

The background of the lower half of the page is a photograph of a rural road, likely Illawarra Highway, with a blue overlay. A wooden fence with a sign that says '2514' is visible in the foreground. Trees and a house are in the background.

2514 ILLAWARRA HIGHWAY
TULLIMBAR
PLANNING PROPOSAL

March 2021

Prepared for AV Jennings and J&H Pyers

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CONTENTS

Summary of Amendments	1
SECTION 1 – SITE REVIEW	3
Introduction.....	4
The Subject Land	6
The Site	6
Natural Features	9
Flooding.....	14
Heritage	16
Site Investigations	17
Flooding.....	17
Infrastructure Review	32
Ecological Review	36
Riparian Corridor Mapping.....	38
Preliminary Site Assessment	42
Heritage Review	44
SECTION 2 – STRATEGIC PLANNING CONTEXT	48
Calderwood Urban Investigation Area.....	49
Illawarra Shoalhaven Regional Plan	57
Shellharbour Local Housing Strategy	60
Shellharbour Local Strategic Planning Statement	63
SECTION 3 – Urban Design Response.....	66
Constraints Mapping Exercise	67
Concept Plan	74
Variety in Housing.....	76
Small Lot Housing Areas.....	77
Local Parklands	78
Transport	80
Land Management Outcomes.....	83
Existing Lot 7300	84
SECTION 4 – The Planning Proposal	85
Part 1 – Objectives and Intended Outcomes	86
Planning Proposal Objectives	86

Part 2 – Explanation of Provisions.....	87
Zoning Amendments.....	87
Lot Size Amendments.....	88
Height of Buildings Amendments	88
Terrestrial Biodiversity Mapping Amendments	88
Floor Space Ratio Mapping Amendments.....	88
Part 3 – Justification	89
Section A— Need for the Planning Proposal.....	89
Section B — Relationship to Strategic Planning Framework	90
Section C — Environmental, Social and Economic Impact.....	94
Section D — State and Commonwealth Interests	95
Part 4 – Mapping	96
Zoning Amendments.....	96
Part 5 – Community Consultation	104
Part 6 – Project Timeline	105
Summary	106

Appendices

Appendix 1	Consistency with Local Planning Directions
Appendix 2	Consistency with Applicable SEPPs
Appendix 3	Site Concept plan
Appendix 4	Services Review – Maker Engineering
Appendix 5	2018 Flood Study – Northrop engineering
Appendix 6	2021 Flood Study – Rienco
Appendix 7	Flora and Fauna Review – Eco Logical
Appendix 8	Phase 1 Site Investigation – ENRS
Appendix 9	Heritage Review – Austral Archaeology
Appendix 10	Traffic Review – Positive Traffic
Appendix 11	RMS Correspondence

SUMMARY OF AMENDMENTS

A revised Planning Proposal package was submitted to Shellharbour Council in December 2019 which included amendments the Concept Plan and Zoning Plans following discussions and feedback from Shellharbour Council. This package also included correspondence with Sydney and Transport for NSW.

Following lodgement of this previous package, Council had requested a traffic report also be submitted. We note that no feedback has been provided from Council in relation to the type / format of the traffic report.

Since submission of the previous package, AV Jennings have entered into a contract with the land owner to purchase the subject site and deliver the proposed residential housing development upon rezoning.

The involvement of AV Jennings in the project provides certainty in the immediate delivery of housing upon rezoning and delivery of any associated open space, infrastructure and roadworks.

AV Jennings have also commissioned a number of additional site studies which demonstrate that the land is suitable to accommodate residential housing as envisaged under this Planning Proposal.

We note that there are no changes to the LEP amendments and mapping proposed under the Planning Proposal package lodged with Council in December 2019. This amended package simply incorporates additional site studies and a minor revision to the Concept Plan.

This revised package includes the following:

- Minor revision to the Concept Plan relating to the intersection location on the Illawarra Highway
- Supplementary Flood Study – Demonstrates that the proposal will deliver reduction in flood levels on the Illawarra Highway
- Traffic Review – Address traffic impacts within Calderwood Valley project and Illawarra Highway
- Ecological Site Review – Addresses site vegetation and riparian corridors
- Stage 1 Preliminary Site Investigation
- Indigenous and European Heritage Review
- Updated Servicing Review

The updated Planning Proposal has also been amended to include discussion of key strategic planning documents adopted since lodgement of the previous revision including the Local Housing Strategy (adopted December 2019) and Local Strategic Planning Statement (adopted May 2020).

The key rezoning features of the Planning Proposal including land use Zones, Lot Sizes and the like have not been amended.

In this regard, the revised Planning Proposal remains consistent with the previous version in relation to the LEP rezoning amendments, while the additional site investigations and strategic planning discussion further demonstrate that:

- The subject land is suitable for rezoning to accommodate residential housing as proposed
- Rezoning of the subject site is an extension of the existing Calderwood urban zoned land within the Calderwood Release Area.
- The proposal does not seek to create a “new” Urban Release Area.
- Support for the rezoning will address the final unzoned portion of the Calderwood Release Area and resolve long term land use planning outcomes for the locality.
- Rezoning of the land will deliver a number of community benefits including:
 - Reduction in flood levels along the Illawarra Highway
 - Completion of the “missing link” of the Macquarie Rivulet Environmental Corridor
 - Delivery of pedestrian / cycle path linkages will provide a missing link between urban development to the west of the site and the retail / sporting and open space facilities to the east of the site.
 - Removal of poultry and agricultural industries on site which create odour and noise impacts on adjoining existing residences.

The subject land holding would have been rezoned under the Calderwood Major Project SEPP, however the land owners did not agree to sale of the land to the developer at the time. There were no planning or environmental matters which excluded the land from rezoning.

Support for, and adoption of the proposed rezoning will resolve land use planning arrangements in the locality and rectify the outstanding deferral of the site zoning.

SECTION 1 – SITE REVIEW

INTRODUCTION

The subject land holding, 2514 Illawarra Highway, forms part of the formerly identified Calderwood Urban Investigation Area which has been identified as being capable of accommodating residential housing in various forms over the past 20-30 years.

The Calderwood Project surrounds the eastern, western and northern boundaries of the site, with the adjoining land being rezoned in 2010 to accommodate a variety of residential and retail development.

The land was investigated as part of the original site studies undertaken to inform the Calderwood rezoning under the Major Projects SEPP.

The subject land forms part of the Calderwood Investigation Area (CIA) as noted by the Director General of Planning in the Major Project Assessment report for the Calderwood Project. The assessment report stated that

The proposed Calderwood development site extends further south to the Illawarra Highway than the site identified in the previous IUDP, and also extends further north into part of the Stage 5/Yallah Marshall Mount precinct of the West Dapto Release Area. It also does not extend as far to the east or west as identified in the IUDP.

The IUDP update no longer indicates a specified area for Calderwood, only noting the area generally on a map as the 'Calderwood Investigation Area'.

The report stated that the Departments Position is as follows:

Consideration of land previously identified outside of the IUDP map can be considered subject to a merit assessment of the potential impacts, in particular flooding. The level of development that can be supported in these areas will be dependent on the assessment of the constraints of these areas.

This is further reinforced by the 2010 Illawarra Urban Development Program: An Explanation update which stated that

the Department of Planning declared a significant proportion of the potential Calderwood release area a potential State Significant Site on 16 April 2009. A Part 3A application has also been lodged with the Department for this area of Calderwood.

Based on the Department of Planning report, Illawarra Urban Development Program and current rezoning of the Calderwood Project, the Illawarra Highway has been adopted as the southern boundary of the CIA and the subject land forms part of the broader CIA.

Since 2010, significant areas of housing have been approved and delivered surrounding the subject site, particularly along the eastern and northern edge as part of the Lend Lease project.

This Planning Proposal seeks to rezone the land to allow for the seamless extension of the Calderwood residential community, reflecting where possible existing land use and lot size provisions in place on the adjoining lands.

Detailed site investigations have also been completed for this rezoning to assess development impacts as required by the Department of Planning. These have included a site specific Flood Study, Services investigations, Traffic Study, Ecological Study, Heritage Study and Contamination Study.

Riparian Corridors were investigated and mapped over the site as part of the rezoning the Lend Lease project. An updated site specific riparian Review under the current Office of Water Requirements has been completed to inform land use / zone boundaries.

The site investigations have been used to inform a preliminary Concept Plan which demonstrates the long term vision for the land and the creation of a new community, based on the mapped unconstrained development areas of the site.

The Concept Plan includes a variety of housing options which reflect local demand, provision of local parklands and protection of riparian corridors.

All residential housing is able to be delivered on land above the 1:100 year flood level as required under relevant NSW guidelines and consistent with the surrounding residential projects.

Development footprint areas reflect the unconstrained land as mapped during the site review exercise.

The Concept Plan also makes provision for significant rehabilitation of the Yellow Rock Creek and Macquarie Rivulet Corridors, completing missing linkages from the rezoning of the Calderwood Project.

Council support for this proposal will resolve the final portion of the Calderwood Urban Release Area and ensure that there are no ongoing land use conflicts between new residents and agricultural operations on the site.

THE SUBJECT LAND

The Site

The subject site encompasses a land holding which spans the northern and southern side of the Macquarie Rivulet creek line, between the Illawarra Highway and North Macquarie Road.

The site encompasses a total land area of approximately 45.5 hectares and is identified as Lot 7, DP 259137, being 2514 Illawarra Highway, Tullimbar.

The land area is divided by the Macquarie Rivulet corridor, which forms a natural boundary between the northern portion of the land and the southern portion.

The northern portion of the site is also bisected by a north-south strip of land which is owned by the Office of State Lands and was historically established to provide access to the creek line for travelling stock movements.

The land has been used for a variety of agricultural businesses over the past 50 years, including more recently poultry farming, livestock grazing, cropping and “Christmas Tree” production.

As noted above, the land directly adjoins the existing zoned Calderwood Project. As shown on the locality plan below, the subject site is situated within close proximity of the following key services and facilities:

- The Calderwood Town Centre situated 2km north-east
- Planned Local Retail Centre 150m to the north-east
- Playing Fields situated 500m to the north east
- Local Parklands delivered approximately 200m to the north east.

Figures 1 & 2 below provide a view of the site and its context.

Figure 1: Context Plan

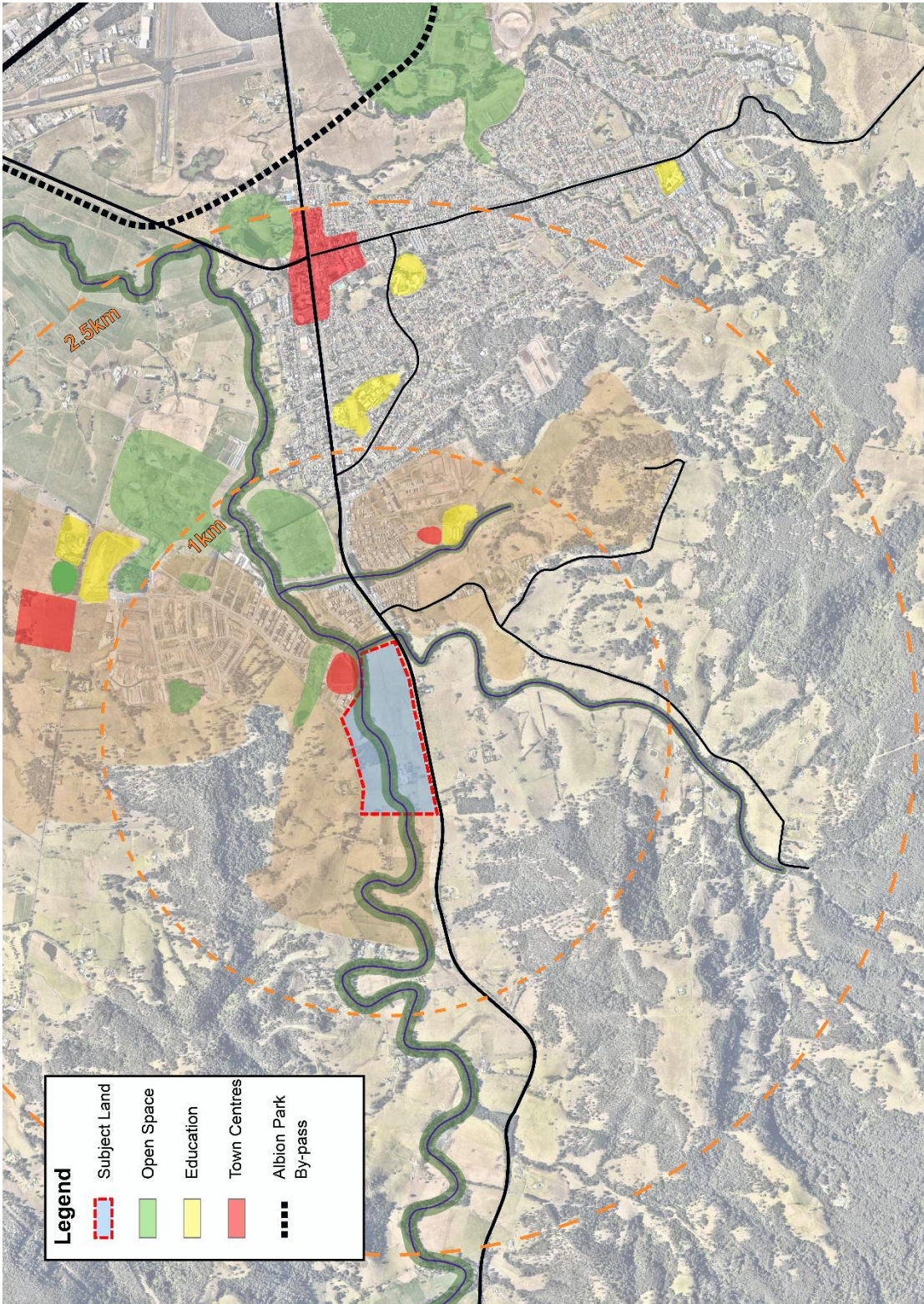
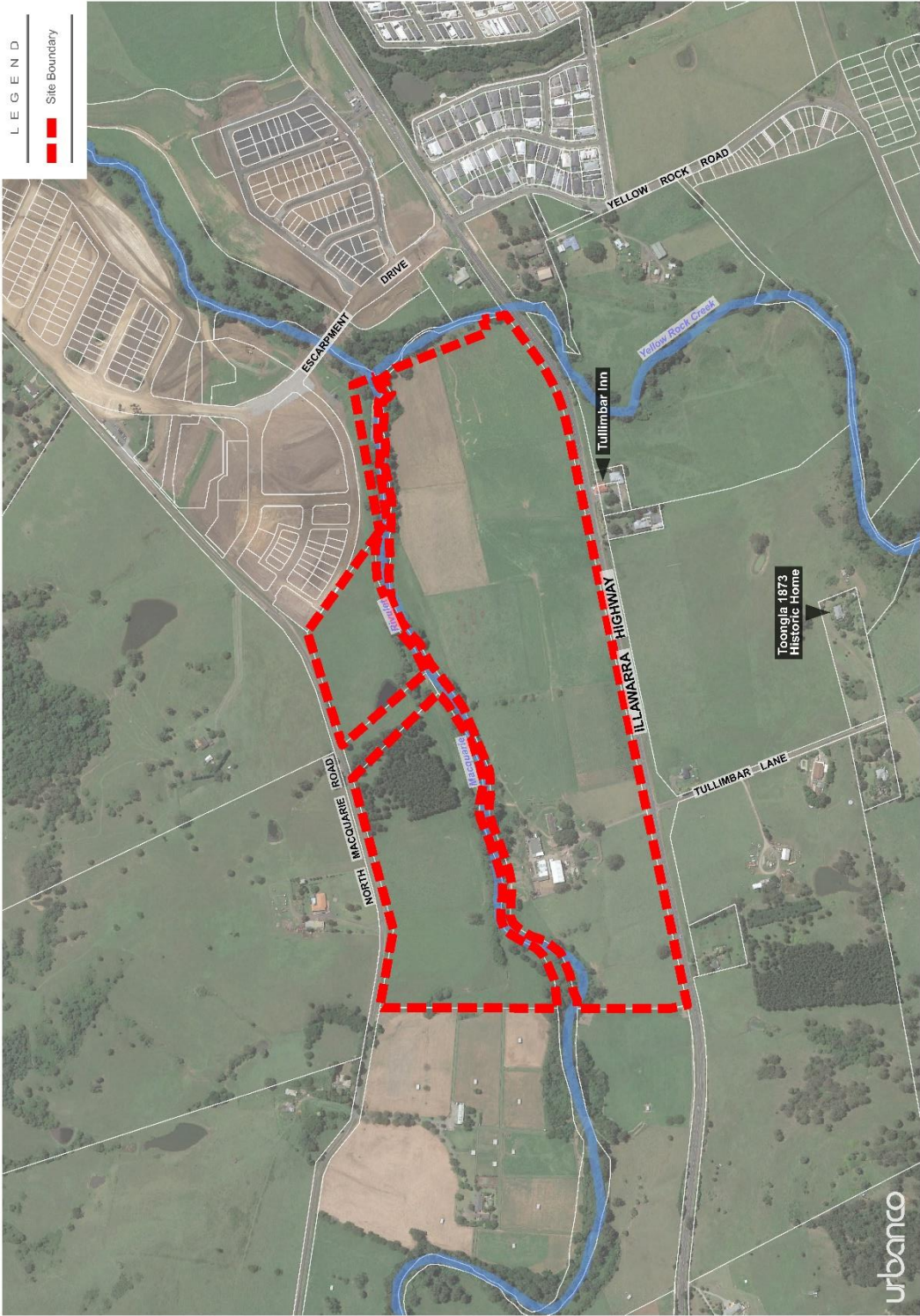


Figure 2: Site Plan



Natural Features

Landform

The existing natural landform over the site varies either side of the Macquarie Rivulet creek line.

Land on the southern side of the creek line is predominantly flat, with minor topographical undulations.

The Yellow Rock Creek corridor along the eastern boundary and Macquarie Rivulet corridor through centre of the site from distinct landforms with the incised creek beds sitting approximately 5-6m below the surrounding paddocks.

There are two localised drainage lines along both the north-western and south-western edges of the site which will form part of retained riparian corridors.

Land on the northern side of the site is more steeply sloping up to North Macquarie Road, with a natural grade of approximately 8%.

The land in the north-eastern corner adjoining existing dwellings within the Calderwood site and within close proximity of the planned Local Centre is flatter and will require minimal earthworks.

Creek Catchments

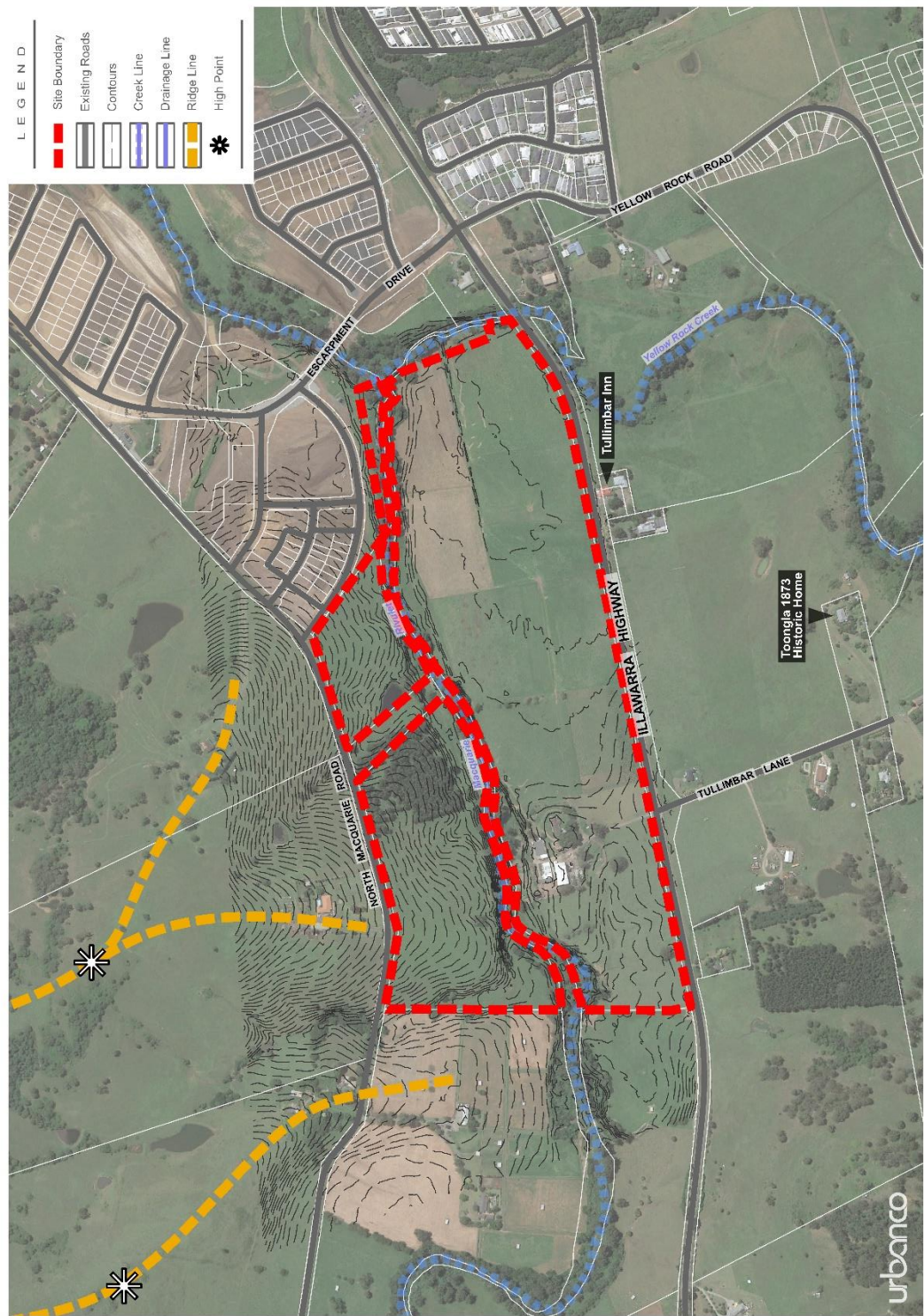
The whole of the site forms part of the Macquarie Rivulet creek catchment area.

There are a number of isolated site catchments and drainage lines which drain to tributaries of the Macquarie Rivulet.

The site catchment areas will be modified as part of the planned development of the site and flood mitigation works.

The detailed flood studies prepared by Northrop and Rienco provide an extensive review the existing and post development catchments, flow paths and flood extents.

Figure 3: Landform Plan



Vegetation

The subject land has been extensively cleared in association with agricultural grazing and cropping over an extended period of time.

Existing remnant vegetation is limited to the creek line along the Macquarie Rivulet which will be wholly retained within planned riparian corridor areas.

There are a number of existing exotic trees around the existing dwelling which will likely be removed as part of future development works.

There is a large pine tree plantation on the northern side of the property which will also be removed as part of the future development works.

Vegetation across the balance of the site comprises exotic pasture grasses.

Large Fig Trees which surround the existing homestead will be retained where possible and able to be accommodated in open space areas.

The vegetation mapping of the study area identified River-flat Eucalypt Forest as being present, it is confined to the riparian zones along the Macquarie Rivulet.

This is discussed in further detail below in the summary of the Ecological report.

Site Image 1:

Site View looking north-east from Illawarra Highway - cleared paddocks, with Macquarie Rivulet Tree line.

Calderwood Residential development area visible behind tree line.



Site Image 2:

Site View looking south-west from North Macquarie Road - cleared paddocks, with Macquarie Rivulet Tree line.

Calderwood Residential development adjoins northern boundary (right hand side).



Site Image 3:

Site View looking north-east from Illawarra Highway - cleared paddocks, with Macquarie Rivulet Tree line.

Calderwood Residential development area visible behind tree line.



Figure 4: Vegetation Plan



Flooding

Shellharbour LEP 2013 does not map flood prone land or provide Flood Planning Levels for land within the Shell Harbour Local Government Area.

There have however been a number of Flood Studies undertaken in the local area which included the subject land holding.

In addition, Northrop has undertaken a detailed flood study for the subject land based on the Concept Plan included in this proposal.

The flood studies prepared by Northrop and Rienco have also been reviewed in relation to the most recent flood studies completed for the adjoining Calderwood Project. We confirm that the flood modelling, outcomes and principles are consistent.

We have provided a summary of the relevant flood studies below.

Calderwood Project Flood Study (2010)

As part of the Calderwood Development project approval, Cardno completed a number of detailed flood studies including:

- Calderwood Floodplain Risk Management Study, Concept Plan Application – Cardno
- Stage 1 Project Application Design Report – Cardno

These flood studies provided a detailed review flood behaviour both pre and post development of the surrounding land holdings, and the associated impacts on flood behaviour and flood levels of the subject site.

Macquarie Rivulet Flood Study (2017)

Shellharbour Council released the Macquarie Rivulet Flood Study in February 2017. This study included the upper reaches of the Yellow Rock Creek tributary catchment and the land subject to this Planning Proposal.

As noted in the report, “*The key objective of the Macquarie Rivulet Flood Study is the development of computational hydrologic and hydraulic models that define design flood behaviour for the 20%, 10%, 5%, 2%, 1%, 0.5% and the Probable Maximum Flood (PMF) design storms in the study area*”.

The Macquarie Rivulet Flood Study provided a detailed analysis of a broad range of storm events and associated flooding impacts across the catchment area, inclusive of the subject land.

The Macquarie Rivulet Flood Study did not take into consideration the existing or planned development outcomes and landform modifications being undertaken associated with the adjoining Calderwood Development project.

As an example, the Macquarie Rivulet Flood Study mapped some areas of existing residential development to the east as being flood prone, when in fact these areas have already been filled above the 1:100 year flood level.

As such, the Macquarie Rivulet Flood Study is not considered an appropriate or accurate study applicable to the subject land.

Calderwood Project Modification Flood Study (2018)

A detailed Watercycle and Flood Management Strategy has been prepared by JWP as part of the Calderwood Project modification application submitted by Lend Lease in 2018.

The report provides an update to the Watercycle and Flood Management Strategy previously approved under the Calderwood Concept Plan Approval (MP09_0082).

The report addresses key issues relating to flooding and stormwater management outlined in the Secretary's Environmental Assessment Requirements (SEARs), issued on the 1st February 2018.

The report acknowledges that the increased lot density will influence both the water quality and flooding within the site.

In relation to flood impacts, the report concludes that:

the development of Calderwood Urban Development Project in accordance with this strategy will be consistent with the controls and principles established by the NSW Government and both Shellharbour City Council and Wollongong City Council. Though there has been a refinement of design, the revised water cycle and flood management strategy remains consistent in philosophy with the original 2010 concept approval.

The report includes a detailed assessment of flood behaviour upstream of the site, within the land holding and downstream of the site based on proposed development outcomes and levels.

As such, this report is considered the most appropriate recent flood study when undertaking a detailed flood study over the site.

Northrop Site Specific Flood Study (2018)

A detailed Flood Study has been prepared for the subject site by Northrop Consulting and is submitted accompanying this Planning Proposal.

The flood Study has been prepared to guide development outcomes across the site and is consistent with the outcomes of the flood study prepared in relation the Calderwood Project modification by JWP.

The outcomes of the flood study are discussed in detail in the Concept Plan section of this report.

The report has identified that flooding can be managed within the site in accordance with NSW Floodplain guidelines.

Rienco Site Specific Flood Study (2021)

A supplementary Floodplain Risk Management Plan has been prepared for the subject site by Rienco and is submitted accompanying this Planning Proposal.

The Study takes into consideration all recent flood studies prepared in the locality and the proposed site development outcomes.

The outcomes of the flood study are discussed on the following page.

The report has identified that flooding can be managed within the site in accordance with NSW Floodplain guidelines.

Furthermore, development of the site and construction of associated drainage channels will deliver a reduction in flood levels along the Illawarra Highway.

Heritage

The land holding is identified as containing a local heritage item under the Shellharbour Local Environmental Plan 2013, being the former “Riversford” cottage.

The cottage no longer exists on the site and as noted in the Office of Environment & Heritage listing was demolished in around 2010.

As such, the listing will be updated and removed as part of this Planning Proposal.

A local park has been located in the location of the Riversford cottage to allow retention of the large fig trees and interpretation of the setting.

SITE INVESTIGATIONS

Flooding

As part of the detailed site investigations, two separate flood studies have been completed which consider the development of the site as shown in the Concept Plan and associated flooding outcomes.

A Flood Study was completed by Northrop Consulting in November 2018 and submitted with the original Planning Proposal package.

In consideration of the timeframes between the original submission and this updated package and additional regional flood modelling completed since lodgement, a supplementary Flood Study has been prepared by Rienco Consulting.

The flood studies are consistent in their findings that the proposal will not have an adverse flooding impact on surrounding properties.

Furthermore, the Rienco flood study demonstrates that support for the rezoning and delivery of residential development as proposed will have the effect of reducing flood levels on the Illawarra Highway during flood events. This is a significant positive community benefit associated with the proposal.

We have provided a summary of each report below.

Northrop Flood Study (November 2018)

Northrop Consulting have prepared a detailed Flood Impact Assessment for the subject site which is included as an appendix to this report. We have provided a summary of the report below.

Flood Study Parameters

The report has been prepared in accordance with the 117 Direction 4.3 – Flood Prone Land. As such this flood impact assessment has been developed to analyse the existing and proposed flood behaviour for the site. The study adopted the principles outlined in the NSW Floodplain Development Manual 2005 and has also assessed the potential flood impacts both on and off the subject site.

The flood study as prepared reviews the existing flood levels on site and the proposed zoning outcomes discussed in this proposal.

The assessment was undertaken using the following procedure:

- Desktop review of the Shellharbour Development Control Plan (2016) and the Macquarie Rivulet Flood Study (WMA Water, 2016);
- Liaison with Shellharbour Council to obtain upstream hydrographs for the Macquarie Rivulet and Yellow Rock Creek including the downstream tailwater levels to the east;

- Site visit to determine hydraulic roughness of the existing vegetation and ground truth survey information;
- Preparation of a pre-developed XP-RAFTS hydrological and XP-STORM hydraulic model to assess the existing flood level and compare to the results from the DRAFT Macquarie Rivulet Flood Study (WMA Water, 2016);
- Inclusion of the development into the XP-STORM hydraulic model to assess the impacts of the development on the flood levels on-site and in the adjacent properties;
- Preparation of subsequent detailed hydrological and hydraulic modelling.

In terms of critical storm duration, the Northrop report notes that The Macquarie Rivulet Flood Study outlines the nine or two-hour storm durations to be critical for the Rivulet during the 1% AEP design storm event.

Northrop review the hydrographs provided by Council, which indicate that the two-hour event was critical for the Yellow Rock Creek, while the nine-hour event was critical for the Macquarie Rivulet.

The Northrop report notes that both events were analysed and the nine-hour event produced the highest water level around the site and was therefore adopted for the assessment.

Existing Flood Behaviour

The assessment indicates that flooding across the site is largely due to regional storm / flood events and associated runoff from the upper Macquarie Rivulet and Yellow Rock Creek catchments.

During the 1% AEP design storm event, runoff from the upper Yellow Rock Creek catchment initially inundates the southern portion of the subject site. Following this initial inundation, the peak event from the Macquarie Rivulet enters from the west and combines to inundate a large portion of the southern section of the site.

Due to the topography in the northern portion of the site, the majority of flows are contained within the creek riparian zones and this portion of the site generally remains unaffected by the 1% AEP flood.

Similar results are observed during the PMF in that the southern portion of the subject site initially becomes inundated from the flows from the south, followed by from the west when the Macquarie Rivulet breaks its banks during the peak event.

Figure 5 below shows the 1% AEP pre-development flood levels over the site.

Development Impact on Flood Behaviour

The report provides detailed modelling of the proposed fill area in the southern portion of the site, with compensatory flood storage area provided along the Yellow Rock Creek edge.

The modelling results for the 1% AEP design storm event shows flows from the Macquarie Rivulet catchment being redirected around the extent of the southern fill pad while flows from the south and south east are directed into the compensatory cut zone between the southern fill pad and the Illawarra Highway.

The flood study maps the impact water level and velocity for both the 1% AEP and PMF design storm events.

The results show that during the 1% AEP design storm event, an increase in water level of approximately 35mm is observed to the west of the proposed development. The report demonstrates a freeboard in excess of 2 meters still available to habitable floor levels in this area.

During the PMF an increase of approximately 300mm is observed, which is again wholly contained within the zoned creek corridor.

Northrop have advised that the minor increases in flood levels are considered not significant.

An increase in water level of approximately 800mm is observed through the centre of the subject site along the Macquarie Rivulet however this increase quickly disperses prior to the confluence of the Rivulet and Yellow Rock Creek. An increase of up to 140mm is observed during both the 1% AEP and up to 160mm during the PMF design storm event within the creek near to the Lendlease development adjacent to the north-eastern fill pad.

These flood levels are wholly contained within the proposed riparian corridors and open space areas.

The information provided by Council suggests there is a freeboard in excess of 2 meters available in this area during the 1% AEP design storm event and approximately 300mm during the PMF design storm event.

A localised increase of approximately 65mm and 110mm is also observed just upstream of the Lendlease development to the east of the subject site during the 1% AEP and PMF design storm events respectively. Freeboard to the Lendlease development in this area is in excess of 2 meters during the 1% AEP design storm event and greater than one metre during the PMF.

The Northrop report advises that these outcomes are considered to have minimal impact on the downstream development.

Critically, the proposal will result in a decrease in the water level along the Illawarra Highway and within the property to the south of the subject site of up to approximately 170mm in the 1% AEP design storm event and 190mm during the PMF.

This decrease will improve access along the Illawarra highway during major events and improve the existing flood impact on the property to the south of the Illawarra Highway.

To the southwest of the subject site, an increase of up to 160mm is observed during the PMF across the Illawarra Highway. This increase reduces freeboard to the property on the southern side of the Illawarra Highway during the PMF, however freeboard to the floor level for this property is also estimated to be in excess of 2 meters and is therefore considered to have minimal impact. No increase is observed in this area during the 1% AEP design storm event.

Velocity changes are observed across the site during the 1% AEP and PMF design storm events due to the changes in topography as part of the development. During both the 1% AEP and PMF design storm events, a decrease in velocity of up to 1.0m/s and increase of up to 1.0m/s is observed within the cut zone to the east and the west of the subject site.

A decrease in velocity during the 1% AEP and PMF design storm events of up to approximately 0.2m/s and 1.0m/s respectively is observed through the centre of the subject site within the Macquarie Rivulet.

This decrease in velocity is commensurate with the increase in water level observed. An increase in velocity during the 1% AEP and PMF design storm events of up to approximately 0.4m/s and 1.0m/s respectively is also observed just upstream of the confluence of the Macquarie Rivulet and Yellow Rock creek.

No changes in water level and velocity are observed to the north of the subject site along North Macquarie Road.

Figure 5: Pre Development Flood Levels

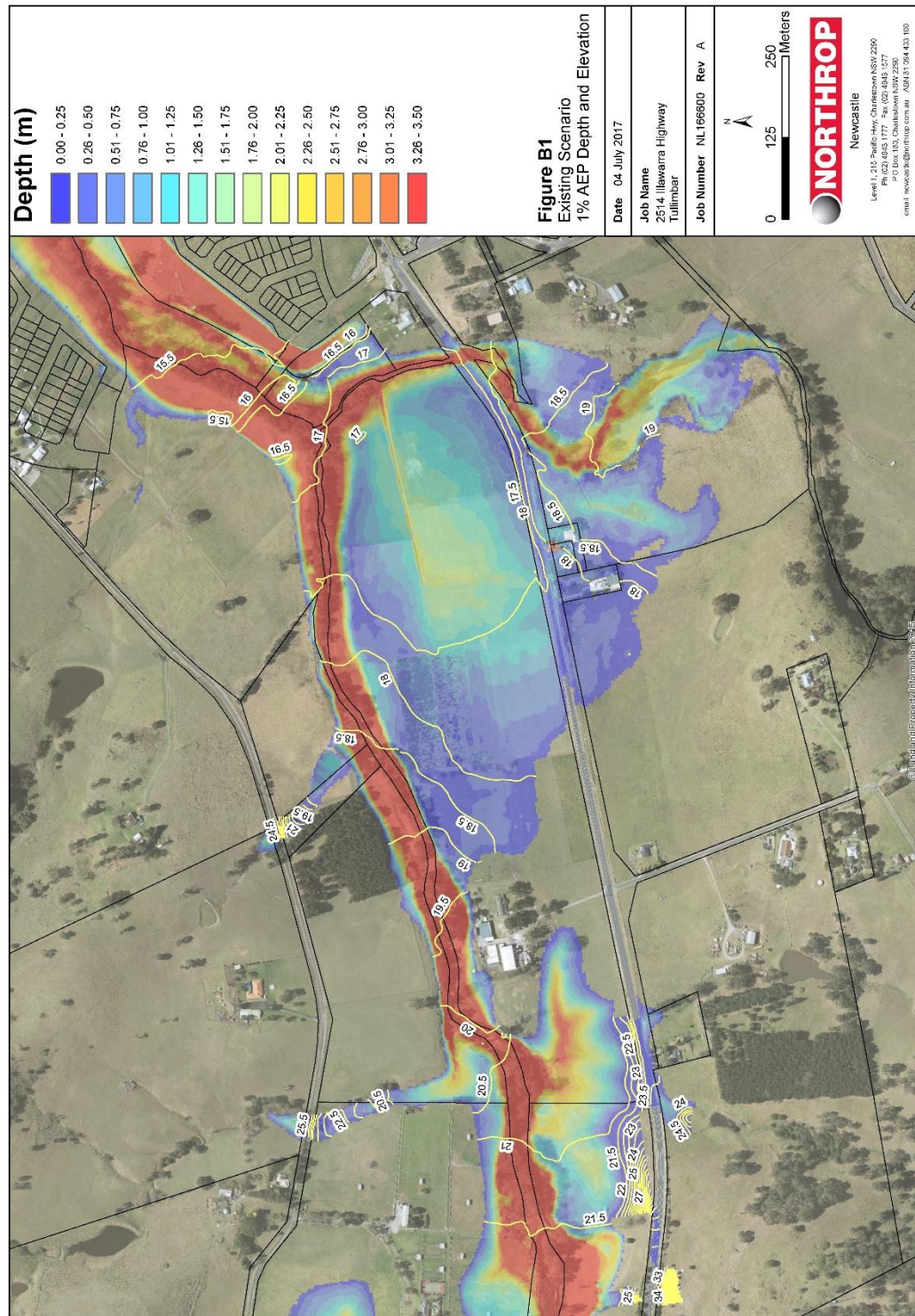
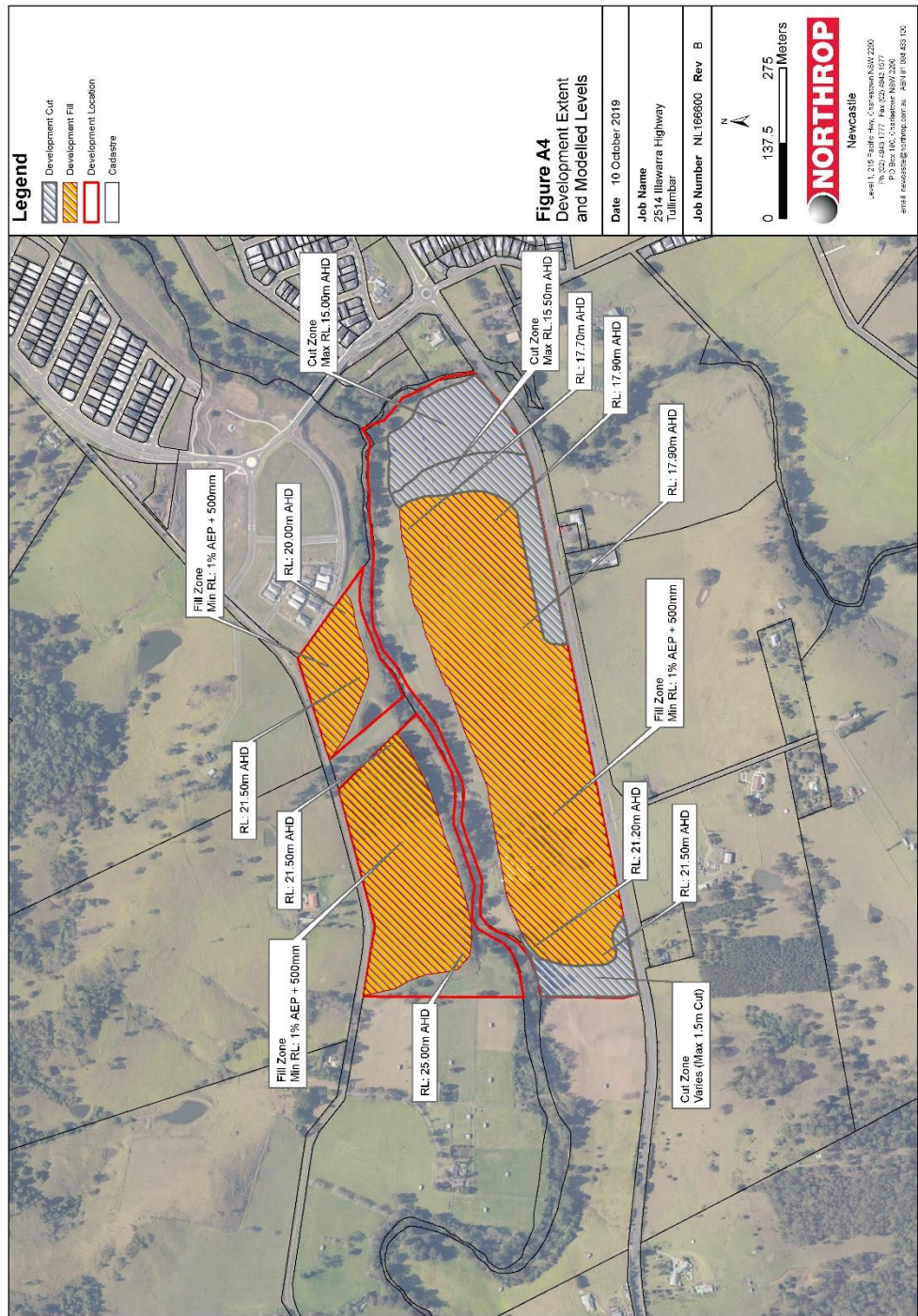


Figure 6: Development Areas



Outcomes

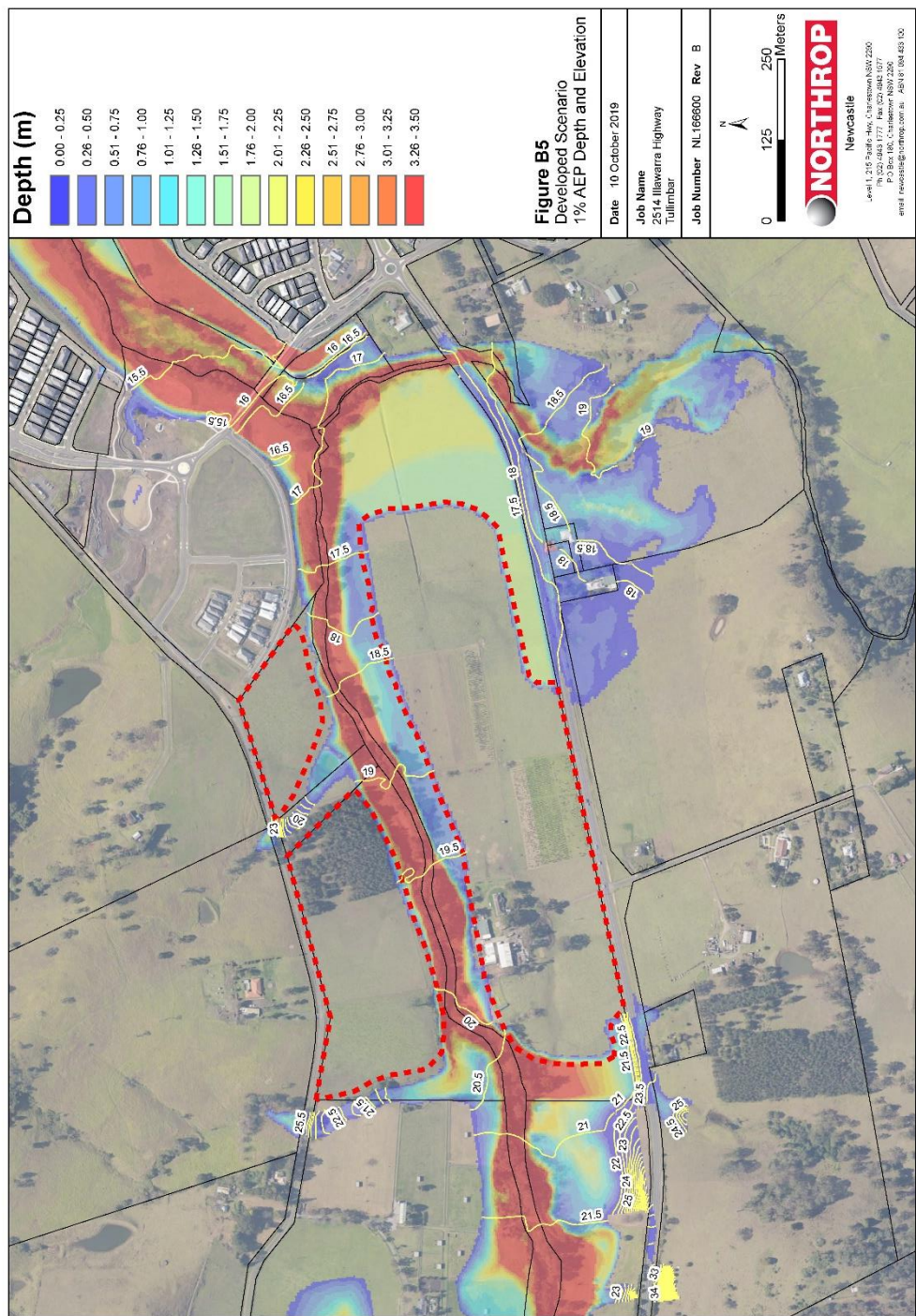
The NSW Floodplain Development Manual 2005, a Flood Planning Level (FPL), or minimum habitable floor level for non-sensitive developments is to be set at the 1% AEP design storm event plus a freeboard of 500mm.

For roads and the associated landscaping, a minimum fill level is to be set at the 1% AEP design storm event.

The results from the study indicate that all land within the proposed development achieves the required freeboard levels. Furthermore, all surrounding properties maintain the required freeboard levels.

The report concludes that the overall impact is considered not significant and is able to be supported.

Figure 7: Post Development Flood Levels



Rienco Flood Study (January 2021)

Rienco have prepared a detailed Floodplain Risk Management Plan for the subject site which is included as an appendix to this report. We have provided a summary of the report below.

Flood Study Parameters

The purpose of this report is to:

- a) Review of existing flood information available for the site.*
- b) Prepare a detailed hydrologic and hydraulic model that determines peak flood levels at the subject site for a range of events up to and including the Probable Maximum Flood (PMF).*
- c) Determine the potential impacts of the proposed development, and the associated flood hazard categorisation.*
- d) Review the proposed development, together with the hydraulic model results, and assess it against:*
 - (a) Section 9.1 Directions relating to flooding, and*
 - (b) Clause 6.3 of the SLEP (2013, as amended).*
- e) Prepare a report summarising the above suitable for lodgement with SCC with the PP.*

A detailed site inspection was undertaken by Rienco in November 2020 and confirmed the adequacy of the survey information used in this study.

The report notes that there are a number of previous studies available within the catchment of Macquarie Rivulet. The three of most relevance to the proposed development are:

- Macquarie Rivulet Flood Study (Rienco, 2011).

Report prepared for Cardno Forbes Rigby for the Calderwood Development, detailing a calibrated and validated hydrology and hydraulic model, as well as design flood estimation.
- Shellharbour Council's Macquarie Rivulet Flood Study (WMA Water, 2017).

Report prepared for Cardno Shellharbour Council as a catchment wide study prepared in accordance with the FPDM guidelines, detailing a calibrated and validated hydrology and hydraulic model, as well as design flood estimation.
- Water Cycle and Flood Management Strategy Updates Post-Exhibition Report (JWP, April 2019).

This report was prepared for Lend Lease and documents the latest and final design for the Calderwood development in the vicinity of the site. Importantly, it provides the detailed flood performance modelling of the Macquarie Rivulet Bridge located just downstream of the subject site. The Calderwood Bridge peak flood levels are RL +15.72m AHD in the 1% AEP event and RL +17.66m AHD in the PMF. These are described in Plate 9-4 of the JWP report.

These three studies have been used for reference throughout this report.

A WBNM model has been created for this study, to determine peak flows at the subject site for all events up to and including the PMF.

The WBNM model was then run for a full range of durations for the 1% AEP and PMF events.

Catchment Area

The report indicates that the site forms part of the Macquarie Rivulet catchment, which lies within the Lake Illawarra sub-basin of the Wollongong Coastal Basin (#214).

It drains 107 km² of mostly forested and rural lands and is located some 100 km to the south of Sydney on a thin band of coastal land between the Illawarra escarpment and the Tasman Sea.

Macquarie Rivulet has its headwaters on the escarpment near Robertson, flowing east over the escarpment, to ultimately discharge into Lake Illawarra.

The drainage network of Macquarie Rivulet comprises four main arms:

- Macquarie Rivulet (the main arm draining the central portion of the catchment)
- Frazers Creek (a secondary arm draining the south-eastern sector)
- Marshall Mount Creek (a major arm draining the northern sector)
- Yellow Rock Creek (a major arm draining the south-western sector)

All arms combine on the flood plain above the Princes Highway, to the immediate west of Albion Park airport. In large events, flows merge across the full width of the flood plain at this location to form a single near level pool of floodwater.

Existing Flood Behaviour

The peak 1% AEP flood depths vary across the site. Flooding in the west of the site is dominated by the flows within the main channel of Macquarie Rivulet, as well as a flood storage area in the south-western corner of the site. All discharges are confined to the valley flanks as the flood passes the existing homestead. Downstream from the homestead, until the confluence with Yellow Rock Creek, flood flows exist in a combination of instream and overbank flow. This behaviour continues until the new Calderwood Bridge where flow is again confined to a narrower floodway.

Figure 8 below shows the 1% AEP pre-development flood levels over the site.

Development Impact on Flood Behaviour

The report provides detailed modelling of the development proposal, with filling of the site to achieve floor levels above the 1% AEP storm event, plus freeboard.

The development strategy allows for a stormwater channel along the Illawarra Highway to accommodate flows and a large compensatory cut area on the eastern edge of the site to offset fill areas.

This is consistent with the flood management approach adopted, approved and constructed on the adjoining Lend Lease project.

The flood study maps the impact water level and velocity for both the 1% AEP and PMF design storm events.

Figure 8 below shows the post development 1% AEP event outcomes.

There are some increases on the subject site due to the proposed development and associated cut / fill areas. These are managed via earthworks to have no influence on the proposed development nor existing approved development.

There significant off site reductions in peak flood levels, due to the specific measures incorporated into the proposal, such as the flood diversion channel adjacent to the Illawarra Highway. This channel better captures discharges across the Illawarra Highway and more efficiently manages this discharge through the site.

The corresponding effect is reductions in peak flow and duration at a known sag point in the Illawarra Highway. Development of the site as proposed will achieve a reduction in flood levels at this point under both the 1% AEP and PMF flood events as shown in Figures 10 & 11 below.

This will provide significant public benefit and assist in flood evacuation and vehicle movements along the highway.

Due to the modified channelization of the existing watercourse, some increases in velocity are estimated. However, the potential scour or erosion that may come from these proposed velocities can be readily managed through future detailed design, by the use of pools and riffle beds, and rock jams etc.

Figure 8: Pre Development Flood Levels

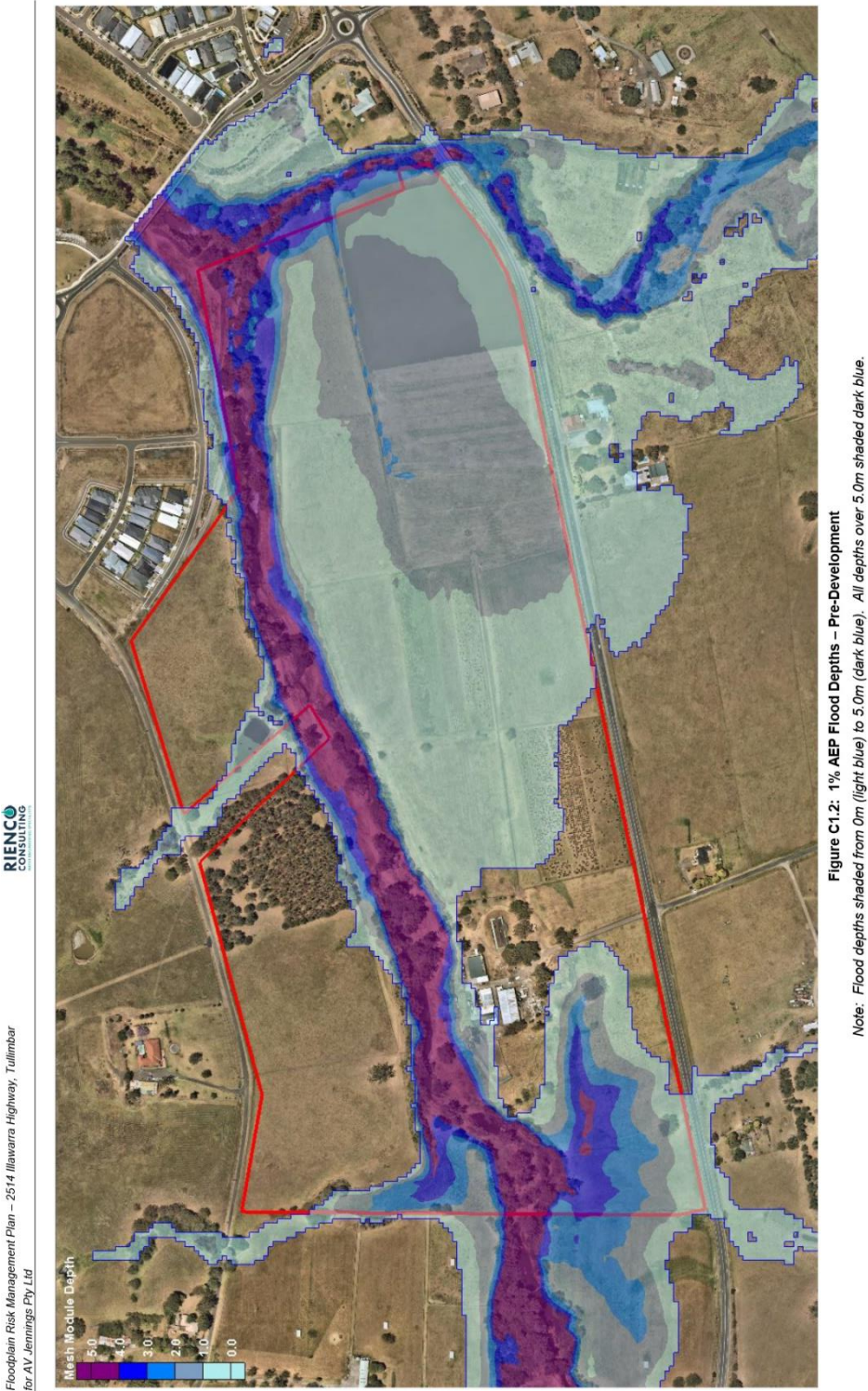


Figure 9: Post Development Flood Levels

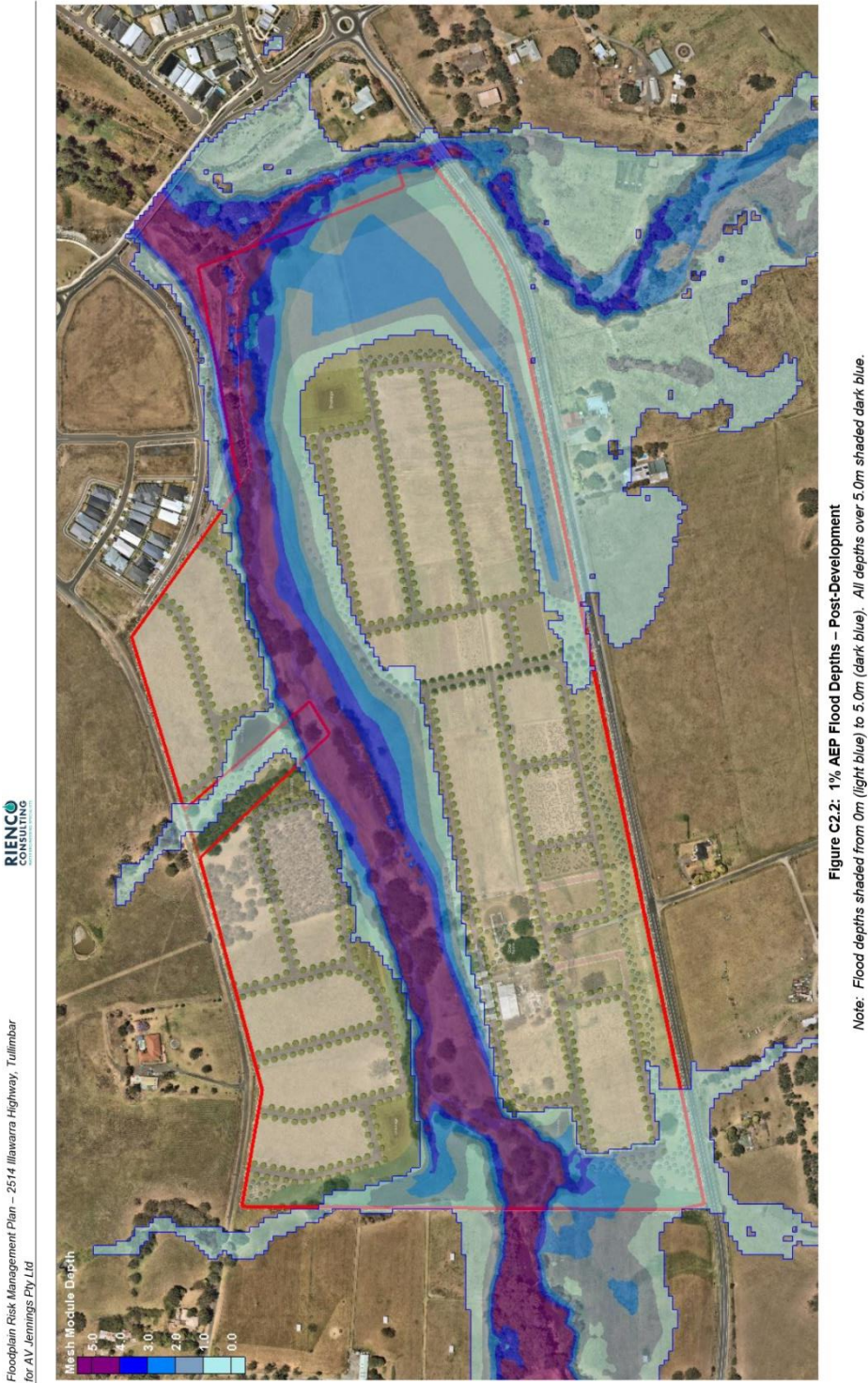
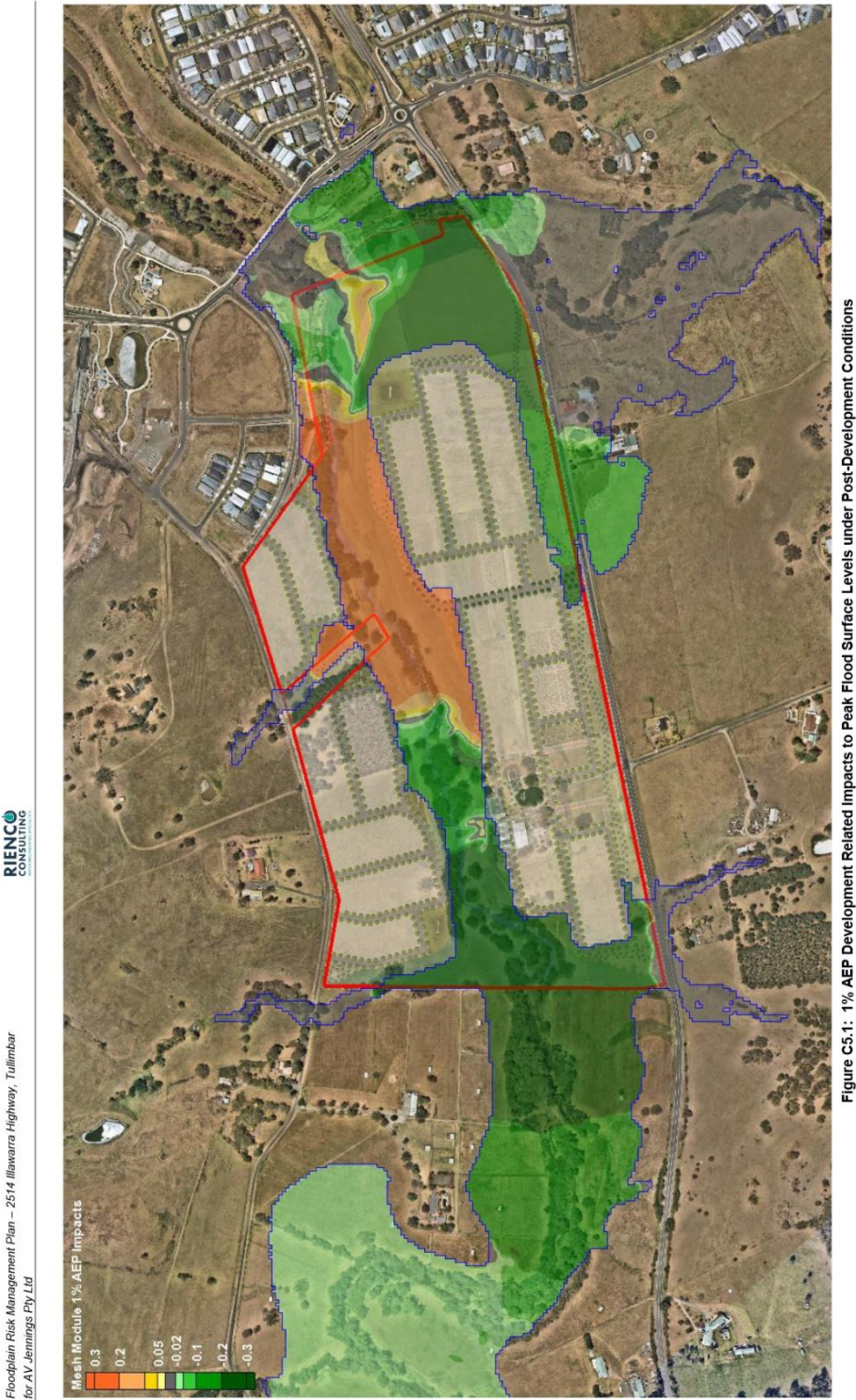
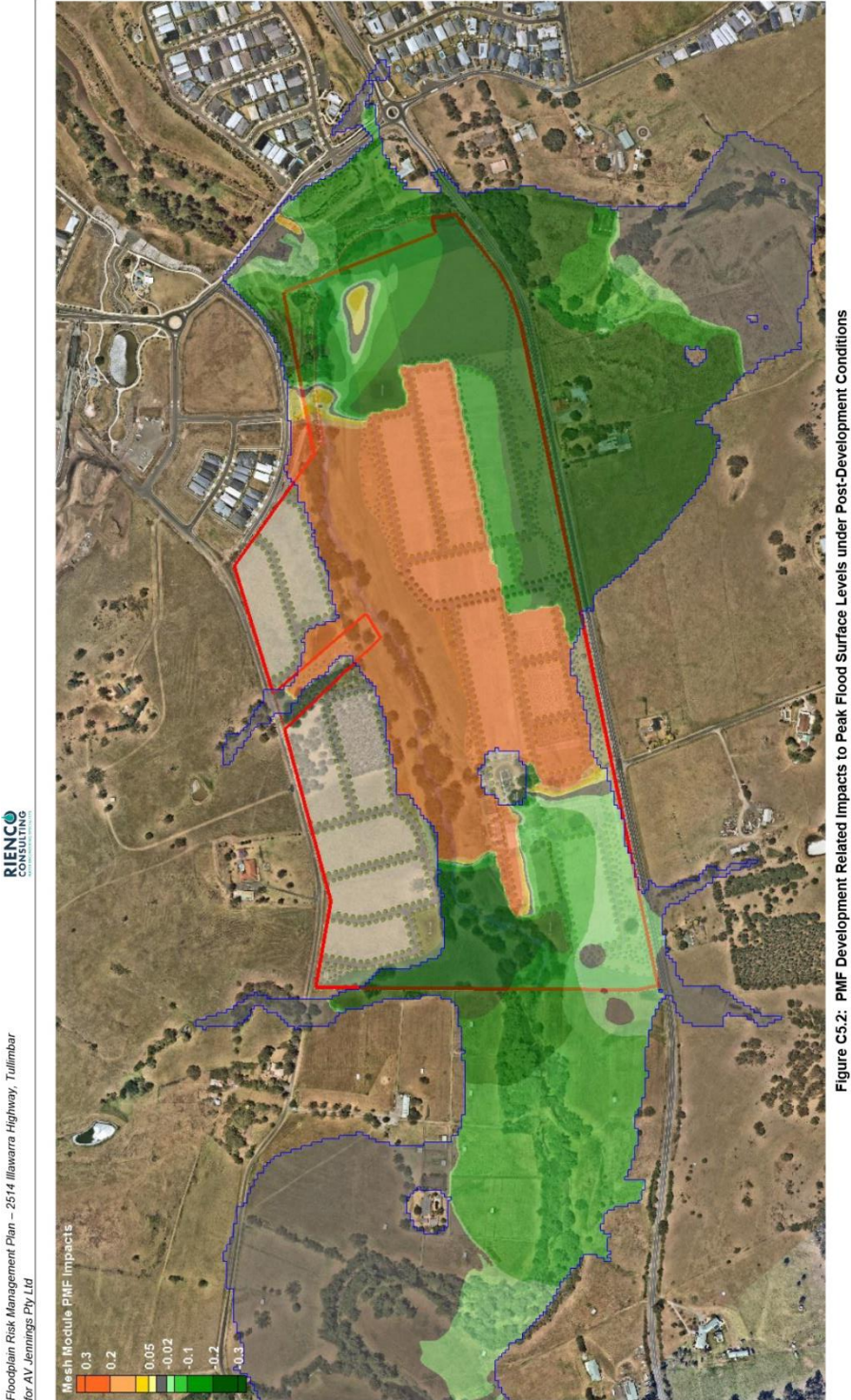


Figure 10: Changes in Flood Levels – 1% AEP Storm



FINAL REPORT – 9th February 2021
Rienco Ref. 20073 Report 001 Rev 2

Figure 11: Post Development Flood Levels - PMF



FINAL REPORT – 9th February 2021
Rienco Ref 20073 Report 001 Rev 2

Infrastructure Review

A supplementary servicing and infrastructure report has been prepared by Maker Engineering and is included with this submission. A summary of the report is provided below.

Water

Existing potable water services in the vicinity of the subject site consist of a 200mm watermain along Borjeson Circuit and Escarpment Drive, within the CUDP. It is anticipated that connection to the existing network will provide adequate capacity to service the site.

Prior to the proposed increase in lot yield within the CUDP, master plans produced by Sydney Water were prepared to service 4,800 lots within the CUDP and an additional 2,900 lots within the greater Calderwood investigation area, which lies outside the rezoned CUDP. Whilst engagement with Sydney Water has indicated no consideration has been given to the servicing requirements of any potential developments outside of the CUDP, consideration of surrounding lots in previous master plans produced by Sydney Water is promising for the servicing and capacity requirements of the subject site.

Sydney Water has programmed to construct a lead-in watermain by 2021-2022 as part of the Calderwood Package 3 trunk works. This may be utilized by the subject site and could be further investigated by submitting a feasibility application with Sydney Water at this early stage of the development.

Endeavour Energy

Endeavour Energy is the utility service authority responsible for the management and delivery of electrical

services in the core Calderwood precinct. Developments in the vicinity of the subject site are currently serviced by an existing power distribution station on Russell Street in Albion Park located approximately 2.5km from the CUDP. However, this network currently provides electricity to the Albion Park area and has insufficient capacity to service the CUDP, therefore a new zone substation has been proposed.

The entire CUDP and surrounds are proposed to be serviced by a 132/ 11kV substation within a designated land area North West of the subject site as seen in Figure 3-1. Maker has been advised by Endeavour Energy that it is likely that additional capacity may be available to service developments neighbouring the CUDP, including the subject site once the Calderwood Zone Substation is commissioned around mid-2022. Endeavour Energy is expected to fund the proposed zone substation and the accompanying three 132kV feeders which will be supplying the substation.

The proposed development will ultimately be serviced by feeders extending from the Calderwood Zone Substation. There is an overhead feeder that runs along North Macquarie Road that may present an opportunity to service the site during initial stages of

development. Reconfiguration of this feeder is anticipated and will likely be underground as part of the North Macquarie Road upgrade works proposed under Lendlease's Stage 3C project. We anticipate, without a formal connection enquiry to Endeavour Energy, that electrical connection will be made via the nearest connection point to an Endeavour Energy substation located within Lendlease's development to the north.

Previous experience with neighbouring developments indicates additional developer funded feeders may be required to meet the servicing demands of the subject site. However, this information is subject to change as a formal application is required for capacity reservation.

Telecommunications

Telecommunications services are within the vicinity of the subject site and are available via the adjacent CUDP development. Opticom private network currently services the initial stages of the CUDP via a telecommunications satellite compound located within Stage 1 of the CUDP. Fibre cables currently extend along escarpment drive in telecommunication conduits and are located within a shared trench arrangement with gas and electricity services. It can be expected the shared trench arrangement will continue throughout the CUDP and allow for telecommunication network connection at the proposed connection point to natural gas services, as highlighted in Figure 4-1 of the report.

Opticom has noted that there is no issue in meeting the increased capacity demands of the CUDP and has advised they can easily cope with the increased lot yield within the CUDP. It is expected capacity is available to service the subject site.

Sewer

Existing wastewater services in the vicinity of the subject site consist of a 300mm PVC wastewater main on the southern side of Borjeson Drive within Stage 1B of the CUDP. Connection to the proposed wastewater infrastructure is also available on the northern side of the Macquarie Rivulet, which may be required during the development of the southern stages of the site. Capacity of the existing network is adequate based on Sydney Water advice, which proposes the general layout seen in Figure 2-2 of the report.

Future capacity accounts for wastewater capacity requirements of the proposed development at 128 North Macquarie Road (Lot 100 DP1251724). Engagement with the 128 North Macquarie Road site has allowed for sewer works to be completed independently of the rezoning of the subject site. A preferred optimised solution for both parties is currently underway to best meet the servicing requirements of the subject site and the 128 North Macquarie Road site. The neighbouring developer is willing to forward fund the cost of the design and construction to extend the sewerage main through the subject site to service the proposed development at 128 North Macquarie Road.

The sewer on the southern side of the Macquarie Rivulet will require a pressure system to connect to the existing network as grades are not achievable. A Sewerage Pump Station (SPS) will likely be required and will likely be located on the north eastern corner of the southern precinct.

Gas

Zinfra is the utility service authority responsible for the management and delivery of gas services in the vicinity

of the subject site. The initial stages of the neighbouring CUDP are currently serviced by a gas main running along Escarpment Drive within the CUDP. Zinfra has previously identified the need for a secondary steel gas main to ensure sufficient capacity is available to service later stages of the CUDP and surrounding developments, including the subject site.

Maker engaged Zinfra to receive high level advice in March 2020. Its response indicated that Zinfra is aware of the development of sites neighbouring the CUDP. It can be assumed that the subject site has likely been considered in the expansion of the natural gas network as Zinfra take a whole of network approach when extending their gas assets into new developments such as the CUDP and subject site. It can therefore be reasonably envisaged the installation of the secondary gas main will provide adequate capacity to service the subject site.

The proposed natural gas network to service the later stages of the CUDP can be seen in Figure 4-1 to extend east along Calderwood from the intersection of Escarpment Drive and Calderwood Road. Should sufficient capacity be provided by the proposed secondary steel gas main, connection to the gas main along Calderwood

Road would present a viable connection point with minimal lead-in works required.

Sydney Water Liaison

Following lodgement of the Planning Proposal, further consultation with Sydney Water has been undertaken in relation to the provision of sewer and water to the site.

A modified sewer alignment has been developed in consultation with Sydney Water as shown below.

Delivery of the sewer line as proposed will assist in servicing surrounding land holdings and reduce overall servicing costs.

At present, servicing strategies for the adjoining land holdings had included pumping stations to address site topography. Pumping stations add significant upfront and ongoing infrastructure and operational costs.

Rezoning of the subject land and delivery of a gravity sewer line as shown will significantly reduce upfront and operational costs and assist in servicing a broad catchment extending beyond the subject land holding.

Figure 12: Sewer Options



Ecological Review

Eco Logical have prepared a preliminary assessment of the subject site and associated development concept to accompany this Planning Proposal.

The review provides mapping of key biodiversity constraints and threatened flora and fauna records within a 10km radius of the site.

Key outcomes of the review are as follows:

- No recorded threatened flora or fauna species within the site to date.
- Threatened Flora “Cattle Egret” has been recorded within the Macquarie Rivulet creek corridor adjoining the north-eastern boundary within the Lend Lease development.
- The study area contains patches of River-flat Eucalypt Forest, an endangered ecological community under the Biodiversity Conservation Act 2016. This is a high constraint.
- Dams and riparian corridors are likely to provide habitat for threatened microbats, forest owls. These are a moderate to high constraint.
- The biodiversity values map identifies land with high biodiversity that is sensitive to impacts from development and clearing. The study area is identified on the Biodiversity Values Map and the values are confined to the riparian zone of Macquarie Rivulet.
- The study area is partially covered by the Terrestrial Biodiversity overlay and is subject to the controls outlined in Part 6 Clause 6.5 of the Shellharbour LEP. The biodiversity mapping also reflects the Macquarie Rivulet corridor.
- The portion of Macquarie Rivulet that traverses the site is mapped as Key Fish Habitat under the Fisheries Management Act 1994 (FM Act) (Figure 5). Any works that directly or indirectly affect the habitat will require a FM Act permit. If no impacts are expected to occur, then no additional permits or notification are required with respect to Part 7 of the FM Act.
- There are four first order streams and one second order stream, all tributaries to the Macquarie Rivulet, within the study area. There is one dam located within the study area connected to a first order stream. Parts of the study area are classified as waterfront land under the Water Management Act 2000 (WM Act).
- Macquarie Rivulet is a 5th plus order stream.
- The site is not mapped under the *Coastal Management SEPP* and therefore the Coastal Management Act 2016 does not apply.
- The vegetation mapping of the study area identified River-flat Eucalypt Forest as being present, it is confined to the riparian zones along the Macquarie Rivulet.

- River-flat Eucalypt Forest is listed as an endangered ecological community under the BC Act. This community is currently under consideration for listing under the EPBC Act as River-flat Eucalypt Forest on NSW Coastal Floodplains. The nominated listing is for 'endangered'.

The Planning Proposal and Concept Plan allow for the retention of all River-flat Eucalypt Forest within the central Riparian Corridor as shown in Figure 13 below. A proposed local park has been relocated to allow retention of the large fig trees adjoining the existing house.

A detailed riparian corridor mapping exercise has been undertaken consistent with the categories provided by Eco Logical and is discussed in detail below.

Further detailed environmental reporting and off-set assessment can be completed post gateway determination once draft land use zone boundaries have been established.

Figure 13: Vegetation Mapping

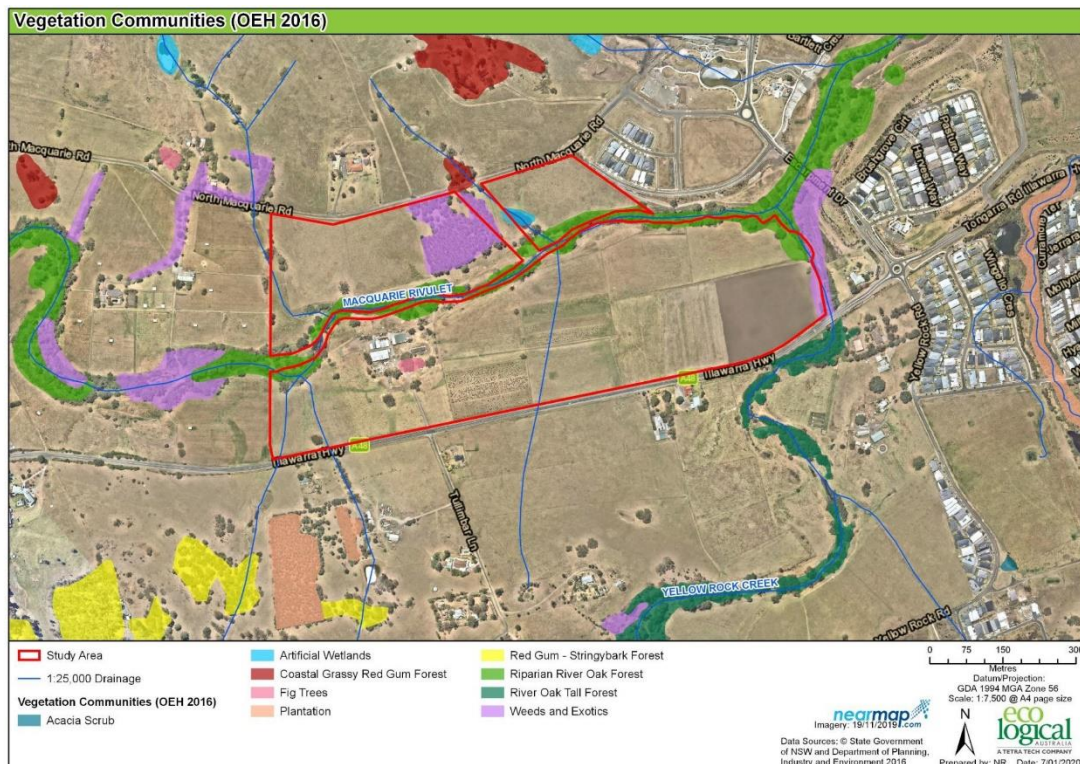


Figure 8: Vegetation communities mapped within and surrounding the study area

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13

Riparian Corridor Mapping

Riparian Corridor and creek line mapping have been undertaken surrounding the subject land by Eco Logical Australia as part of the Calderwood Urban Development Project.

These previous studies informed the zoning boundaries for the surrounding land along the western, northern and eastern property boundaries.

Eco Logical have also provided a desktop riparian corridor analysis and categorisation as part of their preliminary ecological review.

We have undertaken a subsequent detailed mapping exercise of Riparian Corridors over the subject land in accordance with the NSW Office of Water Guidelines 2012, using the Strahler Stream Classification system.

Creek Lines and Riparian Corridors have been classified as follows:

Watercourse type	VRZ width <i>(each side of watercourse)</i>	Total RC width	Corridor Area within Site
1st order	10 metres	20 m + channel width	12.08 ha
2nd order	20 metres	40 m + channel width	
3rd order	30 metres	60 m + channel width	
4th order and greater	40 metres	80 m + channel width	

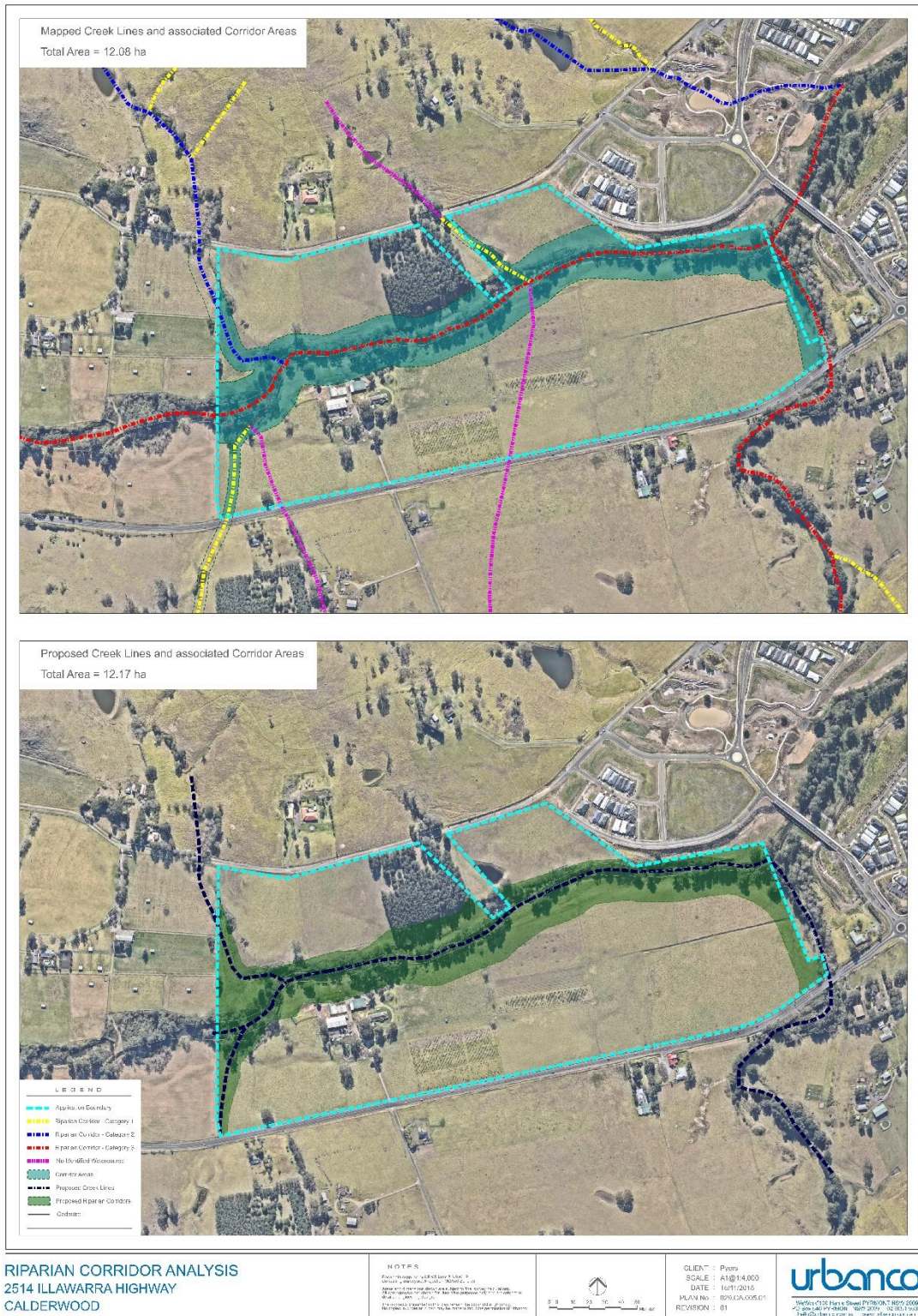
Figure 14 below maps the NSW LPI topographic mapping watercourses and their associated Riparian Protection Areas. Overall a total of 12.08 hectares of Riparian Corridor land is contained within the subject site.

This proposal maintains all second order and fourth order streams as mapped within required corridor areas.

A number of First Order are not considered to be classified as a watercourse and will be removed as there is no identifiable creek bed or vegetation on site.

A total area of 12.17 hectares of Riparian Corridor Land is proposed to be protected under this Planning Proposal, exceeding the NSW Office of Water requirements.

Figure 14: Riparian Corridor Mapping



Traffic Review

Traffic Modelling

Positive Traffic have undertaken a preliminary modelling assessment of the planning proposal and the associated potential impacts on the intersection of Illawarra Highway intersections.

The assessment notes that the potential traffic impacts and infrastructure needs for the redevelopment of the Calderwood Project have been assessed to date by Cardno.

The subject site was not included in the assessment boundaries of the Cardno Calderwood Project traffic impact assessment reports to date.

The Cardno reports included forecast (2031) traffic flows and intersection analysis for the new roundabout at Illawarra Highway / Escarpment Drive assuming full development of the Calderwood Precinct and background traffic increases.

The Cardno modelling identifies that the Illawarra Highway / Escarpment Drive intersection would operate satisfactory at Level of Service B (blue) in the future. This indicates the intersection has spare capacity to accommodate the potential traffic impacts of the Planning Proposal.

As part of the assessment, intersection counts were undertaken in December 2020 to gauge existing traffic flows and compare to historical counts in the ultimate traffic report. Modelling of the existing traffic flows at the roundabout found that the existing Illawarra Highway / Escarpment Drive intersection currently operates at Level of Service A in the AM peak and Level of Service A in the PM peak.

The proposed development is expected to generate 0.99 trips per lot in the AM peak and 0.95 trips per lot in the PM peak. Thus, the northern portion would generate 124 / 119 trips in the AM / PM peak respectively and the southern portion would generate 265 / 254 trips in the AM / PM peak respectively.

As a conservative estimate the above traffic generation by portion was assumed to all travel through the roundabout at Illawarra Highway / Escarpment Drive and travel the east in the morning and back from the east in the afternoon.

The resulting future intersection operating conditions of the existing roundabout was found to continue to operate at Level of Service A in the AM peak and Level of Service A in the PM peak.

The proposed roundabout connection to the southern portion of the planning proposal, which would not include any traffic generated by the Calderwood Precinct to any great degree and on the basis it was of a similar scale to the existing roundabout at Escarpment Drive / Yellow Rock Road, is expected to operate at a similar satisfactory level of service in both peak periods in the future following full development of the southern portion.

Liaison with RMS

Preliminary consultation with the Roads and Maritime Services (RMS) has also been undertaken.

We have also undertaken preliminary consultation with the RMS in relation to the proposed round-a-bout access and land acquisition.

The RMS have advised that a notation will be retained over the land holding indicating road widening affectation. As such, a modified Concept Plan is provided which removes any development within this area.

The RMS have requested a road link be provided to the adjoining property to allow connection to the proposed round-a-bout. This has been included in the Concept Plan.

In relation to the proposed access on the Illawarra Highway, the RMS have requested a traffic impact assessment be undertaken.

We consider this is appropriate to a Gateway Determination requirement.

The RMS have indicated the rezoning would provide positive community benefit through the delivery of a road connection to the adjoining property, allowing access to the round-a-bout intersection

Preliminary Site Assessment

Environmental and Natural Resource Solutions (ENRS) have completed a Stage 1 Preliminary Site Assessment (PSI) to assess the site conditions and identify any areas of potential contamination.

The scope of work for the preparation of the PSI comprised the following:

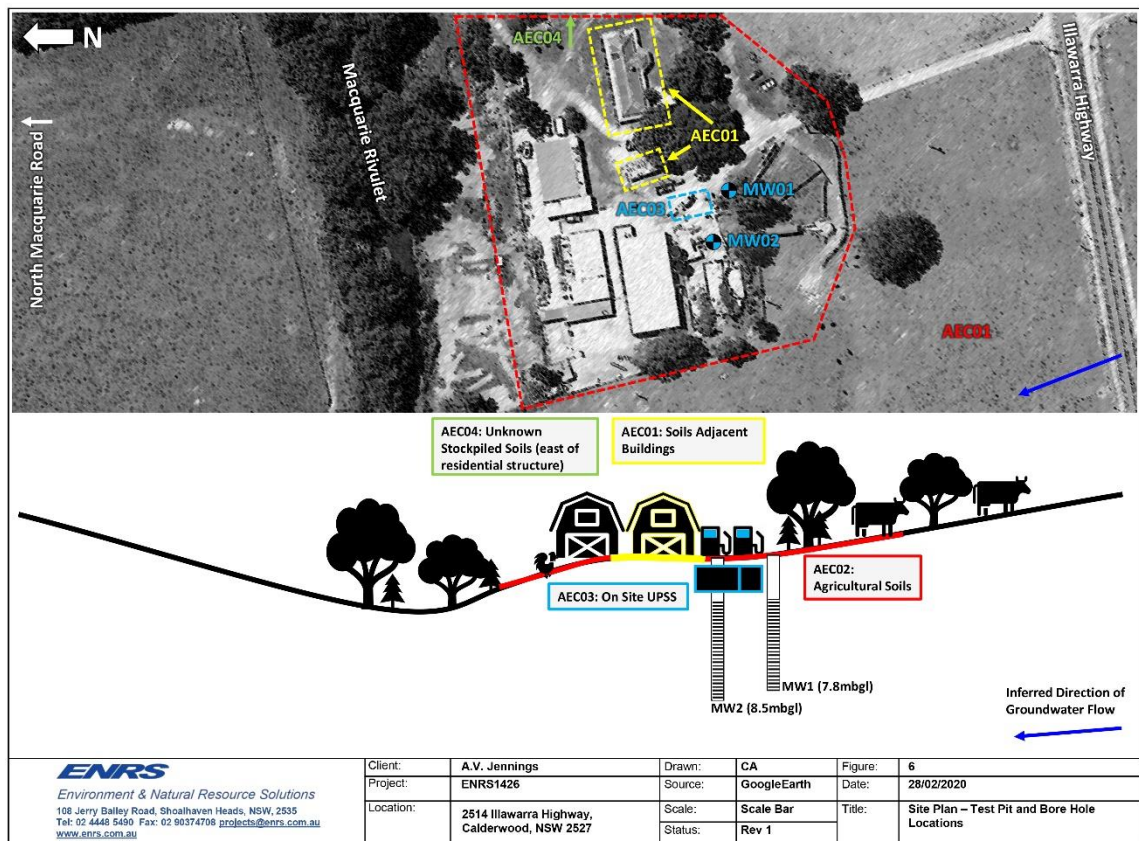
- Review available Site history records incorporating previous investigation reports, proposed development plans and publicly available data to identify any past or present potentially contaminating activities and or any potential Areas of Environmental Concern (AECs);
- Site walkover to inspect for potential sources of contamination or uncontrolled Fill (18/12/2019 and 18/02/2020);
- Test Pit investigations and hand auger soil sampling (18/12/2019);
- Drilling investigations, monitoring Well installation and soil sampling within area of environmental concern (AEC) associated with Underground Petroleum Storage Tanks (UPSS) identified during the preliminary site inspection (18/02/2020);
- Submit selected soil samples to a NATA accredited laboratory for analysis;
- Compare NATA analysis results against NSW EPA endorsed Site Assessment Criteria (SAC); and
- Document investigation results and prepare a Stage 1 PSI report with a statement of Site suitability and recommendations for additional investigation works or ongoing environmental management, if required.

The Site walkover and inspections conducted on the 18th December 2019 and 9th January 2021 confirmed the Site layout was consistent with the documented history and land use.

Four Areas of Environmental Concern (AECs) were identified during the investigation which are shown on Figure 15 below and included:

- AEC01 - Potential for historical weathering of building materials (heavy metal-based paints and asbestos materials) in soil adjacent and underlying building areas;
- AEC02 - Potential for residual impacts on soil from agricultural land use;
- AEC03 - Underground Petroleum Storage System (UPSS) (2x USTs and bowsers);
- AEC04 - Stockpiled, uncontrolled soil/Fill.

Figure 15: AECs



ENRS concluded that the asbestos cement fragment identified on the ground surface adjacent the detached carport was considered to be an isolated fragment and recommended that all future Site works be conducted in accordance with a Site specific Unexpected Finds Protocol (UFP).

The results of laboratory analysis report slight detections of heavy metals and heavy fraction (C10-40) Total Recoverable Hydrocarbons (TRH) within the shallow topsoil. These were below the adopted Site Assessment Criteria and are likely due to a history agricultural land use.

ENRS recommended that the UPSS infrastructure located on the site be formally decommissioned and validated in accordance with the relevant legislation prior to the proposed residential development. This would be completed following rezoning of the land holding.

ENRS concluded that the site is considered capable of being made suitable for the proposed land use following the decommissioning and validation of UPSS infrastructure.

The report did not identify any environmental issues or evidence of gross contamination to trigger the need for any further assessment based on the proposed land use.

Heritage Review

Austral Archaeology Pty Ltd (Austral) prepared a heritage review for the subject site in relation to potential Aboriginal and historical heritage values which would require management under the National Parks and Wildlife Act 1974 (NPW Act), the NSW Heritage Act 1977 (Heritage Act) and the NSW Environmental Planning and Assessment Act 1979 (EP&A Act) should the site be developed.

Austral has undertaken an assessment of heritage values associated with the study area which includes statutory register searches, preliminary background research and a site visit. These have been used to quantify heritage values and make recommendations for how these should be managed as part of the future development of the site.

Indigenous Heritage

An extensive search of the AHIMS database identified that no sites are present within the study area.

Site AHIMS #52-5-0627 is an open site located within 25 metres of the eastern boundary of the study area near the confluence of Yellow Rock Creek and Macquarie Rivulet.

The Shellharbour DCP identifies the study area as being within an archaeologically sensitive landform; this sensitivity mapping is based upon the Shellharbour City Council Area Aboriginal Heritage Study (Navin Officer 2000a).

The review indicates that, as the study area directly borders the Macquarie Rivulet at its confluence with Yellow Rock Creek, it is considered that the study area could be suitable for occupation.

A site investigation was undertaken by Alexander Beben (Austral) and Tracy Henry (Illawarra Local Aboriginal Land Council) on 19 December 2019. The site visit did not identify any Aboriginal objects; however, it did note that there were several parts of the study area that were elevated above the alluvial plain that had the potential to contain sub-surface archaeological material.

The review recommends that an Aboriginal Technical Report (ATR) be prepared and consultation with the Illawarra Local Aboriginal Land Council as part of the rezoning. This can be completed as part of the Gateway determination requirements.

European Heritage

There is a locally listed heritage item mapped within the site under Schedule 5 of the Shellharbour LEP, being “Riversford” (Item No. I291).

The State Heritage Inventory (SHI) listing for the item states that it is significant as “...a good and uncommon example of a Victorian styled cottage in a semi-rural setting. It has strong local associations with the Sawtell family, dairying in the Tongarra” (State Heritage Inventory Database No. 2380291).

The site inspection identified that the SHI entry for the item (Database No. 2380291) was significantly out of date as the original homestead is no longer present, with only a dairy shed and some mature plantings remaining.

The homestead was required to be demolished as part of the consent issued for the erection of the current house.

It is likely that archaeological relics are present at the old homestead site and that these may date from the late (or potentially mid, depending on when Riverford was first constructed) 19th to early 20th century.

The review recommends that a detailed Historical Heritage Assessment (HHA) that incorporates:

- a) Further historical research into the history of the study area.
- b) Assessment of the built and landscape values of “Riversford”.
- c) An archaeological assessment that identifies the potential for relics to be present within the study area.
- d) Assessment of significance for the study area and any identified heritage values.
- e) Assessment of the item’s curtilage and how this is to be incorporated into the planning proposal.
- f) Quantification of the potential impacts from the planning proposal and identifies further investigations and approvals.

This can be completed as part of the Gateway determination requirements.

The review also recommended that, whilst the original “Riversford” homestead has been removed, an optimal outcome for any proposed development would be to retain the original homestead location within either a large lot or recreational open space with associated interpretive media.

The Concept Plan has been amended to relocate the local park to reflect the original homestead location and allow retention of the existing large fig trees.

Figure 16: Heritage Mapping



Figure 15 Areas of Aboriginal sensitivity and identified historical values

2514 Illawarra Highway, Calderwood NSW - Aboriginal and Historical Heritage Advice

Source: NSW Department of Lands Aerial

Drawn by: AJB Date: 20/01/2020



Rural Land Capability

As part of the assessment of the Land Lease Calderwood Project, the Department of Planning undertook a review of the capability of local agricultural lands and any impacts on the loss of agricultural zoned land.

The Director Generals report specifically notes that *Concerns were raised in agency and public submissions about the loss of Class 2 agricultural land in particular on the site, and the impact on future food production to meet a growing population, especially the range of potential impacts that could arise from climate change.*

The assessment report noted that *Class 2 to Class 5 lands have been identified on the site, as well as other release areas such as the West Dapto Release Area and Tullimbar.*

This is consistent with the agricultural land mapping over the subject site.

The Class 2 lands identified on the site are largely located within the riparian corridors and the floodplain, which also presents potential land use conflicts. Agriculture can conflict with the management of riparian corridors including impacts on biodiversity and discharge of sediments, chemical and other particulates into the river system.

Consistent with the Land Lease project, the site also adjoins existing urban areas to the east, north and west.

The department of Planning concluded that this ***is likely to result in the increased isolation of rural lands and increase potential land use conflicts.***

The Director Generals report concluded that:

It is considered that a better planning outcome would be to continue an arc of urban development around the western side of Lake Illawarra, leaving other areas, especially further east of the site on lands with urban development constraints due to flooding, and land in Kiama LGA where there are significantly larger parcels of Class 2 land, for long term agricultural production for the region.

In this regard, the rezoning of the subject land is considered to be consistent with adopted government policy for the local area due to the isolation of the site as rural land, and the strategic identification of more appropriate agricultural lands in the Kiama LGA.

SECTION 2 – STRATEGIC PLANNING CONTEXT

Calderwood Urban Investigation Area

The Calderwood Investigation Area has been identified as an Urban Release Area under the Illawarra Urban Development Program in a variety of forms for over 30 years.

During this time, the boundary and extent of the investigation area has been modified and adapted to respond to changing strategic planning initiatives and the Lend Lease Major Project delivery.

We have provided below a detailed discussion of the history of the Urban Release Area and demonstrate that the subject land forms part of the current “Calderwood Investigation Area”.

Illawarra Urban Development Program 1980’s to 2002

The Illawarra Urban Development Program (IUDP) prepared by the NSW Department of Planning, is the State Government’s program for managing land and housing supply in the Illawarra.

The IUDP monitors the planning, servicing and development for new urban areas in Wollongong, Shellharbour and Kiama, as well as the provision of housing in existing urban areas.

The Calderwood Release Area has formed part of two investigation areas, identified in a variety of forms for over 30 years.

Historically, these areas incorporated “Calderwood – Area 52.7” and “Albion Park West – Area 52.8A”. These areas, as shown on Figure 17 below, encompassed an estimated 9,200 new dwellings as prescribed under the 2002 IUDP.

As discussed below, the specific mapping of the boundary of areas 52.7 and 52.8 were removed under the 2010 IUDP, to allow detailed site investigations.

As such, the boundaries of historic areas 52.7 and 52.8 are no longer relevant and should not be referred to in consideration of the proposal.

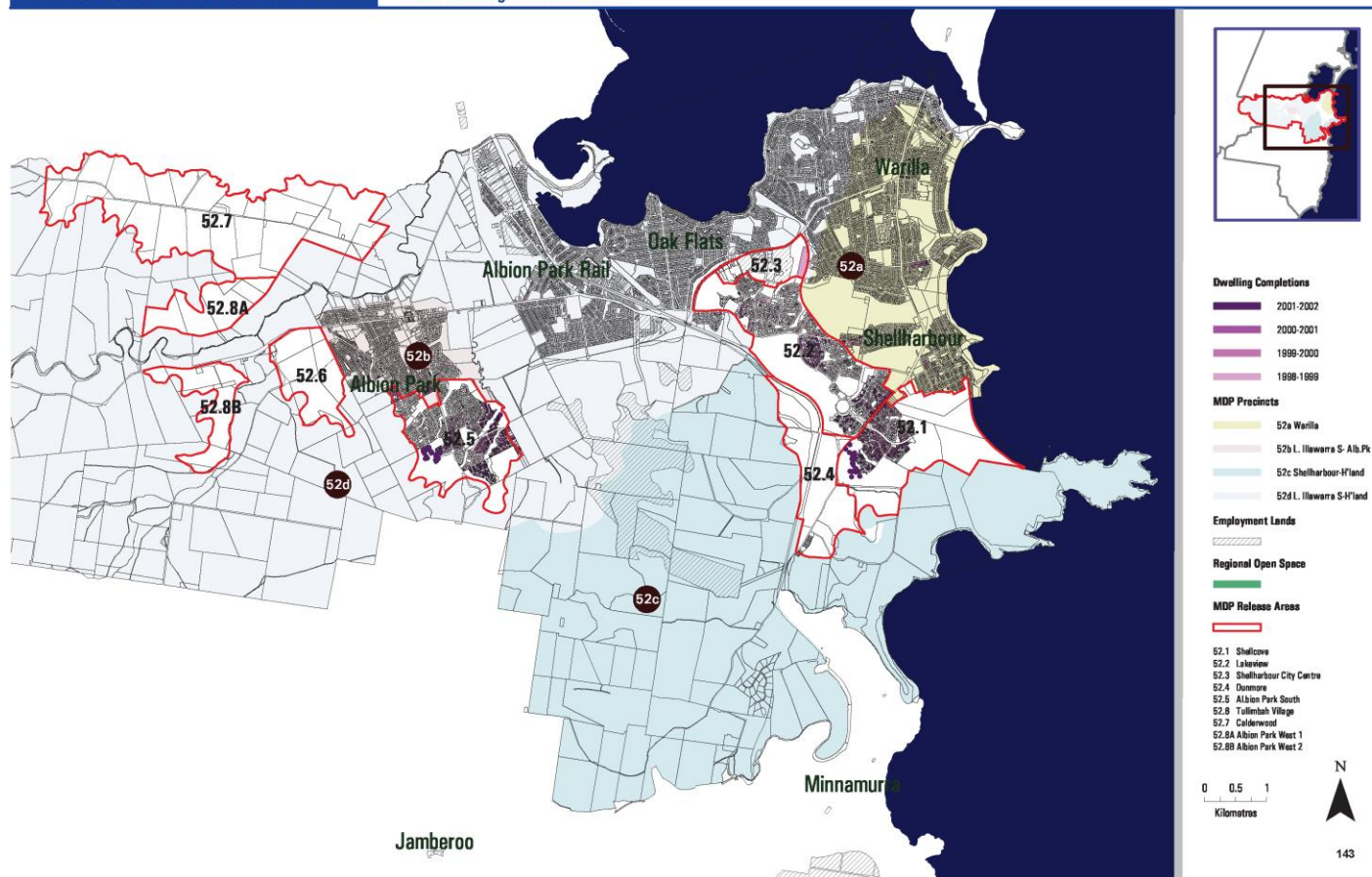
Figure 17: Metropolitan Development Program 2002

SHELLHARBOUR

Dwelling Completions

METROPOLITAN DEVELOPMENT PROGRAM

2002 Housing Forecast Forums



Illawarra Urban Development Program 2010

A detailed update of the IUDP was prepared in 2010 which included amendments and revisions to the historic release areas 52.7 and 52.8.

The 2010 IUDP specifically deleted areas 52.7 and 52.8 and introduced the “Calderwood Investigation Area” as a replacement.

The Calderwood UIA did not incorporate a set boundary for the investigation area.

Rather, detailed investigations are required to be undertaken to determine what is urban capable land within this investigation area. This can be undertaken on a broad scale, such as the Part 3A Major Project development area, or on an individual site basis.

We note that the Lend Lease “Calderwood” estate Major Project application was not considered to cover the entire investigation area. The 2010 Illawarra Urban Development Program: An Explanation update which stated that

the Department of Planning declared a significant proportion of the potential Calderwood release area a potential State Significant Site on 16 April 2009. A Part 3A application has also been lodged with the Department for this area of Calderwood.

As such, the 2010 IUDP specifically notes that land outside of the Lend Lease project forms part of the CIA.

Further, we note that the 2010 IUDP listed the Calderwood Release Area as accommodating 8,000 dwellings. The current Lend Lease project area encompasses only 5,500 dwellings, requiring an additional 2,500 dwellings to be delivered within the investigation area, inclusive of the subject site.

We note that during assessment of the Lend Lease Part 3A Major Project, it was identified that the development footprint extended beyond historic release area boundaries.

The Department of Planning specifically addressed and clarified this matter in the Director Generals Assessment Report for the Lend Lease project.

The Department of Planning determined that the subject land formed part of the broad Calderwood Investigation Area (CIA). In this regard, the Director General's assessment report for the Calderwood Project stated that

The proposed Calderwood development site extends further south to the Illawarra Highway than the site identified in the previous IUDP, and also extends further north into part of the Stage 5/Yallah Marshall Mount precinct of the West Dapto Release Area. It also does not extend as far to the east or west as identified in the IUDP.

The IUDP update no longer indicates a specified area for Calderwood, only noting the area generally on a map as the 'Calderwood Investigation Area'.

The report stated that the Director General and Department of Planning position is as follows:

Consideration of land previously identified outside of the IUDP map can be considered subject to a merit assessment of the potential impacts, in particular flooding. The level of development that can be supported in these areas will be dependent on the assessment of the constraints of these areas.

Based on the review of the IUDP and the Director General's Report for the Lend Lease Major Project, it can only be concluded that:

- **Historic urban release area boundaries were deliberately deleted and replaced with a broad Calderwood Urban Investigation Area, which did not have a defined boundary.**
- **The Department of Planning have advised that land outside of the historic IUDP mapped release areas can be considered subject to environmental assessment to determine development footprint.**
- **The Illawarra Highway was adopted as the appropriate southern boundary of development.**

Accordingly, based on the Department of Planning report, Illawarra Urban Development Program and current rezoning of the Calderwood Project, it can only be concluded that the Illawarra Highway has been adopted as the southern boundary of the CIA and the subject land does form part of the broader CIA.

We have also undertaken preliminary consultation with the Department of Planning to confirm this approach.

Consistent with the conclusion above, the Department of Planning have advised that:

Investigation Areas referenced in the Illawarra-Shoalhaven UDP are not shown on the mapping with a boundary. This includes the remainder of the Calderwood investigation area. Although 'investigation areas' on the UDP have been strategically identified for urban, these areas are subject to further investigation and assessment before land can be rezoned.

If the landowner of 2154 Illawarra Highway is interested in having their landholding rezoned from RU1, they could first discuss with Council, or prepare and lodge a planning proposal with Council.

As such, the current Planning Proposal is able to be progressed.

2016 IUDP Update

The 2106 IUDP update retains the Calderwood urban release area, with a dwelling yield estimate of 6,900 dwellings within Shellharbour LGA.

The 2016 IUDP update included mapping of the land zoned under the Calderwood Lend Lease Major Project.

This is mapped as a major regionally significant development project, and demonstrates the area referred to in the dwelling yield projection tables.

The 2016 IDUP update confirms a dwelling yield of 4,000 dwellings within the Shellharbour LGA and 800 within Wollongong LGA for the Lend Lease project..

Consistent with the 2014 IUDP update, the remaining balance of 2,900 dwellings are to be delivered outside of the Lendlease project.

The Calderwood area mapped in the 2016 IUDP does not define an urban release boundary.

This has been clarified by the Department of Planning who have advised that:

the UDP monitors/maps the larger or more significant release areas that are contributing to regional housing supply. These areas often involve staging and sequencing, and require coordination of infrastructure and service delivery e.g. Endeavour Energy, Sydney Water and Shoalhaven Water. There may be smaller areas that have been rezoned for urban use that are not tracked/mapped as part of the UDP.

This advice is consistent with the outcomes for other smaller land holdings which form part of larger release areas. In this regard, there are smaller land holdings which have

been rezoned, or are in the process of being rezoned throughout Shellharbour LGA which area also not shown on the 2016 IDUP map including:

- ***Land in Dunmore adjoining the railway station***

This land was rezoned and construction / delivery had commenced in 2016. The land formed part of an historic mapped release area, which, in the same manner as Calderwood, was removed and replaced with an investigation area notation.

The land, despite being rezoned, was not identified under the 2016 IUDP as it is not a “significant” project / release area.

- ***Land in Tullimbar which forms the balance of the Tullimbar Release Area***

The Tullimbar Release Area extends further south than the mapped Tullimbar Village area under the 2016 IUDP. The 2016 IUDP maps only land currently rezoned as part of the Tullimbar Project.

2020 IUDP Dashboard

The These figures have been reviewed and refined with recent updates to the IUDP.

As outlined in the 2020 IUDP dashboard, delivery of residential dwellings within the Calderwood Release Area is addressed in three separate components under the IUDP which deliver a total of 6,900 dwellings. These areas include:

- Calderwood (Lendlease project area) = 4,455 dwellings
- Calderwood (North Macquarie Road) = 300 dwellings
- Calderwood (Remainder) = 2,145 dwellings.

The subject land forms part of the Calderwood (Remainder) dwelling delivery area, which is identified to provide a minimum of 2,145 dwellings from 2023 onwards in order to achieve dwelling yield targets under the IUDP and ISRP.

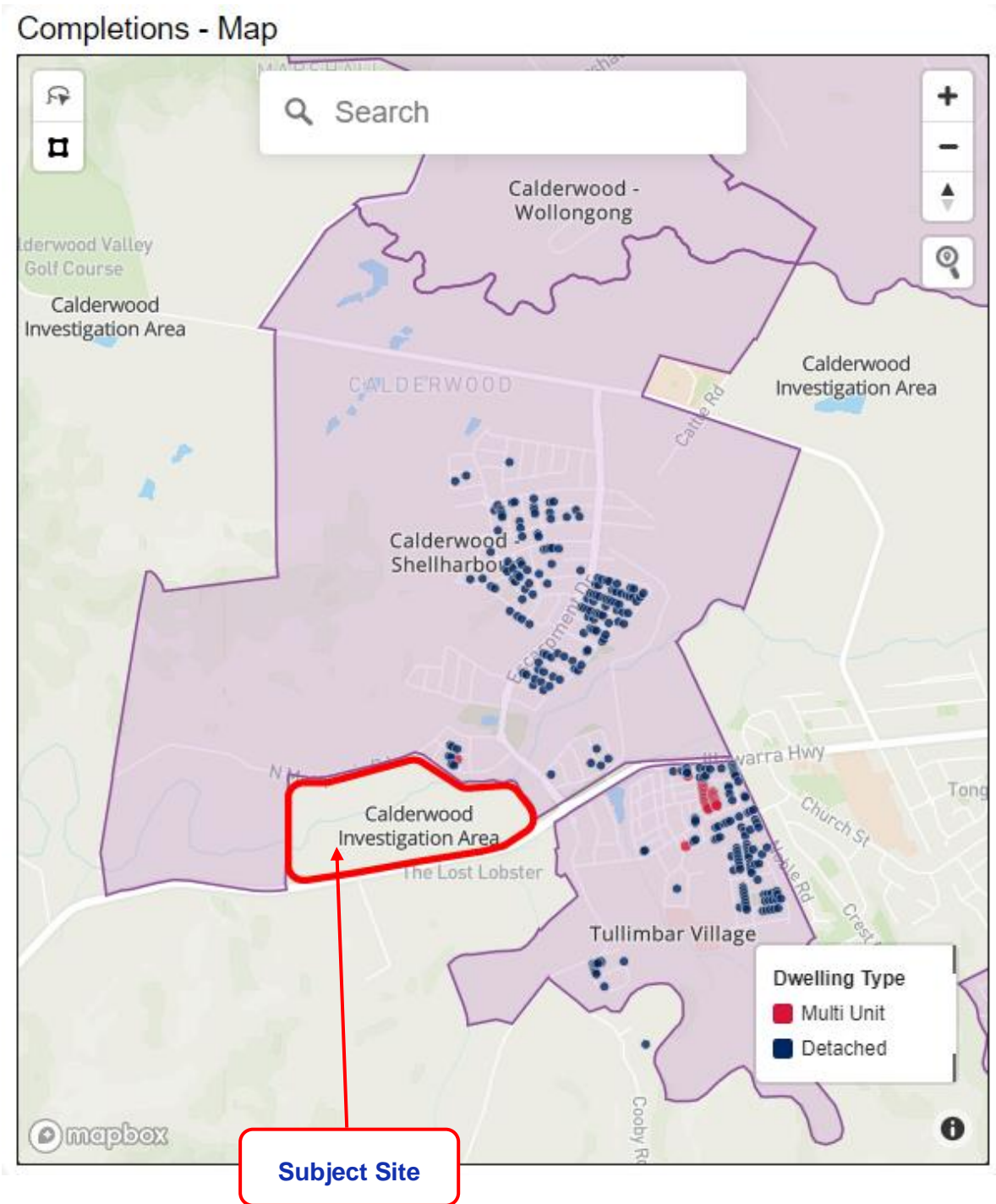
The 2020 IUDP dashboard includes plan and figures which identify Calderwood Investigation Area.

The land holding as forming part of the Calderwood Investigation Area as shown in Figure 18 below.

Calderwood Release Illawarra Urban Development Program Lot Yield Summary

Illawarra Urban Development Program	Calderwood Release Area Dwellings	Land Lease Calderwood Project	Calderwood Investigation Area
2002 IUDP	9,200	No Breakdown. Calderwood Project not commenced / envisaged.	
2010 IUDP Update	8,000	5,500	2,500
2014 & 2016 IUDP Update	6,900	4,000 (Shellharbour LGA)	2,900 (Shellharbour LGA)
2020 IUDP Update	4,455	300	2,145

Figure 18: 2020 IUDP Dashboard – Department of Planning



Illawarra Shoalhaven Regional Plan

The Illawarra Shoalhaven Regional Plan (ISRP) was released by the Department of Planning in November 2015.

As detailed in the ISRP 2015, the vision for the region is:

for a sustainable future and a resilient community, capable of adapting to changing economic, social and environmental circumstances. Residents will be able to access a range of lifestyle choices; connect with the stunning landscapes and biodiversity; access well-established and emerging work opportunities; enjoy a strong network of centres; and experience high quality education and health facilities.

The ISRP states that the region will need at least 35,400 new homes between 2016 and 2036 to meet the demands of population growth and change. Of these, 9,350 dwellings are required to be provided within the Shellharbour LGA.

Goal 2 of the ISRP addresses housing supply across the region. Goal 2 is to deliver **A variety of housing choices, with homes that meet needs and lifestyles.**

The discussion above has demonstrated that the subject land forms part of an Urban Investigation Area under the Illawarra Urban Development Program.

Support for this proposal will assist in delivery of identified dwelling yields under both the IUDP and Regional Strategy.

As noted above, Goal 2 of the ISRP addresses housing supply across the region. We have provided below a review of the Directions of Section 2 (Goal 2) of the ISRP. This review demonstrates that the proposal is entirely consistent with the Goals and Directions of the ISRP and is able to be supported.

Direction 2.1: Provide sufficient housing to suit the changing demands of the region.

This direction relates to the delivery of new homes to meet ongoing demand and changing needs within the region.

The ISRP, prepared in 2015, noted that at that time, there was predicted to be enough potential for the market to supply housing within the new release areas identified under the IUDP.

As discussed above, the subject land forms part of the Calderwood Release Area – Calderwood Investigation Area in the IUDP. This Planning Proposal does not seek to create any new Greenfield Release Areas.

The Planning Proposal and associated site investigations have demonstrated that the land is capable of accommodating residential development as proposed.

In this regard, the proposal is entirely consistent with and supported by Direction 2.1 as it provides for housing within an identified release / investigation area and is responding to changing housing demands and opportunities.

Direction 2.2: Support housing opportunities close to existing services, jobs and infrastructure in the region's centres

This Direction primarily relates to the delivery of additional housing opportunities within existing centres identified in the regional plan.

Notwithstanding, the proposal is consistent with the intent and objective of this Direction as it provides for a variety of housing typologies within close proximity of the planned Calderwood Neighbourhood Centre.

The subject site is situated directly Adjoining the Neighbourhood Centre.

Direction 2.3: Deliver housing in new release areas best suited to build new communities, provide housing choice and avoid environmental impact

As discussed above, the subject land forms part of an identified release / investigation area.

The ISRP confirms that not all land within the Calderwood Release area has been rezoned stating “ a majority of Calderwood, with capacity for 4,800 lots” was rezoned in 2010.

The ISRP requires that a detailed *land use planning process will identify and protect natural corridors and waterways; provide walking and cycling paths; and offer diverse housing types focused around local centres.*

The proposed zoning boundaries and residential housing areas have been determined following detailed site investigations including heritage, flooding, stormwater, contamination and servicing.

The Planning Proposal is consistent with this Direction as the land forms part of an identified release / investigation area. Detailed site investigations have demonstrated the land is suitable to accommodate residential housing.

Direction 2.4: Identify and conserve Biodiversity values when planning new communities

This Direction relates to the preparation of detailed biodiversity reporting and offsetting arrangements in conjunction with the West Dapto Biodiversity Certification.

The Biodiversity Certification is not applicable to the subject site.

A preliminary Flora and Fauna review has been undertaken which demonstrates that the proposal will have minimal environmental impact and is able to be supported.

Remnant vegetation within creek lines and large fig trees surrounding the existing home will be retained under this proposal.

Direction 2.5: Monitor the delivery of housing to match supply with demand

This direction refers to the continued update and monitoring of dwelling supply within the region by the Department of Planning through the Illawarra Urban Development Program.

We have provided detailed analysis of the current housing supply in the IUDP section above which demonstrates that the proposal is able to be supported.

The land forms part of an urban release / investigation area under the regional plan, and is able to contribute to ongoing dwelling supply within the region.

Shellharbour Local Housing Strategy

Shellharbour Council adopted the Shellharbour City Council Draft Local Housing Strategy at their meeting of 17 December 2019.

The LHS was primarily prepared to inform potential changes to the Shellharbour Local Environmental Plan 2013 (LEP) for controls that may influence the location of where the Low Rise Medium Density Housing Code (LRMDH Code) would be applied within the City.

Notwithstanding, the LHS provides dwelling yield estimates for greenfield release areas within the Shellharbour LGA.

The subject site forms part of the *Rural Balance* statistical area under the LHS. The Rural Balance land is identified to accommodate the delivery of 4,900 new dwellings and from 2016 and 2041. The estimates adopted from the Informed Decisions 2018, Shellharbour City Council Community Profile by Profile ID.

In preparation of this Planning Proposal, we have prepared a review of the dwelling yield estimates based on actual lot delivery for each of the development projects, and in comparison with the IUDP.

This review identifies that the ID Projection figures have dramatically underestimated dwelling / allotment supply and demand in the Rural Balance Land and also do not correspond with the adopted IUDP as follows:

- The LHS estimated a total of 4,927 lots would be delivered at an average 197 lots per year between 2016 and 2041.
- The IUDP estimates a total of 8,500 lots would be delivered at an average 340 lots per year between 2016 and 2041.
- For the period 2016 to 2022, existing development projects will have delivered an average of 500 dwellings per year.
- Adopting an average of 350 dwellings per year from 2023 to 2041, up to 9,663 lots would be required.

Table 1 below provides a summary of the dwelling yields for each area in the Rural Balance land as contained on the Profile ID website which informed the LHS, and the actual on ground development outcomes.

Table 2 provides a breakdown of the lot yields from 2016 to 2020 and 2020 to 2041.

Table 1: Total Dwelling Yield Comparison

Project	ID Projection 2016 to 2041	Actual Potential 2016 to 2041	2020 Actual Potential Dwellings 2020 to 2041	2022 Actual Potential Dwellings 2022 to 2041 (d)
Yellow Rock Road	175	159	167	65
Tullimbar (Dahua)	733	383	330	270
Ravenswood (Allam)	500	375	200	34
Shell Heights	366	366	326	270
Infill	250	0	0	0
Calderwood Valley	2905	2864	1440	495
Total Zoned Lots Remaining	4929	4147	2,463	1134

Table 2: Forecast Dwelling Yield Comparison

Projections	2016 to 2041	2016 to 2020	2021 to 2041	Lot Yield Exhausted
ID Projection (Shellharbour LHS)	4,929	783	4,146	2024 to 2029
Illawarra IUDP	8,500	2,155	6,345	2034 to 2038
Project Analysis	9,663 ⁽¹⁾	2,349 ⁽²⁾	7,314	2041

(1) Total projected dwelling yield comprises actual lots delivered 2016 to 2020 and 2021/2022 plus average delivery of 350 allotments per year from 2023 to 2041.

(2) Actual lots delivered by projects.

Based on a delivery rate of 350 lots per year, the 4,900 dwellings identified in the LHS will be exhausted in 2029.

Should the development projects in the locality continue delivery at the current average rate of 500 dwellings per year, the 4,900 dwellings identified in the SLHS will be exhausted in 2024.

Given a likely timeframe of 2-3 years for resolution of the rezoning, approval of subdivision applications, construction of civil works and dwelling construction, support for this Planning Proposal will likely facilitate delivery of residential dwellings from 2024 onwards.

This is entirely consistent with the estimated timeframes for the finalisation of the 4,900 dwellings identified under the SLHS.

As such, the proposal is considered complementary to the SLHS and will address the projected dwelling demand consistent with the IUDP.

Shellharbour Local Strategic Planning Statement

The Shellharbour Local Strategic Planning Statement (LSPS) was adopted in May 2020

This document sets out a vision for Shellharbour City and provides local planning priorities and actions for the next 20 to achieve this vision.

The LSPS provides a clear framework of how Council will manage the growth and change that will occur in Shellharbour City over the next 20 years.

The LSPS notes that by 2040, the projected increase in population will require an additional 10,625 dwellings. The housing must meet the demand for choice and diversity in the type of homes available, but also that residential areas are appropriately serviced to encourage connectivity throughout our LGA.

The Planning Proposal is consistent with the Planning Priorities of the LSPS as follows:

P1 Deliver greater housing diversity and affordability to meet the changing needs of the community

The proposal will deliver a range of residential housing within an identified investigation area which has ready access to services and existing infrastructure.

The existing trunk services and planned infrastructure assist in enhancing affordability for the project.

P2 Quality urban design enhances our local character and delivers liveable places

The Concept Plan has been designed to respond the local character and place and deliver a high quality walkable neighbourhood.

The plan incorporates retention of key site elements including large fig trees and historic homestead site within a local park area which will be dedicated to Council.

All significant vegetation will be retained within the proposed Macquarie Rivulet creek corridor.

The proposal also allows for delivery of the “missing link” Macquarie Rivulet environmental corridor and associated pedestrian / cycle pathways which provide east-west connectivity for the broader Calderwood Release Area.

The Concept Plan includes smaller lot density housing in key locations adjoining open space and the planned Neighbourhood Centre adjoining the north-eastern boundary of the site.

Priority 3: Deliver high quality, well-connected and integrated green spaces

The Proposal will allow for the zoning and delivery of the missing link component of the Macquarie Rivulet environmental corridor.

The delivery of this key green space corridor will allow for the completion of a contiguous 4.5 km environmental corridor which stretches from North Macquarie Road in the west to Calderwood Road in the east.

The rezoning and development of the site will ensure protection and revegetation of this key environmental green space corridor.

Priority 4: Provide high quality and fit-for-purpose community services and social infrastructure aligned with growth

The proposal will incorporate delivery of recreation and open space facilities for future residents.

Development contributions will provide for additional social infrastructure and services.

Priority 6: Provide accessible and connected suburbs with a range of transport options

The site is well located and serviced by a range of transport options.

The land is within walking distance of the planned Neighbourhood Centre to the north-east, and has access to a number of local and regional pedestrian / cycle pathway connections.

Planned bus routes within the Calderwood estate will service the proposal.

The site is also well connected for private vehicle usage with access to the Illawarra Highway and North Macquarie Road.

Priority 11: Manage water, energy and waste efficiently to ensure a sustainable environment

The Concept Plan incorporates stormwater basins and water quality management facilities which will address stormwater requirements.

Energy and waste minimisation will be addressed during detailed development proposals.

Priority 12: Respect, protect and enhance our natural assets and significant areas of biodiversity and

Priority 13: Healthy and valued coast and waterways

The land has been substantially cleared in association with historic grazing and cropping activities.

The Macquarie Rivulet corridor will be protected and revegetated as part of the Planning Proposal and project delivery. This will deliver an enhanced biodiversity and environmental outcome.

Priority 14: Protect and enhance our rural lands

The land forms part of an Urban Investigation Area identified in the IUDP.

The land is surrounded by residential zoned land, creating significant land use conflict between agricultural operations and residential dwellings. The land is not suitable to be retained for intensive agricultural use.

Given that the site is surrounded by residential development, it is not considered to be of visual landscape significance in a rural capacity.

SECTION 3 – URBAN DESIGN RESPONSE

CONSTRAINTS MAPPING EXERCISE

As outlined in the previous section of this report, we have undertaken a detailed analysis of the existing site constraints in order to establish an “Unconstrained Land Footprint” (ULF) which will inform the urban design and land use zoning outcomes.

The detailed site investigations and reviews have been mapped as a sieve exercise below to determine the ULF.

We note that a number of the detailed site investigations for the Lend Lease project included the subject site in their assessment. These included:

- Riparian Corridors (Riparian Consistency Report prepared by Eco Logical dated 4 March 2010)
- Servicing (Utility Services Study prepared by Cardno dated February 2010)
- Phase 1 Contamination (Utility Services Study prepared by Cardno dated February 2010)
- Flood Studies (completed by Cardno and Rienco for Concept Plan and Stage 1 Development)

Notwithstanding, further detailed site investigations have been completed as detailed above relating specifically to the subject site. The site constraints mapped to ascertain the ULF include the following:

- Vegetation
- Steeply Sloping Land
- Riparian Corridor Boundaries
- Flood Free Land (above 1:100 flood + 50mm free board)

The plans below demonstrate a ULF which has been adopted to inform preparation of the Concept Plan as detailed in the following section.

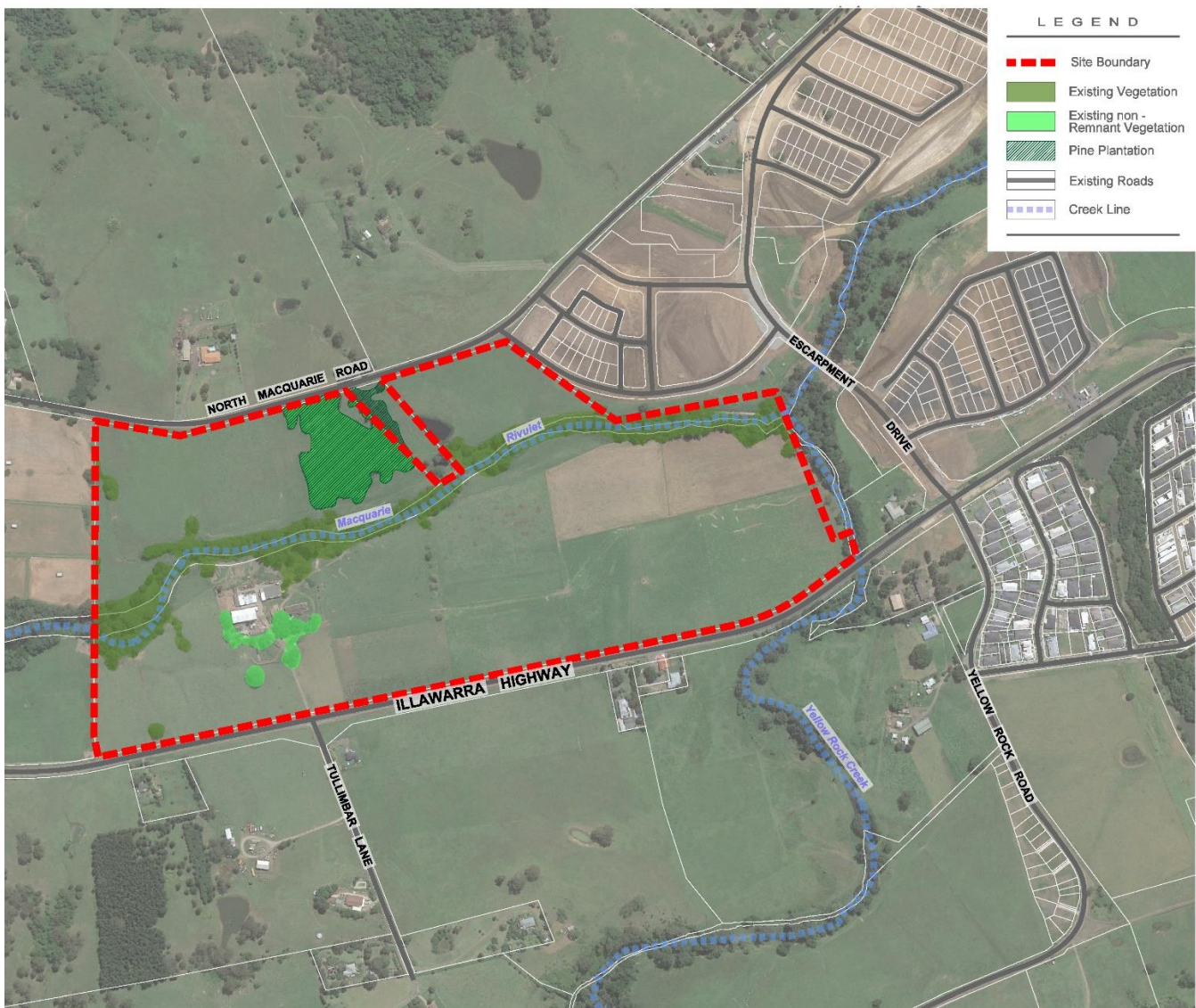
The ULF area demonstrates that the majority of the site is able to accommodate unconstrained residential housing, consistent with the principles of the Calderwood Investigation Area.

The ULF mapping demonstrates that the land holding represents a logical extension of the existing residential zoned land and housing already delivered surrounding the subject site.

Constraint – Vegetation

- Subject site extensively cleared
- Existing remnant native vegetation limited to the creek lines along the Macquarie Rivulet
- Large pine tree plantation on the northern side of the property to be removed

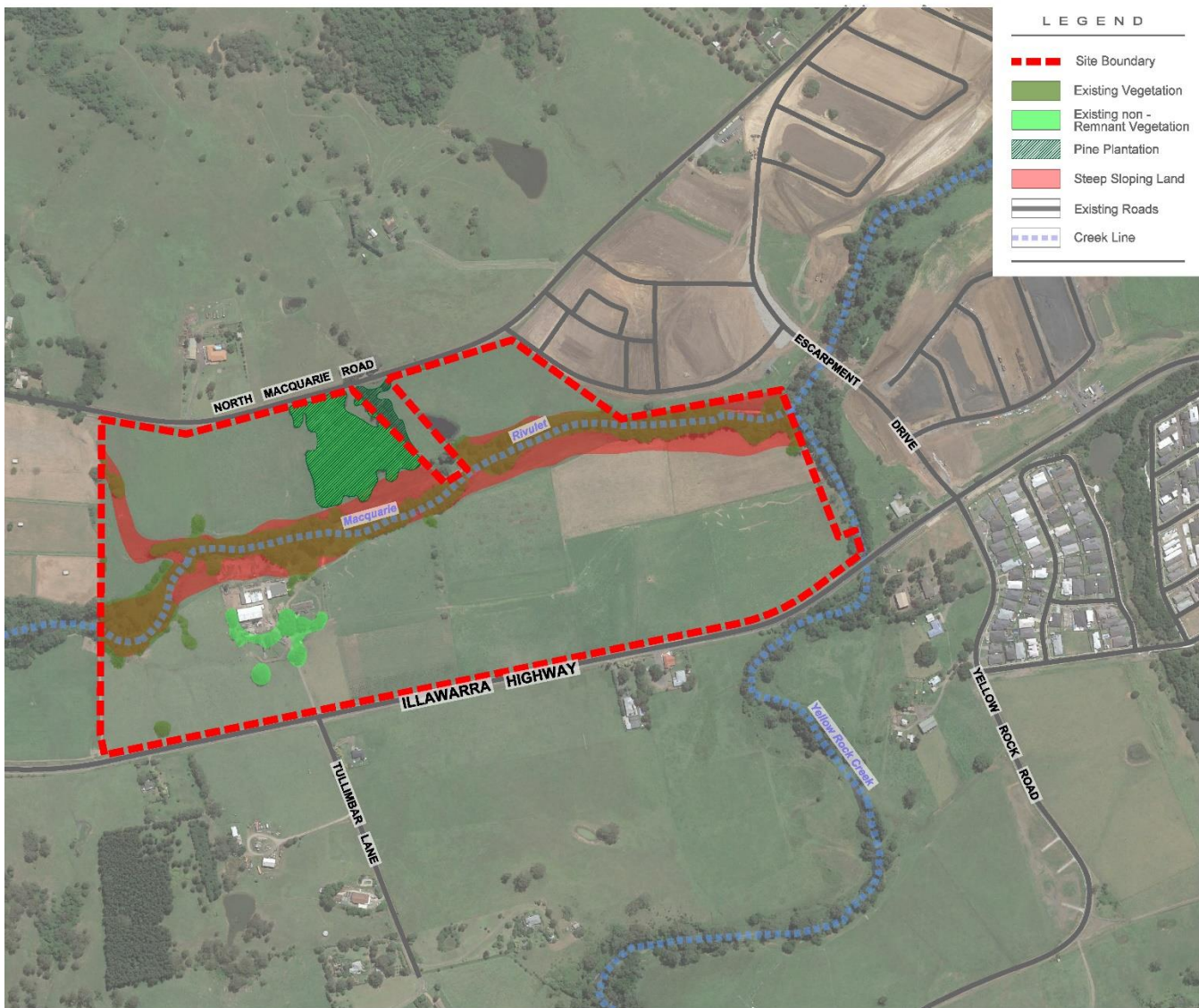
Figure 19: Vegetation Constraint Areas



Constraint – Sloping Land Constraint Areas

- Sloping land is limited to the incised creek banks
- Southern portion of the site is flat with no topographical constraints
- Northern portion of the site has natural grades which are able to accommodate future residential housing
- Site grades are less than existing approved residential areas to the north

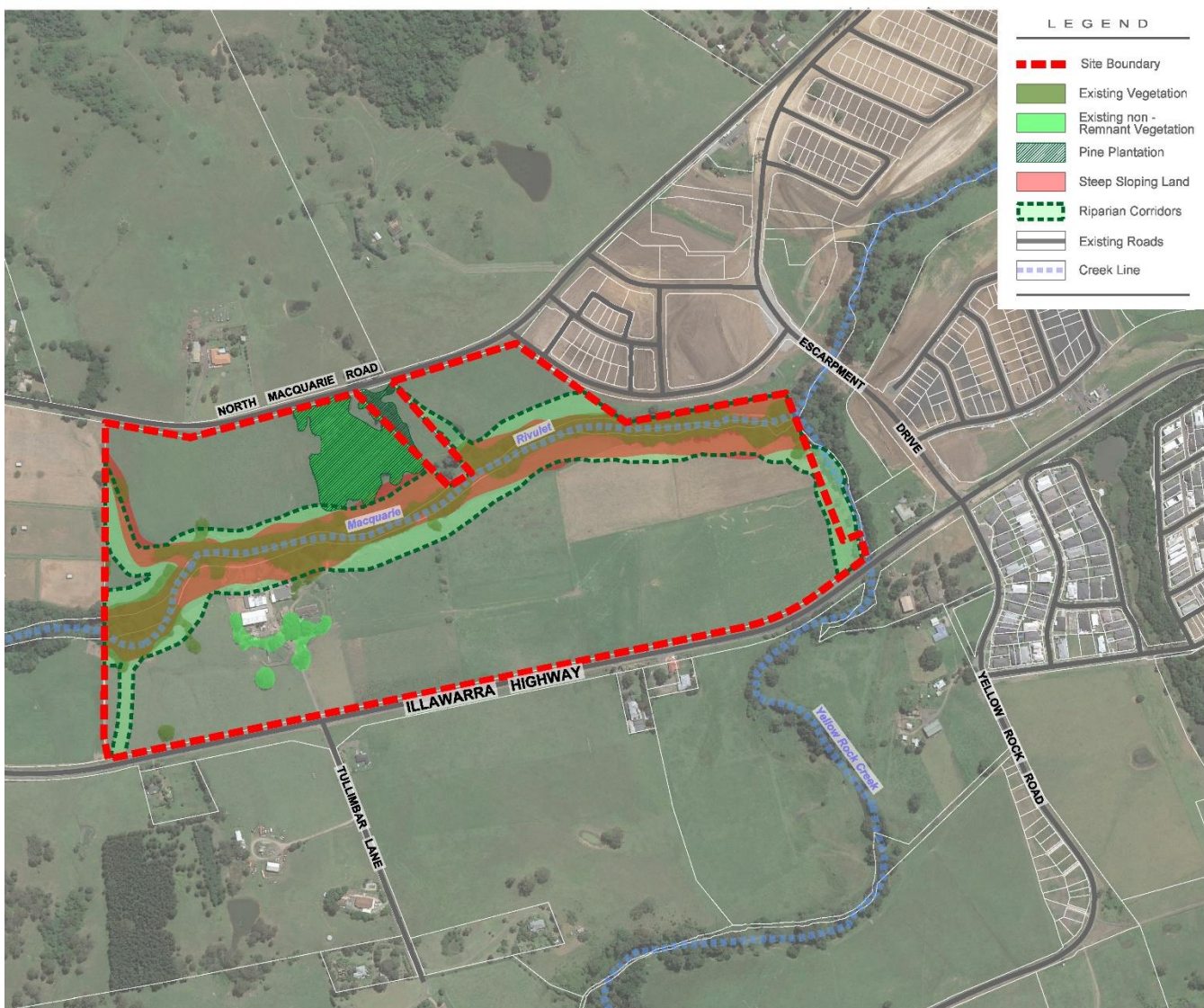
Figure 20: Sloping Land Constraint Areas



Constraint – Riparian Corridor Constraint Areas

- Riparian Corridor areas investigated as part of the Calderwood Project
- Further review completed as part of this Planning Proposal
- Riparian Corridor areas able to be clearly defined along existing creek lines

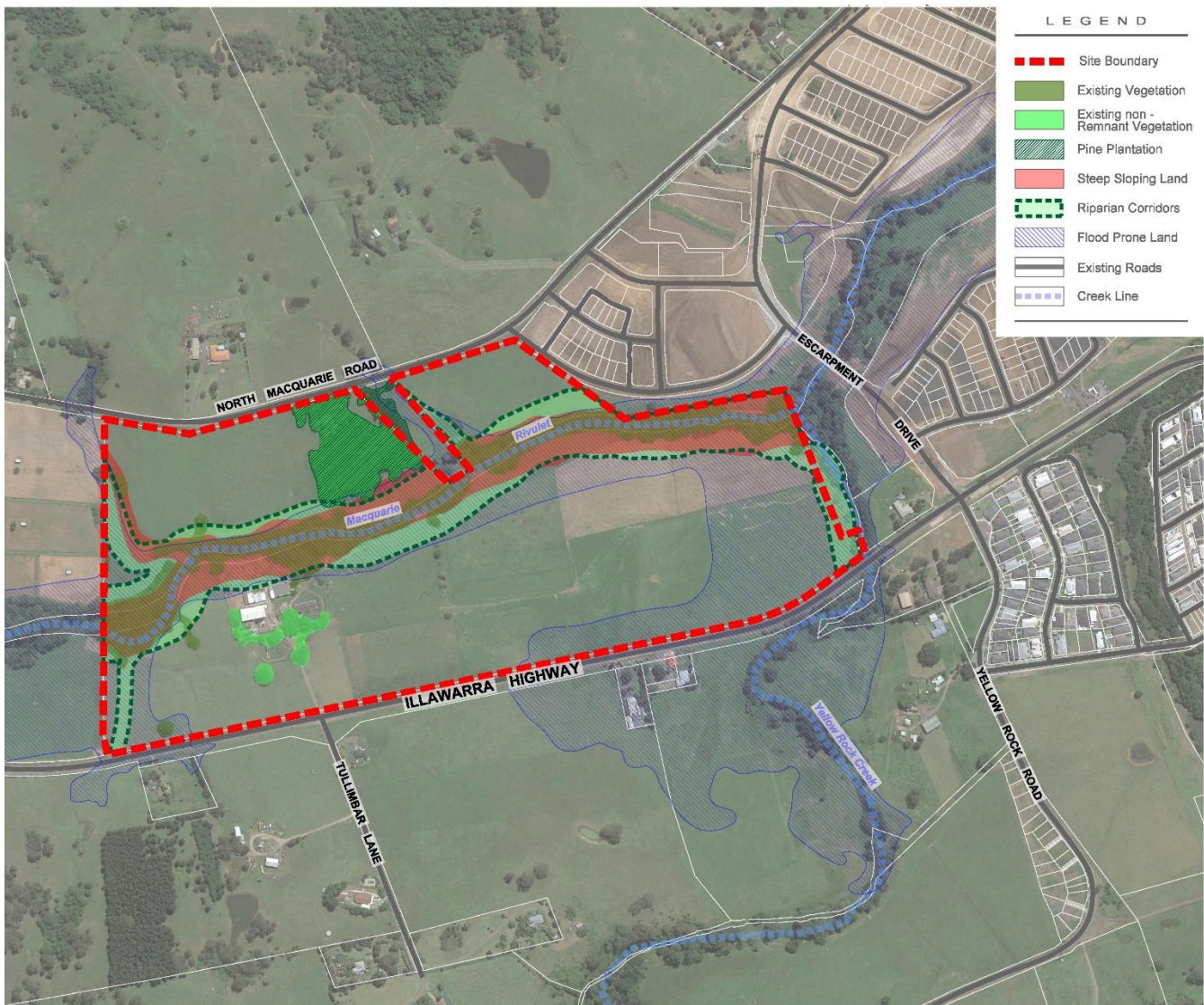
Figure 21: Vegetation Constraint Areas



Constraint – Flood Prone Land Constraint Area (post site filling)

- Southern portion of the land impacted by localised flooding
- Detailed Flood study completed
- Flood study identifies areas of flood prone land, and areas of compensatory cut and fill – consistent with the approach for approved and constructed residential areas to the east
- Flood Study identifies final landform and flood free land being 1:100 year flood + 500mm freeboard

Figure 22: Flood Prone Land Constraint Areas



Unconstrained Land Footprint (ULF)

The Unconstrained Land Footprint plan shown in Figure 23 below demonstrates the area of the site which is free from site constraints to inform preparation of the Concept Plan and subsequent proposed zoning boundaries.

The Concept Plan generally adopts the ULF area. With minor refinements where appropriate to allow regular grid pattern street alignment and lot layout.

As discussed earlier in this report, the Director General of Planning Assessment report for the Calderwood Project stated that:

The proposed Calderwood development site extends further south to the Illawarra Highway than the site identified in the previous IUDP.

The IUDP update no longer indicates a specified area for Calderwood, only noting the area generally on a map as the 'Calderwood Investigation Area'.

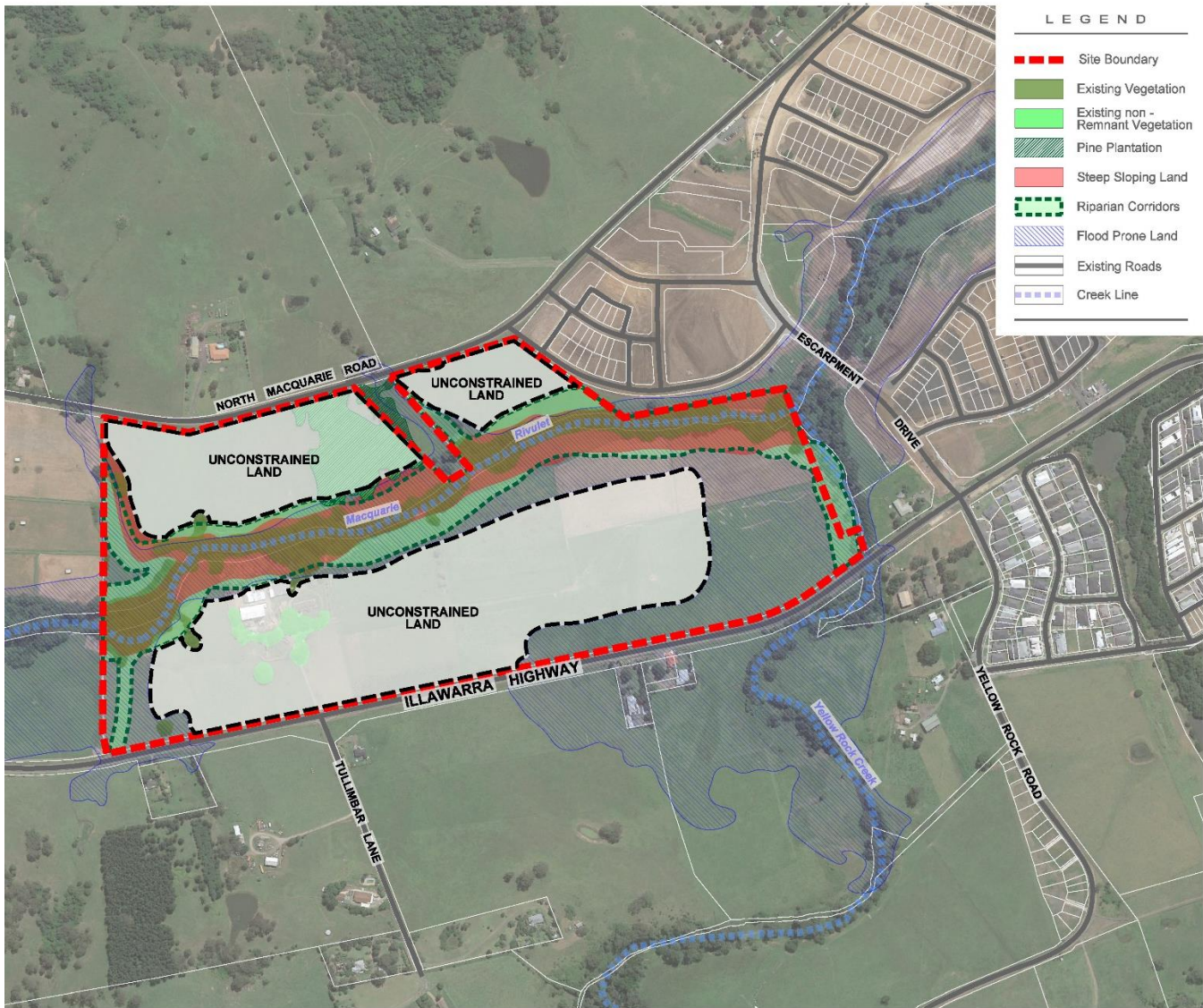
Consideration of land previously identified outside of the IUDP map can be considered subject to a merit assessment of the potential impacts, in particular flooding. The level of development that can be supported in these areas will be dependent on the assessment of the constraints of these areas.

The ULF area and mapping exercise satisfies the Department of Planning criteria to undertake a merit assessment of the site constraints to determine appropriate development areas.

In this regard, the ULF mapping demonstrates the development area able to be supported, extending south to the Illawarra Highway, as part of the Calderwood Investigation Area.

The proposed urban areas are wholly consistent with the regional strategic planning for the Calderwood Investigation Area and Illawarra Urban Development Program.

Figure 23: Potential Developable / Unconstrained Land Footprint Areas



CONCEPT PLAN

The Concept Plan has been prepared to guide the land use planning and lot size outcomes and demonstrates how the site can develop as a seamless extension of the existing residential community.

The Concept Plan provides for a variety of residential housing typologies as a key planning principle in the creation of new communities.

The Concept Plan provides for high levels of connectivity between the existing residential areas of Calderwood with integrated road, pathway and open space network.

The Concept Plan has adopted the following key urban design and place making principles:

- Deliver a seamless transition in the future community between the subject site and the existing Calderwood residential areas.
- Provide for a variety of housing typologies which respond to community demand for housing within the region.
- Locate higher density housing close to areas of high amenity.
- Delivery of local pocket parks and open space areas.
- Deliver long term revegetation, protection and management of creek lines degraded through historic agricultural land uses.

Figure 24: Concept Plan



Variety in Housing

The Planning Proposal allows for the delivery of a variety of housing types, consistent with the surrounding Calderwood project.

It is envisaged that the project will incorporate a range of housing including small lot homes close to the adjoining Village Centre Hub, and residential lots from 300m² to 600m² throughout the residential zoned land.

The variety in housing will contribute to a vibrant neighbourhood community outcome and promote a mix of future residents. Consistency in lot size and dwelling types with the surrounding residential zoned land will ensure a long term seamless community outcome.



Small Lot Housing Areas

A key principle of the Planning Proposal is to deliver a range of housing options which cater to a broad spectrum of the community and deliver housing options at affordable price points.

Small lot housing areas have been strategically located around areas of high amenity and/or access to local facilities and transport connections.

A small lot housing area has been identified in the north-eastern edge of the site directly adjoining the planning neighbourhood centre to be delivered as part of the Lend Lease project.

This area directly correlates with the planning provisions for the existing residential zoned land adjacent, which does not have a minimum lot size, encouraging small lot housing around the centre.

A small lot housing area has also been proposed on the southern side of the development area to ensure a mix of housing typologies is achieved.

This area is situated close to the entry from the Illawarra highway, and surrounding a proposed pocket park to be delivered as part of the project.

This location will allow for the delivery of reloaded housing along the entry road, minimising traffic impacts from multiple driveways.

The small lot housing surrounding the pocket park delivers higher density housing around a key amenity area and provides increased passive surveillance of the park.

Local Parklands

The Concept Plan provides for a variety of active, passive and environmental open space areas.

A central Pocket Park is situated on the southern side of the Macquarie Rivulet as part of the village centre neighbourhood. The pocket park will provide for a variety of spaces including playground area, kick-a-bout space and seating areas.

Open space areas have also been provided as an informal interface to riparian corridors, delivering an indiscernible transition between environmental corridors and residential housing.

Riparian edge parklands provide opportunities informal active recreation spaces, exercise / fitness trails and facilities, seating areas and the like. These areas deliver a high quality greenspace edge to the environmental corridors.

There is also a large green space area on the eastern edge of the site adjoining the Yellow Rock Creek corridor. This area acts as flood storage during the 1:100 year storm event but will be a usable passive open space area outside of these storm events.

Pedestrian pathways and cycle networks will be extended along the riparian corridor edges to connect with planned pathways at the eastern and western boundaries.

The Riparian Corridor areas are proposed to be dedicated to Council as public land, allowing resident access. The Riparian Corridors play a significant role in delivering opportunities for large scale tree plantings and vegetation which provide visual relief in the landscape.

The Riparian Corridor areas and associated pathways form a key component of the broader open space and pedestrian network, providing connectivity to surrounding playing fields, neighbourhood centre and planned Calderwood Town Centre.



Transport

Road Hierarchy

The Concept Plan adopts a road hierarchy and road cross sections consistent with the adjoining Calderwood Development project.

An indicative road hierarchy plan is shown below in Figure 25 which demonstrates the indicative roadway outcomes.

Access to the southern portion of the site is proposed via a new round-a-bout at the existing Illawarra Highway / Tullimbar Lane intersection. The round-a-bout will enhance road safety and access for residents of Tullimbar Lane while facilitating safe convenient access for residents.

The round-a-bout will provide full turning movements onto and from the Illawarra Highway for vehicles travelling both east and west.

The main access road forms the round-a-bout is proposed as a Collector Road which will facilitate vehicle access to the residential areas.

The balance of the roadways are proposed to be delivered as either Local Roads or Minor Local Roads as shown on the Road Hierarchy Plan.

All edge roads bordering riparian corridor areas will be constructed to accommodate fire-fighting vehicles consistent with the Planning for Bushfire Protection guidelines.

Transport Connections

As discussed above, a detailed traffic review will be undertaken for the proposal.

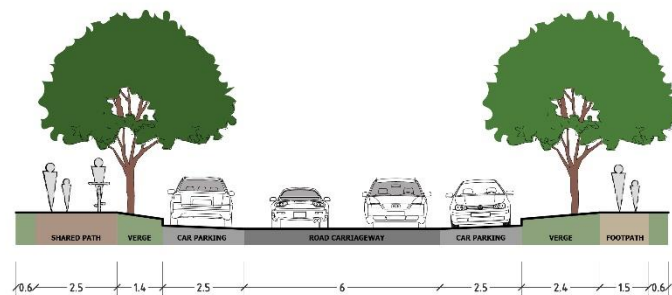
Preliminary traffic advice has indicated that the access arrangements are appropriate for the scale / extent of housing.

A traffic review will be prepared following receipt of Council report specifications.

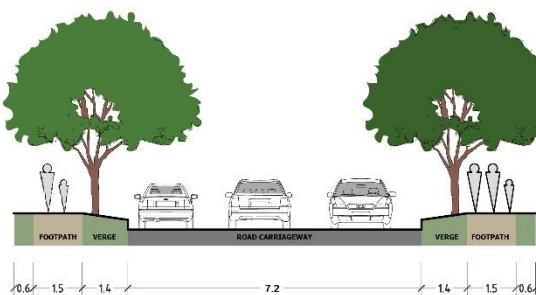
Figure 25: Indicative Road Hierarchy Plan



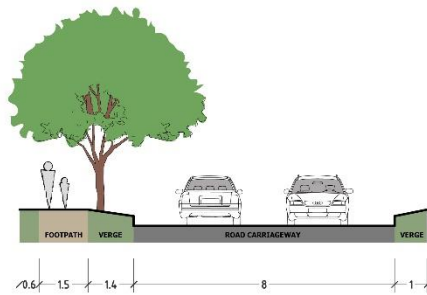
Figure 26: Indicative Road Cross Sections



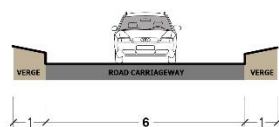
COLLECTOR ROAD 20.0M



LOCAL ROAD 14.2M



EDGE ROAD 12.5M



LANEWAY 8M

Road Acquisition Area

The Shellharbour LEP 2013 incorporates an identified acquisition area along the Illawarra Highway frontage of the site.

We have undertaken preliminary consultation with the RMS in relation to the mapped road widening under the LEP. The RMS have requested that no development be shown in this area. The Concept Plan reflects this request.

The Planning Proposal will be formally referred to the RMS following Gateway Determination if supported.

We do not seek removal of the acquisition notation. The road acquisition mapping as shown on Land Reservation Acquisition Map - Sheet LRA_010 will be retained as per the current LEP.

Land Management Outcomes

Open Space

Open Space and Pocket Parks areas are proposed to be dedicated to Council as part of the development of the site.

Future dedication and embellishment of the open space areas may be undertaken through either a Voluntary Planning Agreement or as Works In Kind Agreement to satisfy local Section 7.11 contributions relating to the delivery of new housing.

Riparian Corridors

The Concept Plan and associated zoning boundaries have been carefully considered to allow maximum flexibility in long term ownership arrangements.

We note that at present, the Macquarie Rivulet to the east and west of the site forms part of the Lend Lease "Calderwood Project".

Lend Lease have proposed that the riparian corridor land will be transferred as public land under a Voluntary Planning Agreement. We understand however that at this stage, the final ownership arrangements have not been resolved.

The preferred outcome for the property is that the Riparian Areas be dedicated as public land under a separate Voluntary Planning Agreement to be prepared following the rezoning.

This is consistent with the proposed outcomes for the Lend Lease Project and will ensure an uninterrupted public open space system is able to be provided along the Macquarie Rivulet, providing high quality environmental and passive recreation outcomes.

Notwithstanding, this Planning Proposal allows for the Riparian Corridor to either be dedicated as public land within a single land parcel, or to be retained in a small number of larger “Environmental Living” private land holdings.

The zoning boundaries and lot size maps have been prepared to allow for either outcome.

Existing Lot 7300

There is an existing parcel of land on the northern portion of the site which currently does not form part of the land holding.

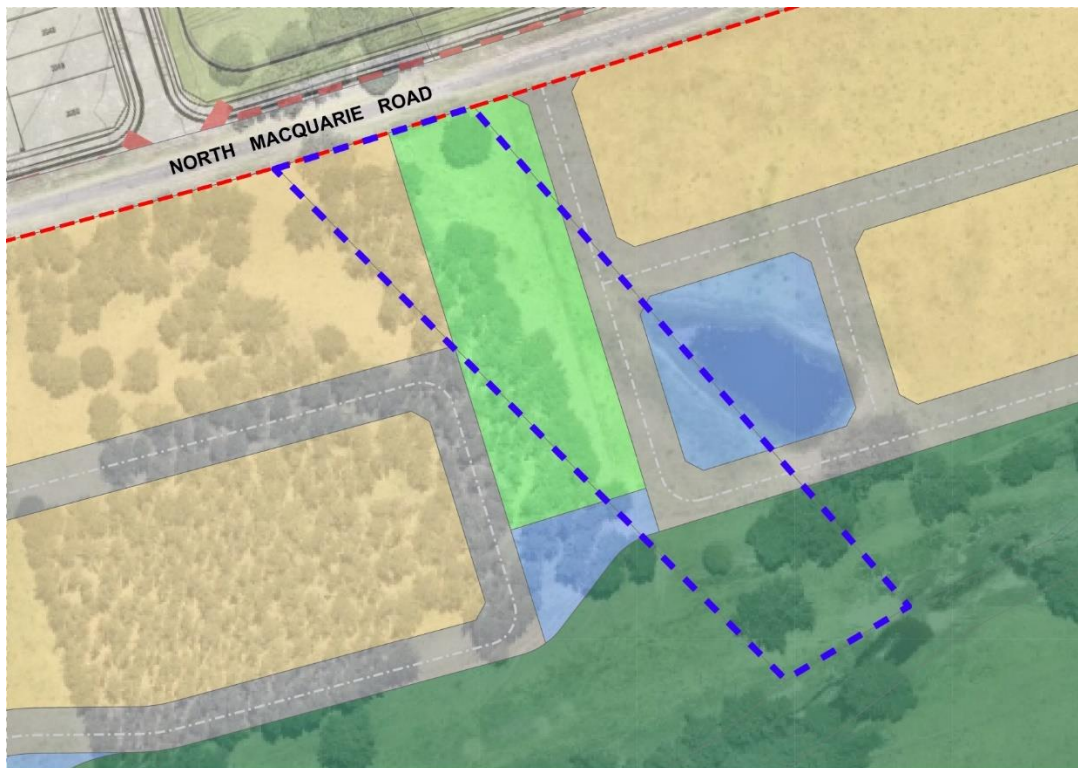
This is identified as Lot 7300 in DP 1146316.

Detailed land title searches have identified that Lot 7300 has no registered land owner.

The Pyres have commenced legal proceedings to be registered as the owners of Lot 7300.

We have provided an inset plan below which demonstrates how the Concept Plan can be amended to accommodate Lot 7300. There are no amendments required to the Planning Proposal to accommodate this.

Figure 27: Lot 7300 Design Option



SECTION 4 – THE PLANNING PROPOSAL

PART 1 – OBJECTIVES AND INTENDED OUTCOMES

Planning Proposal Objectives

The objective of this Planning Proposal is to amend the Shellharbour Local Environmental Plan 2013 (SLEP 2013) to rezone the land for residential development consistent with the adjoining Calderwood Project.

In seeking to realise these objectives, the Planning Proposal aims to deliver the following outcomes:

- *Adoption of amended Planning Controls relating to Land Use Zones which are consistent with the provisions of the adjoining residential land in Calderwood;*
- *Adoption of amended Planning Controls relating to Minimum Lot Sizes which are consistent with the provisions of the adjoining residential land in Calderwood;*
- *Protect riparian corridor areas as environmental land.*

PART 2 – EXPLANATION OF PROVISIONS

To achieve the outcomes embodied in the Master Plan, the following LEP Maps will be amended under this proposal:

- Land Zoning Map: Sheet LZN_010
- Lot Size Map: Sheet LSZ_010
- Height of Buildings Map: Sheet HOB_010
- Terrestrial Biodiversity Map: Sheet BIO_010
- Flood Space Ratio Map: Sheet FSR_010

Further details regarding the proposed amendments are outlined below.

Zoning Amendments

This proposal seeks to implement identical zoning arrangements to the existing Calderwood Urban Development Project which surrounds the subject land.

This will provide the most logical long term land use planning outcome for the future community, ensuring localised consistency in land uses and housing outcomes.

In this regard, the Planning Proposal adopts the following land use zone outcomes.

- Adopt the R2 Low Density Zone under the Shellharbour LEP for residential zoned land.
- Riparian Corridors are proposed to be zoned E2 Environmental Conservation, consistent with adjoining riparian lands.
- Flood prone or environmental land adjoining riparian corridors are proposed to be zoned E3 Environmental Management, consistent with adjoining zoning outcomes.

Detailed plans showing the current and proposed LEP Land Use Zone mapping are included in Part 4 below.

The existing SP2 zoned land is retained.

Lot Size Amendments

The Shellharbour LEP currently lists a minimum lot size of 40 hectares over the subject land.

This Planning Proposal seeks to adopt the minimum lot size provisions as currently apply to the urban land directly adjoining the site within Calderwood.

In this regard, the Planning Proposal adopts the following lot size outcomes.

- Low Density Residential areas = 300m².
- Proposed small lot / density areas = 150m².

The proposal incorporates riparian corridor lot sizes which reflect the corridor being retained in a single parcel.

Height of Buildings Amendments

The Shellharbour LEP currently lists a maximum building height of 9m over the whole of the land holding.

This Planning Proposal seeks to retain the maximum building height for the residential zoned land areas.

Terrestrial Biodiversity Mapping Amendments

The Shellharbour LEP currently incorporates biodiversity mapping along the Macquarie Rivulet.

This mapping will be amended to correspond with the mapped riparian corridors and correlate with the adjoining mapped environmental conservation land within Calderwood.

Floor Space Ratio Mapping Amendments

The Planning Proposal introduces Floor Space Ratio mapping consistent with the balance residential areas of the Shellharbour LGA.

PART 3 – JUSTIFICATION

Section A— Need for the Planning Proposal

Q1. Is the Planning Proposal a result of any strategic study or report?

The land area has consistently been identified for future investigation as part of the Calderwood Urban Release Area.

The subject land formed part of the land use investigations and studies under the Calderwood Concept Plan but was not rezoned at the time due to land ownership arrangements.

Q2. Is the Planning Proposal the best way of achieving the objectives or intended outcomes, or is there a better way?

The site is currently zoned RU1 Primary Production, with a minimum lot size of 40 hectares under the Shellharbour LEP 2013.

An amendment to Shellharbour LEP 2013 to amend the land use provisions and minimum lot sizes is considered the most appropriate manner in which to achieve the intended outcomes.

Section B — Relationship to Strategic Planning Framework

Q3. Is the Planning Proposal consistent with the objectives and actions contained within the applicable regional or sub-regional strategy (including the Sydney Metropolitan Strategy and exhibited draft Strategies)?

The Illawarra Shoalhaven Regional Plan (ISRP) was released by the Department of Planning in November 2015.

As detailed in the ISRP 2015, the vision for the region:

for a sustainable future and a resilient community, capable of adapting to changing economic, social and environmental circumstances. Residents will be able to access a range of lifestyle choices; connect with the stunning landscapes and biodiversity; access well-established and emerging work opportunities; enjoy a strong network of centres; and experience high quality education and health facilities.

We have provided below a review of the proposal under the Goals of the ISRP. The review demonstrates that the proposal is consistent with the ISRP.

Goal 1: A Prosperous Illawarra – Shoalhaven

This section of the ISRP predominantly addresses goals and strategies for enhancing employment and industrial activity within Centres and Port Kembla.

Notwithstanding, support for this Planning Proposal will help deliver a prosperous Illawarra, contributing to local economic investment and employment construction of roadways and housing.

Additional housing and residents will increase trade for local businesses.

Goal 2: A variety of housing choices, with homes that meet needs and lifestyles

The proposal seeks Council support for the adoption of lot size and housing controls which will allow for a variety of housing choices that meet the needs and lifestyles of future residents.

Direction 2.2 of the ISRP is to “Support housing opportunities close to existing services, jobs and infrastructure in the region’s centres”.

The subject land is well located in terms of walkable access to both existing and planned services, jobs and infrastructure.

Goal 3: A region with communities that are strong, healthy and well-connected

The proposal will enhance local connectivity outcomes through the introduction of new local roadways, intersection treatments and pedestrian pathway networks.

The proposed round-a-bout at the Illawarra Highway / Tullimbar Lane intersection will enhance safety and access arrangements for existing residents. The round-a-bout will also act as a passive traffic calming measure along this section of the Illawarra Highway.

Support for this proposal will also allow for the completion of key pedestrian and cycle linkages along the Macquarie Rivulet corridor.

Goal 4: A region that makes appropriate use of agricultural and resource lands

Section 4 of the ISRP addresses the protection and enhancement of key areas of agricultural and resource lands.

Figure 11 of the ISRP identifies areas of Biophysical Strategic Agricultural Lands throughout the Illawarra and Shoalhaven Region.

The subject land area does not include any mapped Biophysical Strategic Agricultural Lands or strategic resource lands. The subject is also not located within proximity of any Biophysical Strategic Agricultural Lands or strategic resource lands.

The land is not required to be retained agricultural use under the ISRP.

Goal 5: A region that protects and enhances the natural environment

As demonstrated in this report, vegetation over the site is highly degraded and predominantly comprises exotic pasture grasses and pine plantations.

The 2001 Illawarra Biodiversity Strategy, prepared by Kiama / Shellharbour and Wollongong Council, identified key areas of rare vegetation and biodiversity corridors across the Illawarra Region.

The subject land did not incorporate any significant vegetation, fauna or biodiversity corridors under the strategy.

Existing remnant vegetation is restricted to the Macquarie Rivulet creek line, which will now be protected under this Planning Proposal.

Q4. Is the Planning Proposal consistent with the local council's Community Strategic Plan, or other local strategic plan?

The Shellharbour Local Strategic Planning Statement (LSPS) was adopted in May 2020

This document sets out a vision for Shellharbour City and provides local planning priorities and actions for the next 20 to achieve this vision.

The LSPS provides a clear framework of how Council will manage the growth and change that will occur in Shellharbour City over the next 20 years.

The LSPS notes that by 2040, the projected increase in population will require an additional 10,625 dwellings. The housing must meet the demand for choice and diversity in the type of homes available, but also that residential areas are appropriately serviced to encourage connectivity throughout our LGA.

We have provided a detailed review of the proposal against the Shellharbour Local Strategic Planning Statement and Local Housing Strategy in Section 2 above.

This review demonstrates that the proposal is consistent with and complementary to these strategic plans.

Q5. Is the Planning Proposal consistent with applicable state environmental planning policies?

The NSW Government has gazetted a range of State Environmental Planning Policies (SEPPs) and Sydney Regional Environmental Plans (SREPs or Deemed SEPPs) which guide land use and planning outcomes across the State and Sydney Metropolitan Region.

We have provided a detailed review of the Planning Proposal and its intended outcomes and objectives against all relevant SEPPs in Appendix 3 of this report.

This review has demonstrated that the proposal is consistent with all relevant and applicable state environmental planning policies.

Q6. Is the planning proposal consistent with applicable Ministerial Directions (s.117 directions)?

The Minister for Planning and Environment has issued Local Planning Directions that must be considered in the preparation of Planning Proposals. The directions cover a range of categories and land use considerations including:

- Employment and resources
- Environment and heritage
- Housing, infrastructure and urban development
- Hazard and risk
- Regional planning
- Local plan making

A detailed review of the proposal against each Local Planning Direction is provided in Appendix 1. This review demonstrates that the Planning Proposal is wholly consistent with all applicable Local Planning Directions.

Section C — Environmental, Social and Economic Impact

Q7. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

All areas of threatened vegetation on site will be retained and protected within the proposed environmental / riparian corridor.

Support for this planning proposal will enable protection and rehabilitation of extensive creek line and riparian corridor areas.

Protection and rehabilitation of creek corridors will have a positive environmental impact and allow for the completion of corridor linkages along the Macquarie Rivulet.

Q8. Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

The Planning Proposal will have long term positive environmental impacts for the subject land.

The existing creek corridors and waterways are highly degraded, with minimal riparian vegetation. The Planning Proposal will allow for the long-term protection and rehabilitation of these waterways.

Furthermore, removal of agricultural uses and construction of water quality treatment facilities will enhance waterway water quality.

The proposal incorporates protection of 12.2 hectares of environmental land along the creek line corridors.

Q9. Has the planning proposal adequately addressed any social and economic effects?

Support for this Planning Proposal will deliver the following positive social and economic benefits:

- The proposal will enhance housing diversity and delivery within the region.
- The proposed round-a-bout at the Illawarra Highway provides safe access and will enhance local road safety by reducing vehicle speeds at this location.
- The proposal delivers housing within close proximity to a local centre, schools and retail services.
- The proposal will result in a reduction in flood levels along the Illawarra Highway.

Section D — State and Commonwealth Interests

Q10. Is there adequate public infrastructure for the Planning Proposal?

A preliminary infrastructure and servicing review have been undertaken for the proposal relating to electrical and sewer and water provision as detailed in this report above.

Based on the advice provided it is evident that the proposal can be serviced based on extension / augmentation of existing infrastructure.

We note that the adjoining development project has commenced design and construction process to install a sewer lead-in main along the Macquarie Rivulet through the site.

A copy of the servicing review is included in Appendix 5.

Q11. What are the views of State and Commonwealth public authorities consulted in accordance with the gateway determination?

The Gateway Determination will outline the State and Commonwealth public authorities to be consulted.

PART 4 – MAPPING

To achieve the rezoning of the subject land as outlined under this Planning Proposal, the following maps in the Shellharbour LEP 2013 will require amendment:

- Land Zoning Map: Sheet LZN_010
- Lot Size Map: Sheet LSZ_010
- Height of Buildings Map: Sheet HOB_010
- Terrestrial Biodiversity Map: Sheet BIO_010
- Floor Space Ratio Map: Sheets FSR_010

Further details describing the proposed amendments are outlined below.

Zoning Amendments

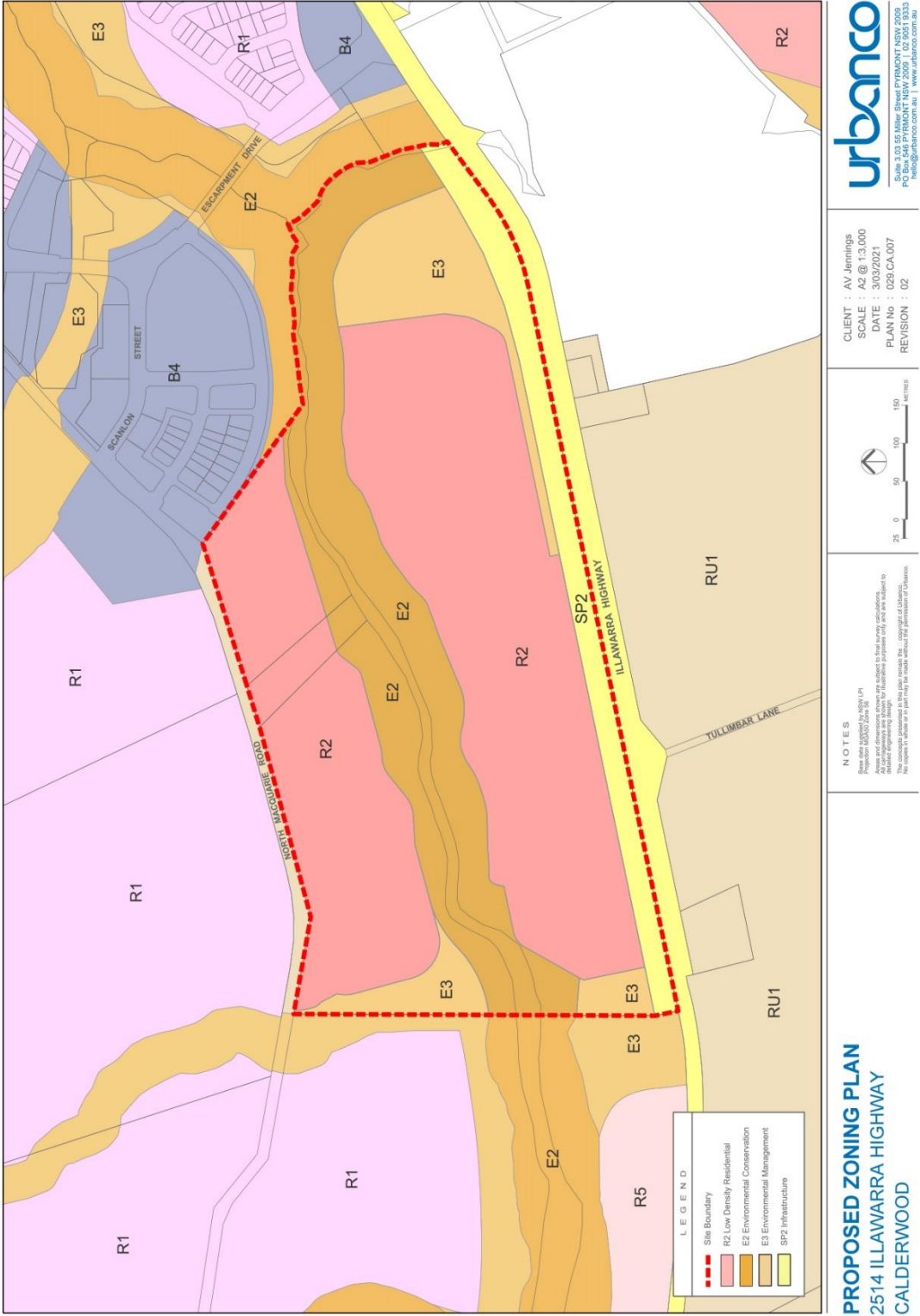
The site is zoned predominantly RU1 Primary Production under the Shellharbour LEP 2013.

The Planning Proposal adopts the following land use zone outcomes.

- Adopt the Shellharbour LEP R2 Low Density Residential zone for residential land.
- Riparian Corridors are proposed to be zoned E2 Environmental Conservation, consistent with adjoining riparian lands.
- Flood prone or environmental land adjoining riparian corridors are proposed to be zoned E3 Environmental Management, consistent with adjoining zoning outcomes.

Note: Existing SP2 zoned land retained.

Figure 28: Proposed Zone Boundaries



Minimum Lot Size Mapping

The Shellharbour LEP Minimum Lot Size Maps currently incorporate a 40-hectare minimum lot size over the subject land.

This Planning Proposal seeks Council support to provide a range of lot sizes over the subject land, which reflect the adopted lot size regime for the adjoining residential land in Calderwood.

The amended mapping includes the following minimum lot size areas:

- 300m² minimum lot size residential land areas.
- 150m² minimum lot size for the proposed small lot / density areas.
- Areas which form part of riparian corridors have lot sizes which anticipate retention in a single parcel.

Detailed plans showing the proposed LEP Lot Size mapping are shown in Figure 29 below.

Height of Buildings Mapping

The Shellharbour LEP Minimum Height of Buildings Map prescribes a maximum building height of 9m over the site.

This Planning Proposal maintains the 9m maximum building height for all residential land.

Detailed plans showing the proposed LEP Height of Buildings mapping are shown in Figure 30 below.

Figure 29: Proposed Lot Size Mapping

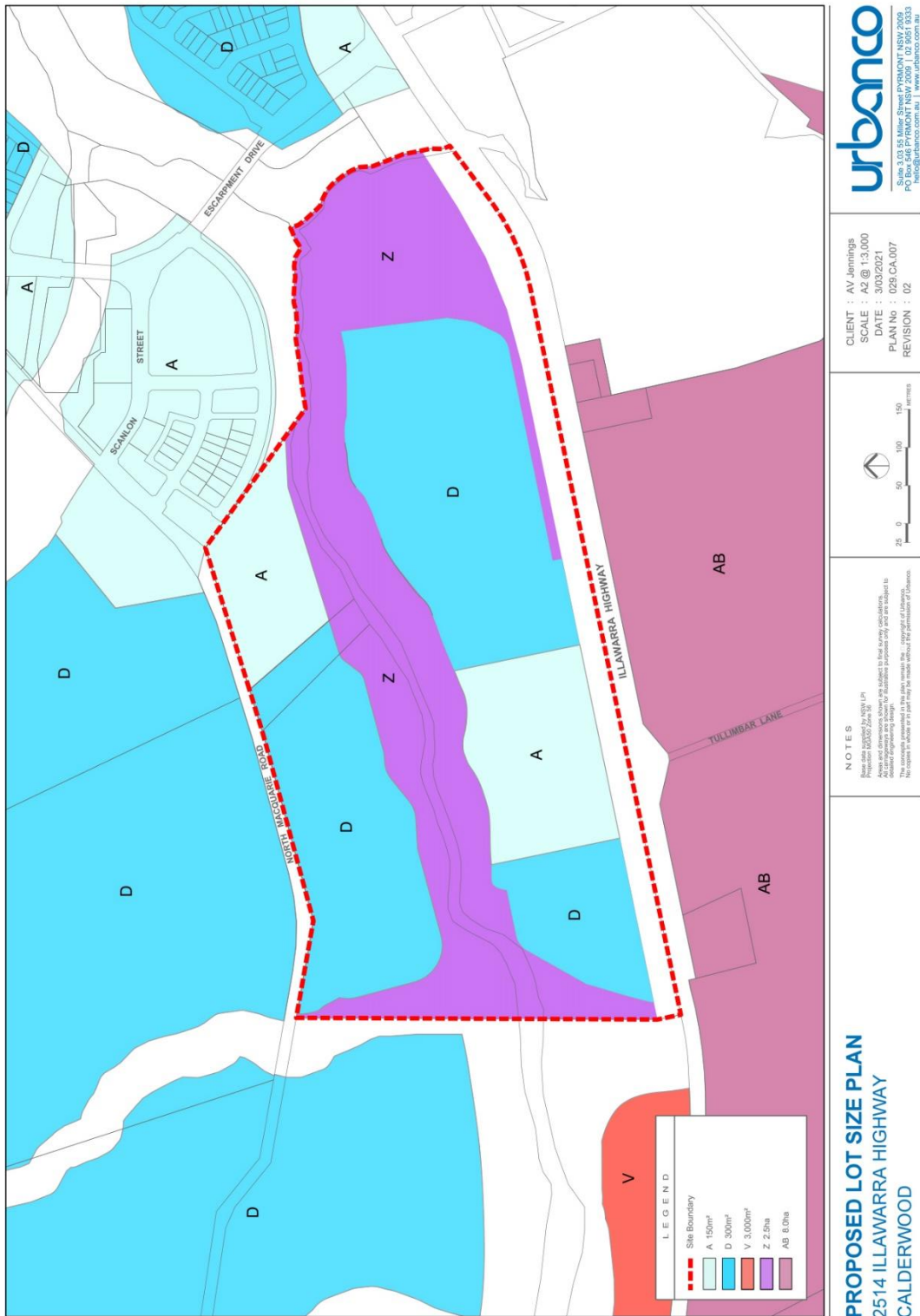
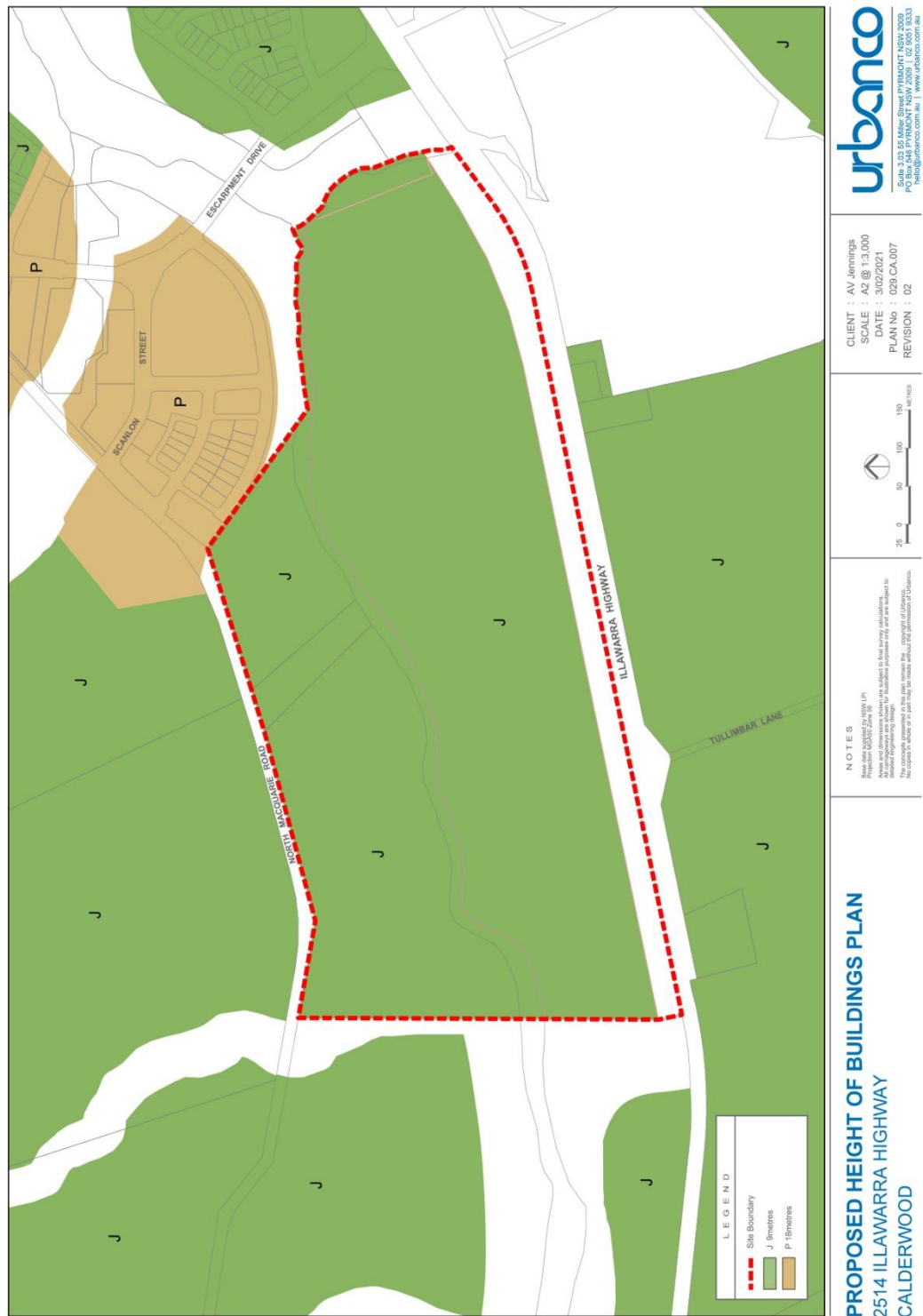


Figure 30: Proposed Height of Buildings Mapping



Biodiversity Mapping

The Shellharbour LEP maps areas of Environmentally Sensitive Land over the Macquarie Rivulet and Yellow Rock Creek corridors.

The Environmentally Sensitive Land areas will be refined to reflect the adopted Riparian Corridors.

This will include an increase in the mapped land area to include tributary corridors along the western property boundary

Detailed plans showing the proposed LEP sensitive land areas mapping is shown in Figure 31 below.

Heritage Mapping

The Shellharbour LEP identifies the site as containing an item of environmental heritage.

The identified heritage item no longer exists and as such, the LEP mapping is proposed to be updated to remove this reference.

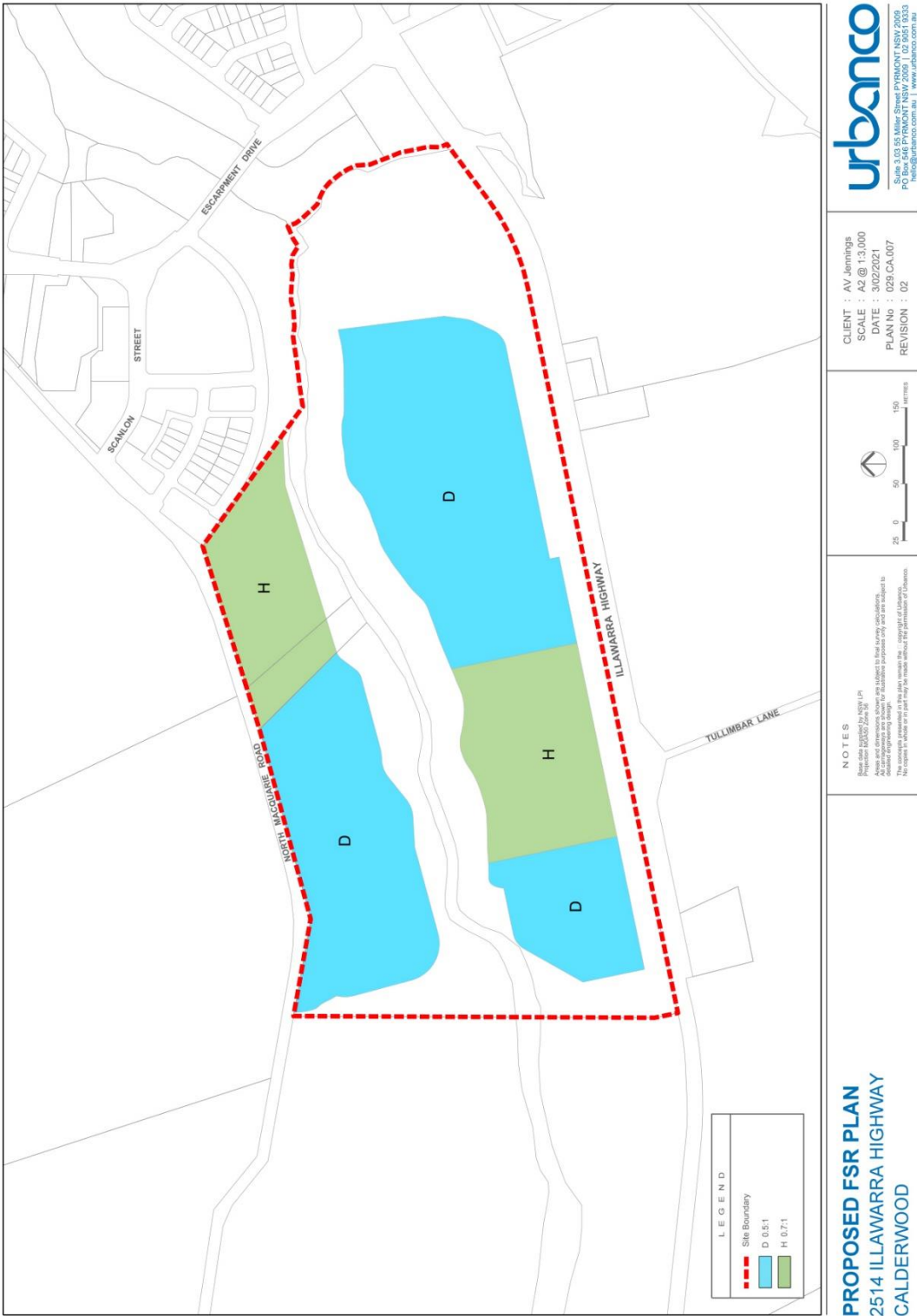
Floor Space Ratio Mapping

As requested by Council, the Planning Proposal adopts a Flood Space Ratio mapping of 0.5:1 over the standard residential areas of the land and 0.7:1 for the smaller lot areas.

urbanco



Figure 32: Proposed Floor Space Ratio Mapping



PART 5 – COMMUNITY CONSULTATION

Community consultation will be undertaken consistent with Shellharbour Council requirements and The Department of Planning and Environment's Gateway Determination conditions should the Planning Proposal proceed.

It is anticipated that this Planning Proposal be publicly exhibited for 28 days. Community consultation is likely to incorporate:

- Public Exhibition at Council's Administration Centre
- Public Notice in the local Newspaper
- Notification letters to surrounding residents, businesses and property owners

The final Community Consultation and exhibition requirements will be revised to reflect any change to the community consultation outcomes specified in the Department of Planning and Environment's Gateway Determination.

PART 6 – PROJECT TIMELINE

Below is an indicative project timeline for the Planning Proposal. The timeline will be updated in response to any Gateway Determination issued by the Department of Planning and Environment.

Action	Timeframe
Submission of Original Planning Proposal	December 2018
Council assessment Planning Proposal	December 2018 – June 2020
Submission of Final Planning Proposal	February 2021
Council assessment and endorsement of Planning Proposal	May 2021
Gateway Determination	July 2021
Completion of any required supporting studies	August – October 2021
Government agency consultation as required	October 2021
Public exhibition period	November 2021
Consideration of submissions and final Council endorsement	December 2021 – March 2022
Submission to Department of Planning and Environment	April 2022
Making of Plan	May 2022

SUMMARY

This Planning Proposal report has demonstrated that the subject site is not only suitable for rezoning but rezoning of the land will deliver an enhanced environmental outcome and deliver extended pedestrian and cycle connections within the local area.

The Calderwood Project surrounds the eastern, western and northern boundaries of the site, with the adjoining land being rezoned in 2010 to accommodate a variety of residential and retail development.

This Planning Proposal seeks to rezone the land to allow for the seamless extension of the Calderwood residential community, mirroring existing land use and lot size provisions in place on the adjoining lands.

A range of detailed site investigations have also been completed for this rezoning relating to Flooding, traffic, vegetation, contamination, heritage and servicing. The site studies confirm that the land is able to be developed and serviced.

The site investigations have been used to inform a preliminary Concept Plan which demonstrates the long term vision for the land and the creation of a new community.

The Concept Plan includes a variety of housing options which reflect local demand for housing typologies and provision of local parklands.

The Concept Plan also makes provision for significant rehabilitation of the Yellow Rock Creek and Macquarie Rivulet Corridors, completing missing links from the rezoning of the Calderwood Project.

This Planning Proposal report has demonstrated that the rezoning of the land is appropriate and able to be supported as follows:

- The land is surrounded by zoned, serviced and approved residential development and housing. Support for this rezoning is a logical planning outcome which resolves land use planning arrangements in the locality.
- The land is identified as forming part of the Calderwood Urban Investigation Area under the 2020 Illawarra Urban Development Program dashboard.
- The delivery of residential housing on the site following rezoning will be complimentary with the adopted Local Housing Strategy.
- Rezoning of the land and delivery of the Concept Plan will result in a reduction in flood levels along the Illawarra Highway during the 1:100 year storm event and PMF.
- Detailed site studies have demonstrated that there are no site constraints which impact delivery of the Concept Plan and adopted zone boundaries.
- Support for the rezoning and development of the site will allow for the protection and completion of the Macquarie Rivulet environmental riparian corridor and associated pedestrian / cycle linkages.

Council support for this proposal will resolve the final portion of the Calderwood Urban Release Area and ensure that there are no ongoing land use conflicts between new residents and agricultural operations on the site.

This Planning Proposal has fully demonstrated that the proposal has strategic merit and is able to be supported.

The rezoning of the site will deliver a range of positive community benefits for future residents and the surrounding community.

We request that Council support the planning proposal as submitted, and progress to Gateway Panel for determination.

APPENDIX 1

Consistency with Local Planning Directions

S.9.1 Direction	Is the Direction Applicable?	Comment on Consistency of Planning Proposal
1. Employment and Resources		
1.1 Business and Industrial Zones	Not Applicable	The subject site does not incorporate any existing Business or Industrial zoned land.
1.2 Rural Zones	Yes, Applicable	<p>The proposal seeks to rezone rural land to provide both residential and mixed use zones.</p> <p>The directions state that a planning proposal may be inconsistent with this direction the planning proposal is:</p> <p><i>(a) justified by a strategy which:</i></p> <p><i>(i) gives consideration to the objectives of this direction,</i></p> <p><i>(ii) identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), and</i></p> <p><i>(iii) is approved by the Director-General of the Department of Planning, or</i></p> <p><i>(c) in accordance with the relevant Regional Strategy, Regional Plan or Sub-Regional Strategy prepared by the Department of Planning which gives consideration to the objective of this direction, or</i></p> <p><i>(d) is of minor significance.</i></p> <p>The proposal is consistent with the adopted regional strategy and the land has been identified as part of the Calderwood Urban Release area.</p> <p>The proposed land holding is disjointed and continued development surrounding the site is constraining rural activities.</p> <p>Rezoning of the land would have minor significance</p>
1.3 Mining, Petroleum Production and Extractive Industries	Not Applicable	<p>The proposal will not amend any land use provisions relating to natural resources.</p> <p>Consultation can be undertaken with the Department of Primary Resources if required by the Gateway Determination.</p>
1.4 Oyster Aquaculture	Not Applicable	The proposal will not have an impact on any identified aquaculture areas.
1.5 Rural Lands	Not Applicable	The direction is not applicable to the Shellharbour LGA.

S.9.1 Direction	Is the Direction Applicable?	Comment on Consistency of Planning Proposal
2. Environment and Heritage		
2.1 Environment Protection Zones	Not Applicable	The proposal does not seek any amendments to the existing environmental protection zoned land.
2.2 Coastal Protection	Not Applicable	The subject land is not located within an identified coastal protection zone area.
2.3 Heritage Conservation	Yes, Applicable	The proposal is consistent with this direction as the proposal will retain the existing LEP heritage provisions.
2.4 Recreation Vehicle Areas	Not Applicable	Not Applicable, the proposal does not seek endorsement for any recreational vehicle areas.
2.5 Application of E2 and E3 Zones and Environmental Overlays in Far North Coast LEPs	Not Applicable	The subject land is not situated within a listed Local Government Area.
2.6 Remediation of Contaminated Land	Yes, Applicable	A detailed Preliminary Site Investigation has been submitted with this Planning Proposal addressing this Direction..
3. Housing, Infrastructure and Urban Development		
3.1 Residential Zones	Yes, Applicable	The proposal does incorporate proposed residential zoned land. Existing provisions within the Shellharbour LEP 2013 address this direction.
3.2 Caravan Parks and Manufactured Home Estates	Not Applicable	The Planning Proposal does not seek support for any caravan or manufactured home estates.
3.3 Home Occupations	Yes, Applicable	The Planning Proposal does not seek amend the LEP provisions relating to home occupations. Accordingly, the proposal is consistent with this direction.
3.4 Integrating Land Use and Transport	Not Applicable	Not applicable as this proposal does not seek to rezone any urban land, including land zoned for residential, business, industrial, village or tourist purposes.
3.5 Development Near Licensed Aerodromes	Not Applicable	The subject site is not situated within proximity of an existing licensed aerodrome.

S.9.1 Direction	Is the Direction Applicable?	Comment on Consistency of Planning Proposal
3.6 Shooting Ranges	Not Applicable	No shooting ranges are located or proposed on the subject site.
3.6 Reduction in non-hosted short term rental accomdoation period	Not Applicable	No amendments to short term rental accommodation provisions.
4. Hazard and Risk		
4.1 Acid Sulfate Soils	Not Applicable	The site has not been identified under any LEP mapping as incorporating Acid Sulphate soils.
4.2 Mine Subsidence and Unstable Land	Not Applicable	The subject land is not identified as being situated within a Mine Subsidence District.
4.3 Flood Prone Land	Yes, Applicable	<p>Part of the subject land along Macquarie Rivulet and Yellow Rock Creek has been identified as Flood Prone under the Macquarie Rivulet Flood Study.</p> <p>No flood planning areas have been identified under the Shellharbour LEP 2013.</p> <p>A detailed Flood Study was prepared by Northrop in 2018.</p> <p>A supplementary Floodplain Risk Management Plan has been prepared by Rienco in 2020 which addresses this Direction.</p>
4.4 Planning for Bushfire Protection	Yes, Applicable	Shellharbour Council Bushfire Prone Land Mapping does not identify the site as containing any bushfire prone land.
5. Regional Planning		
5.2 Sydney Drinking Water Catchments	Not Applicable	The land is not located within a Local Government Area which forms part of the Sydney drinking water catchment.
5.3 Farmland of State and Regional Significance on the NSW Far North Coast	Not Applicable	The land is not within the identified area of State or Regional Significance Farmland.
5.4 Commercial and Retail Development along the Pacific Highway, North Coast	Not Applicable	The land is not within the identified commercial and retail development area.
5.9 North West Rail Link Corridor Strategy	Not Applicable	The site is not located within the listed Local Government Areas.

S.9.1 Direction	Is the Direction Applicable?	Comment on Consistency of Planning Proposal
5.10 Implementation of Regional Plans	Yes, Applicable	<p>This proposal includes a detailed assessment of the planning outcomes under the Illawarra Shoalhaven Regional Plan 2015 and Illawarra Region Plan 2006.</p> <p>The assessment demonstrates that the proposal is consistent with the regional strategies.</p> <p>The land is part of an identified Urban Investigation Area under the IUDP.</p>
5.11 Development of Aboriginal Land Council land	Not Applicable	No rezoning of Aboriginal Land Council land.
6. Local Plan Making		
6.1 Approval and Referral Requirements	Yes, Applicable	<p>This Planning Proposal does not include any new or additional referral requirements.</p> <p>Accordingly, the proposal is consistent with this direction.</p>
6.2 Reserving Land for Public Purposes	Yes, Applicable	<p>This Planning Proposal does alter any existing public recreation zones or land reservations.</p> <p>Accordingly, the proposal is consistent with this direction.</p>
6.3 Site Specific Provisions	Not Applicable	The proposal does not include the introduction of any site-specific provisions.
7. Metropolitan Planning		
7.1 Implementation of A Plan for Growing Sydney	Not Applicable.	This report demonstrates that the proposal is consistent with the Western City District Plan.
7.2 Implementation of Greater Macarthur Land Release Investigation	Not applicable	The land is not located within the Greater Macarthur Release area.
7.3 Parramatta Road Corridor Urban Transformation Strategy	Not applicable	The land is not located within the Parramatta Road corridor.
7.4 Implementation of North West Priority Growth Area Land Use and Infrastructure Implementation Plan	Not applicable	The land is not located within North West Priority Growth Area.

S.9.1 Direction	Is the Direction Applicable?	Comment on Consistency of Planning Proposal
7.5 Implementation of Greater Parramatta Priority Growth Area Interim Land Use and Infrastructure Implementation Plan	Not applicable	The land is not located within the Greater Parramatta Priority Growth Area.
7.6 Implementation of Wilton Priority Growth Area Interim Land Use and Infrastructure Implementation Plan	Not applicable	The land is not located within the Wilton Priority Growth Area.
7.7 Implementation of Glenfield to Macarthur Urban Renewal Corridor	Not applicable	The land is not located within the Glenfield to Macarthur Corridor.
7.8 Implementation of Western Sydney Aerotropolis Interim Land Use and Infrastructure Implementation Plan	Not applicable	The land is not located within the LUIP Area.
7.9 Implementation of Bayside West Precinct Plan	Not applicable	The land is not located within the Precinct Plan area.
7.10 Implementation of Planning Principles for Cookes Cove Precinct	Not applicable	The land is not located within the Precinct area.
7.11 Implementation of St Leonards and Crows Nest 2036 Plan.	Not applicable	The land is not located within the Plan Area.
7.12 Implementation of Greater Macarthur 2040	Not applicable	The land is not located within the Macarthur 2040 Area.
7.13 Implementation of Pyrmont Peninsula Place Strategy	Not applicable	The land is not located within the Pyrmont Peninsula.

APPENDIX 2

Consistency with Applicable SEPPs

SEPP	Comment
State Environmental Planning Policy No 1—Development Standards	<p>The Shellharbour LEP incorporates Clause 4.6 Exceptions to Development Standards.</p> <p>This Clause replaces the requirement for consistency with SEPP 1.</p>
State Environmental Planning Policy No 19—Bushland in Urban Areas	<p>The subject site does not incorporate any land zoned or identified as urban bushland.</p> <p>Consistency with this SEPP is therefore not applicable.</p>
State Environmental Planning Policy No 21—Caravan Parks	<p>The proposal does not seek amendments to provide for a caravan park.</p> <p>Consistency with this SEPP is therefore not applicable. However, nothing in this Planning Proposal prevents the implementation of this SEPP.</p>
State Environmental Planning Policy No 30—Intensive Agriculture	<p>The Proposal is not classified as Intensive Agriculture.</p> <p>Consistency with this SEPP is therefore not applicable.</p>
State Environmental Planning Policy No 33—Hazardous and Offensive Development	<p>The proposal does not seek approval for land uses classified as hazardous or offensive development.</p> <p>Consistency with this SEPP is therefore not applicable.</p>
State Environmental Planning Policy No 36—Manufactured Home Estates	<p>The proposal does not seek amendments to provide for manufactured home estates.</p> <p>Consistency with this SEPP is therefore not applicable. However, nothing in this Planning Proposal prevents the implementation of this SEPP.</p>
State Environmental Planning Policy No 44—Koala Habitat Protection	<p>The land does not contain any identified areas of Koala habitat.</p>
State Environmental Planning Policy No 47—Moore Park Showground	<p>The subject site is not located within the Moore Park Showground boundary.</p> <p>Consistency with this SEPP is therefore not applicable.</p>
State Environmental Planning Policy No 50—Canal Estate Development	<p>The Proposal is not classified as a Canal Estate. The proposal is therefore consistent with the prohibition of Canal Estate Development.</p>
State Environmental Planning Policy No 52—Farm Dams and Other Works in Land and Water Management Plan Areas	<p>The subject site does not incorporate land within an irrigation area or district.</p> <p>Consistency with this SEPP is therefore not applicable.</p>
State Environmental Planning Policy No 55—Remediation of Land	<p>The site has not historically been utilised for operations which would render the land unable to be made suitable for residential development.</p>

SEPP	Comment
	A Phase 1 Contamination Report addressing the requirements of SEPP 55 can be provided post Gateway Determination if required.
State Environmental Planning Policy No 62—Sustainable Aquaculture	The Proposal is not classified as Aquaculture. Consistency with this SEPP is therefore not applicable.
State Environmental Planning Policy No 64—Advertising and Signage	The proposal will not impede the ongoing assessment of signage applications under SEPP 64. The proposal is therefore consistent with the objectives and provisions of SEPP 64.
State Environmental Planning Policy No 65—Design Quality of Residential Flat Development	The proposal will not impact delivery of Residential Flat Buildings. Consistency with this SEPP is therefore not applicable.
State Environmental Planning Policy No 70—Affordable Housing (Revised Schemes)	The proposal will not impede the assessment or delivery of development under this SEPP. The proposal is therefore consistent with the objectives and provisions of the SEPP.
State Environmental Planning Policy No 71—Coastal Protection	The subject site does not incorporate any land identified for Coastal Protection. Consistency with this SEPP is therefore not applicable.
State Environmental Planning Policy (Affordable Rental Housing) 2009	The proposal will not impede the assessment or delivery of development under this SEPP. The proposal is therefore consistent with the objectives and provisions of the SEPP.
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004	Future dwellings will be required to comply with BASIX standards. The proposal is therefore consistent with the objectives and provisions of the BASIX SEPP.
State Environmental Planning Policy (Coastal Management) 2018	The subject land is not mapped as Coastal Wetlands / Littoral Forests or Proximity Area for Coastal Wetlands / Littoral Forests. The Coastal Management SEPP contains provisions which are to be addressed in the assessment of a Development Application. Consistency with this SEPP is therefore not applicable for this Planning Proposal.
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008	The proposal will not alter exempt or complying provisions. The proposal is therefore consistent with the objectives and provisions of the SEPP.

SEPP	Comment
State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004	<p>The proposal will not impede the assessment or delivery of development under this SEPP.</p> <p>The proposal is therefore consistent with the objectives and provisions of the Seniors Housing SEPP.</p>
State Environmental Planning Policy (Infrastructure) 2007	<p>The subject site does not incorporate any identified infrastructure projects.</p> <p>Notwithstanding, the proposal will not impede the assessment or delivery of development under this SEPP.</p> <p>The proposal is therefore consistent with the objectives and provisions of the Infrastructure SEPP.</p>
State Environmental Planning Policy (Kosciuszko National Park—Alpine Resorts) 2007	<p>The subject site is not located within the Kosciuszko National Park.</p> <p>Consistency with this SEPP is therefore not applicable.</p>
State Environmental Planning Policy (Kurnell Peninsula) 1989	<p>The subject site is not located within the Kurnell Peninsula.</p> <p>Consistency with this SEPP is therefore not applicable.</p>
State Environmental Planning Policy (Major Development) 2005	<p>The subject site does not incorporate any identified Major Development projects.</p> <p>Consistency with this SEPP is therefore not applicable.</p>
State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007	<p>The subject site does not incorporate any mining or petroleum industries.</p> <p>Notwithstanding, the proposal will not impede the assessment or delivery of development under this SEPP.</p> <p>The proposal is therefore consistent with the objectives and provisions of the Infrastructure SEPP.</p>
State Environmental Planning Policy (Penrith Lakes Scheme) 1989	<p>The subject site is not located within the Penrith Lakes Scheme.</p> <p>Consistency with this SEPP is therefore not applicable.</p>
State Environmental Planning Policy (Port Botany and Port Kembla) 2013	<p>The subject site is not located within the Port Botany / Port Kembla areas.</p> <p>Consistency with this SEPP is therefore not applicable.</p>
State Environmental Planning Policy (Rural Lands) 2008	<p>The subject land is not identified as Strategic Rural Lands.</p> <p>The land has been identified as part of a growth area, and land surrounding the site has already been rezoned.</p> <p>Consistency with this SEPP is therefore not applicable.</p>
State Environmental Planning Policy (State and Regional Development) 2011	<p>The subject site does not incorporate State or Regionally significant development.</p> <p>Notwithstanding, the proposal will not impede the assessment or delivery of development under this SEPP.</p>

SEPP	Comment
	The proposal is therefore consistent with the objectives and provisions of the Infrastructure SEPP.
State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011	<p>The Planning Proposal does not include any amendments which impact this SEPP.</p> <p>The proposal is therefore consistent with the objectives and provisions of this SEPP.</p>
State Environmental Planning Policy (Sydney Region Growth Centres) 2006	<p>The land is not situated within the Growth Centre.</p> <p>The proposal is therefore consistent with the objectives and provisions of this SEPP.</p>
State Environmental Planning Policy (Three Ports) 2013	<p>The subject site does not incorporate land to which this SEPP applies.</p> <p>Consistency with this SEPP is therefore not applicable.</p>
State Environmental Planning Policy (Urban Renewal) 2010	<p>The subject site is not identified as an Urban Renewal Precinct.</p> <p>Consistency with this SEPP is therefore not applicable.</p>
State Environmental Planning Policy (Western Sydney Employment Area) 2009	<p>The subject site is not located within the Western Sydney Employment Area.</p> <p>Consistency with this SEPP is therefore not applicable.</p>
State Environmental Planning Policy (Western Sydney Parklands) 2009	<p>The subject site is not located within the Western Sydney Parklands.</p> <p>Consistency with this SEPP is therefore not applicable.</p>

Deemed SEPPs	Comment
Greater Metropolitan Regional Environmental Plan No 2—Georges River Catchment	Not applicable as the subject site is not situated within the Georges River Catchment.
Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005	Not applicable as the subject site is not situated within the Sydney Harbour Catchment.
Sydney Regional Environmental Plan No 8 (Central Coast Plateau Areas)	Not applicable as the subject site is not situated within the Central Coast Plateau.
Sydney Regional Environmental Plan No 9—Extractive Industry (No 2—1995)	Not Applicable as the proposal does not incorporate any extractive industries.
Sydney Regional Environmental Plan No 16—Walsh Bay	Not applicable as the subject site is not situated within the Walsh Bay Precinct.
Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997)	Not applicable as the subject site is not situated within the Hawkesbury – Nepean catchment.
Sydney Regional Environmental Plan No 24—Homebush Bay Area	Not applicable as the subject site is not situated within the Homebush Bay Precinct.
Sydney Regional Environmental Plan No 26—City West	Not applicable as the subject site is not situated within the City West area.
Sydney Regional Environmental Plan No 30—St Marys	Not applicable as the subject site is not situated within the St Marys Precinct.
Sydney Regional Environmental Plan No 33—Cooks Cove	Not applicable as the subject site is not situated within the Cooks Cove Precinct.

APPENDIX 3

Concept Plan

APPENDIX 4

Infrastructure Review – Maker Engineering

APPENDIX 5

Flood Study – Northrop

APPENDIX 6

2020 Flood Study – Rienco

APPENDIX 7

Flora and Fauna Review – Eco Logical

APPENDIX 8

Phase 1 Site Investigation – ENRS

APPENDIX 9

Heritage Review – Austral Archaeology

APPENDIX 10

Traffic Review – Positive Traffic

APPENDIX 11

RMS Correspondence