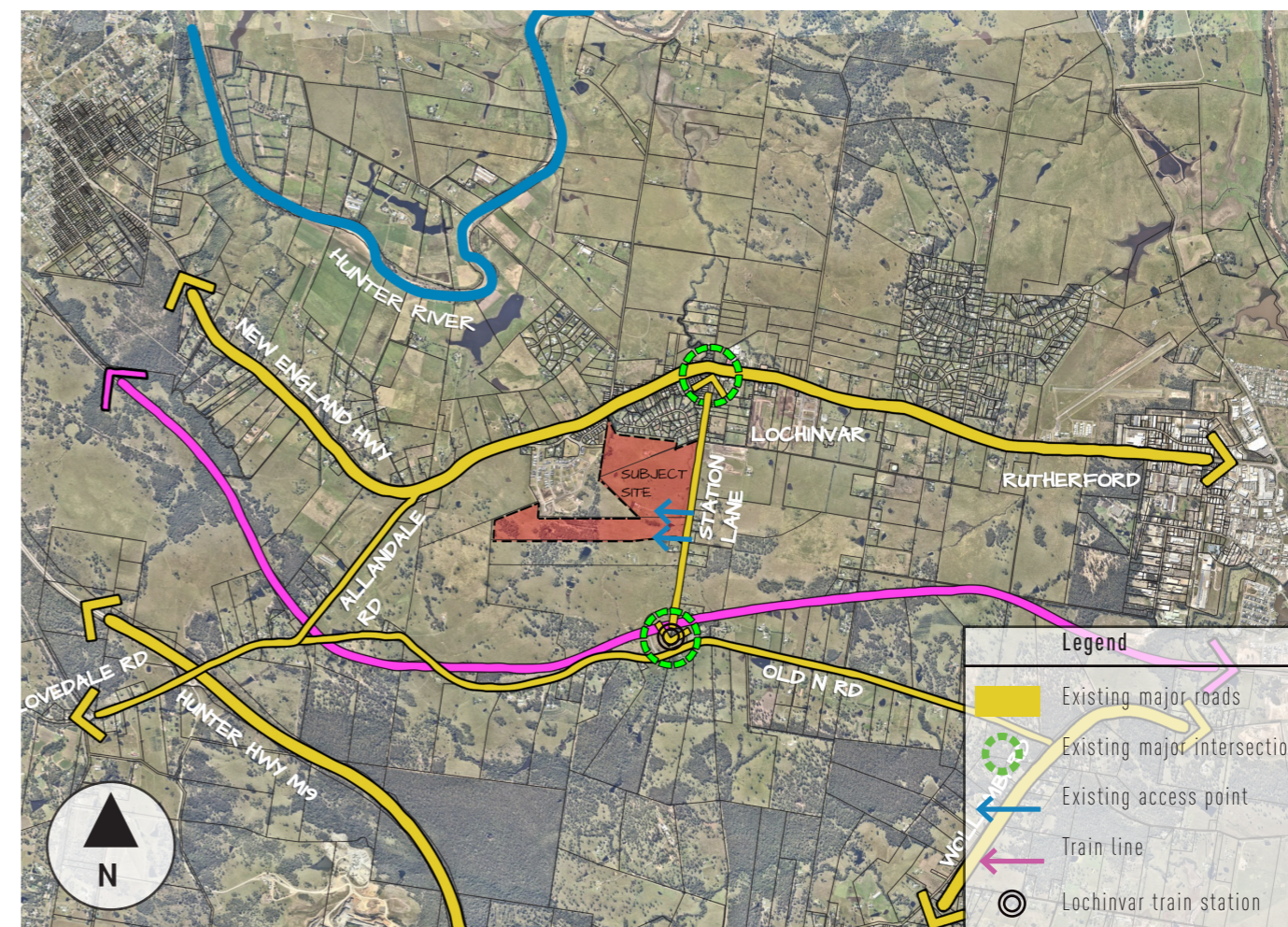


Figure 2. Overall context

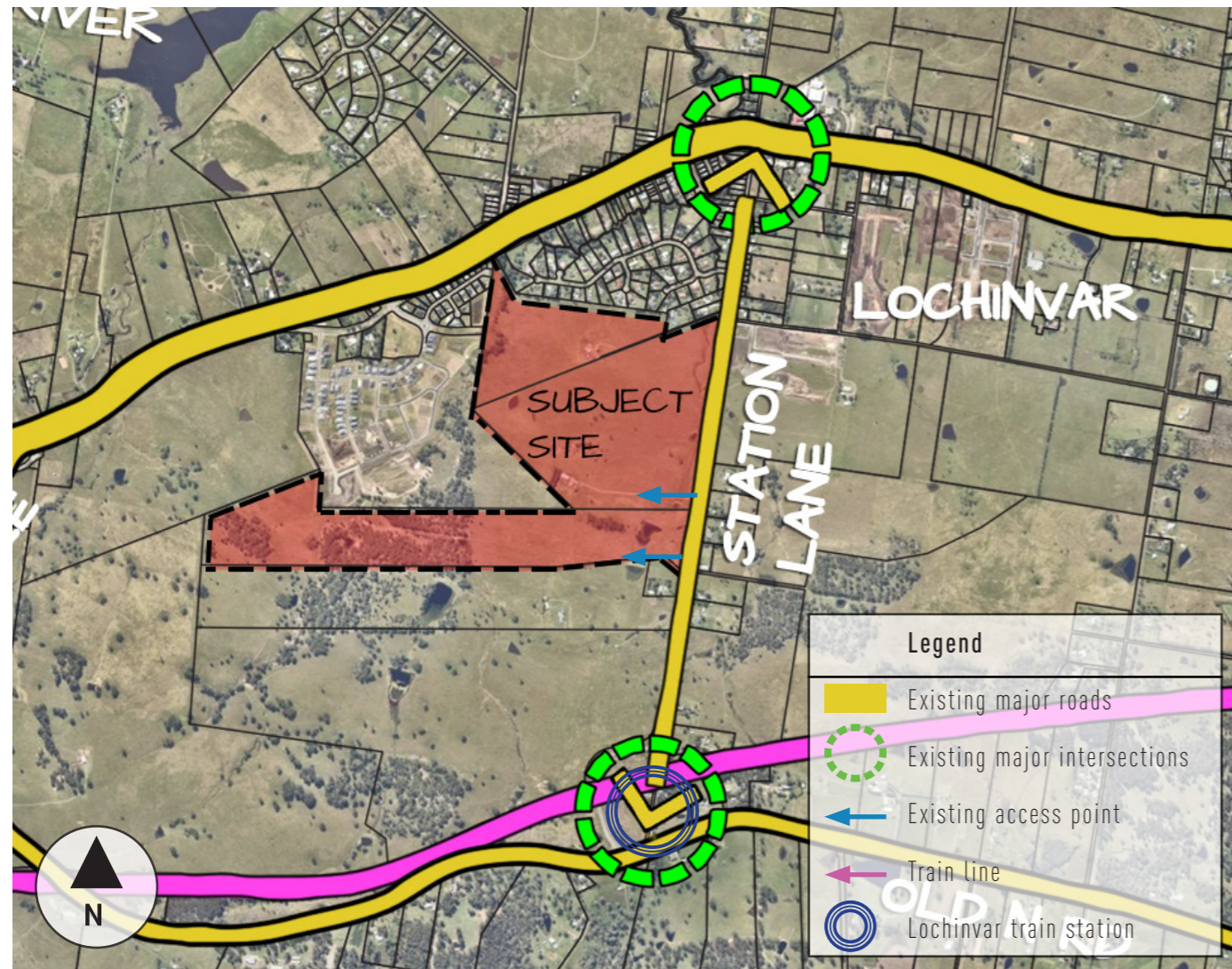


Figure 3. Site Context

## 2.2 SITE CONTEXT

The surrounding land use comprises mostly rural land and large lot residential, with St Patricks Primary School and St Nicholas Early Learning Centre located at the northern end of Station Lane. Opposite Station Lane, on the northern side of the New England Highway is All Saints College St Josephs Campus, a Year 7 to Year 12 high school.

The site is irregular rectangular shapes with an area of approximately 120 Hectares. Access to each lot is available via separate unsealed driveways off Station Lane.

The property is currently grazed, supporting two (2) large lot rural dwellings and associated outhouses, and is bound by a mixture of managed and unmanaged grassland to the north, east and south. The site supports two (2) riparian corridors in the north-east and north-west.

Land directly south and east is zoned R1 and comprises similar pastureland as the site. The western section of Lot 2 DP 634523 is currently zoned RU2 - Rural Landscape. Residential development to the north is zoned R5 - Large Lot Residential and part of Lochinvar Creek west of the Subject Site is zoned E3 - Environmental Management. The land external to the site's south-western boundary supports disturbed forest vegetation associated with Lochinvar Creek.

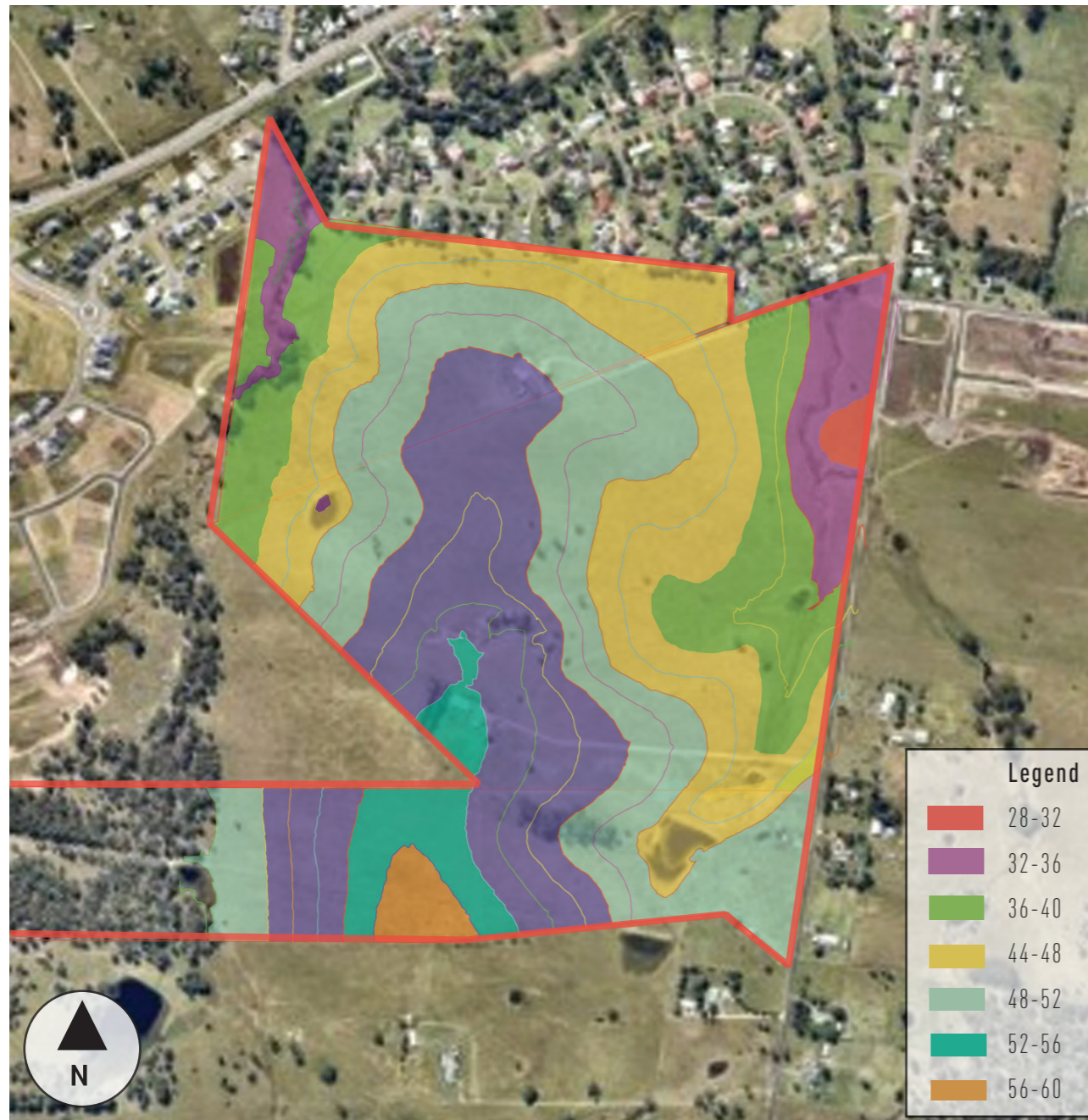


Figure 4. Topography

## 2.3 TOPOGRAPHY

The site is being predominantly flat. The terrain consists of soft, low lying undulating hills.

The site has a defined ridge line that runs centrally north-south breaking the site into two distinct catchments, the east falling gently to Greedy Creek and the west falling gradually to Lochinvar Creek. From this ridge-line the site is generally gently graded with average site grades between 5% to no more than 10%.



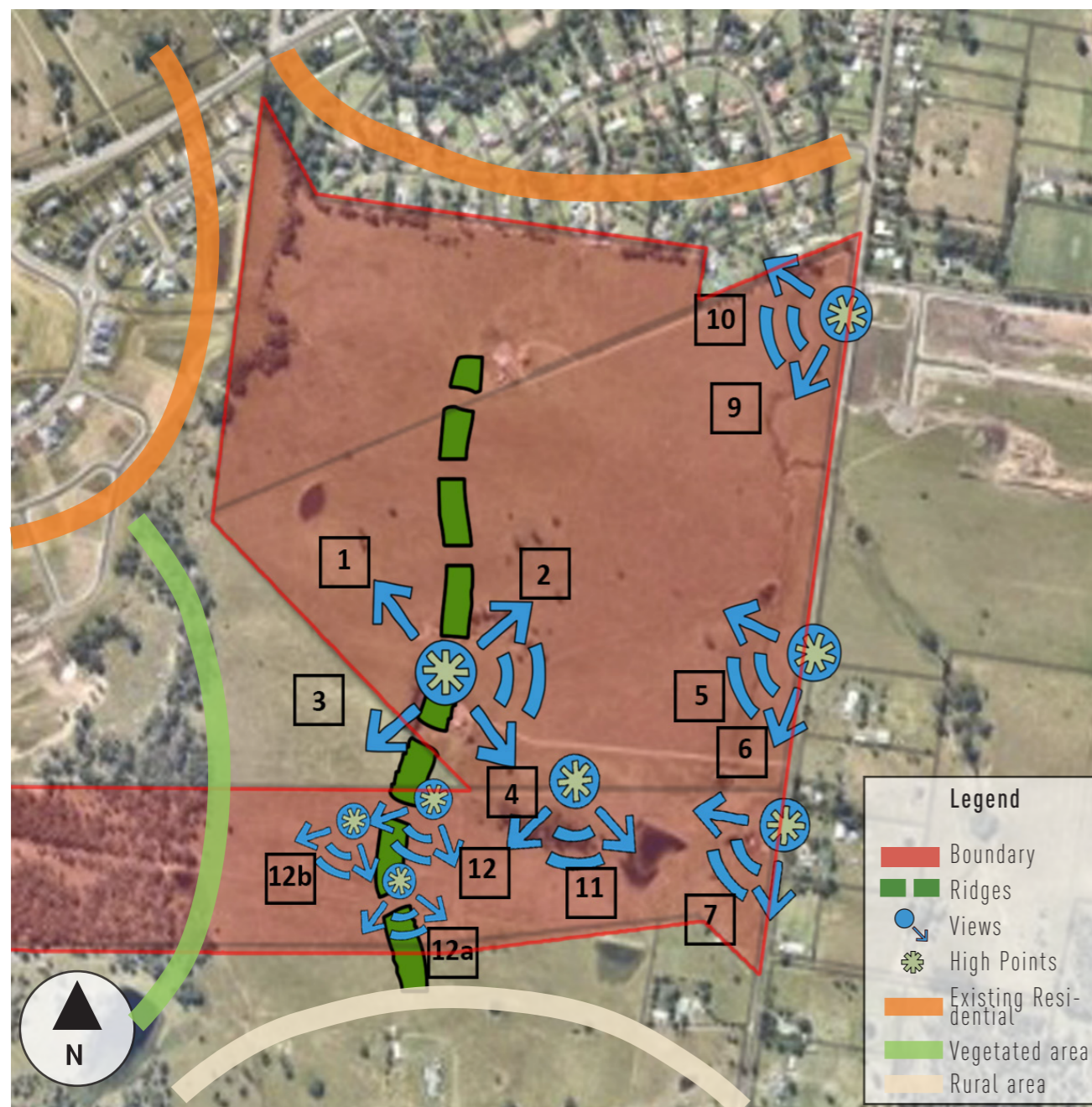


Figure 5 Views/High Points



## 2.4 VIEWS

There is a north-south ridge within the central portion of the site. This high point is located where the existing house is and can be seen from Station Lane when approaching. This point provides almost a 360° view across the whole site. Views to the north overlook the low density residential housing and to the west to St Helena Close development and the Lochinvar Creek riparian corridor. Clump of trees can be found towards the south portion of the site and a vegetated green wall can be seen towards the south western end of the site.



## 2.3 RIPARIAN CORRIDORS

A small section of Lochinvar Creek is present within Lot 3 in the north west corner of the Subject Site. Additionally, one unnamed first order drainage line starts within Lot 2 and runs along the eastern boundary of the site. The drainage line possesses three dams along its length, turns into a 2nd order stream and drains into Greedy Creek within Lot 4. Greedy Creek joins Lochinvar Creek approximately 400m downstream which ultimately flows into the Hunter River.

In the western portion of the site the third order Lochinvar Creek enters the site along the western boundary and traverses through the western edge of the site before existing in the north western corner.

The eastern side of the site features a number of first and second order hydro lines with no discernible vegetated riparian zone before linking up with the third order Greedy Creek as it enters the site from under Station Lane in the north eastern portion of the site boundary. Greedy Creek then traverses through the north eastern most portion of the site before exiting in the north eastern corner across the common boundary shared with No. 49 Station Lane. Both defined catchments ultimately converge further downstream within the Lochinvar township just upstream of No. 15 Hunter Close before combining to form a fourth order stream and continuing under the New England Highway to the north.

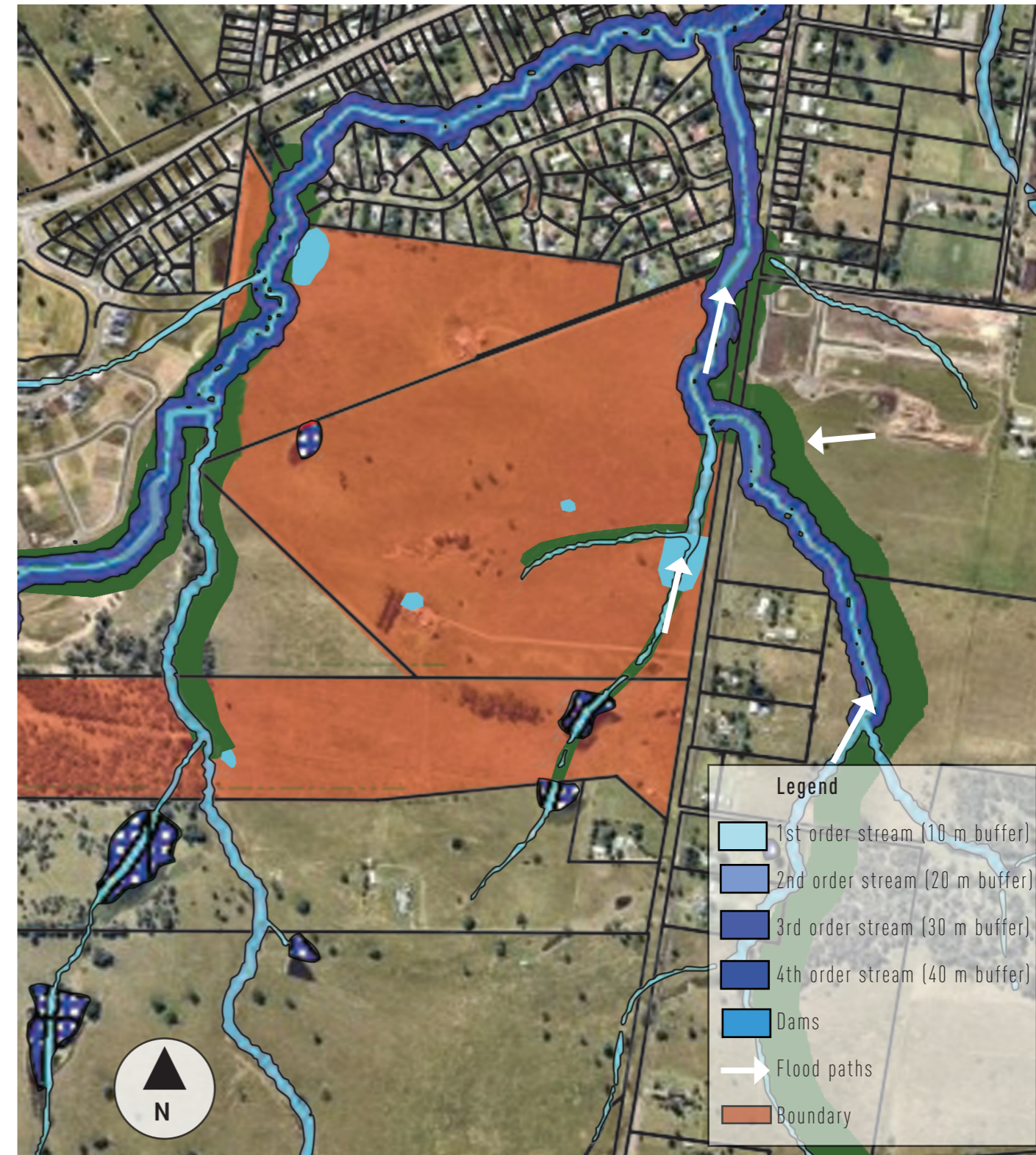


Figure 6 Riparian Corridors and flood paths

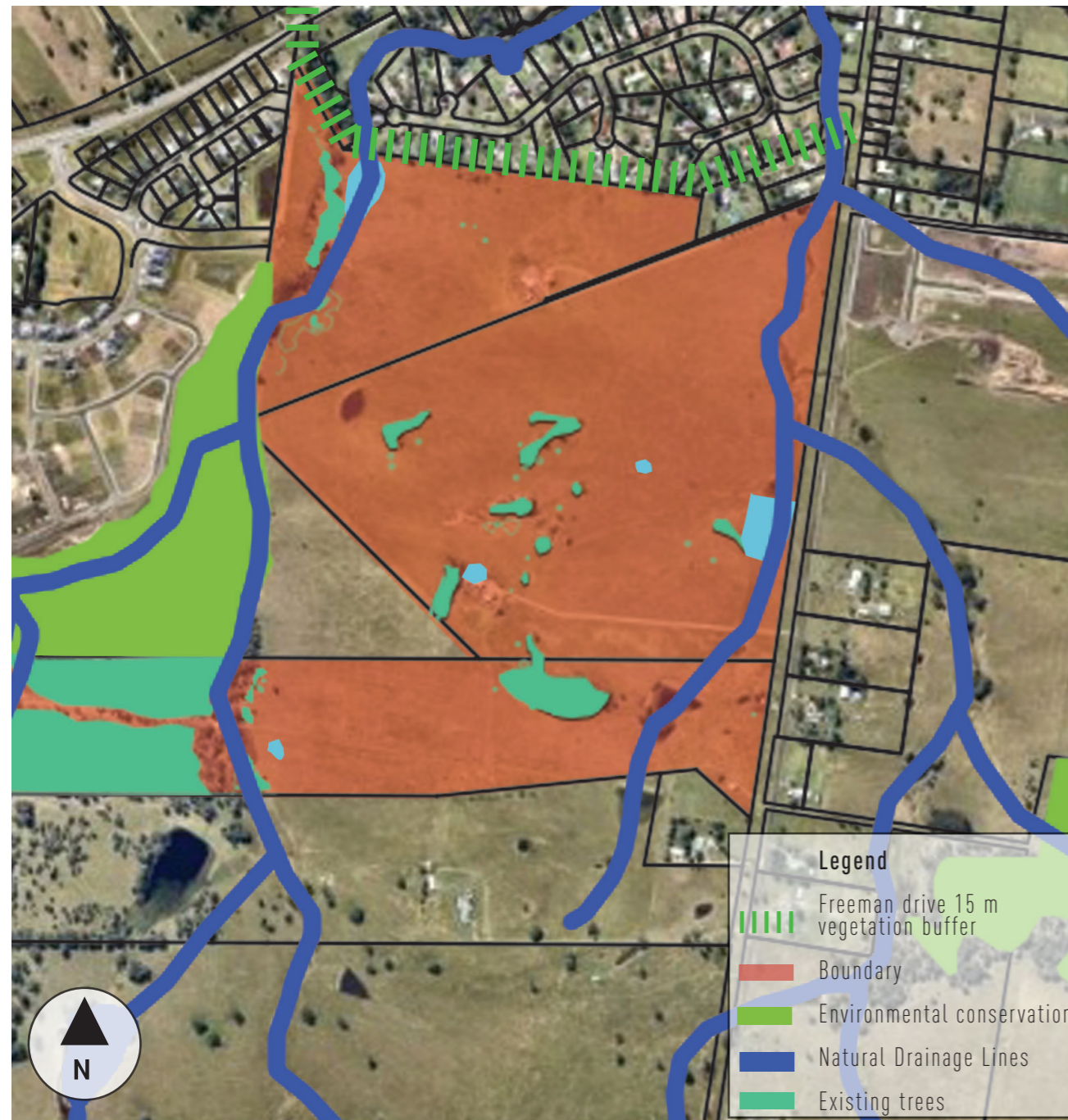


Figure 7 Ecological

## 2.6 ECOLOGICAL

The Subject Site contains two (2) Plant Community Type (PCT) 1603 - Narrow-leaved Ironbark - Bull Oak - Grey Box shrub - grass open forest of the central and lower Hunter (0.70ha) and PCT 1731 - Swamp Oak - Weeping Grass grassy riparian forest of the Hunter Valley (0.46ha).

The remainder of the Subject Site (71.61ha) consists of land dominated by exotic flora and cleared areas including gravel tracks, dwellings, farm buildings and highly managed pastureland, which do not require assessment for ecosystem values and were determined not to provide habitat for threatened species.

Fauna species recorded were typical of those expected in this locality and in this type of remnant habitat with marginal connection to vegetation off-site. Threatened species recorded within the Study Area included Large-eared Pied Bat (*Chalinolobus dwyeri*), Eastern Falsistrelle (*Falsistrellus tasmaniensis*), Little Bentwing-bat (*Miniopterus australis*), Eastern Bentwing-bat (*Miniopterus orianae oceanensis*), East Coast Freetail-bat (*Micronomus norfolkensis*), Southern Myotis (*Myotis macropus*), Grey-headed Flying-Fox (*Pteropus poliocephalus*), Yellow-bellied Sheath-tailed Bat (*Saccolaimus flaviventris*) and Greater Broad-nosed Bat (*Scoteanax rueppellii*).

## 2.7 BUSHFIRE

The development is categorised by the NSW Rural Fire Service (RFS) as being a residential subdivision and this requires the RFS to issue a bushfire safety authority (BSA) in accordance with Planning for Bush Fire Protection (PBP) 2019.

The assessment found that bushfire can potentially affect the proposed development from the surrounding unmanaged grassland vegetation, remnant forested wetland vegetation (associated with the riparian corridors and on-site stormwater detention basins) resulting in the future buildings being exposed to potential radiant heat and ember attack.

The land surrounding the proposed development forms part of the 'Lochinvar Structure Plan'. The areas to the east, west and south will be subject to future development which will remove the hazardous vegetation. This assessment has taken into consideration the 'Lochinvar Structure Plan' and provides temporary APZs to those aspects which will be developed in the future.

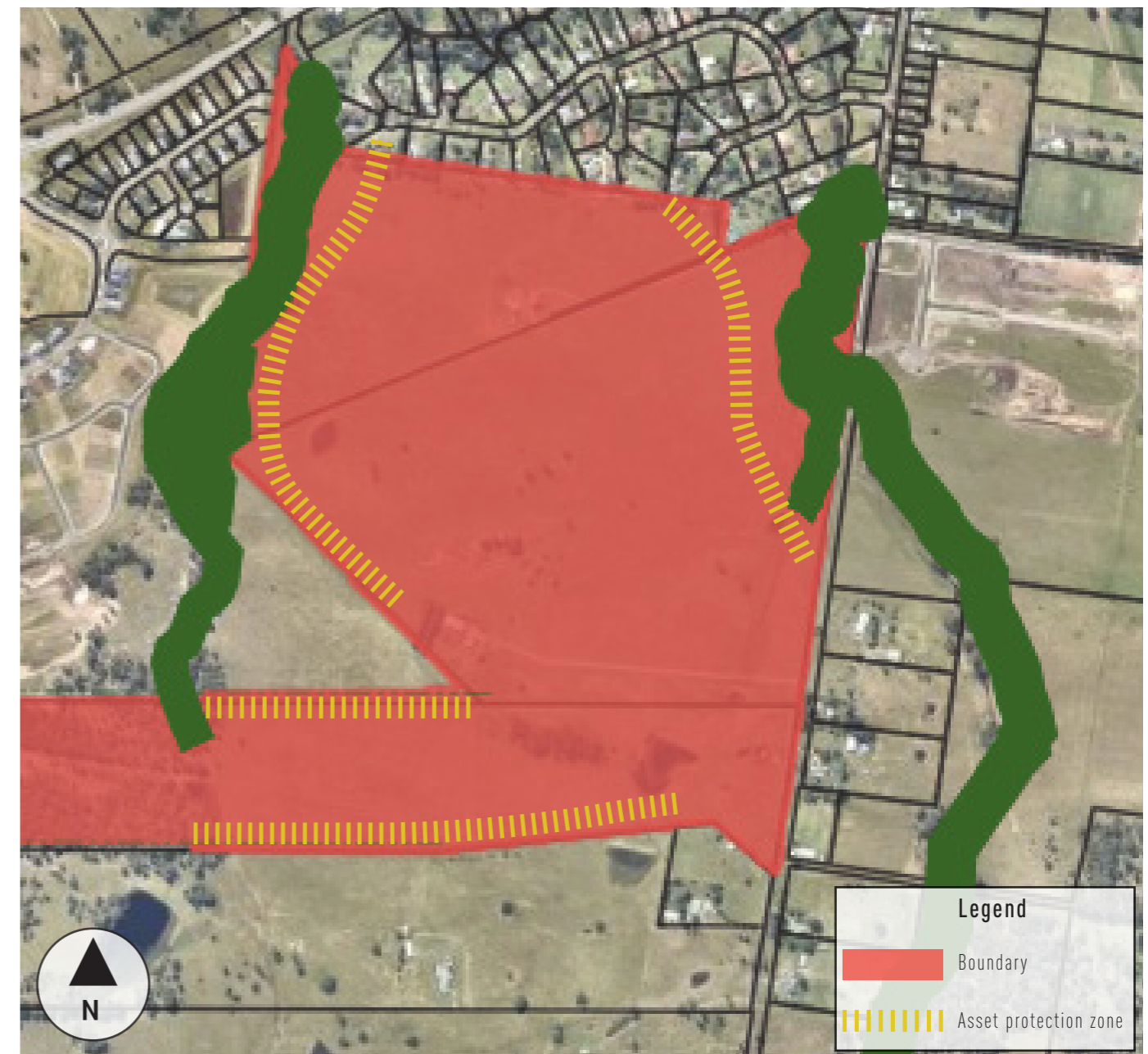


Figure 8 Plan of asset protection zones

## **3.0 DESIGN CONCEPT**

## 3.1 VISION

The vision for the site is to create a master planned, connected and beautiful residential community with its planning based on providing diverse housing choices, environmental protection, greenery, recreational opportunities and walkable neighbourhoods.

A key to the vision is the creation and reinforcement of a strong 'sense of place' responding to the existing conditions of the site and its immediate surrounds. Ultimately, the place will aim to enhance the social, economic and environmental value of Lochinvar and be a well-integrated positive addition to the broader region.

- **THE PLACE** - The concept plan maximizes the value of its surrounding attributes to create a unique sense of place. The landscapes celebrate natural features and systems to create an interconnected network of places.
- **GREEN LINKS** - Ability for each neighbourhood to have access to a diverse network of trails for people to walk and cycle. The street network also provides the opportunity for public bus route. Local parks are distributed throughout the site to all dwellings and generally are within acceptable walking distance.
- **CONNECTIVITY AND LEGIBILITY** - linking amenity and maximising views to natural features and responding to topography. With key entry gateways and connector roads transversing the site and connecting the place within and to the main township.



Figure 9 Master Plan

### 3.2 DESIGN PRINCIPLES

The key urban design principles that underpin the proposed Concept Plan are:

**A SENSE OF PLACE** - Being true to the local context and character is important, but also promoting a diverse environment to include people with different income brackets, cultural backgrounds and ages. A diverse community is a healthy community.

**A WELL-CONNECTED COMMUNITY** - internally and with surrounding activities. Providing green spaces and parks so that residents can play, meet and relax while outside. In addition, sustainable neighbourhoods provide the opportunity for people to enjoy clean, safe surroundings and live in a way that has no relative impact on natural systems.

**A WALKABLE COMMUNITY** - by providing links to amenities within the development and linking to the wider context.

**DENSITY AND HOUSING DIVERSITY** - by providing appropriate densities in the right places. Responding to market demands and looking at housing options that can provide places of high amenity.



### 3.3 CONECTIVITY-STREET NETWORK

The urban structure / street network provides flexibility to facilitate movement and ensure there is connectivity throughout the site and to the wider context. The range of street typologies and configuration will deliver a clear and legible road hierarchy that provides for the efficient and safe movement of vehicles, pedestrians and cyclists within and outside the site.

Key connecting road are:

- Primary Collector - Connecting to the township and to New England Highway
- Divided Carriageway - Linking the development east-west to existing residential and Station Lane and north-south via Station Lane to Lochinvar train station.
- Primary Distributor - Linking the development to future development to the south and station lane to the east.

Refer to the Traffic report for further information.

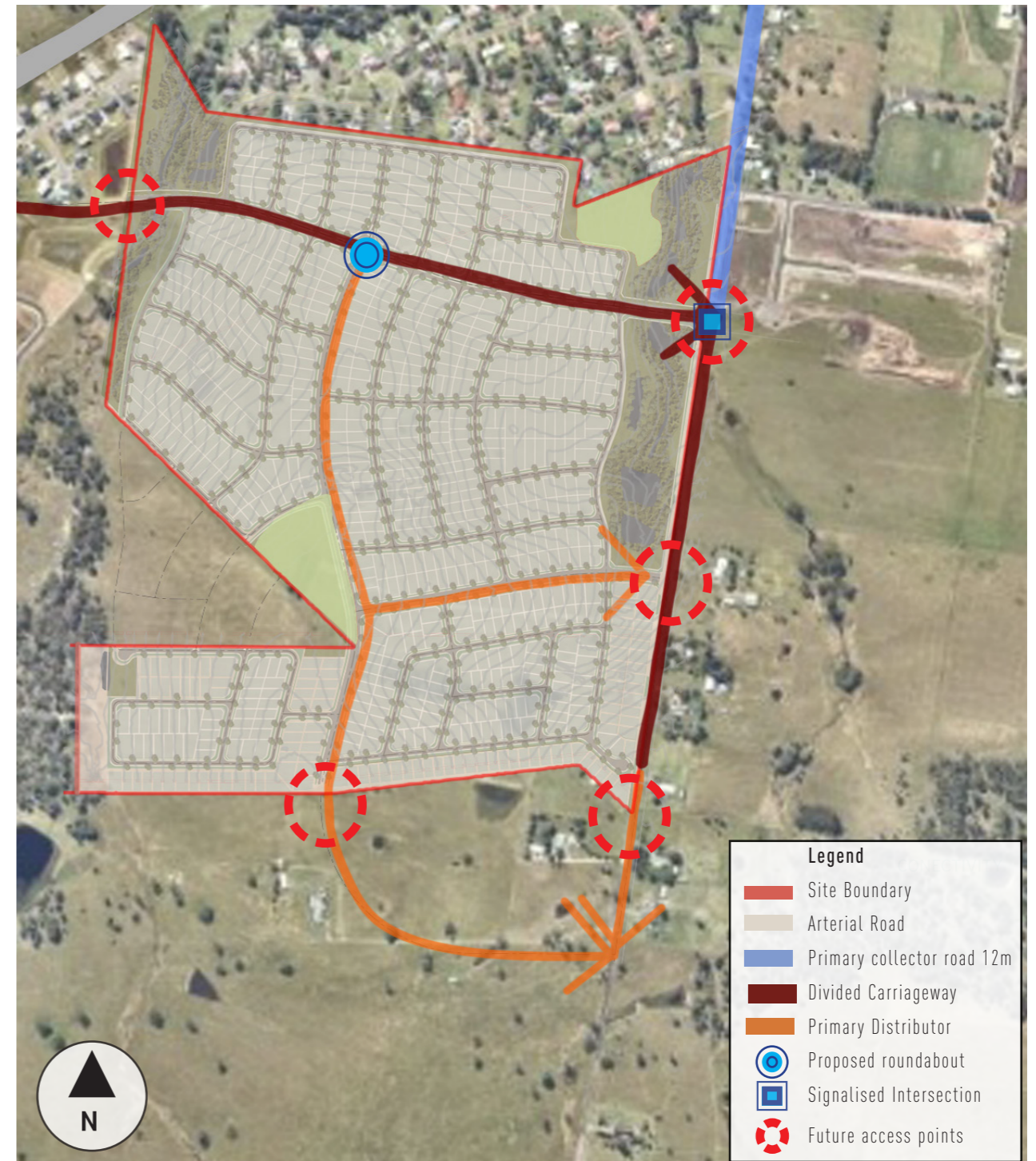


Figure 10 Conectivity' Sstreet network

### 3.3 CONECTIVITY-PEDESTRIAN AND CYCLE NETWORK

Pedestrian and cycle connections are proposed to be strategically located to prioritise and encourage walking and cycling to local areas of amenity, including the local parks, the town centre, schools, and the like. Major pedestrian and cycle links will be located adjacent major roads connecting to the wider context.

- On road commuter path
- Off road shared path

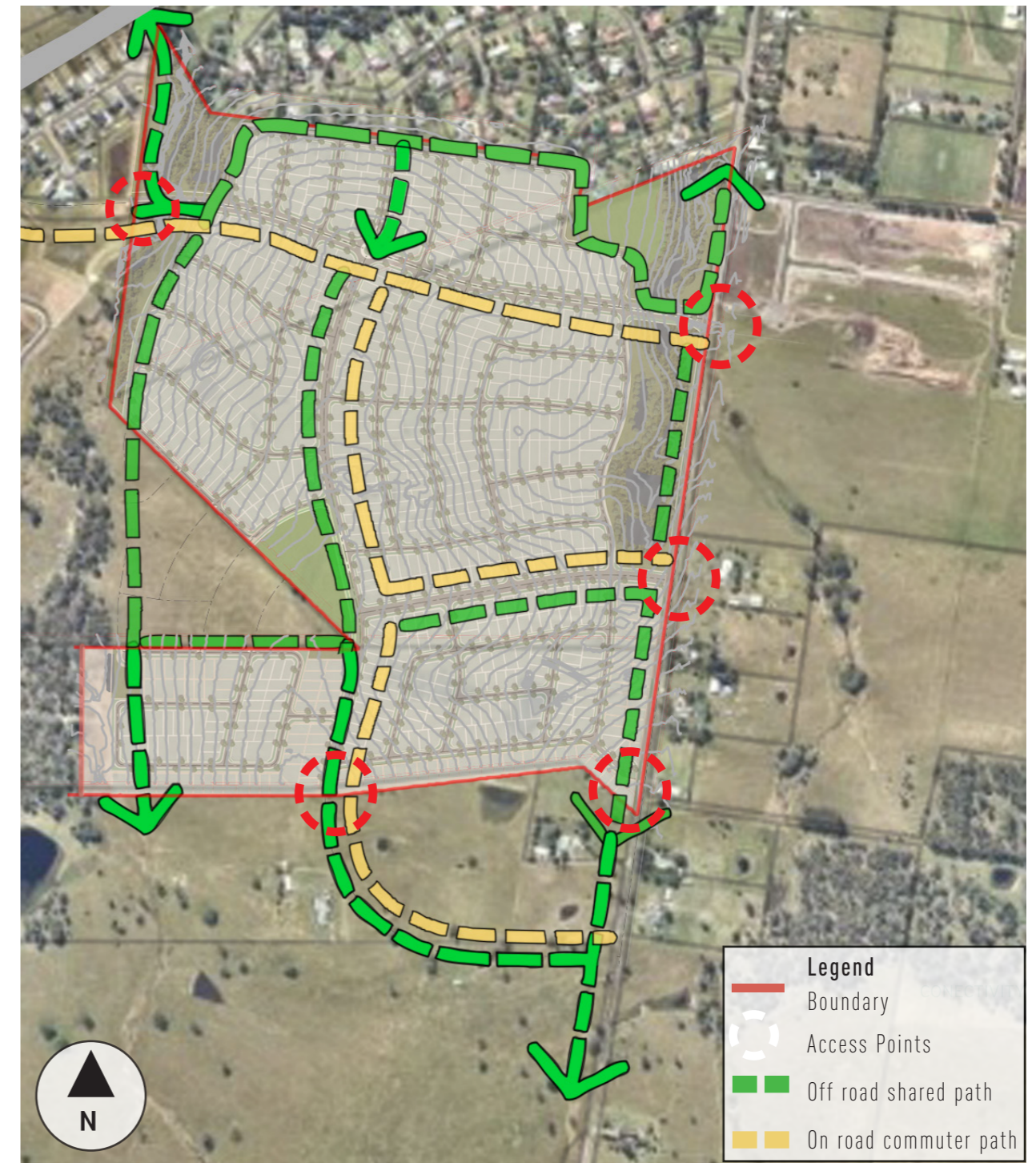


Figure 11 Conectivity - Pedestrian and cycle network

### 3.4 OPEN SPACE NETWORK

Green infrastructure is vitally important as we move into the immediate future and combat numerous climate change and health challenges. Green infrastructure within the development is key to help reducing stormwater run-off, urban heat island effects and temperature moderation, lowering use of electricity and energy, improved wellbeing, allow for greater physical activity and social cohesion.

The development will provide:

- Open spaces that are easily accessible (within a 10-minute walk) to people of all ages, abilities, health, gender and culture.
- Open spaces that encourage people to exercise, socialise, relax, rest, play, be outside which all contribute to their health and wellbeing.
- Open spaces with different hierarchy levels and diverse qualities to cater for different age groups.

ACTIVITY	
Gateways/Access	There are 3 clear identified entries to the site, all framed by a natural open space. The use of landscape elements within these areas, such as trees, entry walls, structures and the like will be key to provide a clear sense of entry.
Local Park/ Drainage Interface	Opportunity to co-locate drainage and local parks, with recreation facilities. These open space provide important amenity to residents and locations for community engagement and social interaction. Higher density housing typology adjacent the open space is to benefit from the landscape outlook.
Riparian corridors	Riparian corridors and/or drainage open space corridors provide a significant environmental and visual asset, with water detention ponds providing important water cleansing. These open space corridors provide important connective landscape corridors providing a high level of amenity.
Local Parks	Local park open space generally provides for residents within comfortable walking distance, but of course provides general community amenity in combination with the network of open space. From recreation, to fetes and markets, and community events.

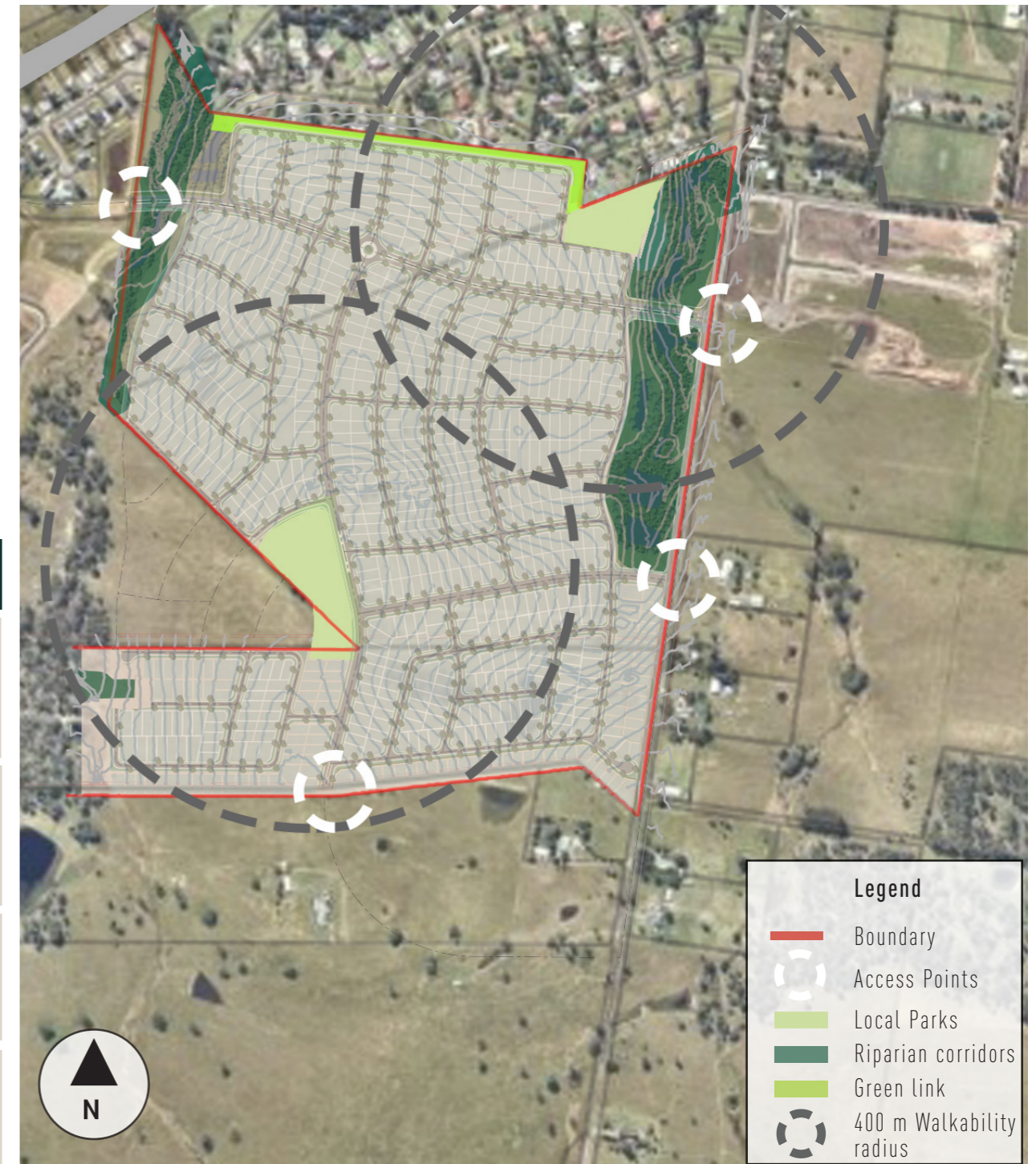


Figure 12 Open space network

### 3.5 PRECINCT AND LOT MIX

The proposed master plan aims to take advantage of the existing views, as well as creating discrete neighbourhoods. This will break up the larger urban forms and create a more human and aesthetically pleasing environment in which to live. The gently undulating topography will enhance the “visibility” and focal points of open space areas.

There are key three distinctive precincts within the development:

- Northern Precinct - Wider lots are located to the north to provide a transition to the existing residential. A green link located directly south of existing residential allows for a more sympathetic transition to the new development.
- Central Precinct - This precinct interfaces with both riparian corridors and major connecting roads. It is important lots are interfacing with the open space to further activate these spaces and allow for passive surveillance. Opportunity to look at built form solutions that can further celebrate this spaces.
- Southern Precinct - to interface with future development areas. Consideration has been given to how the development connects with the land lot to the west and future development to the south.

#### Lot Size and Mix

- 450m<sup>2</sup> lots are the minimum allowable under the current zoning
- Larger lots are located to the north to provide a transition towards the existing residential on the main east west ridge line and the steeper portions of the site.
- Lot sizes envisaged in the design are to be a mix of 450-549m<sup>2</sup>, 650-649m<sup>2</sup>, 650-749m<sup>2</sup>, 750-799 & 800+m<sup>2</sup>.
- The average lot size across the development is 516m<sup>2</sup>
- Special consideration should be given for lots fronting amenity

Lot Sizes	No of Lots
450-549	631
550-649	101
650-749	52
750-799	13
800+	14
Total	811

Future market demand will ultimately inform the lot mix.

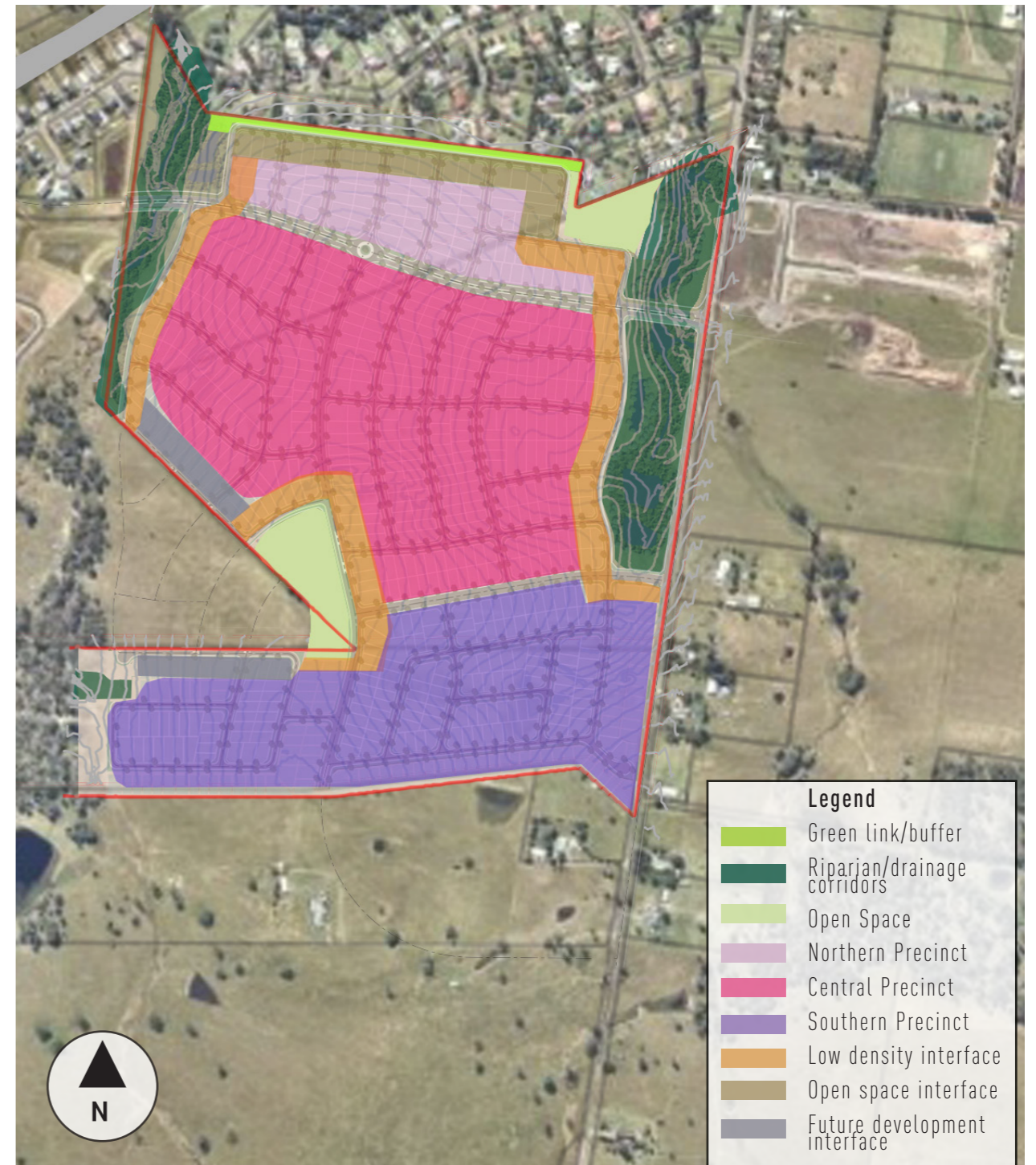


Figure 13 Precint Character



## 4.0 SUMMARY



## 4.0 SUMMARY

The proposed Concept Plan focuses on delivering a strong framework that not only is compliant with the Maitland Urban Settlement Strategy (MUSS), but responding to a unique set of place attributes reinforcing its connection to the natural environment.

The concept will be the base for future development and the principles outlined in this document will ensure that a resilient, sustainable and connected community is delivered over time.

In summary, the proposed Concept Plan seeks to promote:

**AN IMPROVED COMMUNITY BELONGING AND INTERACTION**

**A GREATER INTEGRATION OF NATURE, LIVING AND LIFESTYLE**

**EASY WALKABLE ACCESS TO QUALITY FACILITIES, SCHOOLS, SHOPS AND RECREATIONAL EXPERIENCES**

**EASY ACCESS TO LOCAL PARKS**

**RETENTION OF, AND A CONNECTION TO THE SURROUNDING NATURAL AREAS**

**A STRONG 'SENSE OF THE PLACE' FOR SOUTH RIPLEY WITHIN THE WIDER RIPLEY LOCALITY. WELL SERVICED COMMUNITY**



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