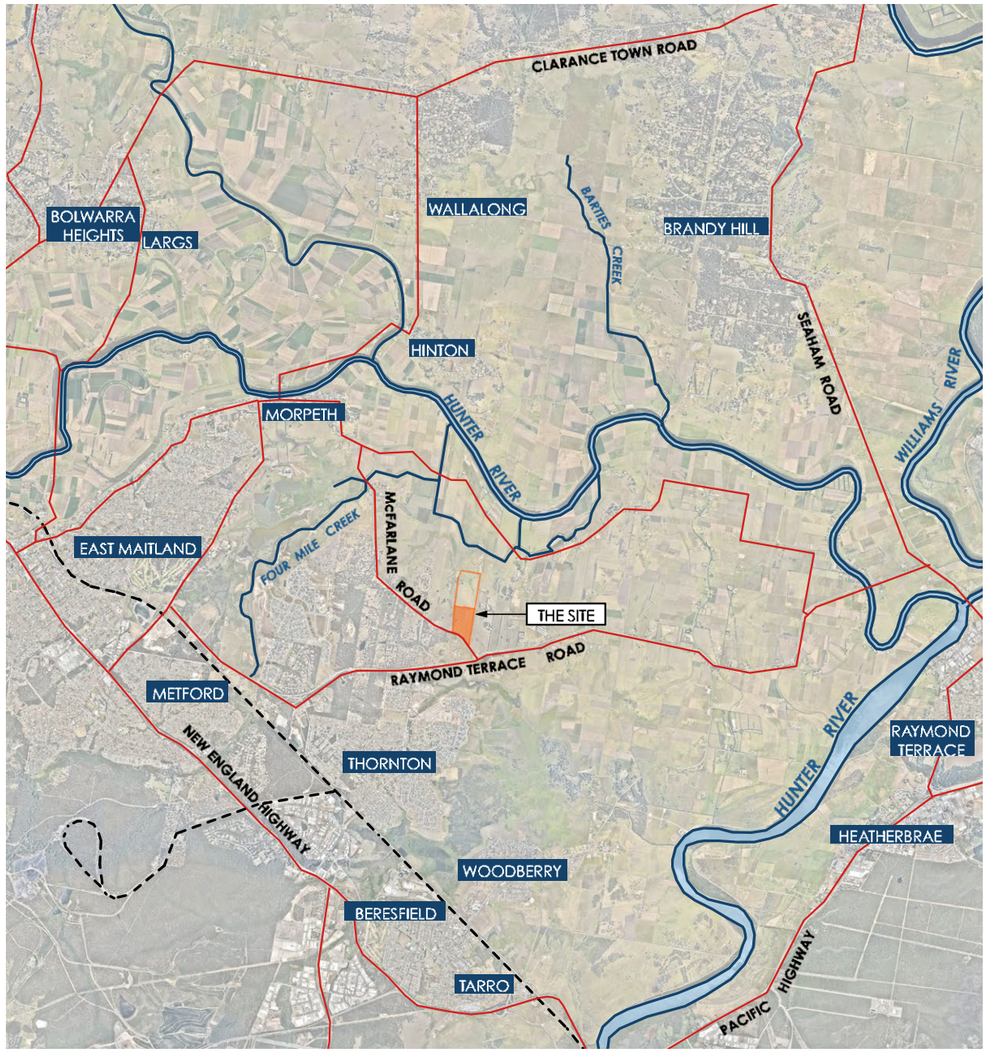
LANDSCAPE & VISUAL IMPACT ASSESSMENT



McFARLANES GARDENS PROPOSED RETIREMENT VILLAGE

McFarlanes Lane, Berry Park, NSW

Prepared for: Teakmil Pty Ltd

Project No: 1568 Issue: C Date: 26.04.2018

moir
landscape architecture

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1.0 Introduction

1.1 Background

Moir Landscape Architecture have been commissioned by Teakmil Pty Ltd to prepare a Landscape and Visual Impact Assessment (LVIA) for the proposed Mobile Home Retirement Village on land off McFarlanes Lane, Berry Park (Refer to Figure 4). The LVIA will support an application for a Site Compatability Certificate.
As cadastral information has little influence in defining visual catchments this assessment aims to identify the landscape character and dominant features of the relevant visual catchments that the site lies within. The purpose of this report is to provide a qualitative and quantitative assessment of the visibility and potential visual impacts of the proposal.

Survey work was undertaken during January 2018 using key viewpoints and locations with potential views towards the site. The report details the results of the field work, documents the assessment of the landscape character and visual setting, and assesses potential visual impacts associated with the proposed subdivision.

The report also provides detailed recommendations for the mitigation of determined impacts. This information is provided to assist Maitland City Council in understanding the likely impacts and how they may be managed to ensure that the positive character elements of the immediate area and surrounding visual landscape are not overly eroded or diminished.

2.0 Study Method

2.1 Landscape and Visual Impact Assessment (LVIA)

A LVIA is used to identify and determine the value, significance and sensitivity of a landscape. The method applied to this study involved systematically evaluating the visual environment pertaining to the site and using value judgements based on community responses to scenery. The assessment was undertaken in stages as noted below:

The process involves:

- Classification of the landscape into different character types and a description of those types. These are referred to as Landscape Character Units (LCU).
- Objective assessment of the relative aesthetic value of the landscape, defined as visual quality and expressed as high, medium or low. This assessment generally relates to variety, uniqueness, prominence and naturalness of the landform, vegetation and water forms within each character type or LCU.
- Determination of the landscapes ability to absorb different types of development on the basis of physical and environmental character.
- An assessment of viewer sensitivity to change. This includes how different groups of people view the landscape (for example, a resident as opposed to a tourist), and how many people are viewing and from how far.
- The undertaking of a viewpoint analysis to identify areas likely to be affected by development of the site and a photographic survey using a digital camera and a handheld GPS unit to record position and altitude.
- An assessment of visual impacts and the preparation of recommendations for impact mitigation. Suggestions are made for suitable development patterns that would maintain the areas visual quality.

The purpose of the above methodology is reduce the amount of subjectivity entering into visual impact assessment and to provide sufficient data to allow for third party verification of results.

The second stage of the assessment involves a quantitative approach. The quantification of the visual impacts is defined by methods including:

- View shed analysis to determine visibility of the proposal.
- Preparation of photomontages depicting the proposal and recommended mitigation measures.

2.2 Definitions

Definitions for terms used throughout the VIA have been included in this section of the report.

2.2.1 Landscape Values

Landscape values are the cultural attributes (social, indigenous, artistic and environmental) as well as the aesthetics of a place, as shown in figure 1.

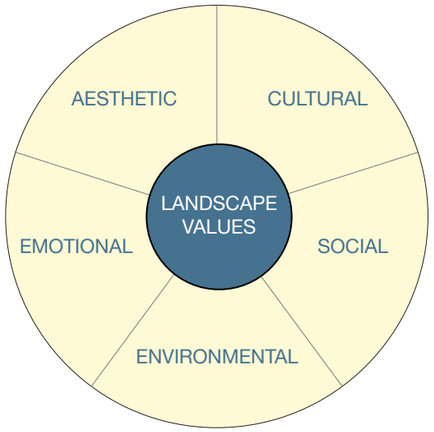


Figure 1: Landscape Values.

2.2.2 Visual Quality

Visual quality of an area is essentially an assessment of how viewers may respond to designated scenery. Scenes of high visual quality are those which are valued by a community for the enjoyment and improved amenity they can create. Conversely, scenes of low visual quality are of little value to the community with a preference that they be changed and improved, often through the introduction of landscape treatments.

As visual quality relates to aesthetics its assessment is largely subjective. There is evidence to suggest that certain landscapes are constantly preferred over others with preferences related to the presence or absence of certain elements. The rating of visual quality for this study has been based on scenic quality ratings and on the following generally accepted assumptions arising from scientific research (DOP, 1988):

- Visual quality increases as relative relief and topographic ruggedness increases;
- visual quality increases as vegetation pattern variations increase;
- visual quality increases due to the presence of natural and/or agricultural landscapes;
- visual quality increases owing to the presence of water forms (without becoming too common) and related to water quality and associated activity; and
- visual quality increases with increases in land use compatibility.

2.0 Study Method (contd.)

In addition to the above, cultural items may also endow a distinct character to an area and therefore contribute to its visual quality due to nostalgic associations and the desire to preserve items of heritage significance.

2.2.3 Visual Sensitivity

Visual sensitivity is a measure of how critically a change to the existing landscape is viewed by people from different areas. The assessment is based on the number of people affected, land use, and the distance of the viewer from the proposal. (EDAW, 2000).

For example, a significant change that is not frequently seen may result in a low visual sensitivity although its impact on a landscape may be high. Generally the following principles apply:

- Visual sensitivity decreases as the viewer distance increases;
- visual sensitivity decreases as the viewing time decreases; and
- visual sensitivity can also be related to viewer activity (eg. a person viewing an affected site whilst engaged in recreational activities will be more strongly affected by change than someone passing a scene in a car travelling to a desired destination).

Sensitivity ratings are defined as high, moderate or low and are shown in the table below (URBIS, 2009).

VISUAL SENSITIVITY					
VISUAL USE AREA	FOREGROUND		MIDDLEGROUND		BACKGROUND
	Local setting		Sub-Regional setting		Regional setting
	0-1	1-2km	2-4.5	4.5-7	> 7kms
Townships	High	High	High	Mod	Low
Residences	High	High	High	Mod	Low
Main Highway	Mod	Mod	Low	Low	Low
Local Roads	Mod	Mod	Low	Low	Low
Railway Line (Freight)	Low	Low	Low	Low	Low
Agricultural Land	Low	Low	Low	Low	Low

Table 1: Visual Sensitivity Table.

2.2.4 Visual Effect

Visual effect is the interaction between a proposal and the existing visual environment. It is often expressed as the level of visual contrast of the proposal against its setting or background in which it is viewed.

Low visual effect: occurs when a proposal blends in with its existing viewed landscape due to a high level of integration of one or several of the following: form, shape, pattern, line, texture or colour. It can also result from the use of effective screening often using a combination of landform and landscaping.

Moderate visual effect: occurs where a proposal is visible and contrasts with its viewed landscape however, there has been some degree of integration (eg. good siting principles employed, retention of significant existing vegetation, provision of screen landscaping, appropriate colour selection and/or suitably scaled development).

High visual effect: results when a proposal has a high visual contrast to the surrounding landscape with little or no natural screening or integration created by vegetation or topography.

2.2.5 Visual Impact

Visual impact is the combined effect of visual sensitivity and visual effect. Various combinations of visual sensitivity and visual effect will result in high, moderate and low overall visual impacts as suggested in the below table (URBIS, 2009).

VISUAL IMPACT				
		VISUAL EFFECT ZONES		
		HIGH	MODERATE	LOW
VISUAL SENSITIVITY LEVELS	HIGH	High Impact	High Impact	Moderate Impact
	MODERATE	High Impact	Moderate Impact	Low Impact
	LOW	Moderate Impact	Low Impact	Low Impact

Table 2: Visual Impact Table.

2.0 Study Method (contd.)

2.2.6 Visual Absorption Capability

Visual Absorption Capability (VAC) is used to assess the landscapes susceptibility to visual change caused by human activities. A landscape with a high VAC would be able to accept alterations caused by human alteration with little or no loss to the landscape character or visual condition.

3.0 Regional and Site Context

3.1 Regional Context

The proposed development site is located within Maitland City Council (MCC) Local Government Area (LGA), to the north west of Newcastle and within the Hunter Region.

The visual setting of the Maitland City area is strongly defined by dense urban streetscapes shifting to rural land use characterised by low open pastures interspersed with pockets of native vegetation on surrounding low ranges. The majority of the LGA has been cleared of native vegetation. The lack of native vegetation is a direct result of the historical development of the city including land clearing for timber, mining and urban development. Fertile floodplains were suitable for cropping and grazing. To a lesser extent woodland on higher land continues to be cleared as a result of pressures from residential and light industrial land uses. Primary agricultural activities include cropping, limited dairying, beef cattle grazing and turf farming (Hill, 2003).

Within the LGA there exists a variety of landscape types including highly scenic rural and natural landscapes, heritage streetscapes, established and new residential, commercial and industrial areas. Expanding residential and commercial markets are generating a significant change in visual character with residential housing developments beginning to proliferate where rural land use previously dominated.

Due to the relatively flat topography of Maitland and it's immediate surrounds, opportunities for views out of the urban areas towards the surrounding rural lands are limited and occur predominantly along the residential edges and the New England Highway corridor. As the city has developed on pockets of naturally and artificially elevated land, extensive corridors and tracts of floodplain remain, separating established and developing residential areas.

According to the Maitland Urban Settlement Strategy (2006) 'the results of this geographical setting is a large number of urban areas with their own unique character and identity which together form the city of Maitland and a rural character of a very high quality. This character and identity must be carefully considered in planning for the future'.

3.2 Local Setting

The site is located in the eastern extents of the LGA in relative close proximity to neighbouring LGA boundaries of Port Stephens (to the north) and Newcastle (to the east). The surrounding area of eastern Maitland (including Thornton North, Berry Park, Duckenfield, Tenambit, Morpeth and fringe areas of East Maitland) is a mixture of old and new land uses with rural holdings, established and new residential. The area is experiencing continued rapid development, primarily the expansion of existing residential areas on former rural land and associated transport and service infrastructure.

Figure 2: Regional Context.

3.0 Regional and Site Context (contd.)

The majority of the low lying land associated with the floodplain has been cleared for agricultural purposes. Irrigated croplands and improved pastures are concentrated on the flatter areas and generally existing trees and bushland occurring on the higher land and ridgelines. The floodplain to the north, including the Hunter River and agricultural land forms the dominant visual feature and land use in the immediate area, viewed against a backdrop of the Barrington Tops in the distance.

3.3 Site Description

The subject land, referred to as 'the site', occupies a parcel of rectangular shaped land off McFarlanes Road in Berry Park. The site has a lineal shape with its north south boundaries significantly longer than its east west boundaries. The primary orientation of the site is north to south.

With reference to MCC Local Environment Plan (LEP) 2011, the site is zoned as RU1 Primary Production. Access to the site is currently via McFarlanes Road to the site's south.

The site is bordered by rural landscape to the immediate east and west and wetlands to the north. R1 General Residential land is located to the south, between McFarlanes Road and Raymond Terrace Road.

The site's northern point faces an area of low-lying marsh land, agricultural land and a natural depression. Further north is the town of Hinton and the Hunter River. Topography of the site is gently undulating, falling generally to the north and towards the Hunter River. A majority of the site has been cleared of trees. Remnant trees occur to the north of the site, near a natural waterbody.

A flora survey has not been prepared for the site, however disturbed vegetation remnants identified in adjoining areas included Lower Hunter Spotted Gum Ironbark Forest and Hunter Lowlands Red Gum Moist Forest (Bell, 2003).

Dominant tree species in the Lower Hunter Spotted Gum Ironbark Forest include Spotted Gum (*Corymbia maculata*) and Broad Leaved Ironbark (*Eucalyptus fibrosa*). Hunter Lowlands Red Gum Moist Forest is typified by Forest Red Gum (*Eucalyptus tereticornis*), Narrow Leaved Ironbark (*Eucalyptus crebra*) and Cheese Tree (*Glochidion ferdinandii*).

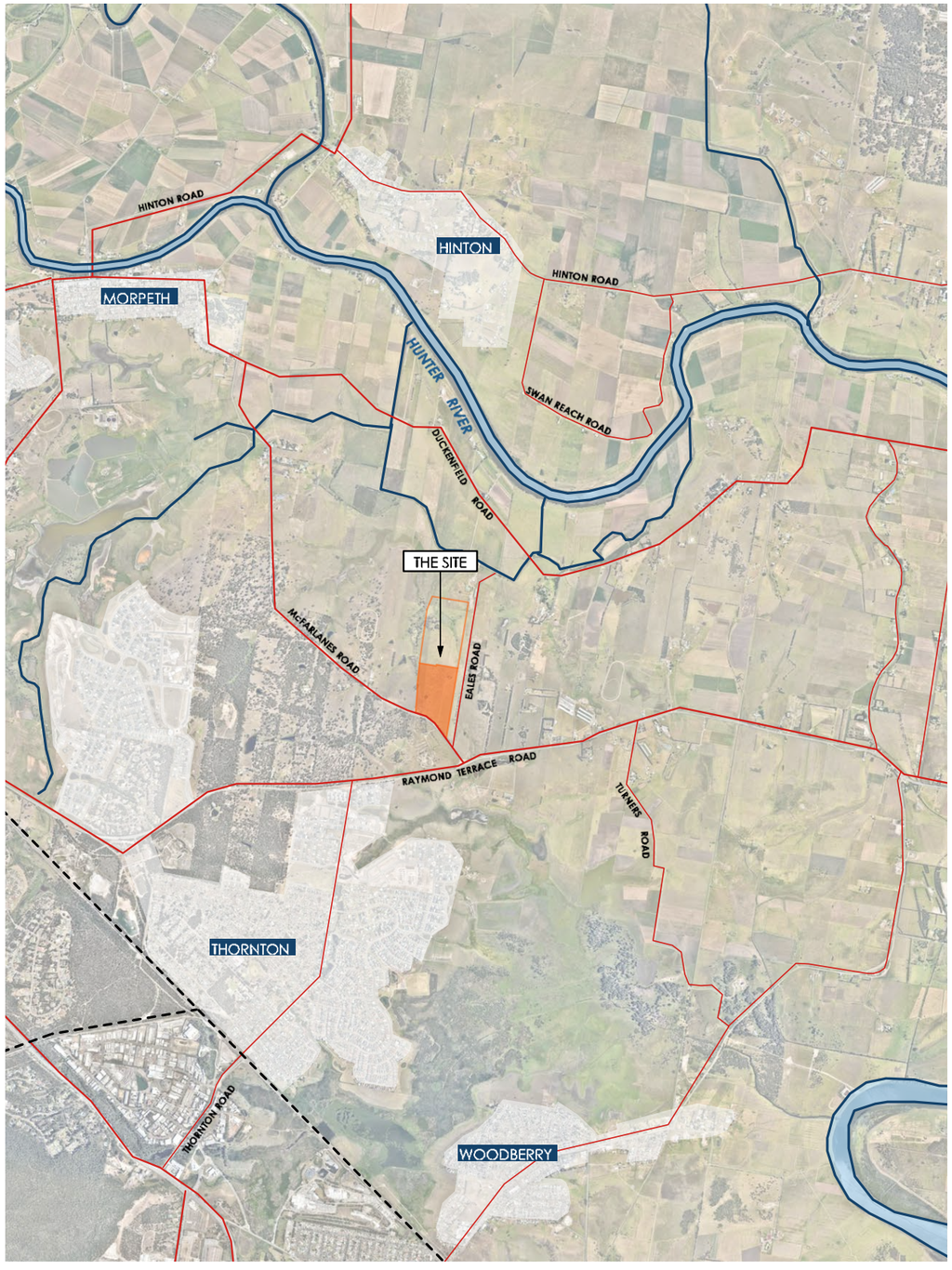


Figure 3: Proposal Site Locality Plan

4.0 Existing Landscape Character

4.1 Existing Visual Character

Visual catchments are areas of land that are usually defined by major ridgelines and vegetation that prevent views beyond. The extent of visual catchments are also largely determined by the location and elevation of the viewpoint. For the purpose of this report the extents of the Visual Catchment are defined by the available views from McFarlanes Road, Duckenfield Road and south of Hinton.

The subject site falls into a visual catchment which is dominated by the cleared expanse of the floodplain and defined most strongly by ridgeline to the south (which in part follows the alignment of McFarlanes Road) and to the north by distant mountain ranges associated with the Barrington Tops. Views to the south are limited, however views to the north extend for several kilometres.

The landscape character of the setting is dominated by the cleared flat pasture of the floodplain dotted with rural homesteads, large sheds and outbuildings and scattered groups of trees.

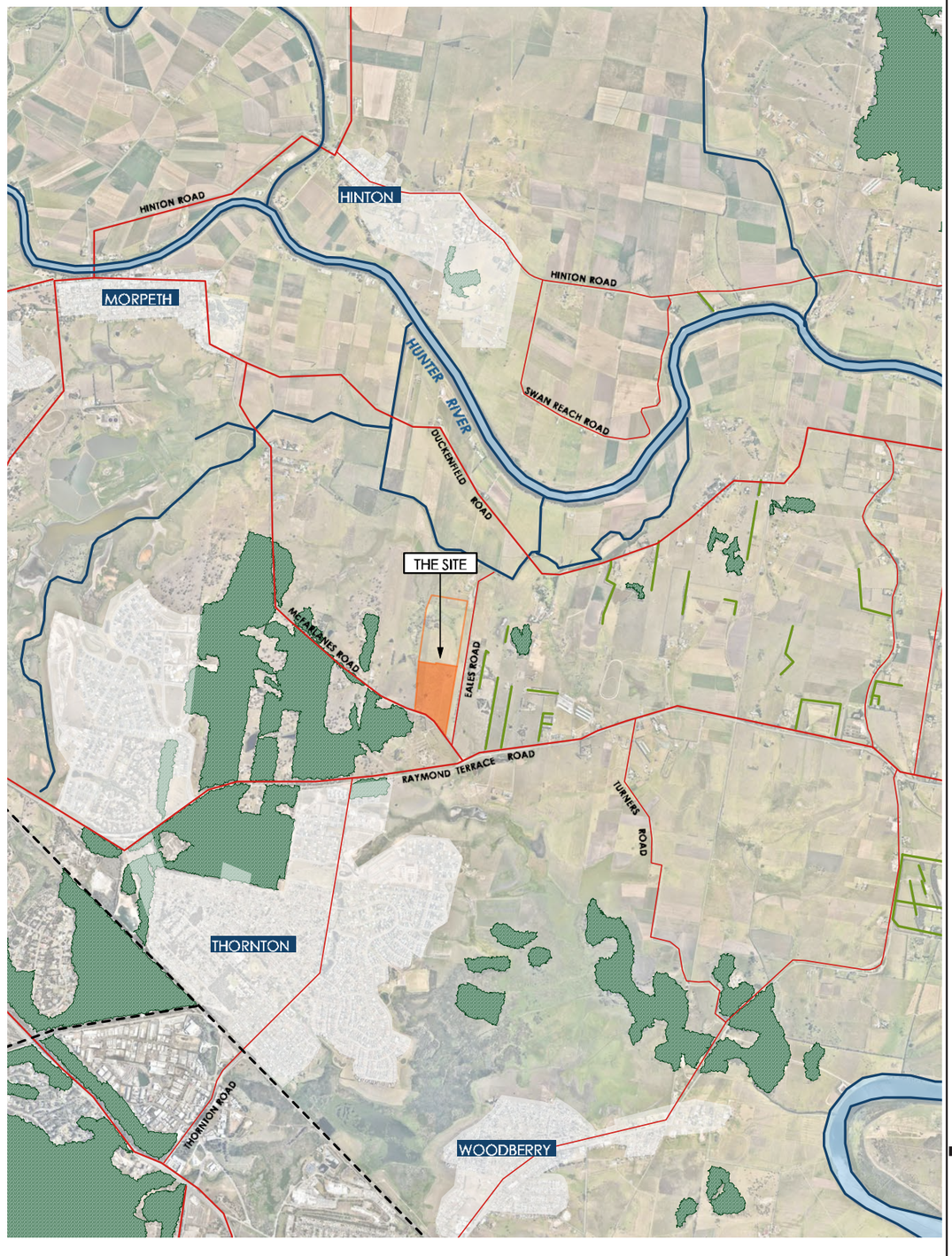


Figure 4: Zoning & Visual Analysis

4.0 Existing Landscape Character

4.2 Landscape Character Units

Generally one of the first steps in carrying out a landscape and visual assessment is to identify and map the landscape character of the surrounding area.

The landscape character of a site refers to the distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and how this is perceived by people. It reflects a particular combination of geology, landform, soils, vegetation, land use and human settlement and creates a particular sense of place for different areas within the landscape. (Horner and Maclennan et al, 2006).

The existing landscape context of the site and its surrounding environment are classified into distinct and relatively homogenous units of landscape character. These Landscape Character Units (LCU) are summarised below and form the elements of the local visual context hence their quality also reflects to a degree its visual amenity.

The LCUs and elements for the purpose of this report have been defined as:

- LCU01: Western Floodplain
- LCU02: Northern Floodplain
- LCU03: Thornton North
- LCU04: Duckenfield
- LCU05: Southern Floodplain

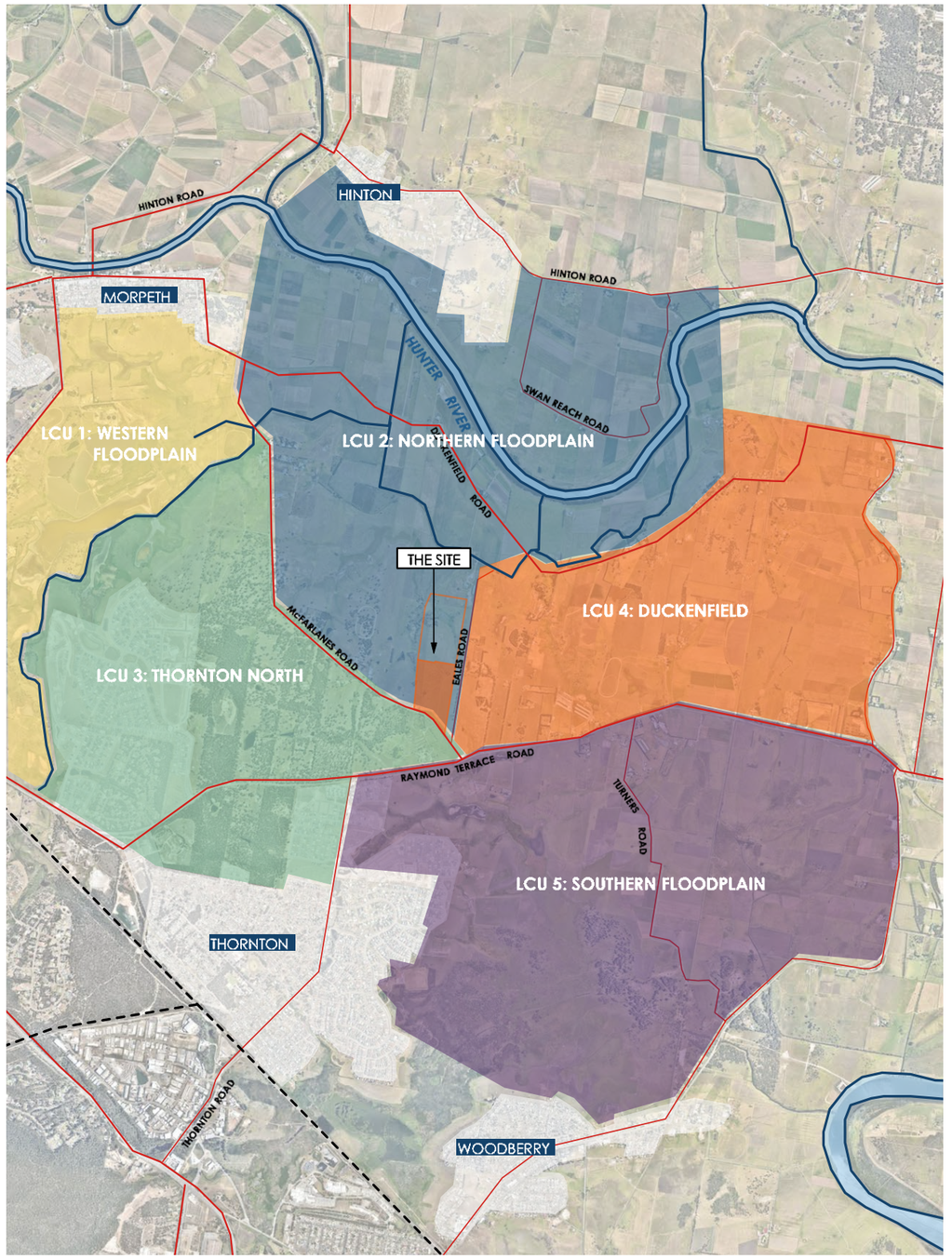


Figure 5: Landscape Character Units

4.0 Existing Landscape Character

4.3 Overview of Landscape Character Units

4.3.1 LCU01: WESTERN FLOODPLAIN

For the purposes of this report the Western Floodplain encompasses land west of Thornton North extending to Metford Road. The site is not visible from this LCU nor is The LCU visible from the site. The Western Floodplain supports a number of land uses and activities including an expansive wetland area associated with Four Mile Creek, grazing land, open space, playing fields, rural residential and Morpeth Waste Water Treatment Plant. Maitland Golf Course, established and expanding residential areas associated with Raworth and Tenambit are located immediately west of Metford Road.

4.3.2 LCU02: NORTHERN FLOODPLAIN

The northern floodplain encompasses low lying land north of McFarlanes Road, including the Hunter River and extending northwards to the low rises of Hinton and Hinton Road. Expansive views to the distant ranges of The Barrington Tops are available.

4.3.3 LCU03: THORNTON NORTH

The area identified as Thornton North is located on vegetated and cleared land north of the established areas of Thornton, east of Tenambit Wetlands and west of McFarlanes Road. The area comprises farming land, clay mining, bushland, a rural residential estate and the first stages of new residential estates.

The land has been identified in the Thornton North Master Plan and is referred to as the Thornton North Urban Release Area (URA). The eventual development of this areas which will result in an influx of new housing and associated infrastructure, primarily located on the elevated land and slopes within the core of the URA. It is anticipated the area will house in the vicinity of 9,500 people.

4.3.4 LCU04: DUCKENFIELD

Duckenfield Road is a minor road providing a connection between Duckenfield and Morpeth. It traverses the floodplain providing access to a number of homesteads and properties. Due to the flat topography of the area views across the floodplain are obscured by slight rises or intervening elements in the landscape such as trees or buildings.

Duckenfield is a small rural settlement on the eastern extents of the Maitland LGA. The area is characterised by older style houses or large residential blocks with established gardens. The majority of the residences are accessed via Duckenfield Road.

4.0 Existing Landscape Character

4.3.5 LCU05: SOUTHERN FLOODPLAIN

For the purposes of this report land identified as the 'Southern Floodplain' generally encompasses low lying land south of Raymond Terrace Road and west of the 'Sommerset Estate'. The land is primarily used for grazing with some areas utilised for cropping. The floodplain incorporates Woodberry Swamp and extends south to the suburb of Woodberry. The establishment of existing and future urban growth bordering the Southern Floodplain is directly influenced by the extent of flood impact.

4.4 Overview of nearby towns

4.4.1 HINTON

Hinton has historical significance as a centre because of its location on the junction of the Hunter and Paterson Rivers. Hinton was one of the smaller river ports of the Lower Hunter, and outlet for farm produce. As a port, Morpeth always overshadowed Hinton. However as an intermediate village for travellers who had to cross the Hunter River to reach Maitland and Morpeth, Hinton was strategically placed to provide the services to complement the punt or ferry. Building of the bridges at Morpeth (c. 1898) and Hinton (c.1900) reduced the need for travellers to stop at Hinton, as they would have done in the days of the ferry crossing. (Cox, 2009)

The town is located in Port Stephens LGA. Visually, Hinton is a picturesque village which has retained many of its heritage buildings and infrastructure. Established residential areas occupy the higher land within the town. Expanding rural residential areas occur on elevated rural land. Being slightly elevated parts of the town have expansive views to distant ranges to the north and south.

4.0 Existing Landscape Character

4.4.2 MORPETH

Morpeth is located on the southern banks of the Hunter River and north west of the site. Morpeth has historical significance as a major port of the Hunter Valley and surrounding districts with European settlement dating from the early 1800s. At one point Morpeth was the largest River port in NSW. As a trading, cultural, commercial and religious centre much of the Hunter Valleys produce passed through its wharves en route to Newcastle and Sydney.

Morpeth retains much of its rich heritage and today is a popular tourist attraction. The settlement pattern of the town forms a grid layout. Views from the town are primarily to the north over the Hunter River from the commercial area of Swan Street.

4.4.3 THORNTON

Established residential areas of Thornton are expanding to the north as part of the vision for the area. The establishment of existing and future urban growth bordering the Southern Floodplain is directly influenced by the extent of flood impact.

4.5 Overview of nearby roads

4.5.1 MCFARLANES ROAD

McFarlanes Road is a local road providing a connection between Raymond Terrace Road and Morpeth. The road provides access to a number of small rural holdings and farm land. McFarlanes Road forms the eastern boundary of The Thornton North Urban Release Area and will overtime become increasingly important as the area is developed for housing. The visual character of the road is varied. At its southern end the road mostly follows the ridgeline with views restricted by established roadside vegetation. Further north the road merges into cleared open pasture with views across low-lying floodplain. McFarlanes and Duckenfield Roads converge to the north forming the western entry to historic Morpeth passing Morpeth Park, sports fields and Ray Lawler Reserve.

4.5.2 RAYMOND TERRACE ROAD

Raymond Terrace road is located on the southern side of the site and provides a connection between Maitland and Raymond Terrace. Views to the site from Raymond Terrace road occur briefly. The road traverses rural contryside with views over rural landscapes. Views are limited due to a combination of topography and existing development which adresses the road.

5.0 The Proposal

5.1 Proposed Development

It is proposed the site be developed as a Mobile Home Retirement Village of approximately 233 lots, proposed parks, communal areas and associated infrustructure and services.

The proposal is located just north of existing residential developments, and west of a proposed Retirement Village. The proposal consists of a single entry road off McFarlanes Road.

Areas of open space are to be retained on the site's boundaries to provide a degree of visual separation and reduce the dominance of the development within the predominantly rural setting. Opportunity for a well vegetated basin will occur in the south east corner, helping to screen views from Raymond Terrace Road. Extensive open space has been allocated within the internal road network, which will allow for native vegetation species to obscure the development.

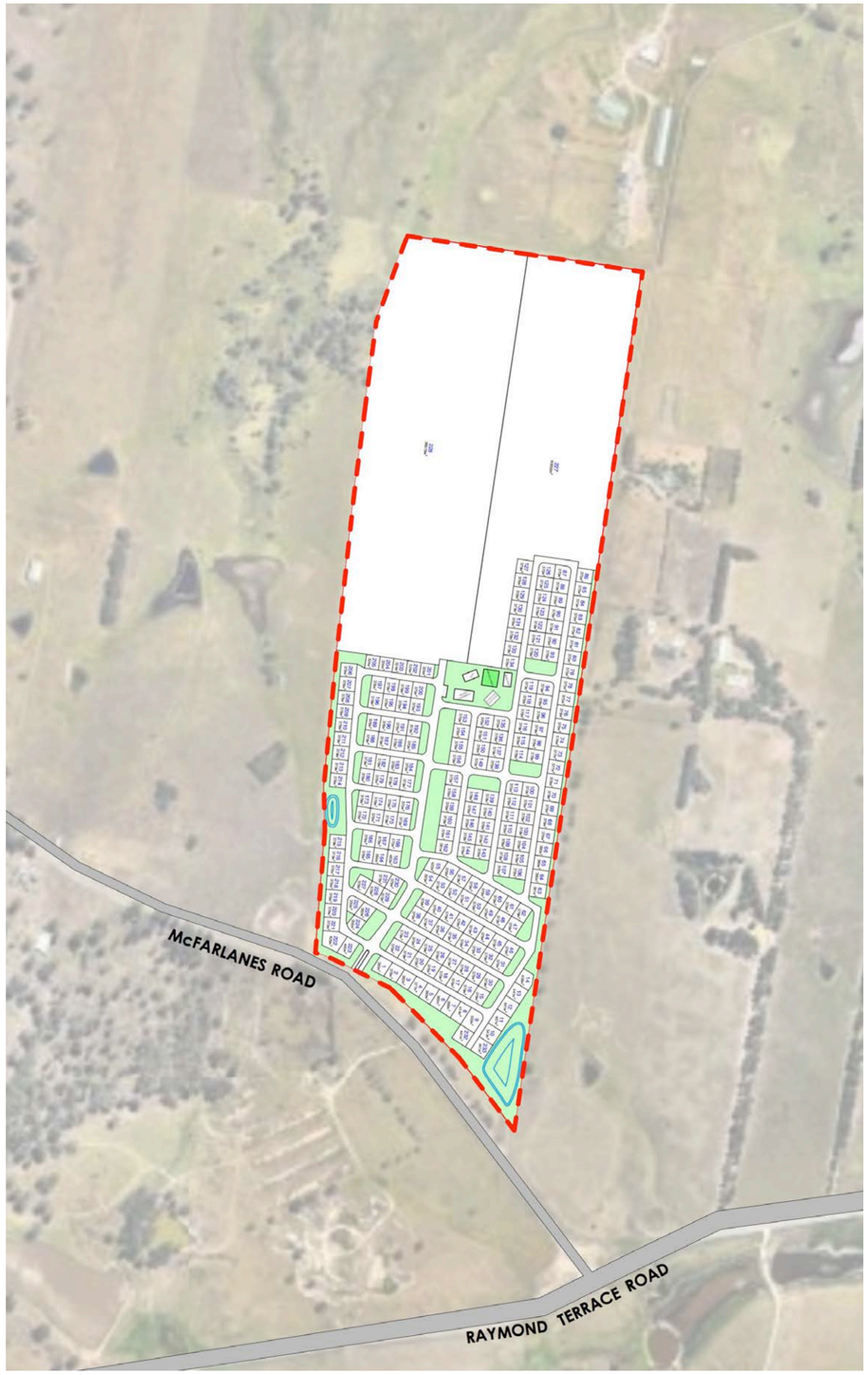


Figure 6: The Proposal

6.0 Viewpoint Analysis

6.1 Viewpoint Analysis

This part of the visual assessment considers the likely impact that development would have on the existing landscape character and visual amenity by selecting prominent sites, otherwise referred to as viewpoints.

6.1.1 Viewpoint Selection Process

Viewpoints are selected to illustrate a combination of the following:

- Present landscape character types.
- Areas of high landscape or scenic value.
- Visual composition (eg. focused or panoramic views, simple or complex landscape pattern).
- Range of distances.
- Varying aspects.
- Various elevations.
- Various extent of development visibility (full and partial visibility).
- Sequential along specific routes.

Viewpoints have been carefully selected to be representative of the range of views within the study area. The selection of viewpoints is informed by topographical maps, field work observations and other relevant influences such as access, landscape character and the popularity of vantage points.

A total of 10 viewpoints were taken as part of the field work process. These viewpoints were taken from publicly accessible roads surrounding the site. The viewpoints which have been included represent the areas from where the development would appear most prominent, either based on the degree of exposure or the number of people likely to be affected.

It is important to note that viewpoints for this study have been taken only from accessible public land.

6.1.2 Process of Viewpoint Analysis

Once the viewpoint had been selected, panoramic photographs were taken at eye level from the viewpoints towards The Site. Photographs were taken with a Canon 40D digital SLR through a 30mm fixed focal lens to best represent the human eye.

The visual impact of the viewpoint was then assessed both on site and with the topographic and aerial information to ensure accuracy. Viewpoint photographs and analysis is included the following pages. The findings of the viewpoint analysis have been quantified and are summarised in Table 3, p.26.

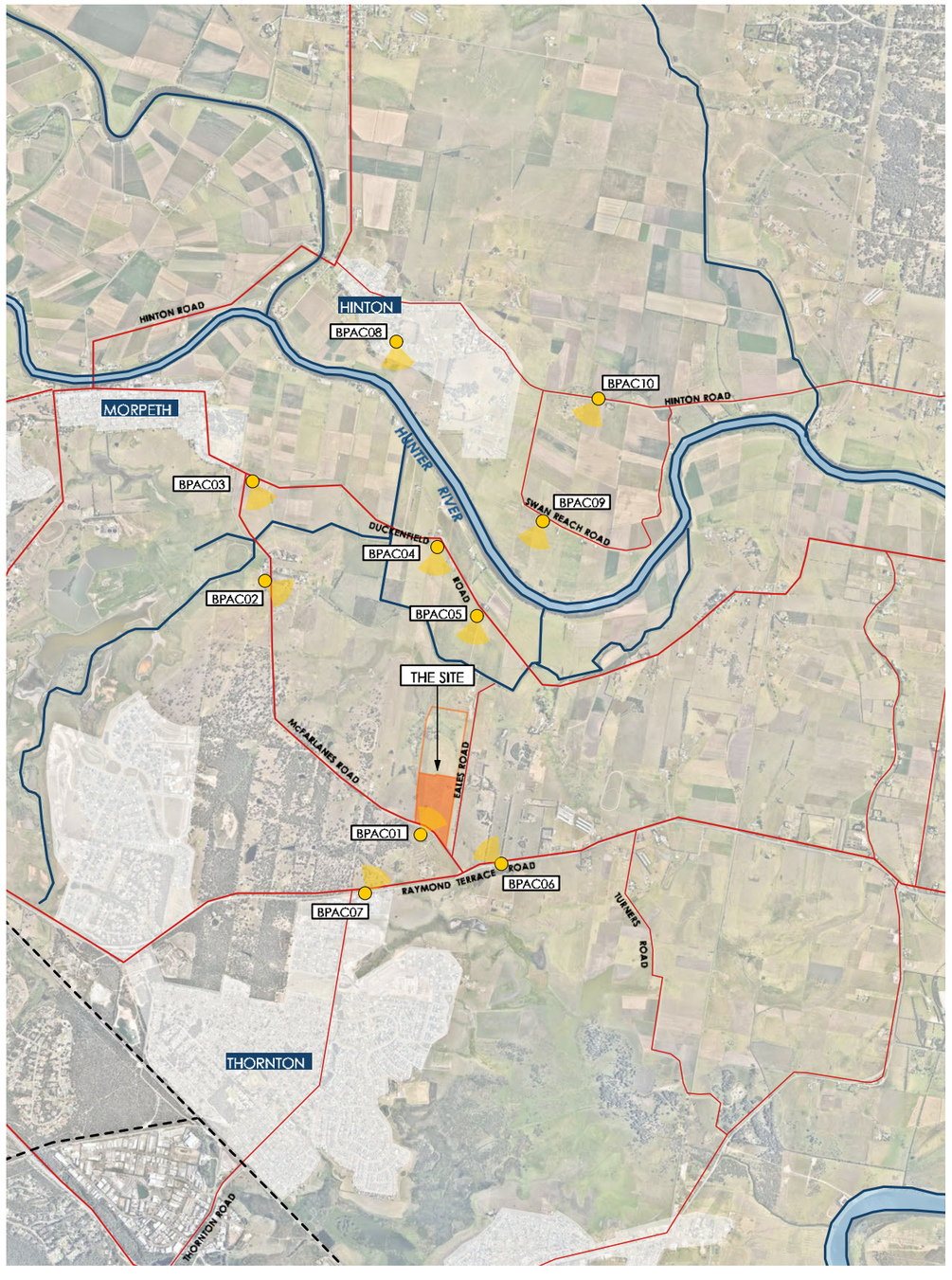


Figure 7: Viewpoint Assessment Locations

6.0 Viewpoint Analysis (contd.)

BPAC01- McFarlanes Road

Viewpoint BPAC01: McFarlanes Road

Photograph **zoomed and cropped** from Viewpoint BPAC01

VIEWPOINT BPAC01		LANDSCAPE DESCRIPTION:	POTENTIAL VISUAL IMPACT:
Location	McFarlanes Road	View from McFarlanes Road looking north-east directly towards the site location. The site features a crest near its center, with a minimal slope down towards the road. The larger portion of the site slopes down towards the north towards the floodplains and Hunter River. The eastern site boundary is lined with existing native tree species. Small clumps of native woodland occur towards the western extent.	From this viewpoint, the proposal would be clearly visible due to proximity to the road, the gradual slope towards the site's crest and limited existing screening vegetation. The visual effect from this viewpoint has been assessed as high and therefore the visual impact has been assessed as high.
Coordinates	32°45'30.25"S,151°39'26.03"E		
Elevation	25m		
Distance from Site	0km		
LCU	Northern Floodplain		
Land Use	RU1 Primary Production		
Potential Visual Impact	High		

6.0 Viewpoint Analysis (contd.)

BPAC02- Raymond Terrace Road

E

Viewpoint BPAC02: Raymond Terrace Road

SITE

Photograph **zoomed and cropped** from Viewpoint BPAC02

VIEWPOINT BPAC02		LANDSCAPE DESCRIPTION:	POTENTIAL VISUAL IMPACT:
Location	McFarlanes Road	View from McFarlanes Road looking east over the floodplains and rural land. The landscape gently undulates, interspersed with clumps of native vegetation, and man made dams. The floodplains are located in the midground of this viewpoint. The topography obscures all views to the site from this point.	From this viewpoint, the proposal would not be visible due to a combination of topography and vegetation.
Coordinates	32°44'31.13"S, 151°38'35.57"E		
Elevation	12m		
Distance from Site	2km		
LCU	Northern Floodplain		
Land Use	RU1 Primary Production		
Potential Visual Impact	Low		

6.0 Viewpoint Analysis (contd.)

BPAC03- Emperor Parade

Viewpoint BPAC03: Emperor Parade

Photograph **zoomed and cropped** from Viewpoint BPAC03

VIEWPOINT BPAC03		LANDSCAPE DESCRIPTION:	POTENTIAL VISUAL IMPACT:
Location	Cnr McFarlanes Rd and Duckenfield Rd	View from the corner of McFarlanes Road and Duckenfield Road, looking south-east towards the site location. The landscape is characterised by agricultural land, with gently undulating hills. Residential homes and agricultural sheds are evident on the horizon, interspersed with vegetation.	From this viewpoint, the proposal would be difficult to see due to distance, topography and vegetation.
Coordinates	32°43'51.35"S, 151°38'25.41"E		
Elevation	4m		
Distance from Site	3.5km		
LCU	Northern Floodplain		
Land Use	RU1 Primary Production		
Potential Visual Impact	Low		

6.0 Viewpoint Analysis (contd.)

BPAC04- McFarlanes Road

S

Viewpoint BPAC04: McFarlanes Road

SITE

Photograph **zoomed and cropped** from Viewpoint BPAC04

VIEWPOINT BPAC04		LANDSCAPE DESCRIPTION:	POTENTIAL VISUAL IMPACT:
Location	Duckenfield Road	View directly south from Duckenfield Road towards the site. The landscape is characterised by floodplains in the foreground and midground, with few clumps of vegetation. Beyond the floodplains, the landscape slopes upwards towards the site and McFarlanes Road.	From this viewpoint, the proposal would be readily visible due to the landscapes slope, and lack of vegetation.
Coordinates	32°44'10.14"S, 151°39'30.67"E		
Elevation	4m		
Distance from Site	2km		
LCU	Northern Floodplain		
Land Use	RU1 Primary Production		
Potential Visual Impact	Low		

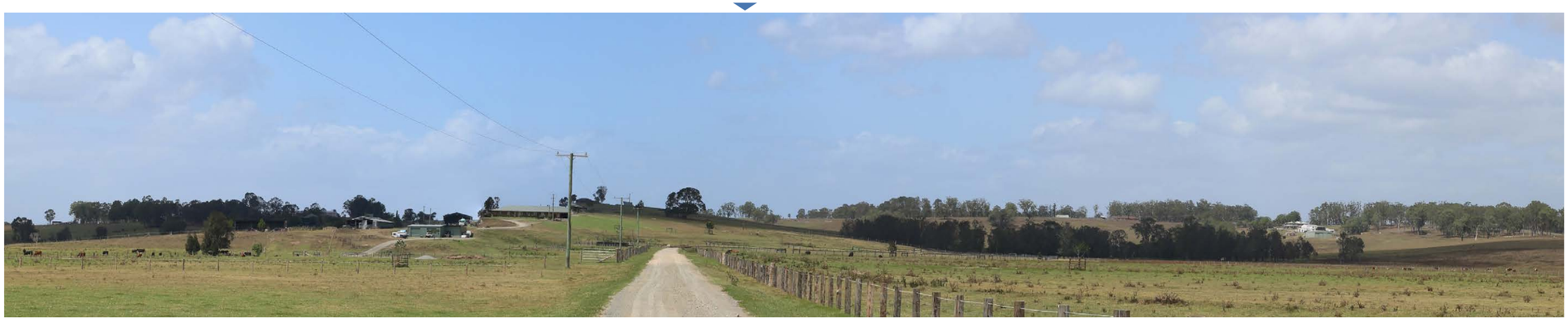
6.0 Viewpoint Analysis (contd.)

BPAC05- McFarlanes Road

S

Viewpoint BPAC05: McFarlanes Road

SITE



Photograph **zoomed and cropped** from Viewpoint BPAC05

VIEWPOINT BPAC05		LANDSCAPE DESCRIPTION:	POTENTIAL VISUAL IMPACT:
Location	Duckenfield Rd	View south from Duckenfield Road towards the site. The landscape is characterised by floodplains and agricultural land in the foreground and midground, with few clumps of vegetation. The landscape features undulating hills and larger groves of vegetation. The landscape in this viewpoint's background slopes upwards towards the site and McFarlanes Road.	From this viewpoint, the proposal would be partially visible. Due to the topography, a portion of the site will be screened from view.
Coordinates	32°44'29.61"S, 151°39'44.70"E		
Elevation	4m		
Distance from Site	1.5km		
LCU	Northern Floodplain		
Land Use	RU1 Primary Production		
Potential Visual Impact	Low		

6.0 Viewpoint Analysis (contd.)

BPAC06- McFarlanes Road

W

Viewpoint BPAC06: McFarlanes Road

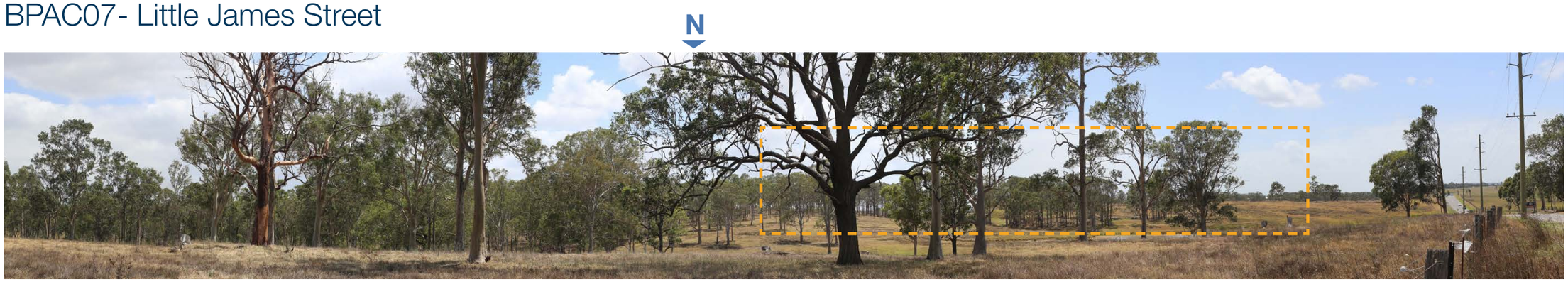
SITE

Photograph **zoomed and cropped** from Viewpoint BPAC06

VIEWPOINT BPAC06		LANDSCAPE DESCRIPTION:	POTENTIAL VISUAL IMPACT:
Location	Raymond Terrace Road	View northwest from Raymond Terrace Road towards the site. The landscape is characterised by open agricultural land, with some native vegetation. The landscape slopes gently west.	From this viewpoint, the proposal would be readily visible due to the landscapes slope, and lack of vegetative screening. Visibility may be minimised by the use of buffer planting along site's boundaries to screen direct views. The visual effect from this viewpoint has been assessed as high and therefore the visual impact has been assessed as high.
Coordinates	32°45'40.88"S, 151°39'47.42"E		
Elevation	2m		
Distance from Site	0.8km		
LCU	Duckenfield		
Land Use	RU1 Primary Production		
Potential Visual Impact	High		

6.0 Viewpoint Analysis (contd.)

BPAC07- Little James Street



Viewpoint BPAC07: Little James Street

Photograph **zoomed and cropped** from Viewpoint BPAC07

VIEWPOINT BPAC07		LANDSCAPE DESCRIPTION:	POTENTIAL VISUAL IMPACT:
Location	Raymond Terrace Rd	View north from Raymond Terrace Road towards the site. The landscape is characterised by remant bushland and undulating terrain. The horizon indicates the location of McFarlane's Road.	From this viewpoint, the proposal would be not be visible. Due to the topography and remnant bushland, the site will be screened from view.
Coordinates	32°45'46.87"S, 151°39'12.24"E		
Elevation	10m		
Distance from Site	1km		
LCU	Thornton North		
Land Use	RU1 Primary Production		
Potential Visual Impact	Low		

6.0 Viewpoint Analysis (contd.)

BPAC08- Metford Road

S

Viewpoint BPAC08: Metford Road

SITE

Photograph **zoomed and cropped** from Viewpoint BPAC08

VIEWPOINT BPAC08	
Location	Swan Street
Coordinates	32°43'15.80"S, 151°39'14.90"E
Elevation	22m
Distance from Site	4km
LCU	Northern Floodplain
Land Use	RU5 Village
Potential Visual Impact	Moderate

LANDSCAPE DESCRIPTION:

View south east from Swan Street, Hinton towards the site. The landscape is characterised by residential in the foreground before the topography falls towards the Hunter River and floodplains. Agricultural land occurs within the midground, with topography rising towards the site and McFarlanes Road in the background.

POTENTIAL VISUAL IMPACT:

From this viewpoint, the proposal would be partially visible due to the high elevetation of Hinton and McFarlanes Road. However, views are partially screened by residences and clumps of vegetation. Visibility may be further reduced by the use of buffer planting and a strong street tree network to help blend the site into the surrounding landscape.

6.0 Viewpoint Analysis (contd.)

BPAC08- Metford Road

S

Viewpoint BPAC08: Metford Road

SITE

Photograph **zoomed and cropped** from Viewpoint BPAC08

VIEWPOINT BPAC09		LANDSCAPE DESCRIPTION:	POTENTIAL VISUAL IMPACT:
Location	Swanreach Road	View south west from Swanreach Road, near Hinton towards the site. The landscape is characterised by floodplains in the foreground, with vegetation lining the Hunter River. Agricultural land occurs within the midground, with topography rising towards the site and McFarlanes Road in the background.	From this viewpoint, the proposal would be partially visible due to the high elevetation of McFarlanes Road along the horizon. However, views are partially screened by residences and clumps of vegetation. Visibility may be reduced further by the use of buffer planting and a strong street tree network to help blend the site into the surrounding landscape.
Coordinates	32°44’4.02”S, 151°40’3.78”E		
Elevation	4m		
Distance from Site	2.5km		
LCU	Northern Floodplain		
Land Use	RU5 Village		
Potential Visual Impact	Low		

6.0 Viewpoint Analysis (contd.)

BPAC08- Metford Road

S

Viewpoint BPAC08: Metford Road

SITE

Photograph **zoomed and cropped** from Viewpoint BPAC08

VIEWPOINT BPAC10		LANDSCAPE DESCRIPTION:	POTENTIAL VISUAL IMPACT:
Location	Swanreach Road	View south west from Hinton Road, near Hinton towards the site. The landscape is characterised by agricultural land in the foreground, with vegetation lining the Hunter River in the midground. Topography begins to rise towards the site and McFarlanes Road in the background.	From this viewpoint, the proposal would be partially visible due to the high elevetation of McFarlanes Road along the horizon. However, views are partially screened by residences and clumps of vegetation. The distance of this view from the site also further limits the visual impact. Visibility may be reduced further by the use of buffer planting and a strong street tree network to help blend the site into the surrounding landscape.
Coordinates	32°43'31.26"S, 151°40'18.49"E		
Elevation	3m		
Distance from Site	3.5km		
LCU	Northern Floodplain		
Land Use	RU5 Village		
Potential Visual Impact	Low		

6.0 Viewpoint Analysis (contd.)

6.2 Overview of Viewpoint Analysis

As discussed in the rationale for the viewpoint selection process, these viewpoints are representative of the worst case scenario. For each viewpoint, the potential visual impact was analysed through the use of a combination of topographic maps and on site analysis.

The visual sensitivity and visual effect of each viewpoint have been assessed which, when combined, result in an overall visual impact for the viewpoint (Refer to Table 3).

Of the 10 viewpoints assessed as part of this LVIA, the proposal would be visible from a total of 8 viewpoints. Of the 8 viewpoints from which the proposal would be visible, 6 of these have been assessed as having a low visual impact and 2 have been assessed as having a moderate visual impact.

Viewpoints have been further assessed in line with mitigation measures and a 'Resulting Visual Impact' has been provided. It is noted visual impacts associated with the proposed development are likely to be higher during the construction phases and mitigated over time with the implementation of measures to ultimately achieve a low or moderate visual impact level, compatible with the surrounding environment. The mitigation measures proposed in section 8.0 of this report seek to avoid, reduce and where possible remedy adverse effects on the environment arising from the proposed development.

VIEW-POINT	VISUAL SENSITIVITY	VISUAL EFFECT	POTENTIAL VISUAL IMPACT	POTENTIAL VISUAL IMPACT WITH MITIGATION MEASURES IMPLEMENTED
BPAC01	MODERATE	HIGH	HIGH	HIGH
BPAC02	LOW	NIL	NIL	NIL
BPAC03	LOW	MODERATE	LOW	LOW
BPAC04	LOW	MODERATE	LOW	LOW
BPAC05	LOW	MODERATE	LOW	LOW
BPAC06	MODERATE	HIGH	HIGH	HIGH
BPAC07	LOW	NIL	NIL	NIL
BPAC08	MODERATE	MODERATE	MODERATE	MODERATE
BPAC09	LOW	MODERATE	LOW	LOW
BPAC10	LOW	MODERATE	LOW	LOW

*Please note the Viewpoint Visibility Assessment Summary is based on the visibility assessment criteria outlined in Section 2.1 of this report.

Table 3: Viewpoint Visual Impact Summary

7.0 Visual Impact

7.1 Summary of Visual Impacts

In addition to the viewpoint assessment the following section provides an overview of the potential visibility from local and regional areas surrounding the site. This is by no means an exhaustive description of the visibility from every residence or locality. It is intended to provide an assessment of the potential visual impact on areas affected by the the proposal. Existing features of the landscape which contribute to the areas scenic value as well as landscape features that reduce scenic values are also discussed.

Overall, the proposed development of the site as a mobile home retirement village, in terms of landscape and scenic values, would result in impacts on the existing surrounding environment. The visual impacts associated with development will vary depending on the viewing location. The introduction of a mobile home retirement village into an area which is predominantly rural in character would result in changes to the existing visual environment. The potential visual impacts associated with the changes are discussed and assessed below.

The sites location, on the crest and northern slopes of a ridgeline means the most direct visual impact is from the north. Land to the far north of the site accommodates the residential properties of Hinton, which overlooks the floodplain and the proposed site. The proposal would be visible from select viewpoints particularly when traveling on McFarlanes Road and Metford Road. However, for the most part, views to the site are limited due to distance or being partly obscured by existing vegetation.

Due to the site's location and visibility from Hinton and portions of McFarlanes Road and Raymond Terrace Road, the proposal is likely to have a moderate impact on the rural character of the catchment.

The extent and size of the floodplain, provides a physical separation between the development and select vantage points to the north. The flood prone nature of this land ensures that the rural character should exist in perpetuity.

Generally, the site would not be visible from Hinton, with the exception of the southernmost streets and residents (ie Swan Street), where views over the existing rural and residential development are unobstructed.

Views from Duckenfield Road are frequent, as open fields limit opportunity for screening. However, distance, and intermittent residences and vegetation pockets limit views to the site.

An assessment of visual impact from private residences to the north, east and west of the site was not undertaken. However analysis of aerial photograph indicates that the majority of the houses in close proximity to the site have established landscape buffers around the dwellings or associated with property boundaries.

Mitigation measures outlined in section 8.0 of this report would lessen any visual impact and provide a sensitive transition with rural land and areas of proposed development.

8.0 Mitigation Methods

8.1 Mitigation Methods

These recommendations seek to achieve a better visual integration of the proposal and the existing visual character at both, local and regional scales. The mitigation measures attempt to lessen the visual impact of the proposed development whilst enhancing the visual character of the surrounding environment. They are made notwithstanding issues raised by other consultants. (e.g. traffic, engineering, heritage etc). A number of these recommendations have been discussed with the client and will be integrated into the design development.

Recommendations for mitigating this impact include:

- Provision of landscape buffers at the interface of the floodplain and proposed development areas. The provision of landscape vegetation within open space area and along higher, more visible parts of the site. Planting of large canopy trees and dense shrubs where applicable would assist in screening views and reduce the scale of the built form. Integration of landscape stormwater treatment ponds into these buffer zones adds to the visual quality of the catchment.

- Structural landscaping (Street tree planting) along perimeter roads and internal streets.

- The incorporation of vegetation endemic to the area will provide visual integration with surrounding bushland or pockets of native vegetation, in particular the large canopies which will have a positive impact in the broader view.

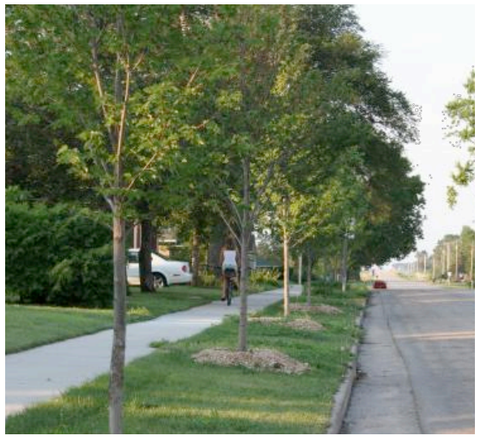
- Locally sourced native plant species, especially trees, should be utilised throughout the development. They help preserve the landscape character and scenic quality of the area as well as building habitat for local fauna. Native species are also well suited to local conditions (i.e. soil, climate, etc.) and will build on the existing vegetation assemblages in the area. Understorey planting will also contribute to the habitat values and screening potential of the proposed landscape works.

- Controls on the built form such as limited two storey development or designated ridge top open space areas.

- Consideration should be given to controlling the type and colour of building materials used especially with the use of light, highly reflective cladding, brick and tile materials which contrast dramatically with the surrounding landscape.

- Rural style perimeter fencing such as post and rail at the interface with rural land assists in providing a sensitive transition and integration with the rural character of the area.

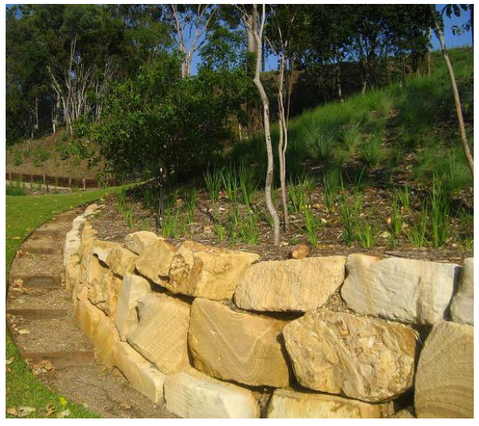
- This is by no means an exhaustive list however the adoption of these recommendations will assist considerably in ensuring that the proposal contributes positively to the visual quality and character of the visual catchment and the character of the Maitland LGA.



Native street tree species adjoining bushland.

Open style fencing.

A combination of canopy, mid-level and understorey planting in basins.



Use of natural materials where possible.

9.0 Conclusion

With the dramatic increase in development on former rural land the landscape character of regional Maitland is changing. The floodplain is not only a constraint to development, as it ensures that the rural character of the LGA as well as large tracts of fertile agricultural land are maintained. It is undeniable that development on land identified as the site would have impacts on the landscape character of the area. However, the impacts need to be considered in the context of land currently identified for residential development particularly adjoining land which forms part of the Thornton North URA.

With all visual impact assessments the objective is not to determine whether the proposed impact is visible or not visible, it is to determine how the proposal will impact on existing visual amenity, landscape character and scenic quality. If there is a potential for a negative impact on these factors it must then be investigated if and how this impact can be mitigated to the extent that the impact is reduced to an acceptable level.

Within the LGA there exist examples of development that contrast negatively with the desired rural character and developments that have been developed in a manner that ensure that the rural character of the floodplain is not eroded to the point where it is no longer the dominant character.

With the ongoing implementation of the Thornton North Master Plan there are changes to the character of the area as residential housing and associated infrastructure and services continue to be developed.

Effective master planning of an area should consider factors such as topography, hydrology, views to and from the site, existing vegetation, and existing settlement patterns to ensure the best possible outcome for the site not only in terms of visual amenity but also in terms of outcomes such as access, orientation, solar access, cut and fill, the provision of open space, tree planting etc.

It has been identified that the site is most visible from land to the north including parts of Duckenfeld and Hinton Roads, as well as some dwellings on elevated land north of the Hunter River. It has also been identified that the forested slopes south of the site form a visual backdrop to the study area. The protection and enhancement of horizon line is a key principle in maintaining visual amenity.

There is no doubt that the floodplain catchment is both visually sensitive and valuable in the broader context of the character of Maitland and there is the potential that further development on the fringe and within the floodplain could erode the quality and value of the rural floodplain character. How the edges of a development are treated is important to ensure the a sensitive transition is achieved between the built form and retained agricultural land.

Mitigation measures such as landscaped transition zones, ridgeline protection, and a masterplanned layout to allow for supplementary tree planting would greatly reduce the visual impact associated with development of the site and provide a sensitive transition with rural land and areas of proposed development. Implementation of mitigation measures would achieve a better visual integration of the proposal at both a local and regional scale.

In conclusion it is the finding of this report that development of the site as a retirement village is achievable without negatively impacting on the visual amenity, landscape character and scenic quality of the floodplain visual catchment. (ie. soil, climate, etc.). Understorey planting will also contribute to the habitat values and screening potential of the proposed landscape works.

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