STATEMENT OF ENVIRONMENTAL EFFECTS

Subdivision of Lots 1 and 2 DP 1299958 to create 138 residential lots, two drainage reserves, associated clearing, road and infrastructure works, including subdivision of Lot 2 DP 1214402

Monteath & Powys

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M & P

Our Ref:	20220064
Project	Subdivision of Lots 1 and 2 DP 1299958 to create 138 residential lots, two drainage reserves, associated clearing, road and infrastructure works, including subdivision of Lot 2 DP 1214402
Client	Trustees of the Roman Catholic Church for the Diocese of Maitland-Newcastle
Author	Leena Sebastion Senior Planner B.Tech Architecture M. Town and Country Planning
Certification	*I hereby certify that this Statement of Environmental Effects has been prepared in accordance with the requirement of the Environmental Planning & Assessment Act 1979 and its associated Regulations. I certify that to the best of my knowledge the information contained within this report is neither false nor misleading.*
Signature	
Reviewer	Meeka Prince Senior Planner B. Social Science M. Urban and Regional Planning MPIA
Signature	

This report was prepared by Monteath & Powys Pty Ltd.

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1. INTRODUCTION

Monteath & Powys Pty Ltd has been engaged by *The Trustees of the Roman Catholic Church for the Diocese of Maitland-Newcastle* (the Diocese*)* to prepare a Statement of Environmental Effects (SoEE) to accompany a Development Application (DA) for subdivision of Lots 1 and 2 DP 1299958, located as 20 and 20A Cantwell Road, Lochinvar (the subject site), associated clearing, road and infrastructure works, including subdivision of Lot 2 DP 1214402. Minor boundary adjustment to adjoining property, Lot 2 DP1214402, at 60 New England Highway, Lochinvar is included in the application to enable the road widening required for the development.

The subject site is located within Lochinvar Urban Release Area to the north of New England Highway. The proposed development involves subdivision of the subject site to create 138 residential lots, associated clearing and road and infrastructure works. The road upgrade proposed as part of the development will require subdivision for the purpose of realigning parts of the western and southern boundaries of the adjoining Lot 2 DP 1214402.

This SOEE has been prepared in with accordance with the *Environmental Planning and Assessment Act 1979* (EP&A Act), with due consideration to the requirements in relevant statutory and non-statutory planning instruments. It identifies the site's constraints and opportunities and provides an assessment of the proposal in accordance with Section 4.15(1) of the EP&A Act). The application is informed by a suite of specialist studies to identify the potential impacts and include mitigation measures where required, to ensure the development is capable of operating with minimal environmental impacts.

Residential subdivision is permissible with consent in the site's R1 General Residential zone, and the proposed lot sizes comply with the minimum requirement in *Maitland Local Environmental Plan 2011* (the LEP). The proposal includes regeneration of the degraded watercourse on the site to enhance the ecological values of the environmental conservation zoned land on the site. Approximately 2.33 hectares of land will be vegetated and maintained as a self-sustaining ecosystem as part of the development.

The proposal is an integrated development application requiring approval from other Stage agencies under the following Acts:

- Section 91 of the Water Management Act 2000 for works within 40m of a natural watercourse
- Sections 201 and 219 of the Fisheries Management Act Fisheries Act for works within the creek
- Section 100B of Rural Fires Act for residential subdivision on bushfire prone land
- Section 138 of the Roads Act for works on a classified road

A comprehensive assessment of the proposal has determined that the site is suitable for the proposed subdivision and can operate with minimal environmental impact. In general, the proposal demonstrates a good planning outcome contributing to the housing supply in the Local Government Area while regenerating the degraded riparian environment on the site. The proposal is sympathetic to the local context and integrates the development with the future developments to the east of the site as envisaged in the structure plan for the Lochinvar Urban Release Area (URA).

1.1 OWNER AND SITE DETAILS

The Applicant:

Trustees of the Roman Catholic Church for the Diocese of Maitland-Newcastle (the Diocese)
C/- Monteath & Powys Pty Ltd
PO Box 2270
DANGAR NSW 2309

Contact:

Meeka Prince
Phone: 02 4926 1388
Mobile: 0459 213 799

The Site:

The subject site is legally identified as Lots 1 and 2 in DP 1299958, known as 20 & 20 A Cantwell Road, Lochinvar. The proposed road widening will include Lot 2 DP1214402, identified as 60 New England Highway, Lochinvar.

The Owner(s):

The Diocese owns Lots 1 and 2 DP 1299958 (20 & 20 A Cantwell Road, Lochinvar).
The Trustee of Church Property for the Diocese of Newcastle owns Lot 2 DP 1214402 (60 new England Highway Lochinvar).

Maitland City Council has provided owner's consent for the proposed road works on the unformed road reserve along the northern boundary of the site.

2. PROJECT DETAILS

2.1 LOCATION AND CONTEXT

The subject site comprises two vacant parcels of residential land with a combined area of approximately 14.6 hectares in Lochinvar Urban Release Area (URA), refer **Figure 1**. The land has been cleared and largely used for pastoral activities since 1970s. Access to the site is via Cantwell Road, a partially formed two-way road servicing a small cluster of properties to the north of New England Highway.

A key physical feature on the subject site is an unnamed tributary of Lochinvar Creek which traverses the land in a north-south direction, refer **Figure 2**. The property remains as an open grassland with no substantive vegetation cover except for the predominantly exotic sedges along the watercourse and small patches of native vegetation.

The subject site and broader areas are zoned R1 General Residential, with a corridor of C3 Environmental Management zone along the watercourse. The northern boundary of the site abuts an unformed 20.11m wide Crown Road reserve. **Figure 3** and **4** shows the zoning context and site details respectively.

Adjoining uses include Holy Trinity Church, and St Joseph's College to the south, and vacant residential parcels to the east and north. A development application (DA/2023/415) for subdivision on adjoining residential zoned land to the east by CPG Estates is currently under assessment by Council (hereafter referenced as CPG development).

To the west of the site, across Cantwell Road are larger rural residential properties. Located to the south of the site are two items of heritage significance, being the Victoria House and the Holy Trinity Anglican Church (refer Section 5.8).

The site has good access to amenities and services. Maitland Town Centre is approximately 9.5 km to the southeast, while the local centre of Rutherford is within 7 km. Lochinvar train station is located approximately 2.6 km to the south and the closest bus stop is located in front of St Josephs' College on New England Highway. Additionally, schools, early education centres, and sporting fields are all within the immediate vicinity of the site.

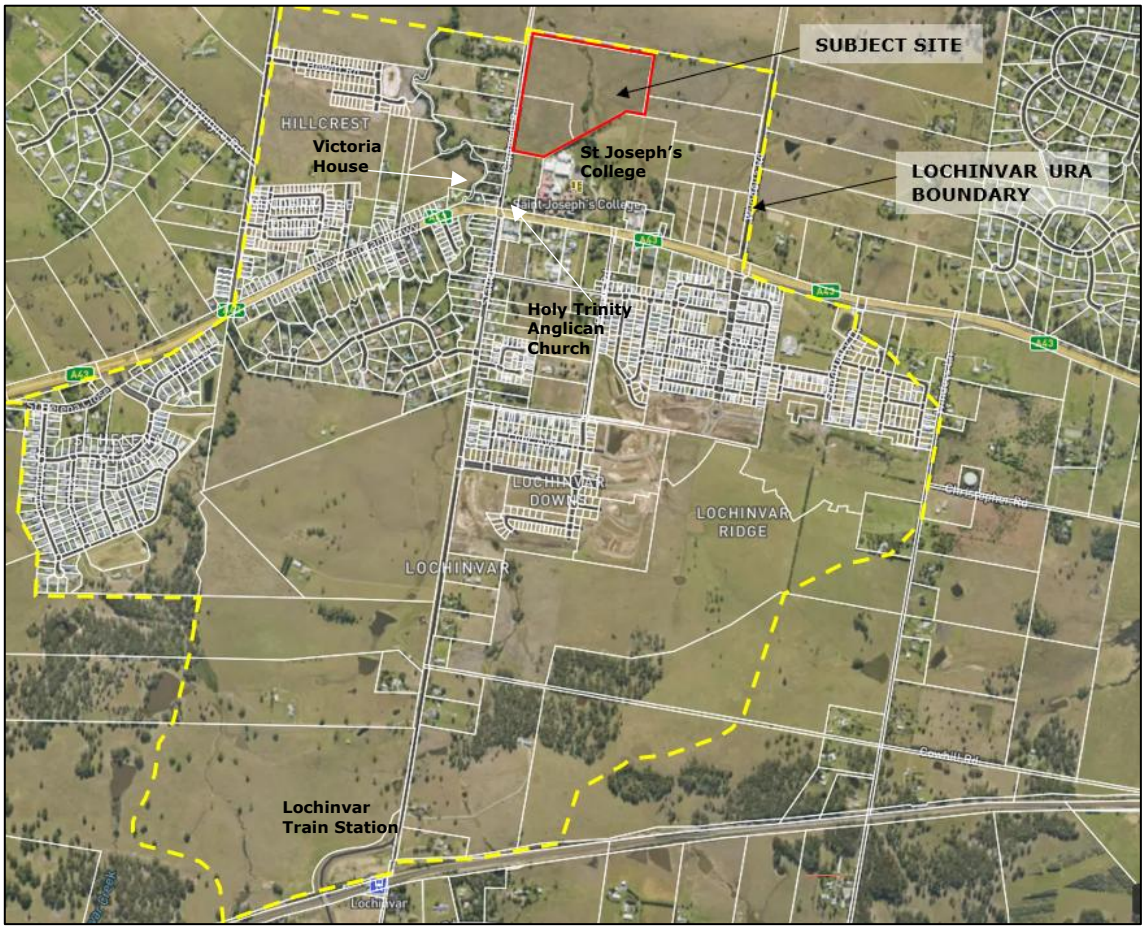


***Figure 1**: Context and Setting of the Subject Site (Source: MetroMap, January 2025)*

A detailed analysis of the site's context and conditions are contained in the Landscape Urban Design Report prepared by Terras Landscape Architects (Terras). A copy of this report is attached as **Appendix F**.

***Figure 2**: Aerial Photo of the Subject Site (Source: MetroMap, January 2025)*

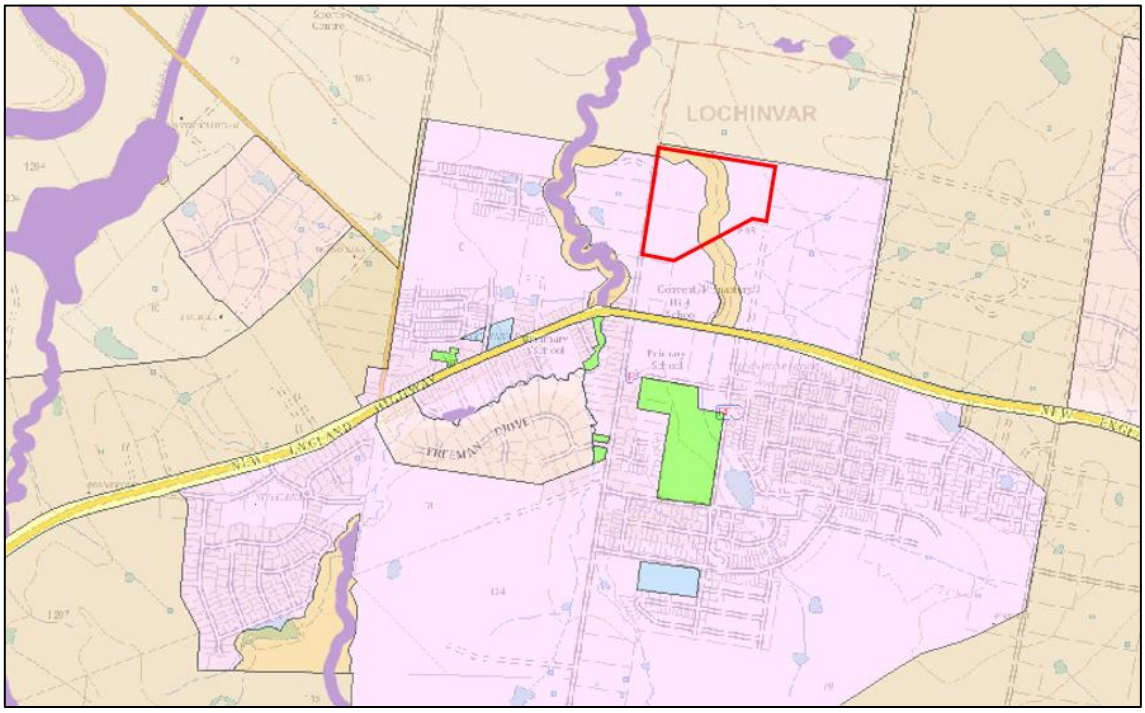


***Figure 3**: Zoning Context of the Subject Site (Source: NSW Planning Portal, January 2025)*

***Figure 4**: Site Photo - View towards north-east from the access gate (Source M&P)*

2.2 SITE CONDITIONS/CONSTRAINTS

This section briefly outlines the site conditions and constraints. A detailed site analysis is included in the Landscape Urban Design Report in **Appendix F**.

Topography and drainage

The watercourse through the centre of the site bisects the land into eastern and western halves. The western part of the site slopes gently in a north-easterly direction at gradients of 2^0 or less towards the watercourse, while the eastern part is relatively steeper with slopes ranging from 4 to 5^0. Localised steeper slopes are observed along the banks of the creek, and erosion is evident along the stretches where sharp bends and stock crossings exist. **Figure 5** shows the undulating landform on either side of the creek.

***Figure 5**: View towards the north from the creek (Source Terras, 2025)*

Soils and geology

The Acid Sulfate Soil mapping in the LEP identifies Class 5 soils on the site and surroundings. The site does not contain saline soils.

Flora and fauna

The subject site exists as open grassland with predominantly exotic sedges along the watercourse and with small areas of native vegetation. The only notable canopy species is a small patch of Casuarina glauca along the creek in the southern part of Lot 2, as shown in **Figure 4**.

Aboriginal Archaeology and European Heritage

A search on NSW National Parks and Wildlife's Aboriginal Heritage and Information Management Services (AHIMS) identified 57 known sites within 2kms of the project area; however, none of them are located within the area of proposed works.

The Holy Trinity Church on adjoining property to the south is listed as an item (Item I104) of local significance in the LEP. Another item of significance is the State heritage item Victoria House (also known as Nowlands Coach House) located across the road, to the southwest of the site on 7 Cantwell Road. This item is identified as I101 in the LEP. **Figure 6** shows the details of these items.

***Figure 6**: Heritage significant items near the Subject Site (Source – EJE, NSW heritage, MLEP))*

Bushfire

The entire site and surrounding land to the north, east and west are identified as bushfire prone land, as shown in **Figure 7**. The main source of threat is the vegetation along the creek through the centre of the subject site and the surrounding grasslands.

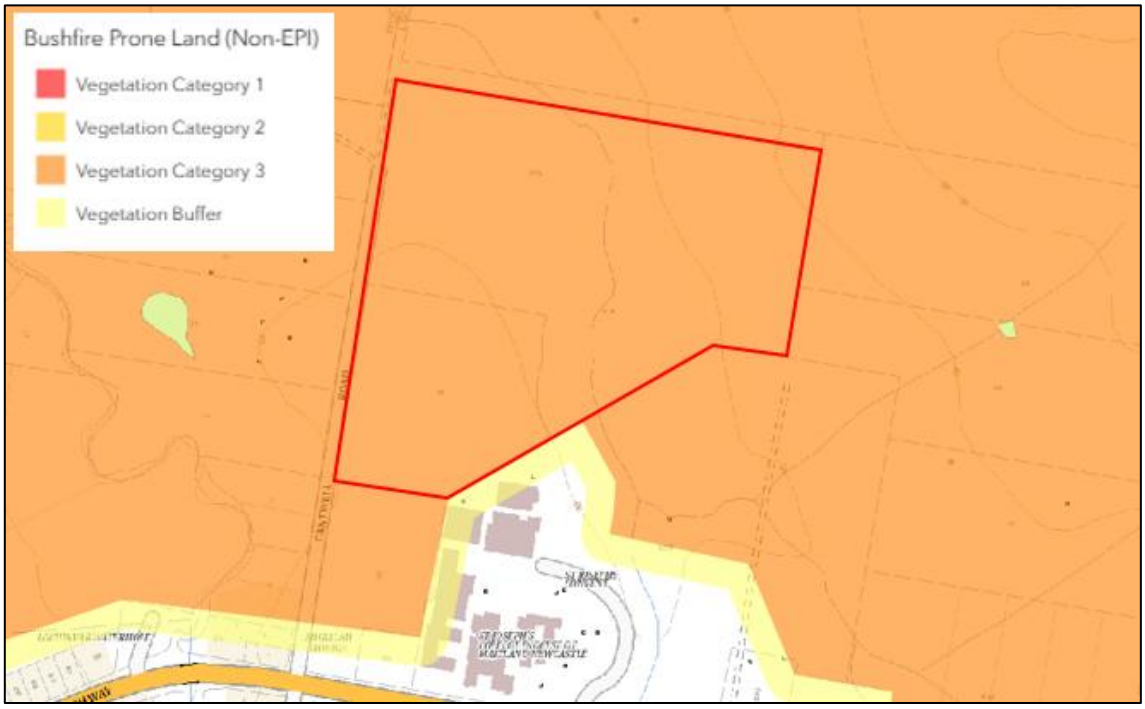


***Figure 7**: Bushfire mapping (Source: NSW Planning Portal, January 2025)*

Flooding

The central and northern-western parts of the site are affected by flooding from the creek. **Figure 8** shows the flood extent and water surface elevation for 1 in 100 Annual Exceedance Probability (AEP) event.

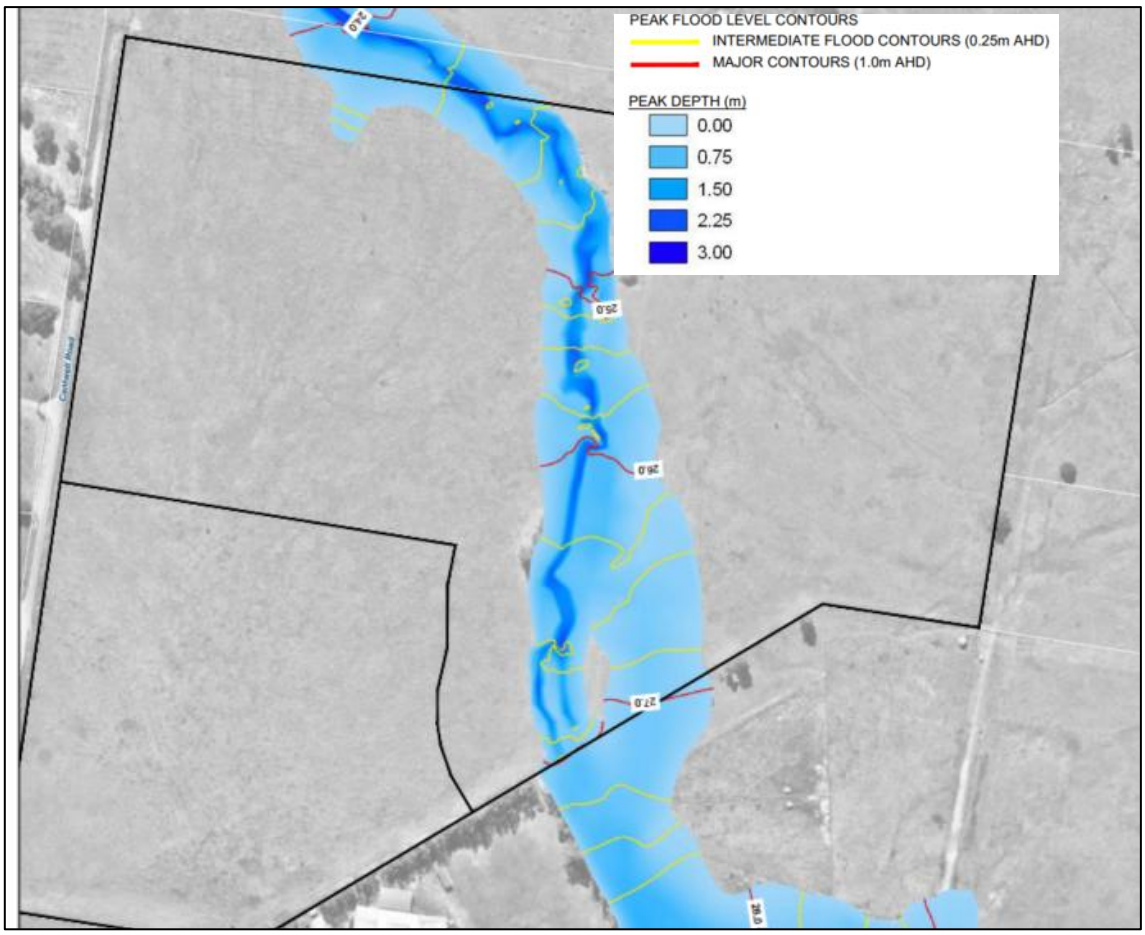


***Figure 8**: Pre-development 1% AEP Water Surface Elevation (Source: GCA 2024)*

Mine Subsidence

The subject site is not within a Mine Subsidence District.

Watercourse and key fish habitat

The unnamed creek on the site is identified in the watercourse mapping in the LEP as shown in **Figure 9**. It is also identified as a key fish habitat in the Fisheries NSW Spatial Data Portal.

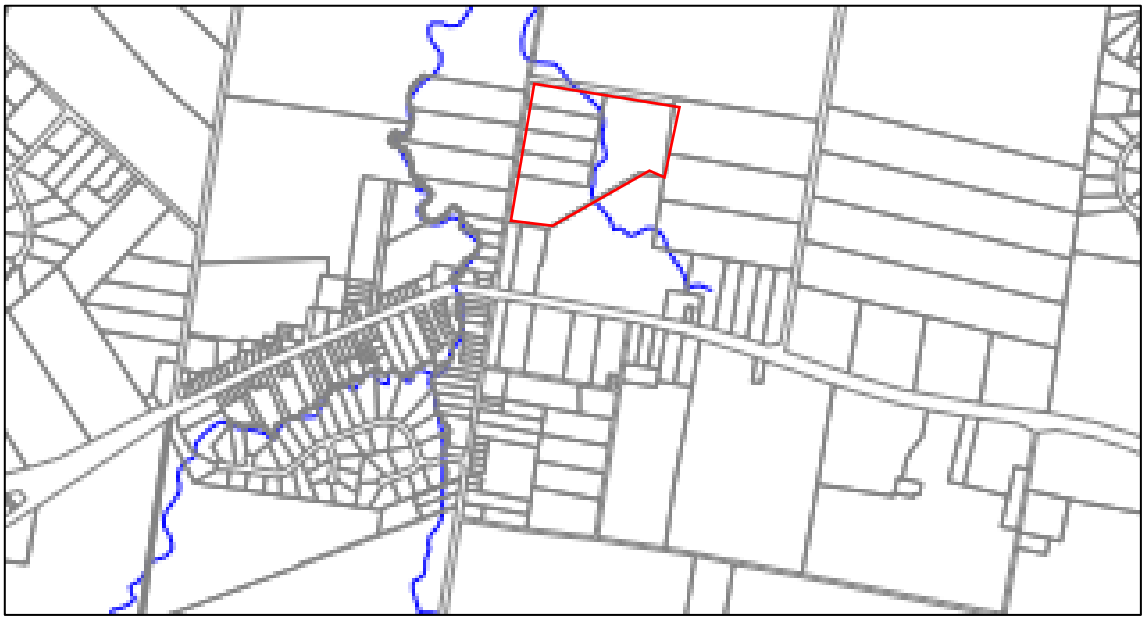


***Figure 9**: Watercourse Map (Source: Maitland LEP, January 2025)*

2.3 SITE DEVELOPMENT HISTORY

A review of historic aerial photographs revealed that the property has been cleared for grazing purposes from at least the 1970s. The historic title search shows that the property has been under the ownership of trusts associated with churches from 1886 to the present. The subject site, which originally consisted of five lots, has been consolidated into two lots through Development Approval DA/2023/392, granted by Maitland Council on 24 August 2023. There are no records of any other development approval for the subject site.

3. PROPOSED DEVELOPMENT

The proposed development involves subdivision of the R1 zoned land on the subject site into 138 residential lots in three stages, along with clearing, earthworks, civil works, stormwater management systems, road and infrastructure development. Road widening associated with the proposal also involves subdivision of the neighbouring land to the south for the purpose of boundary adjustment. The proposed lot sizes range between 450m^2 and 869m^2. **Figure 10** shows the Plan of Proposed Subdivision.
Appendix A.1 contains the plans for the proposed subdivision and boundary adjustment. The concept civil plans are attached as **Appendix C**.

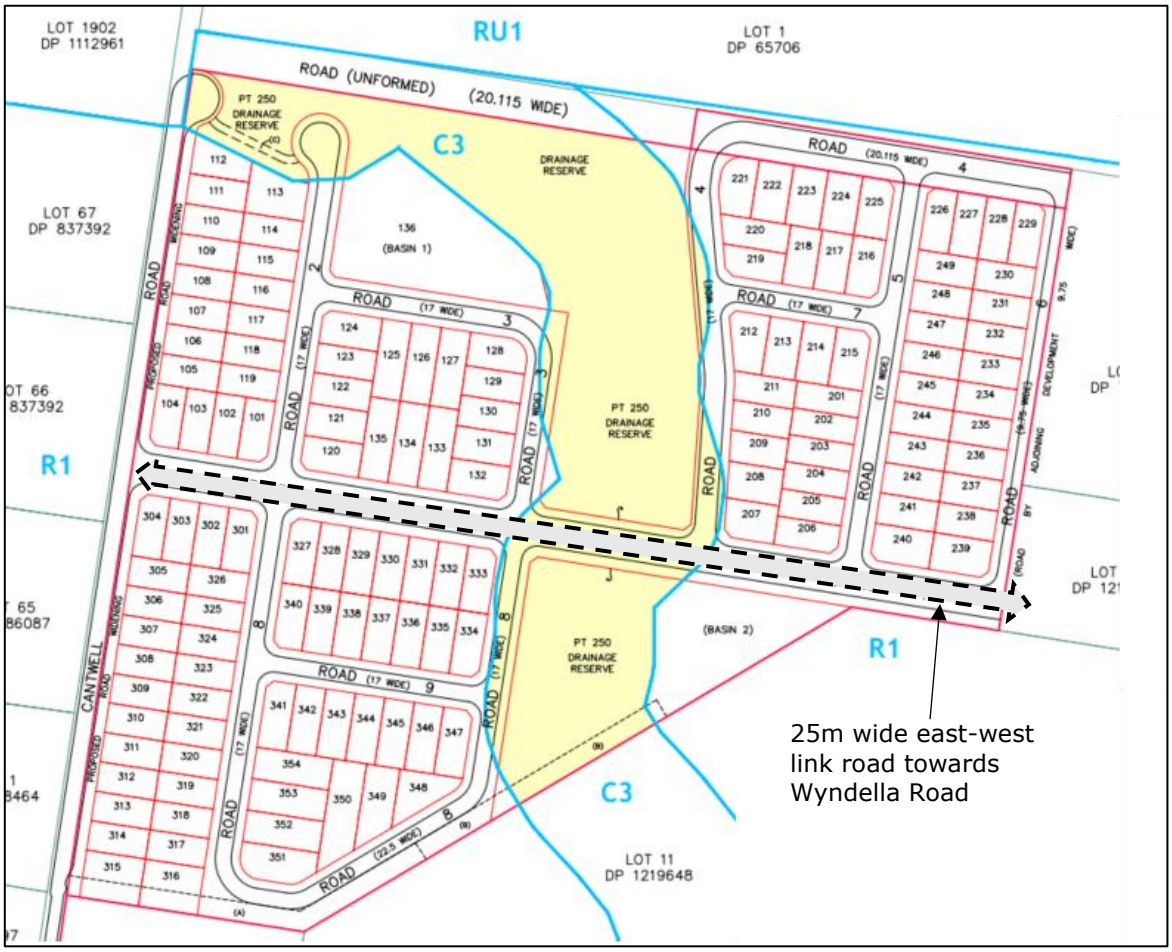


***Figure 10**: Excerpt of Plan of Proposed Subdivision (Source: M&P)*

Subdivision layout

The subdivision layout is based on the road network and connectivity envisaged in Maitland Development Control Plan (DCP) 2011 for Lochinvar URA. Cantwell Road will serve as the primary access until such time the land to the east is fully developed. This road along with the proposed 25m wide east-west distributor road with a culvert crossing over the unnamed creek will form the main road network in the subdivision. It is noted that this culvert is identified as item L32 in Lochinvar Section 94 Contributions Plan, and the developer will be entitled to a reimbursement, subject to Council's acceptance and approval of a Works in Kind Agreement.

The layout is generally serviced by perimeter roads except for two lots which directly adjoin the southern boundary. The east-west distributor road will be provided with footpath and cycleway linkage towards the east, consistent with the adjoining CPG development. Other local roads within the subdivision will be serviced by footpaths.

Road works and boundary adjustment

Works external to the subject site include upgrade of Cantwell Road to achieve a minimum pavement width of 6m between New England Highway and the southern boundary of Lot 1 DP 1299958. Half-road construction of Cantwell Road to Council's standards is proposed for the remaining stretch along the full frontage of the subject site. This will involve adjustment to the western boundary of the subject site to accommodate 3.5m lane width and 2.5m cycleway along the frontage. Upgrade of Cantwell Road will also include relocation of existing services and installation of new services as required, to support the development.

Dedication of land and development of Cantwell Road to the standard of a primary collector road with bus route provisions is anticipated to have significant public benefit through the connectivity and pedestrian linkages facilitated by the proposal. Additionally, the proposed intersection upgrades will catalyse the development of other R2 zoned lands accessible via Cantwell Road in the URA. As such the developer is seeking to offset some of the monetary contributions payable under Lochinvar Section 94 Contributions Plan through the delivery of the proposed road upgrade works on Cantwell Road, or via a suitable voluntary planning agreement. It is expected that further discussions on this matter will occur at the DA assessment stage.

Treatments are proposed on the New England Highway/ Cantwell Road intersection to ban right turn movements onto New England Highway. The proposed upgrades on Cantwell Road and the intersection will require adjustment to the western and southern boundaries of adjoining property to the south, Lot 2 DP1214402 at 60 New England Highway. Approximately 224m^2 of land on this lot and the vegetation within this area will be affected by the proposed road widening as indicated by the blue shaded area in ***Figure 11***. The masonry fencing and access gate to the church on Lot 2 DP1214402 will also require relocation as result of the boundary realignment. Owner's consent for these works have been obtained and submitted along with the application.

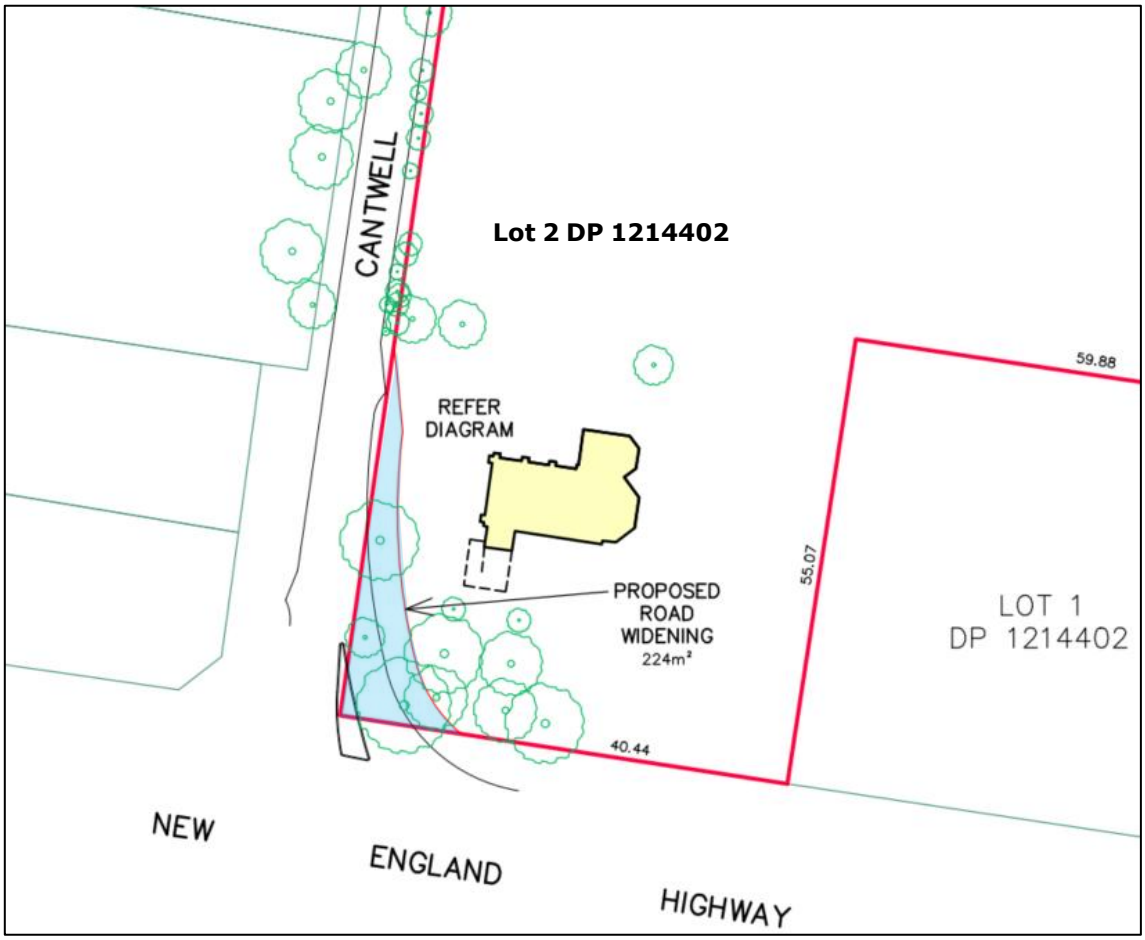


***Figure 11**: Lot 2 DP 1214402 affected by proposed boundary adjustment (Source: M&P 2025)*

Other road works external to the subject site include construction of a part of the unformed road adjoining the northern boundary to provide access to the proposed lots on the north-eastern side of the subject site, and construction of Road 6, along the eastern boundary, half of which is located within CPG development.

Owner's consent for the road construction on Council-owned land has been obtained and submitted with this application.

Stormwater management

The proposed stormwater management system includes two combined bioretention/detention basins along with pit and pipe drainage network along the street and inter-allotment drainage (including easements) will manage the stormwater from the development site. Gross pollutant traps are included in the treatment train.

Vegetation removal

The proposal involves the removal of all trees and vegetation on the subject site, and the trees on the adjoining road reserves and Lot 1214402 where road works are proposed.

Works in the riparian corridor

The following works are proposed for the repair and regeneration of the degraded unnamed creek and riparian areas on the subject site:

- Weed removal by using herbicides
- Removal of two blockages to fish passage
- Installation of a fish-friendly box culvert for the creek crossing
- Vegetated batters to remediate eroded banks
- Establishment of a 20m vegetated riparian corridor and additional areas of vegetation on the conservation zoned land to create approximately 2.33 hectares of green corridor through the subject site. This land will be subject to a Biodiversity Management Plan (BMP) and is referenced as BMP land in the proposal.

The proposed drainage reserve will be dedicated to Council at the completion of Stage 2, noting a BMP period of 5 years will follow to ensure a self-sustaining ecosystem is established on the site.

Landscaping

The proposal also includes planting of street trees, and landscape treatments to other public domain areas outside the area covered by the BMP land, and installation of appropriate fencing where required.

3.1 STAGING

The subdivision and associated works comprise 3 stages as shown in ***Figure 12***. Stages 1 and 2 of the subdivision are located to the north of the proposed east-west distributor road and will yield 35 and 49 lots respectively. Stage 3 will provide 54 lots to the south of east-west distributor road.

As noted in the plan, all the road works on Cantwell Road and the associated boundary adjustment will occur in Stage 1. Stage 2 development will include the creek crossing and completion of the east-west link distributor road connecting to CPG development. All works in the riparian corridor will occur as part of Stage 2 works.

Depending on market conditions, Stages may be constructed individually or concurrently.

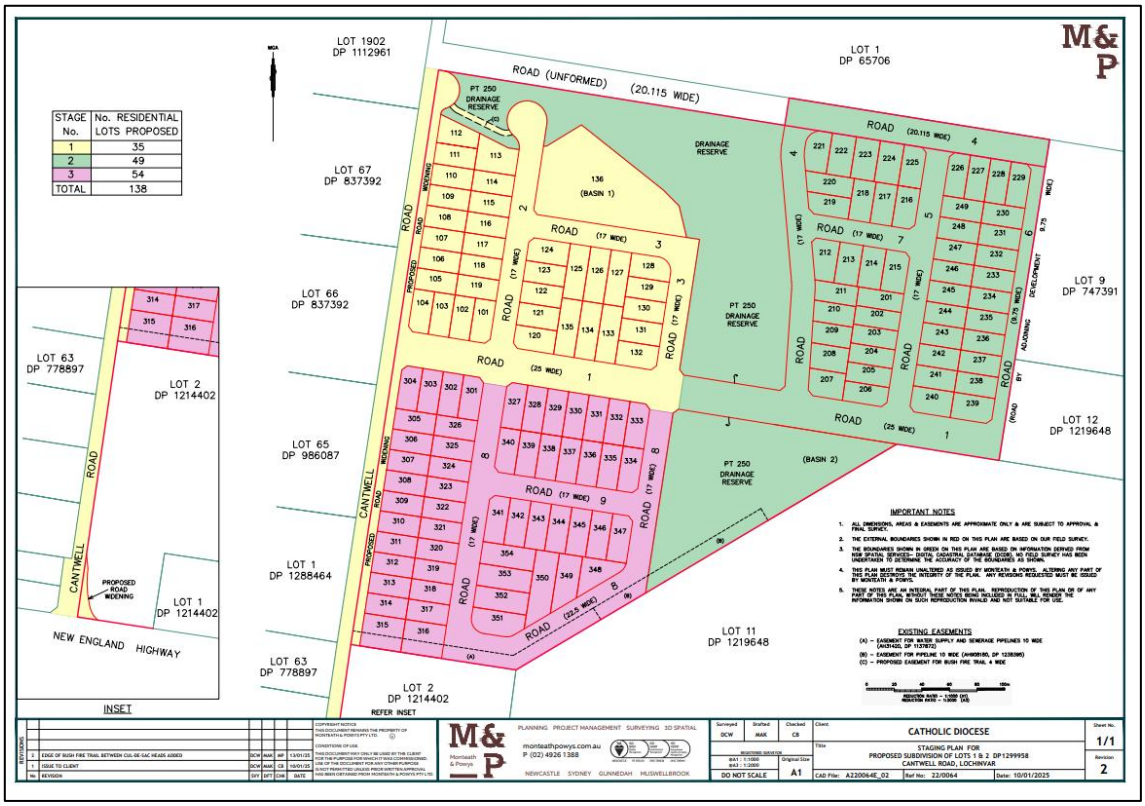


***Figure 12**: Proposed Staging Plan (Source: M&P)*

3.2 COUNCIL CONSULTATION

This proposal and the accompanying documents have been prepared with due consideration to the advice received from Maitland City Council in the meetings held on 26 October 2023 and 18 July 2024. The key points from the minutes are provided below:

- 3.5m wide travel lane is required for Cantwell Road in accordance with the requirements for bus routes in Council's engineering standards, despite the Lochinvar DCP specifying 11m.
- Intersection upgrades at New England highway are subject to approval from Transport for New South Wales (TfNSW).
- Specific requirements for Cantwell Road cannot be provide by Council without understanding the ability of this road to be widened due to the heritage constraints, the requirements from RFS and the expected traffic volumes.
- Traffic Impact Assessment is required for the development.
- A Heritage Impact Assessment is required to assess the extent of impact on the nearby heritage items.
- Item L22 in the Lochinvar Contributions Plan does not include costs for upgrading New England Highway/Cantwell Road intersection. However, the proposed development includes Item L32- drainage culvert, the developer may be entitled to a reimbursement.
- A detailed flood study will be required if filling is proposed within the 1% AEP extent.
- Development lots are to be located 0.5m above the 1% AEP.
- Main concern from Council's Biodiversity and Resilience Officer is the road crossing over the watercourse. Details of how the vegetation and riparian areas will be managed should be included in the application.

- C3 zone has a minimum lot size of 40 hectares. Clause 4.2C of the LEP should be considered where this lot size cannot be achieved.
- The subdivision should address the matters Chapter F.9 of the DCP for Lochinvar URA.
- Stormwater management basin should be designed as an offline basin outside the 1%AEP. Water quality should be addressed in the stormwater management.
- An Urban Design Report addressing the requirements of Lochinvar DCP is required for the development.
- External referral will be required to TfNSW, DPE-Water, DPI- Fisheries, NSW RFS, NSW Heritage. Additional referral to Ausgrid will be made for general comments.

4. STRATEGIC AND STATUTORY CONTEXT

This section outlines the strategic context and the planning instruments applicable to the development.

4.1 STRATEGIC PLANNING CONSIDERATIONS

4.1.1 HUNTER REGIONAL PLAN 2041

The Hunter Regional Plan 2041 (HRP) is a 20-year blueprint for the future of the Hunter and sets a vision to develop the Hunter Region to a leading regional economy in Australia, with a vibrant metropolitan city at its heart.

The Hunter Regional Plan 2041 recognises Central Maitland as a regionally significant strategic centre, East Maitland as an emerging strategic centre and local centres at Rutherford, East Maitland, Thornton and Lochinvar (proposed) with potential to accommodate significant growth within the Greater Newcastle district.

Objectives three, four, five and six of the HRP seek the following:

- Create 15-minute neighbourhoods to support mixed, multi-modal, inclusive and vibrant communities.
- An interconnected and globally focussed Hunter without car dependent communities.
- Plan for 'nimble neighbourhoods', diverse housing and sequenced development.
- Conserve heritage, landscapes, environmentally sensitive areas, waterways and drinking water catchment.

The proposed development aligns with these outcomes by facilitating orderly housing development close to the identified centres in a designated growth area.

4.1.2 GREATER NEWCASTLE METROPOLITAN PLAN 2036

The Greater Newcastle Metropolitan Plan 2036 sets out four outcomes:

1. Create a workforce skilled and ready for the new economy.
2. Enhance environment, amenity, and resilience for quality of life.
3. Deliver housing close to jobs and services.
4. Improve connections to jobs, services, and recreation.

The proposed development aligns with these outcomes by facilitating orderly housing development close to jobs and services in an existing urban release area.

4.1.3 MAITLAND LOCAL STRATEGIC PLANNING STATEMENT 2040+

Maitland Local Strategic Planning Statement (the LSPS) draws on the higher-level planning priorities in the Hunter Regional Plan 2041 and the Greater Newcastle Metropolitan Plan 2036, and provides the strategic framework integrating land use, transport and infrastructure planning at the local level.

The LSPS sets a 20-year vision to guide and manage future growth in the Local Government Area (LGA). It identifies the local planning priorities and provides more certainty about Council's future land use intentions.

LSPS identifies Lochinvar URA as a priority housing release area in the western precinct of the LGA. Key projects and initiatives within the western precinct include the establishment of local and town centres (refer **Figure 13**) in Lochinvar which along the neighbouring Rutherford Town Centre is expected to form a strong connection to the rural areas in Maitland, Upper Hunter Region and beyond.

The proposal facilitates housing development near identified centres and aligns with the following priorities in the LSPS:

- Plan for diverse and affordable housing to meet the needs of our growing and changing community.
- Protect, conserve and enhance our natural environment including waterways, floodplains and wetlands.
- Align local infrastructure delivery to support planned growth and community needs.
- Support sustainable housing growth by balancing greenfield and infill housing.

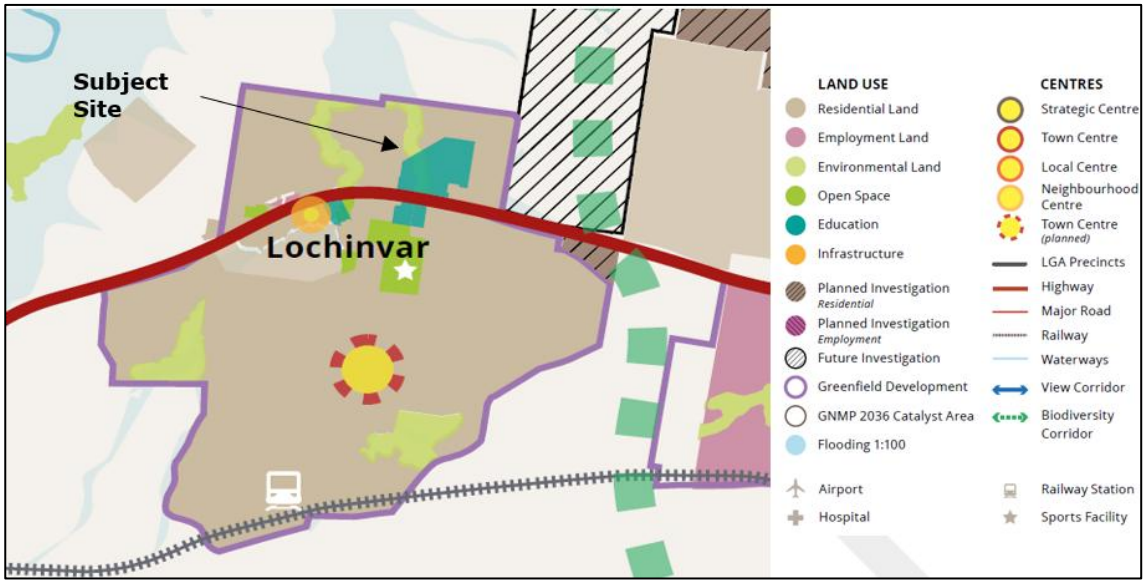


Figure 13: *LSPS Structure Plan (Source: Maitland LSPS 2040+)*

4.1.4 MAITLAND LOCAL HOUSING STRATEGY 2041

The Maitland Local Housing Strategy 2041 (the Strategy) is one of the outcomes of LSPS and it provides the framework for the delivery of housing in the LGA over the next 20 years to meet the housing demand. It is estimated that the city will need approximately 1,260 new dwellings per year to accommodate population growth during this period most of which is expected to be met by the existing urban release areas. Lochinvar URA has a potential lot yield of 5000 lots and the proposal constitutes 2.7% of this supply.

The Strategy is founded on principles that encourage increased densities in different neighbourhood contexts to facilitate a greater mix of housing types and 15-minute neighbourhoods. Given the site's location in an existing urban release area close to services and facilities, the proposed residential subdivision aligns seamlessly with the strategic directions for housing in the LGA.

4.2 STATUTORY PLANNING CONSIDERATIONS

The EP&A Act is the overarching legislative framework for land use planning in New South Wales. Relevant sections in the EP&A Act and the considerations for development assessment are discussed in this section.

4.2.1 INTEGRATED DEVELOPMENT

Section 4.46 of the EP&A Act identifies integrated developments which require approvals from other agencies, along with development consent to undertake the works.

This development application will require integrated development approvals under the following acts:

- ***Fisheries Management Act 1994*** **(FM Act)** – The watercourse across the site is identified as a key fish habitat in the Fisheries NSW Spatial Data Portal. The proposed culvert and vegetated rehabilitation batters trigger Section 201 of the FM Act requiring a permit to carry out works of dredging or reclamation (i.e. any excavation within, or filling or draining of,
  water land or the removal of woody debris, snags, rocks or freshwater native aquatic vegetation or the removal of any other material from water land that disturbs, moves or harms these instream habitats).
  Additionally, installation of the proposed culvert will require the creek to be diverted during construction temporarily blocking fish passage triggering ***Section 219*** requiring a permit to obstruct the free passage of fish. An Aquatic Ecology Assessment has prepared by Anderson Environment and Planning (AEP) to assess the condition of the key fish habitat on the site. A copy of this report is attached in **Appendix H**.

- ***Roads Act 1993*** – The proposed road upgrade works at the intersection of New England Highway and Cantwell Road will require consent from Transport for New South Wales (TfNSW) under Section 138 of the Roads Act. It is noted that other road works associated with this proposal are on Council owned assets which do not require integrated development approval pursuant to Section 4.46(3) of the EP&A Act.

- ***Rural Fires Act 1997***– Residential subdivision on bushfire prone land require authorisation and a bushfire safety authority from NSW Rural Fire Service under section 100B of the *Rural Fires Act 1997.* This application is supported by a Bushfire Assessment Report prepared by Bushfire Planning Australia, refer **Appendix M.**

- ***Water Management Act 2000*** – Section 91 of the *Water Management Act* requires Controlled Activity Approval for works on waterfront land i.e. land within 40 of a natural watercourse. The proposed culvert, erosion control and bank stabilization works, minor creek realignment and stormwater outlet draining to the watercourse will require approval from Department of Planning Housing and Infrastructure – Water.

The Waterfront Land Assessment Report prepared by AEP provides a ground truthing of the existing watercourse and establishes the required vegetated riparian zone, refer to **Appendix I**.

The application will be lodged as an integrated development application requiring referral to the above agencies. Appropriate plans and documents for the referral(s) have been submitted with the application.

4.2.2 SECTION 4.15 EVALUATION

Section 4.15(1) of the EP&A Act outlines the following matters for consideration by a consent authority in the assessment and determination of a development application. The table below outlines provisions and relevant sections in this SoEE where these matters have been addressed.

Table 1: *Section 4.15 (1) Matters for Consideration*

4.15(1) – MATTERS FOR CONSIDERATION	
Provision	**Comments**
Section 4.15(1)(a)(i) – any environmental planning instrument.	The State Environmental Planning Policies and the Local Environmental Plan applicable to the development are addressed in Sections 4.2.3 and 4.2.4 respectively.
Section 4.15(1)(a)(ii) –any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified by the consent authority.	There are no draft planning instruments relevant to the proposal.
Section 4.15(1)(a)(iii) –any development control plan that apply to the land.	Section 4.2.5 *addresses* the requirements in Maitland DCP.
Section 4.15(1)(a)(iiia) –any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4.	There are no planning agreements relevant to the proposal.
Section 4.15(1)(a)(iv) – the regulations (to the extent that they prescribe matters for the purposes of this paragraph),	The additional matters for consideration in the regulations have been reviewed and deemed not relevant to the proposed development.
Section 4.15(1)(b) – the likely Impact of the Development including environmental impacts on both the natural and built environments, and social and economic impacts in the locality.	The likely Impacts have been addressed in Section 5 of this SoEE.
Section 4.15(1)(c) – the Suitability of the site for the development.	Suitability has been addressed in Section 6 of this SOEE.
Section 4.15(1)(d) – any Submissions made in accordance with this Act or the regulations.	It is noted that the application will be publicly notified upon lodgement and any submissions received during the public exhibition of the application will be addressed by the Council during the assessment of the application.
Section 4.15(1)(e) – the Public Interest.	Public Interest has been addressed in Section 7 of this SoEE.

4.2.3 STATE ENVIRONMENTAL PLANNING POLICIES

- ***State Environmental Planning Policy (Biodiversity and Conservation) 2021***

  Chapter 2 of this policy outlines the requirements for clearing vegetation in non-rural areas. This application seeks approval for the clearing of vegetation on the subject site and those within the road reserves and part of Lot 2 DP 1214402 affected by the road widening. Impact of clearing has been assessed in a Streamlined Biodiversity Diversity Assessment Report (SBDAR) prepared by AEP. in accordance with *Section 6.1 of the Biodiversity Conservation Act 2016*. A copy of the report is attached as **Appendix G** and details are provided in Section 5.3 of this report.

  Chapter 4 contains provisions to ensure the proper conservation and management of areas of natural vegetation that provide habitat for koalas in the LGAs identified in Schedule 2 which includes Maitland. A desktop assessment of local records showed sparse presence of koala in the area with only one record from 2020 in a location at Hinton with poor connectivity and habitat value, approximately 4kms to the north-east of the site. However, as the existing plant community types on the site belong to koala use tree species, the biodiversity assessment by AEP includes additional investigations in the SBDAR.

  Field investigations by way of target searches, spot assessment technique, and call playback were undertaken to determine if the site was a core Koala habitat. Although the targeted surveys did not identify any Koala utilisation of the site, a tier 2 assessment was undertaken as a precautionary approach. The investigation did not identify any koalas, nor was there any sign of site utilisation. Given these findings and the disturbed nature of the site and surrounding parcels, the assessment concluded that the site is not considered a core Koala habitat and, as such, no impact will occur on koalas in the present or the future.

- ***State Environmental Planning Policy (Planning Systems) 2021***

  This policy sets the criteria and assessment pathway for developments and infrastructure of significant at the State or regional levels. The proposal does not constitute a State significant development listed in Schedule 1.

  Schedule 6 of this policy identifies certain subdivisions in coastal zones, and general development applications exceeding a capital investment value (CIV) of $30 million as regionally significant developments. The site's location and CIV does not trigger the pathway for regionally significant developments. The Estimated Development Cost Report is attached as **Appendix Q**.

- ***State Environmental Planning Policy (Resilience and Hazards) 2021***

  The site is not in a coastal zone as defined in Chapter 2 and therefore no specific requirements apply in this regard.

  Chapter 4 of this policy provides a Statewide planning approach to the remediation of contaminated land. Specifically, Section 4.6 contains the considerations for consent authority prior to granting of consent for a development. This application is accompanied by a Preliminary and Detailed Site Investigation (PDSI) prepared by Qualtest Laboratory (NSW) Pty Ltd (refer **Appendix N**) which concludes that the site is suitable for the proposed residential use. Details of site investigation and test results are discussed in Section 5.4 of this report.

- ***State Environmental Planning Policy (Transport and Infrastructure) 2021***

  The site is accessed via Cantwell Road, a local road which connects to New England Highway, a classified road located approximately 200m to the south.

  The proposed road upgrades will occur in the vicinity of the overhead power lines located on Cantwell Road. Section 2.48(2) of this policy requires the consent authority to give written notice to the electricity supply authority for advice on potential safety risks to be considered for works near overhead power lines. It is noted that the application will be referred to Ausgrid upon lodgement as per the requirements in this section.

  Section 2.120 applies to noise sensitive developments proposed on land in or adjacent to road corridors with daily traffic volume exceeding 20,000 vehicles. Such developments are required to consider road noise and vibration impacts and demonstrate compliance with relevant noise criteria prescribed in Section 2.120(3). The subject site does not have direct frontage to New Egland Highway nor is it identified as a noise investigation corridor within 120m of the highway as per the DCP. The subject site is located approximately 200m away from this road corridor with other parcels of lands in between to provide additional buffer. As such, the considerations in Section 2.120 are not applicable to the development, however it is noted that the development is not likely to have any adverse noise and vibration impacts from the highway due to the substantial separation to the road corridor.

  Section 2.122 requires the consent authority to refer traffic generating developments to TfNSW and take into consideration any advice received. Subdivisions with 200 or more allotments which involve the opening of a public road, or those with 50 or more allotments with connection to a classified road within 50m, are considered as traffic generating developments. The proposal does not trigger these criteria to be considered as a traffic generating development.

  The stormwater management plan for the subdivision proposes drainage pipes over C3 zoned land as part of the development. The permissibility of these minor works is gained through Section 2.138 which allows development for the purpose of stormwater management system to be undertaken by any person with consent on any land.

4.2.4 MAITLAND LOCAL ENVIRIONMENTAL PLAN 2011

The Maitland Local Environmental Plan 2011 applies to the land. An assessment of the proposal against relevant clauses in the LEP are provided below:

Clause 2.1 – Land use zones

The subject site is zoned R1 General Residential, with a corridor of C3 Environmental Management zone through the centre as shown in **Figure 14**. The majority of the proposed works will be contained within the R1 zoned part of the site except for the works along the riparian areas, the culvert for the distributor road and other encroachment of the roads into the C3 zone.

A range of residenital developments are permitted with consent in R1 zone. Subdivision to support residential development on the site is therefore permissible with consent.

The proposed works along the riparian corridor to repair the degraded watercourse are considered as 'envirionmental protection works' which are permitted with consent in C3 zone. Similarly roads are also permissible in C3 zone.

Additionally, the drainage pipes from the detention basins and the cul-de sac on Cantwell Road discharges into the creek through the C3 zoned land. The permissibility of these minor works is gained through Section 2.138 of *State Environmental Planning Policy (Transport and Infrastructure)*

which allows development for the purpose of stormwater management system to be undertaken by any person with consent on any land.

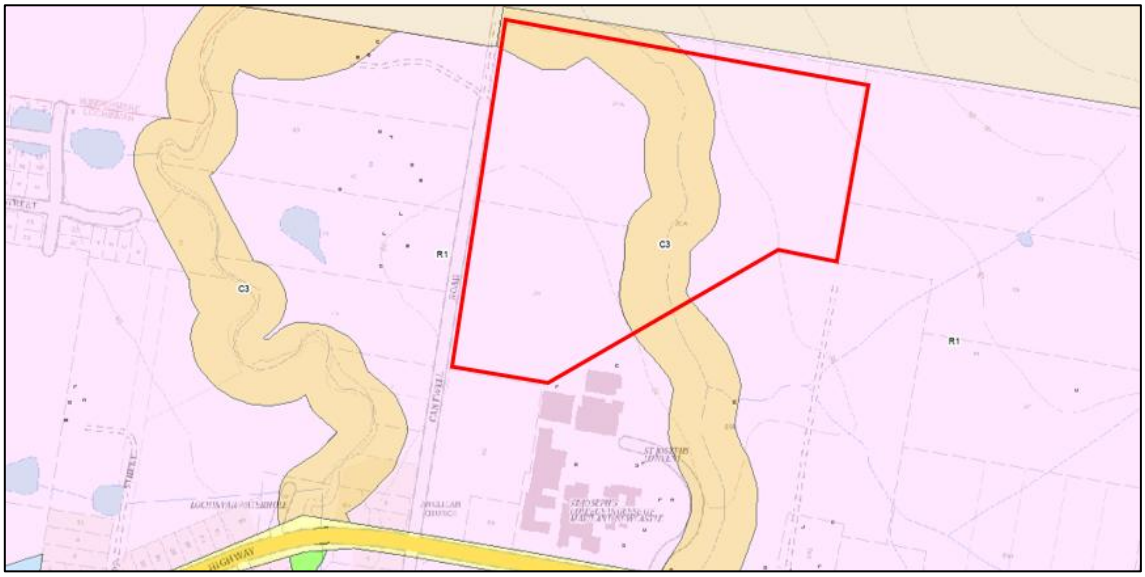


***Figure 14**: Zoning of the Subject Site (Source: NSW Planning Portal, January 2025)*

Clause 2.3 – Zone objectives and Land Use Table

Objectives of R1 zone:

- *To provide for the housing needs of the community.*
- *To provide for a variety of housing types and densities.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*

The proposal is consistent with the zone objectives as it facilitates the delivery of housing lots in an existing land urban release area in an orderly manner, and includes a range of lot sizes to promote housing diversity in the LGA.

Objectives of C3 zone:

- *To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.*
- *To provide for a limited range of development that does not have an adverse effect on those values.*
- *To maintain and improve the connectivity of habitat between remnant areas of native vegetation.*

The proposed development will achieve improved ecological outcomes through regeneration of the degraded watercourse on the site. Works associated with the road construction are limited to a minor footprint and hence not expected to have an adverse impact on the C3 zoned land. The proposal is therefore considered consistent with the objectives of C3 zone.

Clause 2.3 – Minimum subdivision lot size

The Lot Size Map prescribes minimum subdivision lot sizes of 450m^2 and 40hectares for R1 and C3 zones respectively. All the R1 lots in the proposed subdivision comply this requirement. However, as the existing C3 zoned part of the site is less than 40 hectares, the riparian land will be retained

as a split- zoned lot containing a compliant R1 parcel and the entire C3 zoned land is proposed under the provisions of clause 4.2C.

Clause 4.2C – Minimum subdivision lot sizes for certain split zones

Subclause (3) contains provisions for subdividing split-zoned lots as follows:

*(3) Despite clause 4.1, development consent may be granted to subdivide an original lot to create other lots (**the resulting lots**) if—*

(a) one of the resulting lots will contain—

(i) land in a residential, employment or mixed use zone that has an area that is not less than the minimum lot size shown on the Lot Size Map in relation to that land, and

(ii) all the land in Zone RU1 Primary Production, Zone RU2 Rural Landscape, Zone C2 Environmental Conservation or Zone C3 Environmental Management that was in the original lot, and

(b) all other resulting lots will contain land that has an area that is not less than the minimum lot size shown on the Lot Size Map in relation to the land.

The stormwater basin (Basin 2) for Stage 2 occupies R1 land with an area of 3510m^2. The proposed subdivision retains the entire C3 zone and Basin 2 as a single spilt-zoned parcel to meet the above requirements for permissibility.

Clause 5.10 – Heritage conservation

A Statement of Heritage Impact prepared by EJE has identified the European heritage constraints in relation to the proposed development to ensure that the works do not detract from nor impact the heritage value of the existing items within and surrounding the subject land. The report attached at **Appendix L** outlines appropriate mitigation measures to the affected aspects of the heritage item noting the primary item being the 'Holy Trinity Church' building will not be affected by the works.

The design of the proposal has been developed in collaboration with EJE with alternative options considered prior to finalisation with the current design considered as the most appropriate as it avoids any impact to the State Heritage listed item 'Victoria House'.

A search of the Aboriginal Heritage Information Management System did not identify any site or places of significance within the project area; however, 57 known sites are identified within a buffer of 2kms. As such this application is accompanied by an Aboriginal Cultural Heritage Impact Assessment and an Addendum letter by McCardle Cultural Heritage Pty Ltd (**Appendix K**) to identify the archaeological constraints for the development and to ensure any cultural materials are protected through appropriate mitigation and management.

5.16 - Subdivision of, or dwellings on, land in certain rural, residential or conservation zones

Subclause (4) specifies matters for the consent authority to consider when determining development applications for dwellings or subdivision on land in certain zones including rural and conservation zones. In the proposed subdivision, the C3 zoned part of the site will be retained as a riparian corridor with appropriate vegetated riparian zones to enhance and protect the environmental values. As such no land use conflict or adverse impact will occur on C3 land from the proposed development.

5.16 – Flood planning

The central and north-western parts of the site are affected by flooding from Lochinvar Creek.

This clause aims to minimise the flood risks to life and property and to ensure the development is compatible with the flood behaviour and facilitates safe occupation and efficient evacuation in the event of flood.

Subclause (2) sets the following consideration for consent authority prior to approval of development in flood planning area.

> *2) Development consent must not be granted to development on land the consent authority considers to be within the flood planning area unless the consent authority is satisfied the development—*
>
> *(a) is compatible with the flood function and behaviour on the land, and*
>
> *(b) will not adversely affect flood behaviour in a way that results in detrimental increases in the potential flood affectation of other development or properties, and*
>
> *(c) will not adversely affect the safe occupation and efficient evacuation of people or exceed the capacity of existing evacuation routes for the surrounding area in the event of a flood, and*
>
> *(d) incorporates appropriate measures to manage risk to life in the event of a flood, and*
>
> *(e) will not adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.*

The proposal complies with these requirements through the following:

- The Stormwater Management Report prepared by GCA (**Appendix D**) includes flood modelling to determine the extent of inundation during 1% AEP event. This information was used to identify any impacts of the development on the existing flood environment and to design the culvert crossing to prevent any overtopping during 1% AEP event. The modelling results for the post development scenario indicated negligible change in water surface elevation, implying no impacts on the upstream or downstream flood environment or the neighbouring properties from the development.

- The proposed residential lots are located well outside the 1% AEP flood event area, and the design of the proposed watercourse crossing ensures it is elevated above this level to prove safe access to future occupants. Cantwell Road is not susceptible to flooding and will serve as a secure evacuation route to the New England Highway from the onset of site operations. Additional evacuation route will be available via the proposed east-west distributor road once the adjoining lands to the east are developed.

- The proposed erosion control works, and vegetated riparian zones will provide bank stability, minimise siltation and establish a healthy habitat resulting in an overall improvement to the existing creek corridor.

Subclause (3) provides the following additional considerations for developments on flood prone land:

> *(3) In deciding whether to grant development consent on land to which this clause applies, the consent authority must consider the following matters—*
>
> *(a) the impact of the development on projected changes to flood behaviour as a result of climate change,*
>
> *(b) the intended design and scale of buildings resulting from the development,*
>
> *(c) whether the development incorporates measures to minimise the risk to life and ensure the safe evacuation of people in the event of a flood,*

(d) the potential to modify, relocate or remove buildings resulting from development if the surrounding area is impacted by flooding or coastal erosion.

As demonstrated in the flood modelling maps in **Appendix D**, post development flood extents are comparable to the pre-existing conditions. Therefore, no changes to flood behaviour are anticipated from the development.

The development is designed to minimise risks to life and property and provides for safe evacuation during flood events.

Clause 6.2 – Public utility infrastructure

This application is accompanied by a Water and Sewer Servicing Report prepared by GCA to demonstrate reticulated water and sewer services can be made available to the proposed development. This report and Hunter Water Notice of Requirements (including stamped plans) are attached as **Appendix S**. Hunter Water's correspondence confirms adequate capacity in the existing water supply network on New England Highway to service the development. The proposal includes a watermain along Cantwell Road as part of Stage 1 works. The vegetation removal and disturbance associated with the construction of this infrastructure have been considered in this application.

The subject site is identified in the approved Windella Road Wastewater Servicing Strategy, the implementation of which will deliver reticulated sewer services to the site.

A Concept Electrical Masterplan plan demonstrating electrical reticulation to the site from the existing infrastructure on Cantwell Road has been prepared by Power Solutions. A preliminary enquiry was submitted to Ausgrid who have provided a response confirming sufficient capacity will exist to service the proposed subdivision following the expected completion of their capital works project by mid-2025. The Concept Electrical Masterplan and Ausgrid Concurrence is attached at **Appendix T**.

Existing NBN resources at the intersection of Cantwell Road and New England Highway can be extended to service the proposed development.

It is considered adequate arrangements have been or will be made for the provision of all services to all residential lots within the subdivision and the proposal addresses the provisions of Clause 6.2.

Clause 6.3 – Development Control Plan

This clause requires development in an urban area to be undertaken in a logical and cost-effective manner in accordance with a development control plan prepared for the land.

Part F.9 of Maitland DCP contains a site-specific development control for Lochinvar URA which meets the requirements of this clause. An assessment of the development against these controls are provided under Section 4.2.6 of this report.

Clause 7.1 – Acid Sulfate Soils

The subject site contains only Class 5 soils, and it is not within 500m of land containing Class 1,2,3 or 4 soils to warrant further considerations under this clause.

Clause 7.2 – Earthworks

This clause aims to minimise detrimental impact from earthworks on the environmental functions and adjoining uses by providing the following considerations in subclause (3):

(3) Before granting development consent for earthworks, the consent authority must consider the following matters—

(a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality,

(b) the effect of the proposed development on the likely future use or redevelopment of the land,

(c) the quality of the fill or the soil to be excavated, or both,

(d) the effect of the proposed development on the existing and likely amenity of adjoining properties,

(e) the source of any fill material and the destination of any excavated material,

(f) the likelihood of disturbing relics,

(g) the proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area.

Although development has been designed compatible with existing terrain to minimise earthworks where possible, cut and fill in excess of 2m is required in locations with steeper gradients and where the culvert is proposed. However, the areas of extensive cut and fill are largely internal to the subject site and thereby minimising the fringe effects.

The proposed regrading of the site and the detention basins on the eastern and western catchments are designed to minimise the impact on the existing drainage patterns. Water quality measures proposed as part of the stormwater management system will ensure the watercourse is not impacted by the development.

It is noted that conditions of consent will be imposed by Council to control the quality of fill used on the site. As such no detrimental impacts are anticipated from the proposed earthworks.

Clause 7.4 Riparian land and watercourses

The objective of this clause is to maintain the water quality, bed and bank stability, the aquatic riparian habitat and ecological processes of the watercourses. A land identified as 'watercourse land' identified in the LEP and areas within 40m from the top of bank are subject to the considerations under subclause (3) by the consent authority as detailed below:

(3) Before determining a development application to carry out development on land to which this clause applies, the consent authority must consider whether or not the development—

(a) is likely to have any adverse impact on the following—

(i) the water quality and flows within the watercourse,

(ii) aquatic and riparian species, habitats and ecosystems of the watercourse,

(iii) the stability of the bed, shore and banks of the watercourse,

(iv) the free passage of fish and other aquatic organisms within or along the watercourse,

(v) any future rehabilitation of the watercourse and its riparian areas, and

(b) is likely to increase water extraction from the watercourse.

Field investigations by AEP identified the watercourse to be in a highly degraded condition due to weed infestation and erosion and siltation. The proposal includes weed removal, removal of existing blockages to fish passage, rehabilitation of the eroded areas and bank stabilisation. The proposal includes the establishment of a 20m wide vegetated riparian zone on either side of the watercourse, with a variety of native species along with snags and other measures to improve the water quality, bank stability and the overall aquatic and terrestrial environment in the riparian corridor. Future residential use on the site will not result in water extraction from the creek.

Further, as required under subclause (4), the development has been designed and sited to minimise impacts from future residential developments. Increased buffers are provided to the waterfront land to minimise disturbance to the riparian land. The proposed planting densities will result in the repair and rehabilitation of the existing degraded watercourse resulting in improved ecological outcomes on the site. Details are discussed in Section 5 of this report.

4.2.5 MAITLAND DEVELOPMENT CONTROL PLAN 2011

Table 2 provides an assessment of the development against relevant sections in Maitland DCP

Part/ Section	Development Control	Compliance
Part B - Environmental Guidelines		
B.3	Hunter River Floodplain This section applies to flood prone land within the LGA. The objective of this section is to ensure the proposal supported by adequate information to assess flood risks.	Complies. The proposal is supported by flood modelling which indicates all the proposed lots and the access roads located outside the 1% AEP. While the majority of the fill is located clear of the 1% AEP extent, earthworks associated with the with drainage reserve, road construction, bank stabilisation and erosion control encroach into this area. However, the flood modelling results indicate minimal change on the flood behaviour from the proposed works. Refer to **Appendix D** for details.
B.5	Tree and Vegetation Management This section applies to land to which Chapter 2 of the State Environmental Planning Policy (Biodiversity Conservation 2021) applies, and aims to protect bushland and trees to maintain amenity and biodiversity. The application for the removal of five or more trees should include a Biodiversity Assessment Report (BAR) and a Biodiversity Management Plan	Complies. The proposal takes into consideration the clearing required for the subdivision as well as the vegetation removal associated with the road works external to the subject site. This application is accompanied by a SBDAR and a Biodiversity Management Plan prepared by AEP. Refer to **Appendix G** for SBDAR and **Appendix J** for the Biodiversity Management Plan.
B.7	Environmentally Sensitive Land This section applies to land within 40m of a natural watercourse and vegetated riparian zones. Controls in this section relate to protecting waterways, their water quality, ecological values and connectivity of the riparian corridors.	Complies. The specialist reports prepared by AEP provide a detailed assessment of the waterfront land on the site and demonstrate improved biodiversity outcomes through regeneration of degraded watercourse and establishment of a self-sustaining eco system on the site. Refer to the discussions in Sections 5.2 and 5.3 of this report.

Part/ Section	Development Control	Compliance
Part C – Design Guidelines		
C.4	Heritage Conservation	Complies.
	This section applies to all heritage items and conservation areas to which clause 5.10 of the LEP applies. C.4.1 requires developments that may impact a heritage listed property or conservation area are to be accompanied by a Heritage Impact Statement.	Given the heritage locale of the subject site, the Statement of Heritage Impact (**Appendix L**) has considered the impact of the proposed development on the significant fabric, design or layout, landscape and trees or on the heritage setting or any significant views.
	C.4.2 outlines the owners' responsibilities for protecting heritage items.	The proposed development will not result in surrounding landowners causing harm to the heritage items within the vicinity of the subject land. The applicant has consulted with the landowners of 56-60 New England Highway, Lochinvar to ensure the proposed road widening and intersection upgrade allows for their continued protection of the heritage value of the Holy Trinity Church. The proposed road works does not have any impact on the State listed Victoria House.
	C.4.3 outlines general requirements for alterations and additions to a heritage building.	The proposed road widening, intersection upgrade works and associated relocation of the church fencing fronting New England Highway has been designed to accord with the requirements of Clause C.4. The heritage listed Holy Trinity Church building and its immediate curtilage is located outside of the proposed works footprint however the existing fencing fronting New England Highway is included. The Concept Civil Engineering Plans attached at **Appendix C** detail the proposed works while the Statement of Heritage Impact attached at **Appendix L** provides an assessment of the works against the applicable legislative and Maitland Development Control Plan 2011 provisions confirming the overall heritage value of the item and surrounding curtilage is maintained.

Part/ Section	Development Control	Compliance
	C.4.6 provides the considerations for other developments in the vicinity of a heritage item.	The main view corridors to the heritage items are from New England Highway, and the southern end of Cantwell Road. The proposed residential subdivision development is located at the northern end of Cantwell Road away from these view corridors, with a substantial buffer of 165m to the church site. As such, the heritage values of the nearby properties will not be diminished by the proposed development.
	C.4.8 provides the requirements for subdivision of land affected by a heritage item or located within a heritage conservation area.	The proposed subdivision on 60 New England Highway involves minor realignment of the western and southern boundaries to accommodate road widening near the intersection. Apart from the relocation of the access from Cantwell Road and part of the masonry fencing on New England Highway, and tree removal, no other works that intensify the land use or affect the density of the existing development is proposed. The existing vistas and views to the church will not be adversely impacted by the proposed subdivision.
C.10	Subdivision This section aims to promote efficient land use in Maitland through innovative subdivision designs that enhance sustainability, and environmental protection while creating a strong sense of community. Developments are required to preserve rural character, address physical constraints, and safeguard cultural and ecological resources, while supporting diverse subdivision forms.	The proposed subdivision demonstrates orderly development of land with a permeable road network linking future developments to the east. The development is responsive to the site's topography and constraints, and the lot layout ensures protection from flood and bushfire. Repair and restoration of the riparian corridor forms an integral part of the development to ensure the ecological values of the subject site are protected and enhanced. The proposal also includes appropriate mitigation measures to protect the heritage values of the adjoining property to the south where boundary adjustment is proposed.
EC.1	Flora and Fauna This section aims to protect and restore bushland, habitats, and wildlife corridors, minimize environmental impacts from future development, and enhance natural systems like watercourses and drainage lines.	This application is accompanied by: • A SBDAR (**Appendix G**) which provides a flora and fauna assessment, along with measures included to minimise impacts. • A Waterfront Land Assessment Report to

Part/ Section	Development Control	Compliance
		identify the waterfront land on the site and the applicable riparian zones through ground truthing. Refer **Appendix I** • A Biodiversity Management Plan to repair and rehabilitate the degraded riparian corridor through the site. Refer **Appendix J.** • An Aquatic Ecology Assessment to identify the type of Key Fish Habitat, the impact of the development on the existing species and includes recommendations to improve the diversity of the aquatic species. Refer **Appendix H** The above studies and the recommendations included to enhance the biodiversity values comply with the requirements of this section. Refer to the assessment in Section 5.3 of this report for further details on these matters.
EC.2	Heritage and Archaeology This section aims to protect heritage items, buildings and Conservation Areas, including items and places of archaeological heritage significance.	The Statement of Heritage Impact Assessment prepared by EJE (**Appendix L**) and the Aboriginal Cultural Heritage Assessment by McCardle Cultural Heritage Pty Ltd (**Appendix K**) meet the requirements of this section. Refer to the discussion under **Section 5** for details.
EC.3	Hazards This section aims to minimise risk to life and property from hazards such as bush fires, flooding, landslip, land contamination, salinity and acid sulfate soils.	**Section 2.2** of this report identifies various site constraints affecting the development. *Flooding* The subdivision has been designed to provide protection from bushfire and flood risks. The lots are located outside the modelled 1% AEP levels, and future developments on the lots are capable of meeting the flood planning levels. *Bushfire* The Bushfire Assessment Report submitted with the application demonstrates compliance with the requirements in Planning for Bushfire Protection (PBP) 2019. Refer to the

Part/ Section	Development Control	Compliance
		discussion under **Section 5** for details. *Landslip* The geotechnical investigation undertaken by Qualtest Laboratory (NSW) Pty Ltd (**Appendix O**) assesses the development as having low risk of slope instability. *Contamination* The PDSI Qualtest (NSW) Pty Ltd (**Appendix N**) concludes no significant contaminants on the site and that it is suitable for the proposed use without any remediation. The site is not affected by salinity or acid sulfate soils.
DC.1	Lot Size and Dimensions	
	Lots are to be of suitable shape and site for their future use. Lot boundaries should follow natural features.	All the lots comply with, or exceed, the minimum lot size required for the development. The road and lot boundaries are typically guided by the creek alignment and the landform.
	Minimum frontage of 12.5m is required at the road frontage for rectangular lots. Irregular lots should be capable of accommodating suitable setback and building envelope.	While most of the lots are rectangular, the layout contains a few irregular sized lots due to the site's configuration and natural features. However, such lots have larger sizes to comfortably accommodate a building envelope. All the lots meet the minimum frontage of 12.5m.
	Minimum frontage of 10m chord length for lots along sharp bends and cul-de sacs.	The lots along the bends have substantial frontage exceeding 10m to allow for access, service and garbage collection.
	DC.1.1 No more than 40% of the lot frontages within each street block may have the same lot width.	While the subdivision layout does not strictly comply with this requirement, it should be noted that the layout includes a wide range of lot sizes to provide variety and flexibility in the dwelling type and design. 76% of the lots with sizes in the range 450-500m^2 exceed the minimum requirement. 17% of the total lots have sizes between 500-600m^2, with 9% having areas in excess of 600m^2. The corner lots in the larger blocks are orientated differently to break up

Part/ Section	Development Control	Compliance
		the monotony of the future built forms. Further, the largest street block in the layout contains only 12 lots which is not excessive to create a monotonous frontage. Therefore, it is considered that the proposed layout meets the intent of the control and is consistent with subdivisions in other urban release areas.
	DC.1.2 A subdivision structure plan reflecting site's opportunities and constraints should be submitted	The Landscape Urban Design Report in **Appendix F** provides a detailed understanding of site's opportunities and constraints.
	DC.1.3 The proposal should demonstrate a clear urban structure that promotes a 'sense of neighbourhood' and encourages walking and cycling both recreationally and for transport purposes.	The subdivision is designed with due consideration to the movement pattern in Lochinvar DCP. Refer to the details in **Appendix F**
	DC.1.4 – The residential subdivision design should consider natural features including outlook, and proximity to public and community facilities.	The subdivision design is responsive to site's slopes, the natural features and the surrounding landscape. The lots are designed to maximise the outlook towards the creek and the rural lands to the north. The site has good access to the facilities and services in Lochinvar, as detailed in Section 2.1 of this report and **Appendix F**.
	DC.15 Residential lots should be able to accommodate a suitable building envelope with minimum dimensions of approximately 15m by 10m behind the building line.	All lots are capable of accommodating a suitably sized building envelope.
	DC.1.9 Width of a single access handle for a battle axe lot is 4m.	No battle-axe lots are proposed.
DC.2	Solar Access and Energy Efficiency Design of residential development should maximise solar access to the lots and allow flexibility in the siting of dwellings to take advantage of northern orientation.	The lots are orientated such that the majority of the future dwellings can be designed to have a northerly aspect for their private open spaces at the rear. Where this is not achievable, easterly aspect can be utilised to maximise solar access. The subdivision layout aims to maximise solar access and energy efficiency of the future dwellings.
DC.3	Drainage, Water Quality and Soil Erosion Existing topographical features should be considered in the design of drainage and	The existing design and topography have been incorporated into the stormwater management design to maintain the existing drainage

Part/ Section	Development Control	Compliance
	treatment systems. Adequate erosion control should be implemented to ensure the landform is stablished and to control sediments.	pattern and to enhance the water quality. Combined bioretention/detention basins at the outlet of the eastern and western catchments on the site are proposed to control the quality and quantity of post development flows. The stormwater quality treatment train comprises gross pollutant traps and bioretention basin to meet Maitland Council's current nominated targets. Refer to the Stormwater Management Report in **Appendix D** and the discussion under **Section 5** of this report for details. As indicated in the Subdivision Plan, the development includes inter-allotment drainage to convey run off from all parcels of land into the proposed drainage network. Erosion control measures for the creek will be implemented in accordance with the Biodiversity Management Plan (**Appendix J**). A Soil and Water Management Plan will be developed at the Subdivision Works Certificate stage to ensure appropriate environmental safeguards are in place during the construction phase.
DC.4	Landscape, Streetscape and Visual Impact	The development is proposed on a parcel of land which exists as an open pasture with no significant canopy cover. As such the proposed subdivision itself will not result in a significant change in the visual environment.
	The development should maintain and enhance existing streetscape and minimise visual impacts.	Due to its isolated location at the northern end of Cantwell Road, the subject site has minimal exposure to the public domain and limited visual catchment. Adjoining rural lands to the north of the subject site do not have any residential properties with outlook towards the subject site or the heritage significant sites on Cantwell Road. As such it is considered that the future residential development on the site will not adversely affect the existing view corridors to the heritage items or the outlook of the locality, despite the

Part/ Section	Development Control	Compliance
		change caused by future dwelling construction. Given no adverse impacts, the changes to the visual environment are considered acceptable when balanced against the benefits of additional housing in the LGA.
DC.5	Effluent Disposal	
	Subdivisions are to be designed to allow effluent disposal in an environmentally sustainable manner.	Reticulated sewer services will be made available to the site through the implementation of Wyndella Road Wastewater Servicing Strategy. The civil works plans prepared by GCA (**Appendix C**) indicate the sewer reticulation systems on the site are within the footprint of disturbance required for the civil works associated with the subdivision.
DC.6	Roads, Access, Pedestrian and Cycleways Subdivisions are to provide a safe and appropriate level of access with hierarchical network of roads and clear physical distinction between each type. Provisions for emergency and service vehicles should be made along with accessible bus/public transport routes.	The road network and hierarchy has been designed in accordance with the requirements for Lochinvar URA and the pre-lodgement advice received from Council. These are discussed in detail in **Section 4.2.6** of this report.
DC.7	Crime Prevention – Safer by Design Subdivision should be designed to mitigate crime risk	The subdivision layout has been designed with due consideration to the principles of crime risk prevention through environmental design to minimise crime risks as detailed below: • The lots are oriented such that future dwellings can be designed to have passive surveillance over the public domain and the riparian areas. The layout does not contain blind corners or dense plantings that provide concealment opportunities. • The proposed development includes a permeable road network with footpaths to enable pedestrian interaction and casual surveillance. • Appropriate streetlighting will be provided in accordance with Australian standards to reduce fear and anti-social behaviour. • The Landscape Masterplan prepared by Terras is

Part/ Section	Development Control	Compliance
		attached as **Appendix E**. The proposed plantings and fencing provide clear delineation between public and private lands. It is noted that future dwellings will include fencing and landscaping which will further differentiate these spaces and enhance the access control and territorial reinforcement.
DC.8	Site Filling This section aims to minimise the environmental impact of site fill. Consent is required for earthworks and the absolute maximum fill depth is limited to 2m.	This application seeks consent for the earthworks associated with the development. Although development has been designed compatible with existing terrain to minimise earthworks where possible, cut and fill excess of 2m is required in steeper locations, mainly to enable the watercourse crossing to be located above 1% AEP and for road construction along the eastern part of the creek. The civil works on the eastern part of the site are designed to tie in with the development on the adjoining land. If the fill is restricted to 2m, the development will not be able to provide a safe evacuation route, and it will lead to more earthworks at the interface with the adjoining land to the east. Therefore, the proposed earthworks are considered acceptable in this instance.
DC.9	Reticulated Services (water, sewer, electricity and telecommunication) All lots in the development are to be connected to appropriate utility services in a cost effect manner.	The site is capable of being connected to all essential services. Refer to the discussion relating to clause 6.2 of the LEP in **Section 4.2.4** of this report.

4.2.6 LOCHIVAR URBAN RELEASE AREA

Part F of Maitland DCP contains specific objective requirements and standards to guide developments in urban release areas.

The subject site is located in the north-western part of Lochinvar Urban Release Area which is identified as a key site to achieve the dwelling targets for population growth in the Lower Hunter. The proposed development with 138 residential lots constitutes approximately 2.7% of the expected lot yield of 5000 lots from the URA. The subdivision has been designed with due

consideration to the requirements in Part F.9 of the DCP which contains specific provisions for Lochinvar URA, as discussed in the following sections.

Section 1.1 Staging Plan

All development applications are to demonstrate consistency with the staging plan (refer **Figure 15**) in Lochinvar DCP to ensure timely and efficiently lot release with necessary infrastructure. A staging plan is required for subdivisions where the development is intended to be constructed in stages.

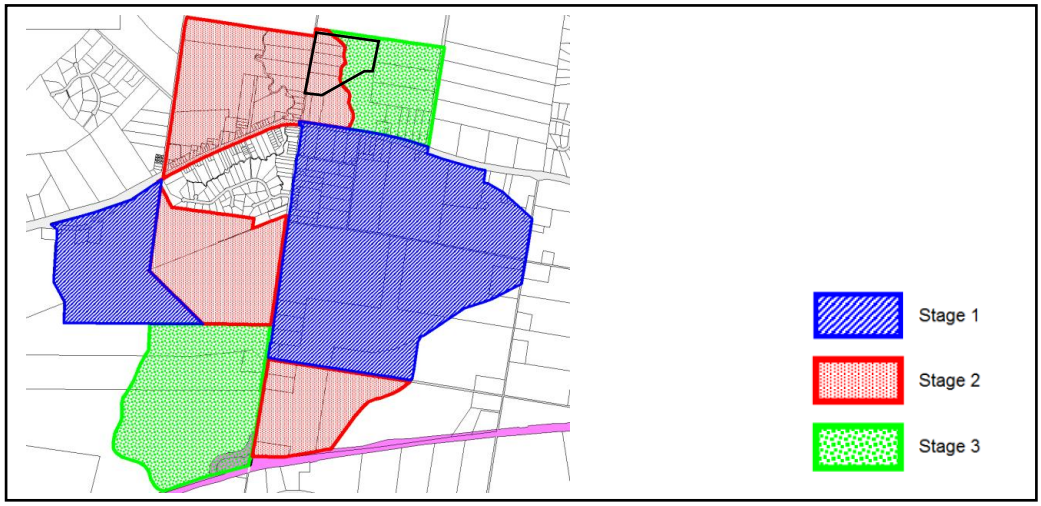
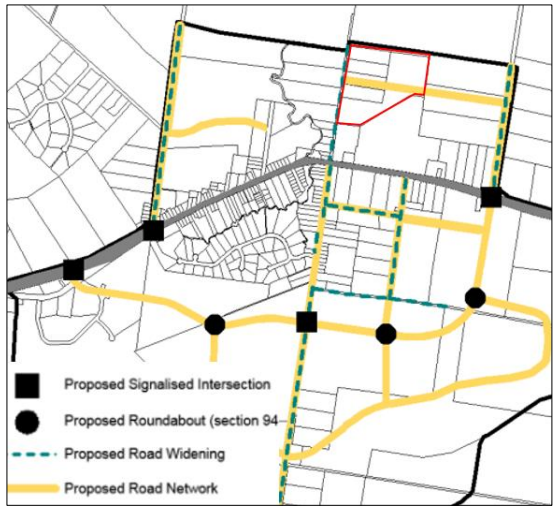


***Figure 15**: Staging Plan for Lochinvar URA (Source: Maitland DCP)*

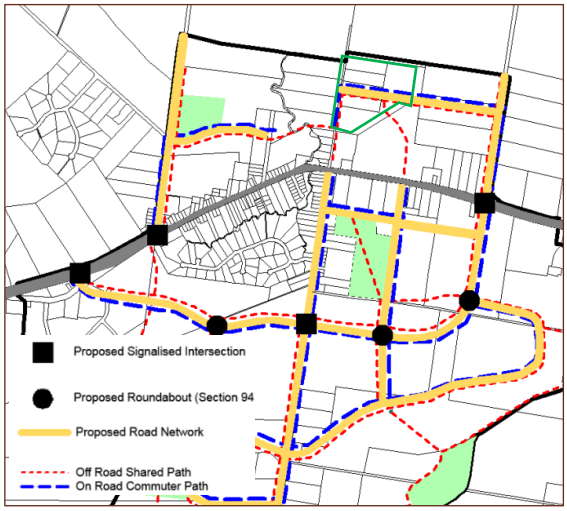
The subject site is identified in Stages 2 and 3 of the Lochinvar URA, with Stage 1 nearing completion. The Lochinvar DCP does not specify any servicing thresholds or limitations to the commencement of lot release on the subject site. The site is accessible from Cantwell Road which can accommodate additional traffic with the proposed upgrades. The servicing strategies submitted with this application demonstrates the capability of the site to be developed independently, noting the delivery of sewer services will be undertaken in collaboration with the adjoining parcels to the east which are currently under assessment by Council. Although the eastern part of the subject site is identified in Stage 3, it is logical and cost effective to service and develop the entire parcel as proposed herein.

Section 1.2 Transport and Movement

The overall movement hierarchy, and pedestrian and cycleway network required for Lochinvar URA are illustrated in **Figure 16**. The works relevant to the proposal include widening of Cantwell Road, an east-west link to Wyndella Road through the subject site, and pedestrian/cycleway linkage towards Windermere Road to the west and Wyndella Road to the east.



Lochinvar URA Proposed Road Network and Road Widening



Lochinvar URA Pedestrian Cycleway and Networks

***Figure 16**: Road network and pedestrian/cycleway infrastructure required for Lochinvar URA (Source: Maitland DCP)*

As demonstrated in **Figure 10**, the proposed subdivision includes an east-west distributor road with a pavement width of 15m as identified in the DCP. This road with a 1.5m wide footpath on the northern side, and a 2.5m wide cycleway on the southern side has been designed to integrate with the proposed road through the adjoining CPG development.

Cantwell Road is required to be widened to a primary collector road with a pavement width of 11m. While this road is not identified as a bus route in Lochinvar DCP, Council's pre-lodgement meeting advice (18 July 2024) requires 3.5m wide travel lane in each direction to cater for buses. The proposed half road construction along the entire frontage of the subject site achieves a lane width of 3.5m. However, the widening of the remaining length of Cantwell Road towards the south is limited to 6m (pavement width) to minimise impact on the heritage listed properties. A bus route connection to New England Highway will require significant boundary adjustment and disturbance to the curtilage of the nearby heritage items, particularly the Victoria House. The proposed road upgrades on Cantwell Road and the intersection can accommodate two-way movements for vehicles including semi-trailers and service vehicles. Given these constraints and lack of an identified need in the DCP, the proposed upgrade of Cantwell Road is considered appropriate for the proposed development. Further, it should be noted that these limitations are acknowledged in Section 5.4.3 the Lochinvar Structure Plan as provided below:

"The existing intersection at Station Lane / Cantwell Road with the New England Highway is proposed to be closed to the south and temporarily remain open to the north. Alternatively, future traffic studies may identify the intersection as remaining open but is not likely to be considered for any upgrading due its visually sensitive location within the heritage precinct of the existing village. It is likely to be limited to left in and left out in this location and as such, local roads should be designed to direct traffic flows away from Station Lane north of Christopher Road."

The above excerpt confirms the function of Cantwell Road as a temporary access until such time the east-west distributor road is constructed to provide a link to New England Highway via Wyndella Road.

All perimeter roads in the subdivision are capable of meeting the minimum carriage way width of 8m. Table 4-2 of the Traffic Impact Assessment (TIA) prepared by SCT Consulting attached in **Appendix P** demonstrates the compliance of the proposed road widths with Council's engineering requirements.

The proposed 2.5m wide shared path along the full frontage of the subject site, together with the cycling and pedestrian infrastructure on the east-west link road meet the connectivity requirements in Lochinvar DCP. Further it is noted that the pedestrian and cycleway network in the northern part of the URA connect to New England Highway at the proposed signalised intersections on Windermere Road and Wyndella Road, refer Figure 16.

Section 1.3 Overall Landscaping Strategy

This application is accompanied by a Landscape Masterplan prepared by Terras (**Appendix E**) which aims to create a functional and aesthetic landscape to strengthen biodiversity, ecological community while maintaining site's attributes.

The landscaping strategy includes the following to improve the biodiversity values, visual amenity and overall appeal of the proposed development:

- extensive plantings of native vegetation from PCTs similar to those on the site, to repair and regenerate the riparian corridor (VRZ)
- trees and mass plantings in the conservation area outside the VRZ to create a landscaped meander along the creek
- varying type of street trees to define the hierarchy and type of roads in the subdivision
- signage and fencing at the main entrance from Cantwell Road to provide identity to the estate

Adjoining developments will be buffered by the proposed road system and the landscaping on the subject site. The subdivision will not create lots that back onto other residential lots to warrant other boundary treatments for visual break. The proposed landscaping will provide a distinctive character to the estate and soften the impact of the development while enhancing the biodiversity values.

Section 1.4 Passive and Active Recreation Areas

It is considered that the development includes an appropriate level of pedestrian and cycleway infrastructure to establish the linkages envisaged in Figure 59 of Lochinvar DCP (refer **Figure 16**). While no specific passive and active recreational areas are identified on the subject site, the proposal includes a landscaped buffer to the vegetated riparian corridor, with footpaths and a seating area for passive recreational use and activation of this space, as shown in **Figure 17**.

***Figure 17** – Passive recreational space along the riparian corridor - (Source: Terras 2025)*

Section 1.5 Stormwater and Water Quality Management

The Stormwater Management Report (**Appendix D**) contains strategies to manage the quality and quantity of stormwater runoff from the subject site. The proposed stormwater management plan demonstrates the post development flows are lesser or comparable to pre-development flows. MUSIX modelling undertaken meets the water quality targets. **Section 5.11** of this report provides a detailed discussion on the proposed stormwater management.

Section 1.6 Amelioration of Natural and Environmental Hazards

This section contains aims at amelioration of environmental hazards including bushfire, site contamination and other natural hazards and ensuring safe evacuation is available from the affected land.

Flooding

The subdivision has been designed to provide protection from bushfire and flood risks. The lots are located outside the modelled 1% AEP levels, and future developments on the lots are capable of meeting the flood planning levels. Refer to **Appendix D** and discussion under **Section 5.6** for details.

Bushfire

The Bushfire Assessment report submitted with the application (**Appendix M**) demonstrates compliance with the requirements in PBP 2019. Refer to **Section 5.5** for details.

Landslip

The geotechnical investigation undertaken by Qualtest Laboratory (NSW) Pty Ltd (**Appendix O**) assesses the development as having low risk of slope instability.

Contamination

The PDSI by Qualtest (NSW) Pty Ltd (**Appendix N**) concludes no significant contaminants on the site and that it is suitable for the proposed use without any remediation. Refer to the discussion under **Section 5.4**.

Salinity and acid sulfate soils

The subject site is not affected by salinity or acid sulfate soils.

Noise and vibration

The subject site does not adjoin transport corridors or other noise generating uses which warrant further investigation of acoustic and vibration impacts. Future residential development on the subject site will be surrounded by residential properties to the east and west and vacant parcels to the north which are not significant generators of noise and vibration.

While the playground of the neighbouring school adjoins the southeast boundary, the drainage reserve and the distributor road at this interface provide adequate separation to the nearby lots.

Impact of noise and vibration during construction will be managed through an appropriate Construction Environmental Management Plan prepared at the Subdivision Works Stage.

Visual impact

The subject site and adjoining lands are not identified as visually sensitive locations.

Due to its isolated location at the northern end of Cantwell Road, the subject site has minimal exposure to the public domain and limited visual catchment. Adjoining rural lands to the north of the subject site do not have any residential properties with outlook towards the subject site or the heritage significant sites on Cantwell Road. As such the future residential development on the site will not affect the existing view corridors to the heritage items or the outlook of the locality, despite the change caused by the dwelling construction. Additionally, the riparian corridor and landscaping through the centre of the subject site will provide a green belt to break up the visual bulk of the development.

In summary, all environmental hazards associated with the development has been considered and suitable mitigation measures have been included to ensure the safety of the future occupants.

Section 1.7 Aboriginal and European Heritage

Aboriginal Heritage

An Aboriginal Cultural Heritage Impact Assessment(ACHA) was undertaken by McCardle Cultural Heritage Pty Ltd to identify the archaeological constraints for the development and to ensure any cultural materials are protected through appropriate mitigation and management. A copy of this report is attached as **Appendix K**.

No archaeological sites were identified during the site survey, largely due to the grazing and clearing activities in the past, and the muddy ground conditions. The ACHA identified the areas within 30m on either side of the bank as a potential archaeological deposit (PAD) due to relatively lower subsurface disturbance and recommended further investigation prior to any works commencing on the subject site. However subsequent archaeological test excavation was undertaken within the potential PAD site in connection with the Wastewater Pump Station project initiated by CPG, and no sites were identified. The details of the findings and the reassessment that the previously identified PAD site is not relevant is attached in an Addendum letter prepared by McCardle Cultural heritage in **Appendix K**. Refer to the discussion under Section 5.7 for further details.

European Heritage

The Statement of Heritage Impact prepared by EJE (**Appendix L**) has identified the European heritage constraints in relation to the proposed development to ensure that the works do not detract from nor impact the heritage value of the existing items within and surrounding the subject land. The report outlines appropriate mitigation measures to the affected aspects of the heritage item noting the primary item being the 'Holy Trinity Church' building will not be affected by the works.

The design of the proposal has been developed in collaboration with EJE with alternative options considered prior to finalisation with the current design considered as the most appropriate as it avoids any impact to the State Heritage listed item 'Victoria House'. Refer to the discussion under **Section 5.8**.

Section 1.9 Key Development Sites

According to this section, clearing should be minimised on environmental management land with mechanisms implemented to protect established vegetation and riparian areas. Asset Protection Zones (APZs) are to be entirely accommodated within the residential zone without encroaching into the environmental zone.

The site does not contain vegetation of high biodiversity value. The limited native vegetation present along the creek corridor is in severely degraded to poor condition. Removal of 0.5 hectares of vegetation is offset through the establishment of self-sustaining ecosystem containing 2.33hectares of revegetated land along the riparian corridor.

The APZs required for the development are contained within the road corridors without encroaching into the vegetated areas.

Section 1.11 Neighbourhood commercial and retail uses

Lochinvar DCP does not nominate any commercial or retail uses on the site.

Section 1.12 Provision of public facilities and services

The development includes appropriate levels of services for the proposed scale of the development.

This application is accompanied by a Water and Sewer Servicing Report prepared by GCA to demonstrate reticulated water and sewer services can be made available to the proposed development. This report and Hunter Water Notice of Requirements (including stamped plans) are attached as **Appendix S**. Hunter Water's correspondence confirms adequate capacity in the existing water supply network on New England Highway to service the development. The proposal includes a watermain along Cantwell Road as part of Stage 1 works. The vegetation removal and disturbance associated with the construction of this infrastructure has been considered in this application.

The subject site is identified in the approved Windella Road Wastewater Servicing Strategy, the implementation of which will deliver reticulated sewer services to the site.

Concepts plans demonstrating electricity reticulation to the site from the existing infrastructure on Cantwell Road has been prepared by Power Solutions and is attached in **Appendix T**. A preliminary enquiry has been lodged with Ausgrid to confirm the electrical concept plan arrangements.

Existing NBN resources at the intersection of Cantwell Road and New England Highway can be extended to service the proposed development.

It is considered adequate arrangements have been or will be made for the provision of all services to all residential lots within the subdivision.

5. ASSESSMENT OF ENVIRONMENTAL IMPACTS

This section provides an assessment of the key matters/issues that are likely to have an impact on the built and natural environment, including socio-economic impacts, as required in Section 4.14(1)b of the EP&A Act.

5.1 CONTEXT AND SETTING

The subject site is located within Lochinvar URA, an area designated for urban development and intensification to support housing in both the LGA and lower Hunter. The development is contiguous with the proposed residential subdivision to the east, ensuring seamless integration with surrounding development. There are no significant environmental constraints or land use conflicts that would preclude development of the site. The proposal aligns with the vision for orderly growth, contributing to the desired character of the area while safeguarding and enhancing its natural features and ecological values.

5.2 WATERFRONT LAND AND AQUATIC ECOLOGY

The site contains a natural watercourse, which is recognized as key fish habitat. Investigations have been undertaken by AEP to determine the waterfront land on the subject site and to evaluate the condition of the aquatic environment. The proposal is informed by the Waterfront Land Assessment Report (**Appendix I**) and the Aquatic Ecology Assessment (**Appendix H**) prepared by AEP and these documents are submitted with the application in support of the integrated development referrals to DPI-Water and DPI-Fisheries, respectively.

Waterfront Land Assessment

Based on the desktop analysis of the NSW Hydroline Spatial Data, the creek across the subject site is considered as a third order watercourse as shown in **Figure 18**. However, as the conditions on the subject site and broader areas did not align with the mapping system, a merit-based assessment (i.e. the Waterfront Land Assessment Report) was undertaken by AEP to determine the location, type, and appropriate riparian zone for the watercourse across the site.

The study area included the subject site and surrounding catchment areas to the east, and land to the south of New England Highway where watercourses are indicated in the NSW Hydroline Spatial Data. The hydrolines obtained from the map were numbered as segments for the purpose of assessment and field surveys were undertaken in August 2022, and May 2024 to determine the presence of the following features:

- Defined bed and bank
- Evidence of flow and geomorphic features such as pools, riffles, erosion, low flow channel etc, and the
- The presence of riparian/aquatic vegetation within the tributaries.

Additional field surveys were undertaken by surveyors to establish the top of banks. The assessment was undertaken in accordance with the objects and Section 91 of the Water Management Act, and the 'Natural Resources Regulator Waterfront land tool' published by the NSW Department of Planning, Housing and Infrastructure (May 2020).

Analysis of the mapping systems relating to river conditions and characteristics indicated the watercourse on the site to be in poor geomorphic conditions with low biodiversity and instream values. Ground-truth surveys identified a highly modified environment in the location of many of the segments which were mapped as watercourse. These segments did not reflect the attributes of a natural watercourse and were either:

- predominantly swales, erosion channels/gulleys, artificial waterbodies and stormwater infrastructure associated with New England Highway; or
- erosion gullies, overland flow paths, managed grassland, water storage units associated with the agriculture practices on surrounding rural properties.

The assessment concluded that a vegetated riparian zone of 20m on either side of the high bank was most appropriate for the watercourse on the subject site, as shown in Figure **19.**

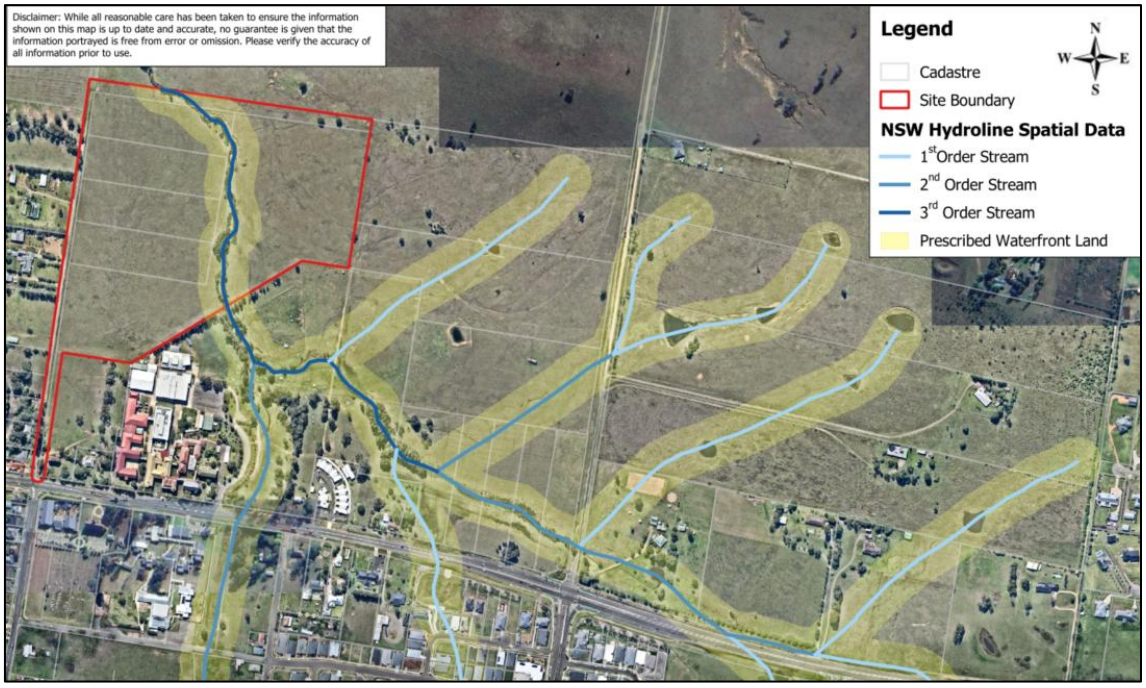


***Figure 18**: Strahler Stream Ordering (Source: AEP, June 2024)*

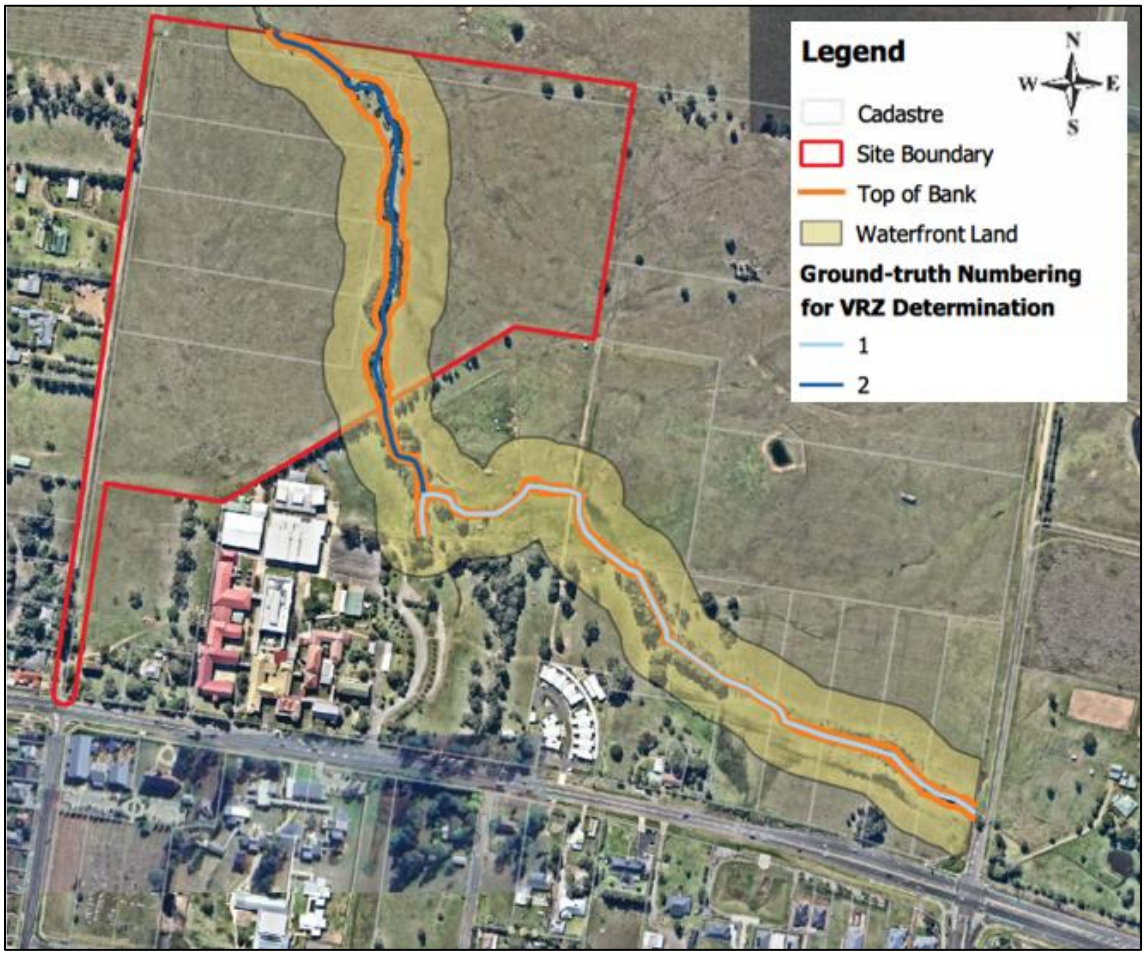


***Figure 19**: Ground-truthed waterfront land (Source: AEP, June 2024)*

The proposed subdivision has been designed to provide a VRZ of 20m with additional areas of native vegetation providing an overall area of 2.33 hectares to be developed and managed under the proposed Biodiversity Management Plan.

While the proposal generally minimises works on waterfront land i.e, land within 40m of top of bank, there are areas with minor encroachment of the road and basin batter. Additionally, the drainage outlets from the basins and extension of Cantwell Road stormwater drainage discharge into the watercourse. Integrated development approval and controlled activity approval will be required for these works. The environmental safeguards proposed in the Aquatic Ecology Assessment and the conditions of approval from DPI-water will ensure these works can be undertaken with minimal impact on the watercourse.

The proposal is expected to repair and regenerate the existing riparian corridor and improve the biodiversity values of the site.

Aquatic Ecology Assessment

An Aquatic Ecology Assessment was conducted by AEP to evaluate the health of the aquatic environment on the subject site, which is mapped as a key fish habitat.

Field investigations by AEP revealed that the creek and its riparian corridor are in a highly degraded and modified state, with limited native vegetation, significant weed infestation, and poor habitat value. The seed loads transported through the water predominantly consist of exotic

species, which were reflected in the current riparian vegetation cover. The creek was found to be dominated by exotic fish species, particularly Gambusia, with a single native species, the Carp Gudgeon, present.

In summary, vegetation clearing and extensive grazing on the site have led to the following impacts on the creek, which in turn affect its function as key fish habitat:

- Minimal to no native terrestrial vegetation
- Absence of aquatic habitat
- High erosion points due to domestic stock access and slumping during higher flow events
- Limited or no key creek features such as meanders, pools, riffles, and snags

The combination of blockages and the highly degraded state of the watercourse resulted in a classification of Type 3 – minimally sensitive key fish habitat.

No threatened species listed under the FM Act were identified within the proposed area of works.

The creek is situated in the upper tributaries of the Hunter River, and if operational, it would offer refuge for aquatic and semi-aquatic species, especially during high-flow events, while also serving as breeding and foraging habitat for these species.

The proposed development includes the following works to restore the functioning of the creek as a key fish habitat:

- removal of two blockages to fish passage
- installation of a fish-friendly box culvert for the watercourse crossing
- vegetated rehabilitation batter to remediate eroded banks
- planting of native vegetation within the aquatic zone and adjoining riparian lands

The proposed works to rehabilitate the severely eroded banks in the northeast and remove all blockages to fish passage through the installation of a culvert crossing will only have a direct impact on the creek during construction. After construction, there will be no direct impact, as the long-term benefits of restoring the natural creek will enhance key features, improve flow and water quality, reduce weed seed loads, and increase aquatic habitat in the area.

Section 8 of the Aquatic Ecology Assessment contains the following recommendations to minimise localised impacts on biodiversity and improve the biodiversity outcomes in the locality:

- detailed design by suitably qualified engineer and aquatic ecologist to stabilise the banks and restore the creek into a natural state
- diversion measures during construction within waterfront land if necessary
- implementation of a Biodiversity Management Plan (BMP) for the riparian land and additional areas where revegetation is proposed
- supervision of works by a qualified and experience Project Ecologist
- temporary fencing and signage to delineate the construction zone
- controlled access and use of machinery
- installation of woody debris
- staged construction to allow the flow of water
- aquatic floating screen for sediment control
- preparation of a Sediment and Erosion Control Plan
- Council to impose a condition for a Construction Environmental Management Plan which species waste disposal during construction.

5.3 FLORA AND FAUNA

The development will require the removal of 0.5 hectares of native vegetation on the subject site along with clearing of other non-native species. The SBDAR undertaken by AEP (**Appendix G**) utilises methods applicable to the 'Small Areas' module, detailed within the *Biodiversity Assessment Method Order 2020* to identify inherent biodiversity values on the subject site, including known and potentially occurring threatened species and ecological communities, and quantifies impacts of the proposal upon these values.

The study area for the SBDAR included the subject site, adjoining road reserves, and part of Lot 2 DP 1214402 including the area affected by the road widening (the study area). While the study area is not identified in the Biodiversity Value mapping, the SBDAR is triggered by the proposed clearing of 0.5 ha of native vegetation which exceeds the threshold of 0.25 hectares for the subject site.

Plot-based flora surveys were carried out by AEP in May and June 2024 to ground-truth native vegetation, identify PCTs and condition classes, and determine vegetation community types according to relevant guidelines. **Figure 20** shows the Plant Community Types (PCTs) observed in the study area which includes:

- An isolated patch (0.39ha) of PCT 3433 – Hunter Coast Foothills Spotted Gum-Ironbark Forest in the northeast. This PCT is severely degraded with limited biodiversity and extensive exotic groundcover.
- 0.11 ha of PCT 4023 – Coastal Valleys Riparian Forest (Poor), patches of remnant plant community type 4023 are present throughout the riparian zone, predominantly consisting of *Typha orientalis* and *Juncus acutus subsp. acutus* with no mid to upper stratum present. A small patch of Casuarina glauca near the proposed creek crossing is the only canopy cover present.
- 15ha of 'planted native' vegetation due to the presence of Cynodon dactylon.
- 1.15ha of non-native vegetation outside the site, where road upgrades are proposed, including clearing on Lot 2 DP1214402.

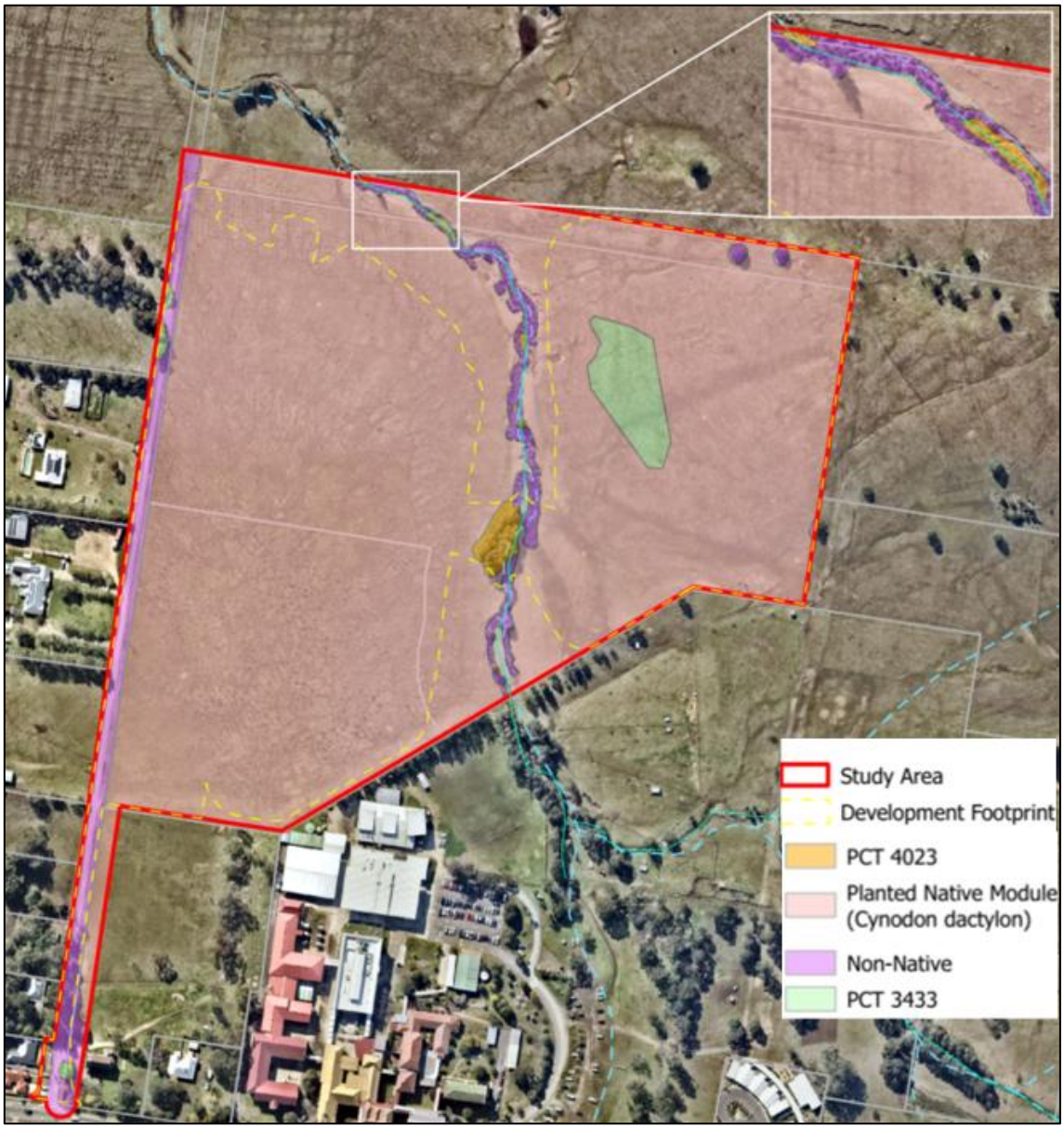


***Figure 20**: Ground-truthed vegetation in the Study Area (Source: AEP, June 2024)*

The majority of the study area is dominated by planted native grassland, with high weed presence and poor vegetation diversity resulting in a highly degraded environment with limited connectivity and poor regeneration potential. Notwithstanding, the proposal is informed by a Waterfront Land Assessment conducted by AEP to ensure the ecologically sensitive areas on the site and associated vegetated riparian zones are appropriately identified. The development has been designed to utilise the areas of lowest biodiversity values where possible and hence avoid and minimise impacts to the areas of higher value and surrounding vegetation whilst retaining higher valued habitat and connectivity.

The assessment includes both desktop and habitat assessments to identify potential use of the land by threatened fauna. The species recorded were typical of those expected in this area and in this type of remnant habitat, with existing connections to larger offsite habitat patches.

The PCTs in the study area are not associated with Commonwealth-listed Threatened Ecological Communities and as such no additional Commonwealth-level assessments were required. However, as these PCTs contain koala-use tree species, the SBDAR includes a Tier 2 Assessment for further investigation of koala presence in the study area.

The BioNet records showed no koala sightings within 5km of the study area in the last 18 years. No koala scats or tree scratch marks were found during surveys at 120 tree bases within the study area. The nocturnal surveys revealed no koala activity, and no response was received to call playback. Therefore, the assessment concluded that the site is not a core koala habitat and that the proposal will have no impact on the koalas now or in the future.

The Important Areas Habitat mapping identified a Serious and Irreversible Impacts (SAII) listed species, Swift Parrot within the study area. Accordingly, the SAII impact assessment was undertaken which determined no adverse impacts.

The only hollow-bearing tree identified for removal is located on the Cantwell Road reserve near the highway. Due to the small size of the hollow and its proximity to a busy road corridor, it is not considered to have significant habitat value to result in adverse impacts.

The impact of the clearing will be offset through ecosystem credits outlined in the SDBAR and regeneration of approximately 2.33hecatres of native vegetation along the riparian corridor and the additional vegetated area in C3 zone. Once established, the revegetated areas will improve the ecological value of the aquatic and terrestrial environment resulting in a net gain in the biodiversity value.

Biodiversity Management Plan

A BMP (**Appendix J**) has been developed for the establishment and management of the proposed 2.33 hectares of vegetation regeneration land. The aim of the BMP is to revegetate and manage the flora and fauna to create a resilient and self-sustaining eco system within a timeframe of five years. It is anticipated that after the 5-year duration of the BMP, the vegetation will be in a state of natural regeneration and self-sustenance, requiring only a low level of maintenance to address sporadic weed incursions.

The works on the BMP land will commence once all the civil works required to stabilise the riparian corridor (stabilisation of batter, erosion control, clearing of blockage etc.) and the culvert construction are completed. Works on BMP land will be undertaken by a Bush Generation Contractor in consultation with the project Ecologist. To clarify, the BMP only deals with works associated with weeding, revegetation and management of the land. All other civil and preparatory works associated with the riparian land will be undertaken as part of civil works.

The following restoration techniques are proposed on the BMP land to create a naturally regenerating eco system:

- Reconstruction Approach – This technique is usually adopted in poorly vegetated areas, and it will be widely implemented across the BMP land for initial establishment of the vegetation. Main activities involve primary weeding, installation of jute matting and coir logs in high-flow areas, and mulching in areas without matting. Trees, shrubs, and ground species will be planted in suitable areas at densities specified in Appendix B of the BMP, with guards installed around trees and shrubs. The approach also includes watering, secondary weeding, maintenance, and replacement of dead plants as per the BMP.

- Facilitated Regeneration Approach - This approach is used in areas with an intermediate level of vegetation regeneration and focuses on minimising active intervention. Works involve any active interventions, as determined by the bush regeneration contractor, typically include weeding, planting where appropriate, installing plant guards, watering,

maintaining, and replacing dead plants. The BMP land is expected to reach this stage by the end of the first year.

- Natural Regeneration – This approach is applied in areas where disturbance and weed cover are minimal, requiring little intervention. The primary task is weeding, aimed at encouraging natural regeneration. The majority of the BMP lands will require significant works and maintenance before this approach can be used due to lack of canopy and high problematic weed loads. The BMP land is expected to reach this stage by the end of the fourth year.

The BMP land is divided into four management zones to achieve the objectives of the BMP, a shown in ***Figure 21***:

- Management Zone 1 (MZ1): Aquatic Zone Reconstruction – This zone is the restored and stabilised natural channel where planting of macrophytes and installation of snags are proposed. Other works include weeding using herbicides and maintenance.
- Management Zone 2 (MZ2): PCT 4023 – Flood Zone Reconstruction Batter – This is the eroded bank in the north-eastern part where batter stabilisation will be undertaken as part of civil works. Works generally include rubbish removal, weeding, installation of batter and filling of rill erosion, installation of jute matting and planting of native trees, shrubs, grasses and forbs that are suited to periodic inundation, tree guard installation and replacement of dead plants.
- Management Zone 3 (MZ3): PCT 4023 – Riparian Reconstruction Forest – This is the inner VRZ (10m landward from the top of bank) which will be densely planted at forest densities with species from PCT 4023. Works will generally include weeding, dense plantings of trees, shrubs, grasses and forbs, mulching mixed with native seed, installation of plant guards and maintenance weeding.
- Management Zone 4 (MZ4): PCT 4023 – Riparian Reconstruction Woodland- This zone comprises the outer 10m VRZ and additional areas within the BMP lands where plantings of trees, shrubs and grasses of woodland density are proposed. Works will generally involve rubbish removal, weeding, dense plantings of trees, shrubs, grasses and forbs, erosion control using jute matting and coir logs where appropriate, installation of plant guards and maintenance weeding.

Refer to the BMP attached as **Appendix J** for full details of the works, monitoring and reporting requirements to ensure regeneration of 2.33 hectares of native vegetation on the subject site.

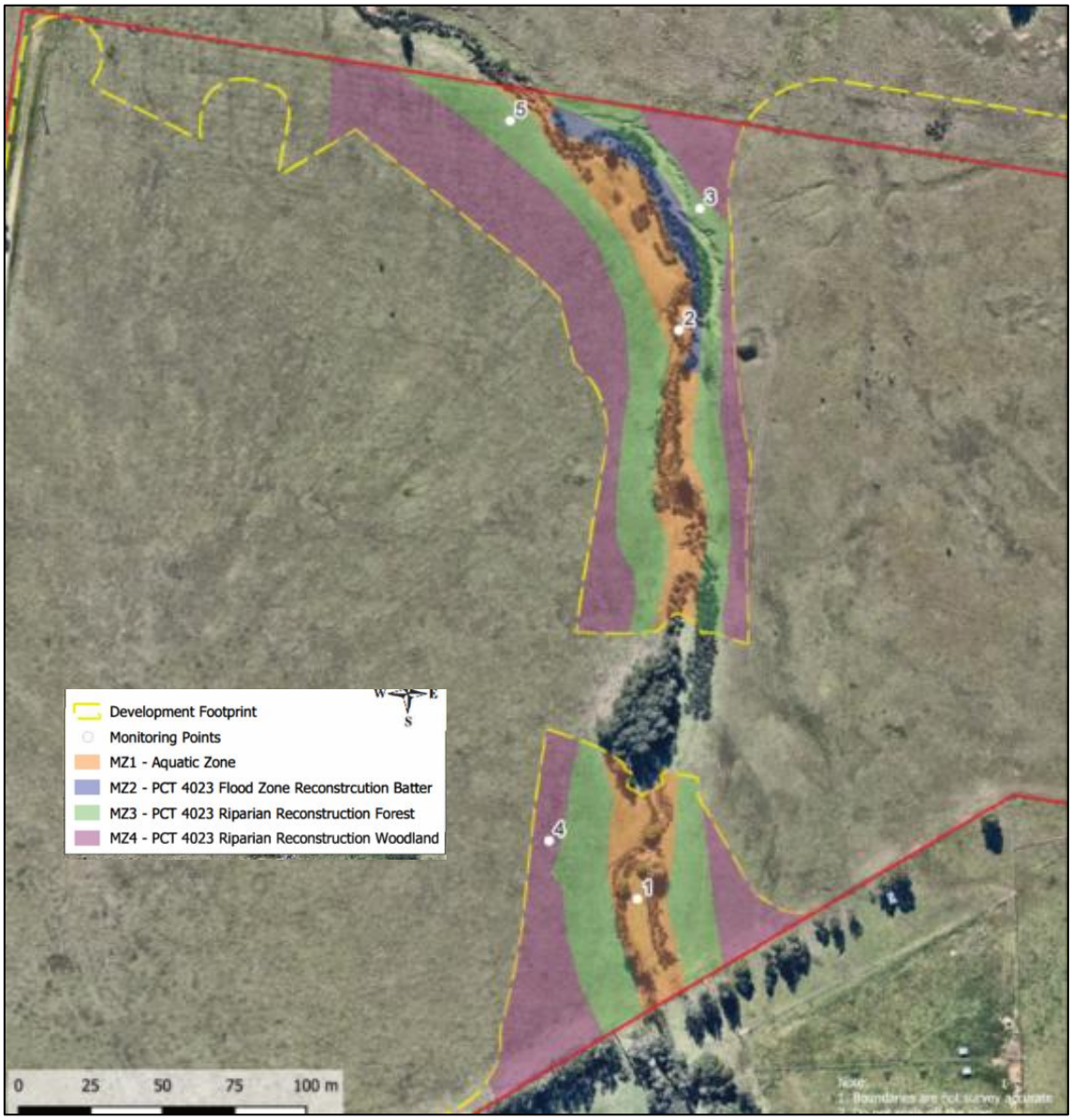


***Figure 21**: Ground-truthed vegetation in the Study Area (Source: AEP, June 2024)*

5.4 CONTAMINATION

This application is supported by a Preliminary and Detailed Site Investigation (PDSI) (**Appendix N**). The purpose of the assessment was to assess the likelihood of contamination on the site from past and present uses and to advise if further assessment and/or remediation is required to render the land suitable for the proposed use.

The assessment included a desktop study, site walkover, and laboratory testing of soil and surface water samples. Some localized fill containing concrete and brick rubble was observed in the central portion of the creek which appeared to be a stock crossing. This area of imported fill was identified as an area of potential environmental concern in the assessment. Eight soil samples from various locations across the sites and two additional samples each of sediment and surface water from the creek were collected for laboratory testing.

The test results showed that the concentration of contaminants were below the adopted criteria in all soil samples except for the slight exceedance of zinc above the ecological criteria in one of the sediment samples from the creek. As the exceedance of zinc above the Ecological Investigation Level (EIL) was only minor and the downstream sample was below the adopted criteria, the concentration of zinc appeared to be localised and there was no evidence of distress to existing vegetation. The assessment concluded that any further investigation or remediation would have a net adverse environmental impact.

Minor exceedance of chromium, copper and zinc above the aquatic system criteria was identified in the surface water samples. As these metals were identified in bother upstream and downstream samples at relatively low concentrations, it was considered to be reflective of the regional background water quality and therefore no further investigation was warranted.

The Conceptual Site Model indicated that the exposure pathways were incomplete for the existing and future site users, construction/maintenance works and the ecological receptors as no contamination was identified and the exceedance was minor or localised or reflective of broader conditions. Based on the results of the PDSI, the site is deemed suitable for the proposed use.

5.5 BUSHFIRE

The Bushfire Assessment Report (**Appendix M**) assesses the bushfire threat on the subject site and recommends management measures to minimize the adverse risk of bushfire. The riparian vegetation through the site and the surrounding grasslands were identified as the main sources of bushfire threat to the development. The following assumptions were considered in the assessment to determine the highest level of risk as a works case scenario:

- Although the adjoining lands are actively grazed, they were treated as unmanaged grasslands
- The land to the east where the CPG development is being proposed was also considered as unmanaged grassland.
- The final vegetation formations identified in the BMP was used in the assessment to determine the highest fuel loads.
- The proposed revegetation of the riparian corridor with varying densities of vegetation was considered as forested wetland.
- The two stormwater management basins were assumed as freshwater wetland.

Due to the unique slope and vegetation characteristics of the site, the assessment adopted a performed-based solution whereby the radiant heat exposure at several locations on the subject site was calculated using the NBC Bushfire Attack Assessor V4.1. The APZs were determined to ensure all lots were capable of accommodating a dwelling that will not be exposed to radiant heat levels exceeding 29kW/m^2 (refer **Figure 24**).

The development was assessed as being subject to low bushfire risk from grassland and forested wetlands in its vicinity. The proposed all-weather perimeter roads and the local roads were considered suitable to provide safe operational access for emergency services and the safe evacuation of people from the development. The report includes the following recommendations to ensure compliance with PBP 2019:

- The entire subject site, apart from the riparian corridor, is to be maintained as an inner protection area in accordance with Appendix 4 of PBP 2019 and RFS document for asset protection zones.
- The proposed road network, including the widths, gradients, turning circles, vertical clearance etc. are to be in accordance with the requirements in Table 5.3b of PBP 2019.

- The development should be connected to reticulated water supply, and fire hydrants are to be provided in accordance with AS2419.1.2005 and Section 5.3.3 of PBP 2019.
- All landscaping should be in accordance with Appendix 4 of PBP 2019.
- A Bushfire Emergency Management and Evacuation Plan should be prepared in accordance with RFS' guidelines *Development Planning – A guide to developing a bushfire emergency management and evacuation plan, December 2014.*

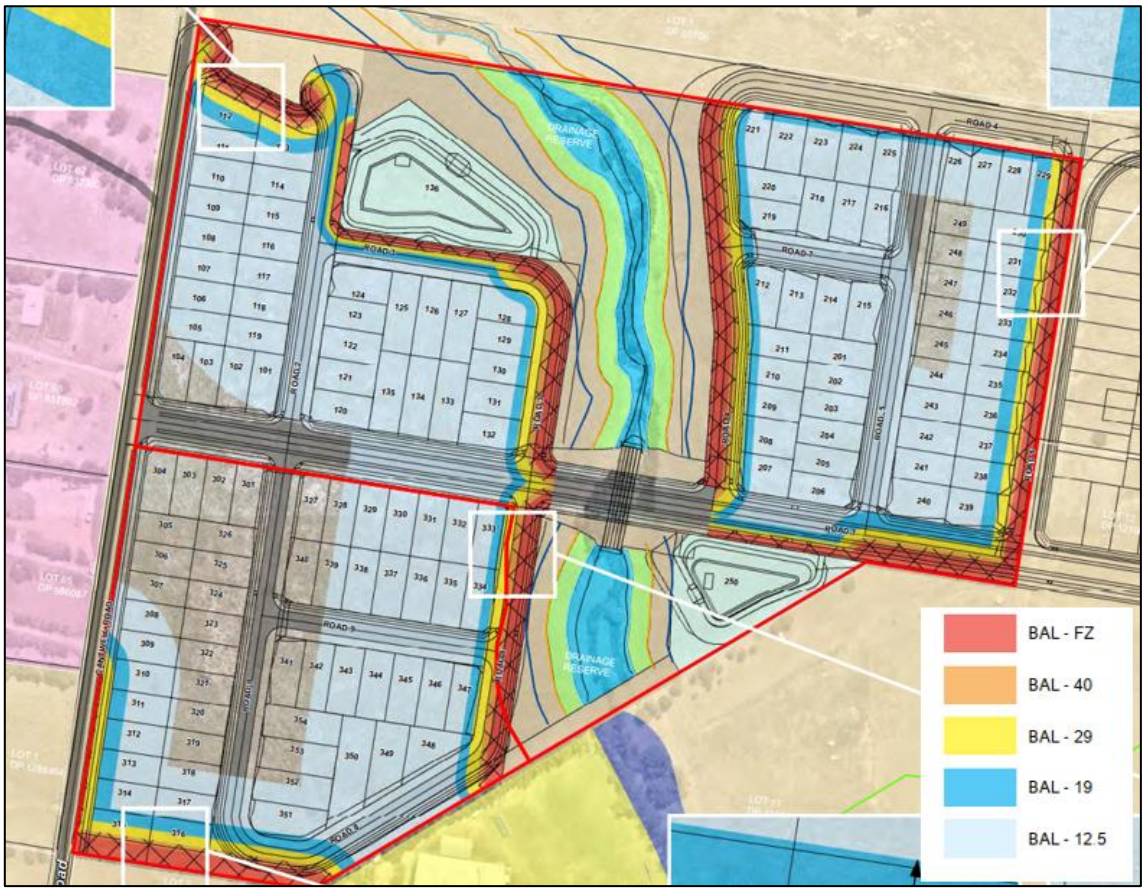


***Figure 23**: BAL rating for the subdivision (Source -Bushfire Planning Australia, 2025)*

5.6 FLOODING

The central and north-western parts of the site are affected by flooding from Lochinvar Creek.

The Stormwater Management Report prepared by GCA (**Appendix D**) includes flood modelling to determine the extent of inundation during 1% AEP event. This information was used to identify any impacts of the development on the existing flood environment and to design the culvert crossing to prevent any overtopping during 1% AEP event. The modelling results for the post development scenario indicated negligible change in water surface elevation, implying no impacts on the upstream or downstream flood environment or the neighbouring properties from the development.

The proposed residential lots are located well outside the 1% AEP flood event area, and the design of the proposed watercourse crossing ensures it is elevated above this level to provide safe access to future occupants. Cantwell Road is not susceptible to flooding and will serve as a secure evacuation route to the New England Highway from the onset of site operations. Additional

evacuation route will be available via the proposed east-west distributor road once the adjoining lands to the east are developed.

The proposed erosion control works, and vegetated riparian zones will provide bank stability, minimise siltation and establish a healthy habitat resulting in an overall improvement to the existing creek corridor.

As demonstrated in the flood modelling maps in **Appendix D**, post development flood extents are comparable to the pre-existing conditions. Therefore, no changes to flood behaviour are anticipated from the development. The development is designed to minimise risks to life and property and provides for safe evacuation during flood events.

5.7 ABORIGINAL HERITAGE

An ACHA was undertaken by McCardle Cultural Heritage Pty Ltd (**Appendix K**) to identify the archaeological constraints for the development and to ensure any cultural materials are protected through appropriate mitigation and management.

The subject site and the adjoining property to the south affected by the road widening on Cantwell Road were included in the project area for the assessment (refer to **Figure 24**). Consultation and site inspection with Registered Aboriginal Parties (RAP), and an extensive review of the past archaeological studies were undertaken as part of the assessment.

A search of the Aboriginal Heritage Information Management System identified 57 known sites within 2kms of the project area; however, none of them were within the project area boundaries. Based on this information, the environmental context of the site, and a review of the past archaeological studies, the assessment identified the potential for artefact scatters and isolated finds to occur throughout the project area.

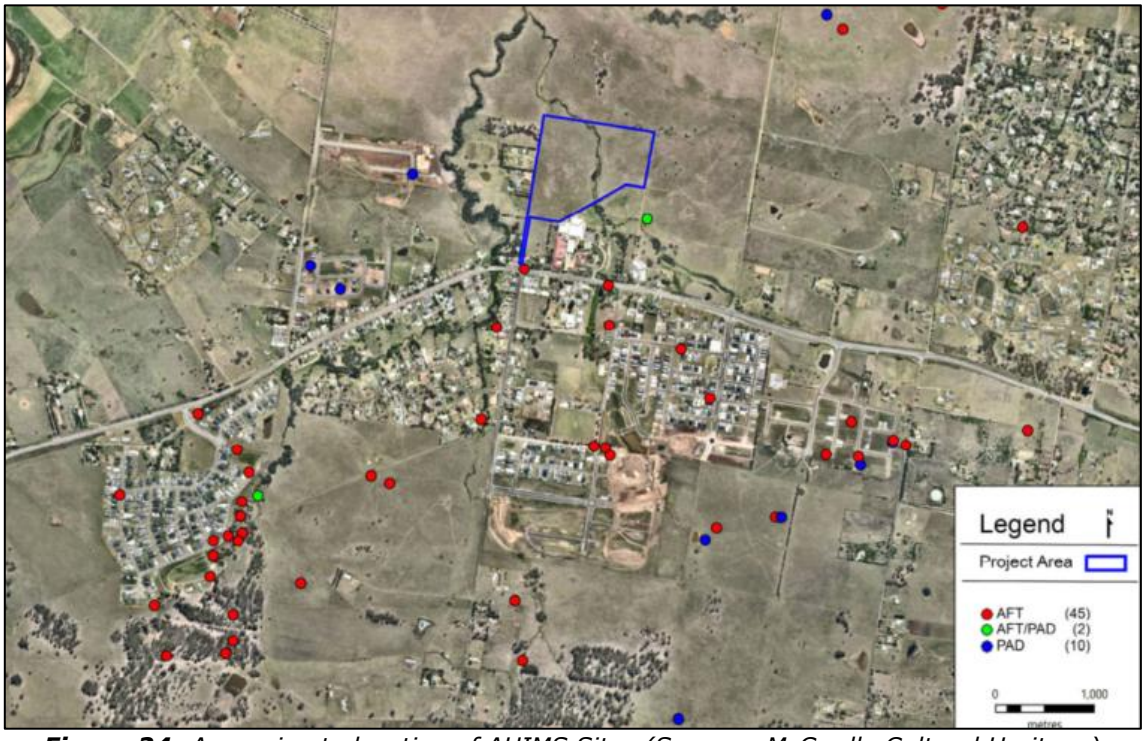


***Figure 24**: Approximate location of AHIMS Sites (Source - McCardle Cultural Heritage)*

The project area was surveyed on foot by the project archaeologist and registered Aboriginal Stakeholder representatives along transects at approximately 10m apart in accordance with the methodology reviewed by the stakeholders. Areas to the west and east of the creek were identified as Survey Units 1 and 2 respectively for the site inspection. Both the areas appeared waterlogged, muddy and substantially disturbed by grazing, ploughing, vehicle tracks. Some geotechnical investigation trenches were also observed. Survey Unit 3, being the creek appeared highly disturbed on the western side from cattle grazing and ploughing with limited vegetation comprising pasture grass and a small pocket of vegetation regrowth. While the eastern side appeared to be affected by erosion and bank collapse and some rubbish dumping, there was no evidence of ploughing within a distance of approximately 30m from the bank.

No archaeological sites were identified during the site survey, largely due to the grazing and clearing activities in the past, and the muddy ground conditions. However, due to relatively low subsurface disturbance near the watercourse, the area within 30m of the bank was identified as potential PAD site for further investigation prior to the any works commencing on the site.

The Wastewater Strategy for the development on the subject site and adjoining CPG land involves works within the identified PAD site. Following the recommendations in the ACHA, McCardle Heritage was commissioned by CPG to undertake test excavations in connection with the wastewater infrastructure which included archaeological test excavations in 31 locations as shown in **Figure 25** below. The details of this investigation and findings are submitted as an Addendum letter in **Appendix K.**

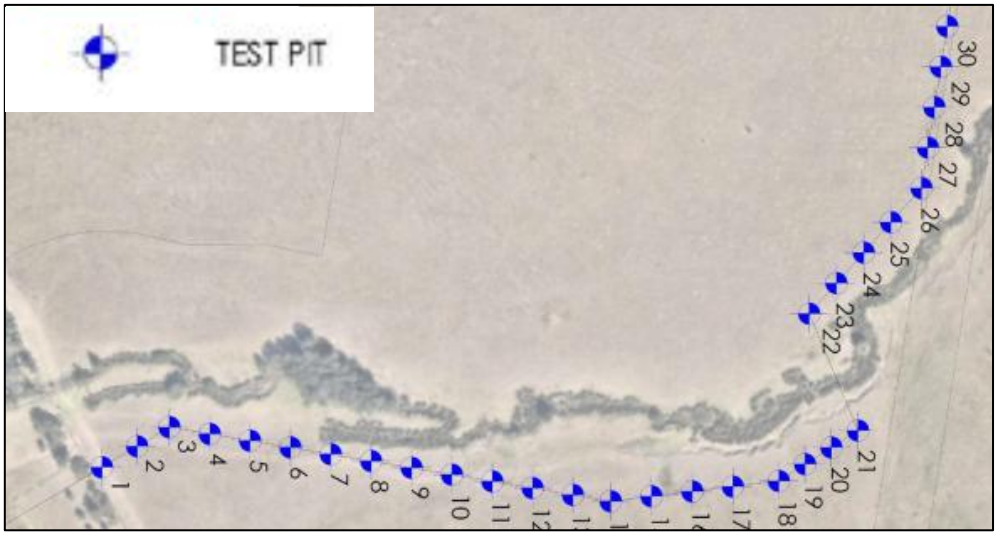


***Figure 25**: Archaeological Test Pit locations (Source - McCardle Cultural Heritage)*

The investigation did not identify any sites within the previously identified PAD and therefore the Addendum letter concludes that the site is no longer a PAD, and recommends the following conditions of consent:

- All staff and contractors on site are to be made aware of the statutory responsibility for protecting any sites and places of significance encountered during works.
- With the exception of the PAD, works can occur in the study area subject to an Unexpected Finds Procedure being implemented.
- If any Aboriginal works are identified during works, all activities should cease immediately, and the Unexpected Finds Procedure complied with.
- An archaeological subsurface investigation will be required in accordance with relevant codes of practice prior to commencement of any works within the identified PAD on the site.

5.8 EUROPEAN HERITAGE

The proposed staged subdivision and associated works are in the vicinity of The Holy Trinity Church and Victoria House. The Holy Trinity Church is listed as an item (Item I104) of local significance in the Maitland LEP, and Victoria House is listed as a State heritage item of significance. State heritage item Victoria House (also known as Nowlands Coach House) is southwest of the subject site on 7 Cantwell Road. Victoria House is identified as Item I101 in the Maitland LEP.

A Statement of Heritage Impact (SOHI) was prepared by EJE (attached at **Appendix L**) to examine the proposed works, identify any impacts which the proposal might have on the significance of the heritage items, and any measures which should be taken to mitigate any negative impacts, if any.

The SOHI confirms an historical association of the land (Lot 1 and 2 DP 1299958) to the Holy Trinity Church while noting that the land does not have any established heritage significance.

The proposed Cantwell road widening and New England Highway intersection upgrade works, as proposed within the Concept Civil Engineering Plans (**Appendix C**), and as addressed in the SOHI, includes design details confirming the presentation of the 'Holy Trinity Church' building to the New England Highway frontage is maintained notwithstanding the proposed development. Further, the plans and SOHI also detail the design's avoidance of the State listed heritage item ('Victoria House') as well as its curtilage.

The assessment as contained within Section 2 of the SOHI addresses the NSW assessment criteria to ascertain the historical, aesthetic, research/technical and social values of significance of a heritage item. Accordingly, a Statement of Significance has been prepared in relation to the 'Holy Trinity Church'. It is noted that an existing Statement of Significance for 'Victoria House' has been referenced within Section 2 of the SOHI.

The Statement of Significance prepared for the 'Holy Trinity Church' confirms the site's predominantly cultural and social heritage significance. While the existing 'Holy Trinity Church' building is architecturally significant, the surrounding garden setting, gate posts, fencing and first memorials have little to moderate significance as a contribution to the church's garden setting.

Accordingly, the proposed road widening, intersection upgrade and resultant boundary adjustment, including the relocation of a portion of the Church property fencing, will not detract from the social and cultural heritage significance of the 'Holy Trinity Church'.

The SOHI prepared by EJE, attached at **Appendix L**, includes the following proposed recommended initiatives to ameliorate the impacts to the fabric, curtilage and landscape elements of the grounds:

- *Move the (non-original) 1928 Memorial Gates and gateposts inclusive of their memorial plaques 2.1 metres north on their existing axis and re-set them on new foundations. This will retain historically significant fabric and socially significant memorials and conserve them on a compatible position on the grounds which avoids the intersection upgrades.*

- *Rebuild the (non-original) 1928 fence which follows the property boundary west of the gates and contains no memorials along the new alignment of the boundary which follows the proposed intersection upgrade. The fence would be rebuilt with the piers at the same spacing as existing and reuse the existing horizontal pipe rails and pier capping's. This will retain some historic fabric and conserve it in a compatible position on the grounds which avoids the intersection upgrades.*

- *Move the (non-original and relatively recent) c1988 Memorial Gates (Gateposts) on Cantwell Road approximately 1.8m east on their existing axis and set them on new foundations. This will retain some historic fabric and a socially significant memorial*

and conserve it in a compatible position on the grounds which avoids the intersection upgrades.

- *Move the recent signboard behind the existing fence which faces the New England Highway near the intersection of Cantwell Road, to a new position behind the rebuilt fence facing the intersection of the New England Highway and Cantwell Road. This will not impact significant fabric, but maintains an appropriate relationship between the church, the intersection, the fence and the sign.*

- *Remove trees which will clash with the road widening, carriageway and footpath. Generally, these trees are not significant and are an ad-hoc collection of planting along the verge of Cantwell Road. The exceptions are a Canary Island Palm which is part of a row and a Jacaranda which is one of a pair. The loss of these two trees will alter the composition of the garden planting, however, will serve to open up a prominent view of the church from the intersection which has not existed since before the trees grew to substantial size. The newly available view will ameliorate the impact of the loss of tree planting.*

The applicant has proposed the required upgrades to the existing formed road and intersection to enable the provision of access to the proposed residential subdivision while mitigating undue impact to the existing traffic environment along New England Highway. It is noted that the proposal has also been sited and designed accordingly in relation to a local heritage item in lieu of undue impact to a state heritage item and its associated curtilage.

The proposal is considered to represent an appropriate design outcome in accordance with the applicable NSW European Heritage legislative provisions as well as the Maitland City Council Development Control Plan requirements to provide additional residential allotments and as such diversifying the Lochinvar Urban Release Area.

5.9 GEOTECHNICAL

The preliminary Geotechnical Assessment is attached in **Appendix O**. The report includes a slope stability assessment in accordance with the Australian Geomechanics Society (AGS) publication '*Practice Note Guidelines for Landslide Risk Management, 2007'* and concludes that the proposed development is considered as having a low risk of slope instability, subject to the recommendations in the report.

The report includes recommendations for preliminary Site Classification in accordance with AS2870-2011, "Residential Slabs and Footings", pavement design and construction for proposed half road widening of Cantwell Road pavement (including kerb and gutter) and for internal subdivision roads, recommendations for detention basin construction, excavation conditions and site earthworks.

5.10 ACCESS AND TRAFFIC

The TIA prepared by SCT Consulting (**Appendix P**) assesses the potential impact of the proposed development on existing road and traffic conditions.

The site is accessed from the New England Highway via Cantwell Road, a narrow two-lane undivided local road. This road, along with Station Lane to the south, forms a four-way, unsignalized intersection with the New England Highway. Baseline traffic conditions for the study were determined through traffic counts at this intersection in February 2024. SIDRA modelling of the intersection identified a Level of Service (LoS) of A and B for movements on New England Highway and left turns from the side streets, respectively. However, LoS F was predicted for right-turning traffic from Cantwell Road, due to queuing of three to four vehicles in the current traffic conditions.

In a fully developed scenario, the proposed development is expected to generate 98 trips during the morning peak hour and 108 trips during the afternoon peak hour. The scoping report and modelling requirements for the TIA were confirmed with both Council and TfNSW. Appendix D of the TIA contains correspondence from TfNSW confirming the modelling assumptions to be applied in the assessment.

To address the queuing issues for right-turning traffic from Cantwell Road, the northern leg of the intersection is proposed to be reconfigured to allow left-out only, similar to the existing treatment on Station Lane. The traffic turning right from Cantwell Road will be redirected to alternate routes. The modelling results predict satisfactory intersection performance with the proposed treatment, accommodating the additional traffic generated by the development.

However, the 2036 base year performance (without the development) indicates capacity constraints and high delays due to significant traffic growth on the New England Highway and nearby developments in Lochinvar. This suggests that road upgrades to the New England Highway will likely be necessary before 2036, independent of the proposed development.

As discussed previously, the proposal includes upgrades to Cantwell Road and other road linkages and pedestrian connectivity in accordance with the Lochinvar URA. The proposed shared path along the site's frontage along with the east-west linkage through the new distributor road will facilitate the pedestrian and cycleway connectivity between Wyndella Road and Cantwell Road, consistent with the DCP. The proposed active transport facilities, including a 2.5m wide shared path along Cantwell Road (to development frontage) and along the new east-west link road, are expected to provide good walking and cycling accessibility from New England Highway to the site, as well as within the site.

The development includes the necessary road and pedestrian/cycleway, and the assessment concluded that the overall impact of the 138 dwellings would be minimal, with only slight additional delays to the intersection.

5.11 STORMWATER MANAGEMENT

The Stormwater Management Report (**Appendix D**) contains strategies to manage the quality and quantity of stormwater runoff from the subject site. As indicated on Figure 25, the land on either side of the watercourse is identified as two separate catchments (Catchment 1A and 2), each with its own bioretention/detention basin, to capture and manage the runoff. Basin 1 is in the north-western part of the site, while Basin 2 is located near the southern boundary.

The section of Cantwell Road (Catchment 1B) will drain directly into the creek through the road reserve.

Drainage of the lots and the roads will be via a conventional pit and pipe drainage network located in the street or in inter-allotment drainage where required. The pipe network will comprise the minor system subject to MCC's normal minor design standard of 10% AEP and the road network would be designed to the major network standard of 1% AEP. The discharge from the bioretention/detention basins will be controlled by a combination of biofiltration media subsoil drainage, low-level outlet pipes, and increased pit inlet level. The adjoining land to the east (Catchment 3) drains towards the subject site boundary and as such Basin 2 has been designed to receive these external flows, under the assumption that the runoff from the adjoining residential development will meet MCC's guidelines for rate of flow and runoff quality.

Drains modelling results for the 1EY, 10%, 5% and 1% AEP events demonstrate that the post development discharge rates from Basins 1 and 2 are lesser or comparable to the predevelopment rates. Similarly, MUSIC modelling undertaken for the development indicates that constructing Basin 1 and 2 as a bioretention/detention basin and the inclusion of GPTs will allow the

development to meet regional guidelines for best practice for retention of total suspended solids, Total Phosphorus, Total Nitrogen and Gross Pollutants.

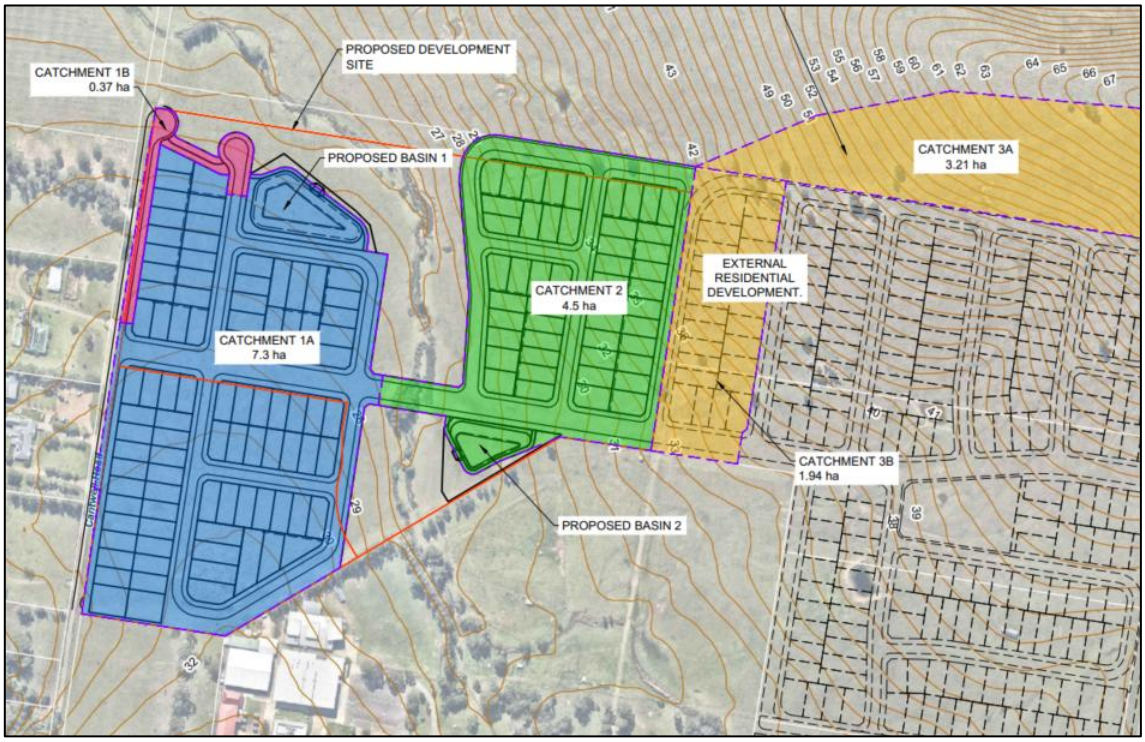


Figure 26: *Proposed Catchments and Basins for Stormwater Management (Source: GCA)*

5.12 WASTE MANAGEMENT

The road layout in the subdivision has been designed to cater for waste service vehicles. The Construction Environmental Management Plan for the development will include construction waste management details. Future dwellings will rely on Council's waste services during the operational phase.

5.13 SOCIO-ECONOMIC IMPACTS

The development will have positive socio-economic impacts through facilitating housing, and job creation during the construction phase. Lochinvar DCP does not identify any communal facilities to be included on the subject site. Given the modest scale of development, the development is not anticipated to change the way of life of the existing residents or cause undue burden on the community facilities.

Interim impacts of traffic, noise and dust during the construction phase can be controlled through a Construction Environmental Management Plan to be prepared at the Subdivision Works Certificate stage, and conditions of consent.

5.14 SAFETY AND SECURITY

The subdivision layout has been designed with due consideration to the principles of crime risk prevention through environmental design to minimise crime risks, as detailed below:

- The lots are oriented such that future dwellings can be designed to have passive surveillance over the public domain and the riparian areas. The layout does not contain blind corners or dense plantings that provide concealment opportunities.
- The proposed development includes a permeable road network with footpaths to enable pedestrian interaction and casual surveillance.
- Appropriate streetlighting will be provided in accordance with Australian standards to reduce fear and anti-social behaviour.
- The Landscape Masterplan prepared by Terras is attached as **Appendix E**. The proposed plantings and fencing provide clear delineation between public and private lands through landscaping. It is noted that future dwellings with fencing and landscape will further differentiate these spaces and enhance the access control and territorial reinforcement.

6. PUBLIC INTEREST

The public interest is best served through the orderly use of the land for purposes which it is zoned in accordance with the relevant planning controls and policies. The proposed development is consistent with the relevant strategies, is permissible with consent and complies substantially with the relevant policies and controls governing the land.

The granting of development consent to the proposal which is consistent with Council's publicly exhibited and adopted planning instruments is therefore considered to be in the public interest.

7. CONCLUSION

A detailed assessment of the proposed subdivision against all relevant planning instruments and strategies has demonstrated orderly development of the land, consistent with the desired outcomes in the Lochinvar URA. All site constraints have been appropriately addressed, and the proposal includes the required level of servicing to support additional population growth and development in the locality.

The proposal has addressed the matters referred to in Section 4.15(1) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the matters required to be considered by the consent authority.

Overall, it is considered that the development will not have a significant environmental impact and will achieve clear planning outcomes to facilitate future urban development while providing the mechanism to protect and enhance the riparian zone. The development is permissible with consent and will not jeopardise the public interest, which lies firmly in seeing the rational, orderly and economic development of the land for its intended urban and conservation purposes. Maitland City Council is therefore requested to grant approval, subject to appropriate conditions of consent.

APPENDIX A.1: PLAN OF PROPOSED SUBDIVISION

APPENDIX A.2: STAGING PLAN

APPENDIX B: SURVEY PLAN

APPENDIX C: CONCEPT ENGINEERING PLANS

APPENDIX D: STORMWATER MANAGEMENT REPORT

APPENDIX E: LANDSCAPE MASTERPLAN

APPENDIX F: URBAN DESIGN REPORT

APPENDIX G: STREAMLINED BIODIVERSITY ASSESSMENT REPORT

APPENDIX H: AQUATIC ECOLOGY ASSESSMENT REPORT

APPENDIX I: WATERFRONT LAND ASSESSMENT REPORT

APPENDIX J: BIODIVERSITY MANAGEMENT PLAN

APPENDIX K: ABORIGINAL CULTURAL HERITAGE ASSESSMENT

APPENDIX L: STATEMENT OF HERITAGE IMPACT

APPENDIX M: BUSHFIRE ASSESSMENT REPORT

APPENDIX N: PRELIMINARY AND DETAILED SITE INVESTIGATION

APPENDIX O: PRELIMINARY GEOTECHNICAL ASSESSMENT

APPENDIX P: TRANSPORT IMPACT ASSESSMENT REPORT

APPENDIX Q: ESTIMATE DEVEOLOPMENT COST REPORT

APPENDIX R: PRE-DA MEETING MINUTES

APPENDIX S: WSSR, HWC NOR, HWC STAMPED PLANS

APPENDIX T: CONCEPT ELECTRICAL MASTERPLAN, AUSGRID CONCURRENCE