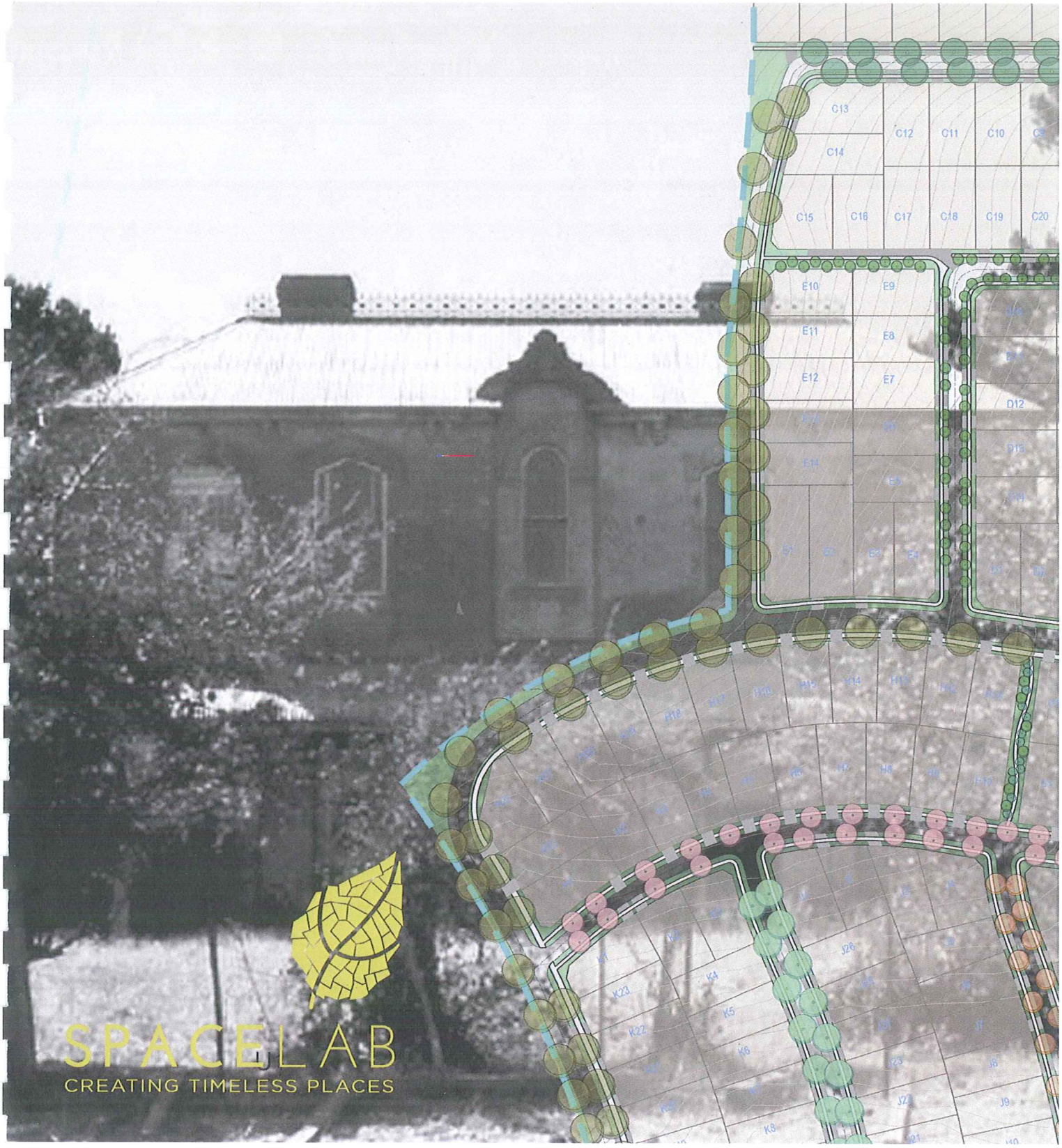

STATEMENT OF ENVIRONMENTAL EFFECTS

Lot 28 DP 479

AT

133 MARY'S MOUNT ROAD, GOULBURN

NOVEMBER 2017 for CAPPELLO HYDRAULICS & CIVIL PTY LTD

Disclaimer

The content of this report was prepared for the exclusive use of the property owners to accompany a Development Application for a proposed Subdivision and is not to be used for any other purpose or by any other person or corporation.

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SPACELAB declares that it does not have, nor expect to have, a beneficial interest in the subject project.

SPACELAB Studio Pty Ltd holds Quality Management System AS/NZS ISO 9001:2008 certification. This report has been prepared and reviewed in accordance with that system. If the report is not approved for issue, it is a Preliminary only.

MAXIWEALTH |SEE 001

Revision	Issue	Author	Approved issue
A	21.11.2017	GR	CS

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1 INTRODUCTION

1.0 INTRODUCTION

1.1 BRIEF

SPACELAB Studio Pty Ltd has been commissioned by CAPPELLO HYDRAULICS & CIVIL to prepare a Statement of Environmental Effects relating to proposed subdivision at 133 Mary's Mount Road, Goulburn.

This report seeks approval to create three hundred and ninety-four (394) residential lots and one (1) residual (drainage reserve) lot as well as the provision of landscaping and all required infrastructure services.

Approval is sought pursuant to Part IV of the *Environmental Planning & Assessment Act 1979*. Any other approvals required to establish separate sewer and water connections will be sought upon receipt of development consent.

1.2 THE SITE

1.2.1 General Description

The land proposed to be subdivided is legally described as Lot 28 DP 479 and is located at 133 Mary's Mount Road, Goulburn. From herein the land proposed to be subdivided will be referred to as the site. The site is approximately 3 km north of the Goulburn City Center and provides a total area of 61 Ha. The site is surrounded by undeveloped land to the north and west and proposed low density residential development to the east. The site address, lot and DP number and lot area are summarized in Table 1 below. For further details please refer to the survey plan under APPENDIX A.

Figure 1 | site and Context

STREET ADDRESS	LOT NUMBER	LOT AREA
133 Mary's Mount Road	Lot 28 DP 479	61.35 Ha
	Total	61.35 Ha

Table 1 | Site Detail

The site consists of two large dwellings. A large heritage-listed homestead and associated sheds and other buildings located on the hill in the northwest and a second dwelling and associated buildings located against the western boundary. The existing dwelling houses get access from Mary's Mount Road via a long internal access road. The site also includes four small farm dams, only one of which appears to contain water for extended periods.

The site rises from the Mary's Mount Road boundary to the north and reaches its highest point at the north-west corner where the homestead is located. The western portion of the site also includes scattered vegetation.

1.2.2 Zoning

Pursuant to the provisions of the *Goulburn Mulwaree Local Environmental Plan 2009*, the site is zoned part **R2 - Low Density Residential** and part **RU6 - Transition** as depicted in **Figure 2** below.

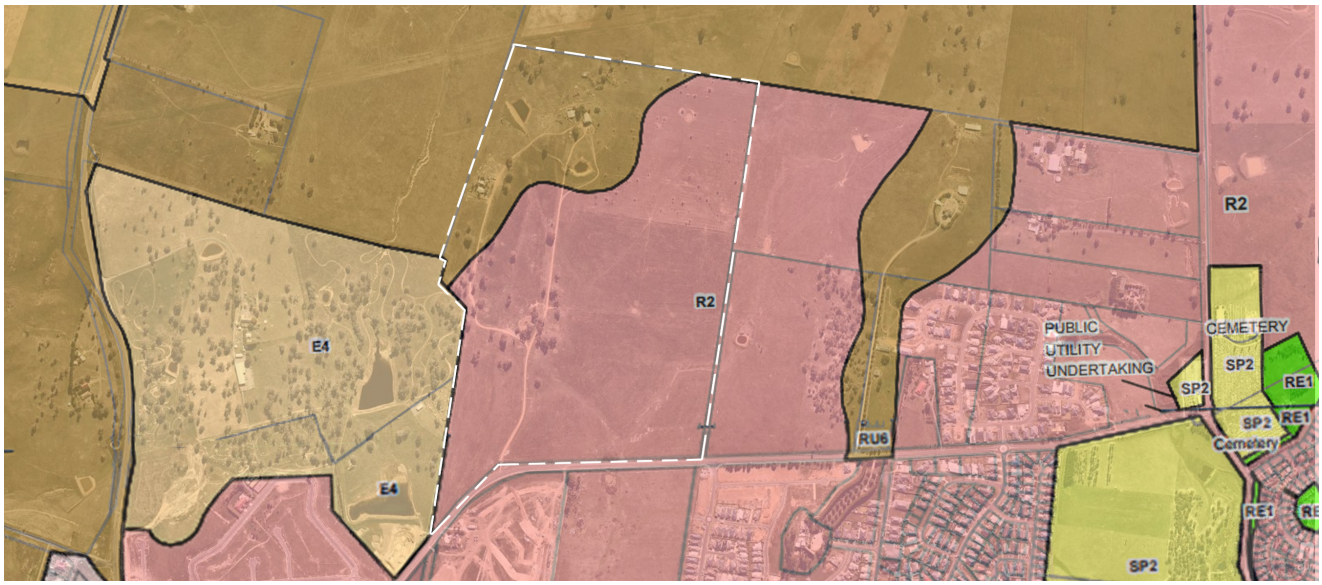

Figure 2| Zoning

1.2.3 Minimum lot size

Pursuant to Council's mapping, the subject site has a minimum lot size of 700m^2 for R2 Zoning, 20 Ha applicable to RU6 sections, as depicted in **Figure 3** below. The area of the land zoned RU6 is 13.8 Ha.

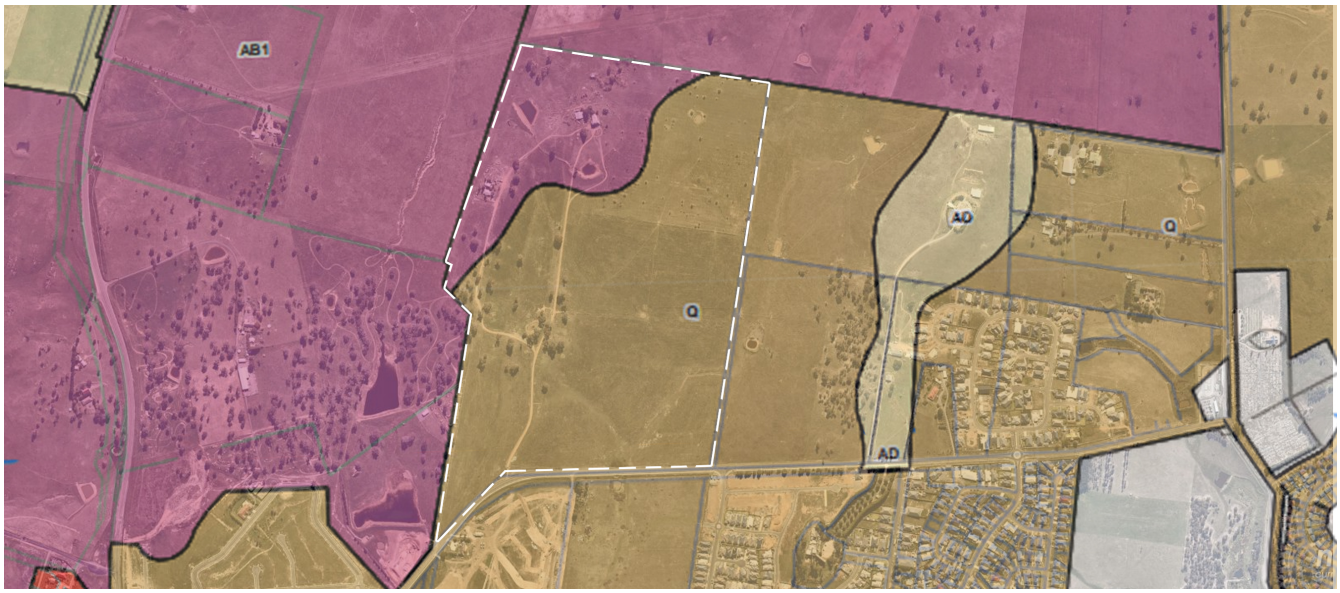

Figure 3| Minimum Lot Size

1.3 MAPPED CONSTRAINTS

1.3.1 Terrestrial Biodiversity

The site is not mapped as containing any biodiversity value under the *GMLEP2009*. The north-east portion of the study area, contains the remnants of an old orchard which now contains only scattered, decrepit fruit trees. The site and surrounding locality has been used for agriculture since the mid-1800s and much of the land has been cleared to "open up" the area for stock grazing and cropping.

Patches of mature remnant eucalypt trees and a few scattered isolated paddock trees have been retained. The open paddocks have been historically cleared of all woody vegetation. The entire site, including patches of remnant trees, has undergone long-term, high intensity stock grazing. The groundstorey is highly modified throughout the site with very little remaining of natural pre-European vegetation.

Due to presence of Native vegetation on site and despite not being mapped as containing biodiversity value, a Flora and Fauna Study has been prepared for the site to identify and assess the significance of the impacts the proposed development may have on the biodiversity values of the site. For further details refer to APPENDIX E: FLORA AND FAUNA ASSESSMENT.

1.3.2 Wetlands, Riparian Lands and Waterways

The site is not mapped as containing any wetlands, riparian lands or waterways under the *GMLEP 2009.*

1.3.3 Cultural Heritage

European heritage:

The site is mapped as containing item No. 238 "Teneriffe" under the Schedule 5 of the *GMLEP2009*. Therefore, a Conservation Management Strategy was undertaken for the site in November 2017 and is documented under APPENDIX J: CONSERVATION MANAGEMENT STRATEGY.

Aboriginal heritage:

Background research did not identify any Aboriginal sites registered with Aboriginal Heritage Information Management System (AHIMS) within the study area; however, there are two AHIMS sites located within 200m. Therefore, an archaeological due diligence was undertaken for the site in October 2017. This has been documented under APPENDIX I: ABORIGINAL CULTURAL HERITAGE DUE DILIGENCE.

1.3.4 Land Reservation Acquisition

The site is not mapped as containing any land subject to acquisition.

1.3.5 Flood Planning

The site is not mapped as being subject to flooding under *GMLEP2009.*

1.3.6 Bushfire Prone Land

Pursuant to Council's mapping, the site is not mapped as containing bushfire prone vegetation.

1.3.7 Site Analysis

A site analysis has been carried out by SPACELAB. The site analysis has informed the preparation of a lot layout plan for the proposed subdivision, ensuring the proposed layout of roads and lots takes into account the topographical and other physical features of the land. All lots are oriented to maximize solar access.

1.4 APPROVALS SOUGHT

Approval for the proposed subdivision is sought pursuant to Part IV of the *Environmental Planning & Assessment Act 1979*. Approvals relating to Section 68 of the *Local Government Act 1993* and Section 138 of the *Roads Act 1993* are to be conditioned as part of the approval.

Any other approvals required to establish separate sewer and water connections will be sought upon receipt of the development consent.

1.4.1 Designated Development

The proposal is not considered to be Designated Development as defined under *Schedule 3 of the Environmental Planning & Assessment Regulations 2000.*

1.4.2 Integrated Development

Integrated development approval is sought from:

- NSW Office of Environment & Heritage pursuant to Section 58 of the *Heritage Act 1977*;
- NSW Office of Water

1.5 LAND USE DEFINITION

The proposal seeks consent for the subdivision of land. It is noted, the proposal is compliant with the definition of subdivision as contained within Section 4B of the *Environmental Planning and Assessment Act 1979*.

Subdivision of land is permissible with consent in the R2 Low Density Residential Zone by virtue of part 4 of the *GMLEP 2009*.

1.6 ADVERTISING / NOTIFICATION

It is anticipated Council will undertake advertising the proposal, pursuant to provision of *Goulburn Mulwaree Development Control Plan 2009.*

2 PROPOSED DEVELOPMENT

2.0 PROPOSED DEVELOPMENT

2.1 GENERAL OVERVIEW

The proposal seeks to obtain the appropriate approvals to enable the residential subdivision of the site. The proposed development incorporates the subdivision of the site to create 394 residential lots ranging in size from 20 Ha to 700m^2. One residual lot (drainage reserve) is also being created as a result of this subdivision.

The design layout is presented under **APPENDIX B: PROPOSED SUBDIVISION PLANS** and an extract under **Figure 4.** Construction works associated with this Development Application will incorporate the following:

1. Earthworks associated with the filling of land, construction of roadways, servicing, storm water devices and 394 residential allotments;
2. Provision of required services;
3. Construction of roadways associated with the development area;
4. Landscaping of streetscape areas; and
5. Landscaping of the drainage reserve.

2.2 STAGING AND LOT BREAKDOWN

The proposed subdivision will be undertaken in two (2) development stages as follows:

Stage 1:

Stage one includes 1 into 2 lots subdivision to create a 20 Ha block of land containing the heritage item, biodiversity area and the second existing dwelling and a residual lot to be the development block. This is purely to facilitate the exchange of the contract with the existing landowner at an early stage of the development. The 20 Ha lot will be accessed via a temporary right of way (RoW) over the exiting internal driveway. This ROW will be nullified once Stage 2 is being developed.

Stage 2:

Stage 2 includes 1 into 394 lots subdivision comprising 393 residential lots and a residual block (drainage reserve).

A breakdown of the allotments created under stage 2 has been documented in ***Table 2****/Staging and Lot Breakdown*.

Figure 4 |Proposed Subdivision Plan

Table 2 |Staging and Lot Breakdown

LOT	AREA	LOT	AREA	LOT	AREA	LOT	AREA	LOT	AREA	LOT	AREA
A1	701.1 m²	B5	700.0 m²	D1	700.6 m²	F8	749.2 m²	H15	701.1 m²	J1	837.6 m²
A2	702.5 m²	B6	700.0 m²	D2	700.0 m²	F9	745.2 m²	H16	700.3 m²	J2	708.5 m²
A3	700.0 m²	B7	700.0 m²	D3	700.4 m²	F10	734.5 m²	H17	700.3 m²	J3	720.5 m²
A4	700.0 m²	B8	700.0 m²	D4	701.1 m²	F11	717.0 m²	H18	700.4 m²	J4	757.7 m²
A5	700.0 m²	B9	707.0 m²	D5	700.0 m²	F12	699.5 m²	H19	700.5 m²	J5	705.1 m²
A6	700.0 m²	B10	707.0 m²	D6	700.0 m²	F13	703.9 m²	H20	700.5 m²	J6	700.3 m²
A7	700.0 m²	B11	700.0 m²	D7	700.0 m²	F14	700.9 m²	H21	701.4 m²	J7	700.1 m²
A8	700.0 m²	B12	700.0 m²	D8	700.0 m²	F15	729.8 m²	H22	700.4 m²	J8	700.8 m²
A9	700.0 m²	B13	700.0 m²	D9	700.9 m²	G1	700.1 m²	H23	743.6 m²	J9	700.5 m²
A10	700.0 m²	B14	700.0 m²	D10	700.9 m²	G2	700.0 m²	I1	848.0 m²	J10	700.7 m²
A11	700.0 m²	B15	700.0 m²	D11	700.0 m²	G3	700.4 m²	I2	725.6 m²	J11	700.0 m²
A12	700.0 m²	C1	709.9 m²	D12	700.0 m²	G4	700.2 m²	I3	769.8 m²	J12	700.1 m²
A13	700.0 m²	C2	701.4 m²	D13	700.0 m²	G5	700.4 m²	I4	842.6 m²	J13	700.0 m²
A14	700.0 m²	C3	701.4 m²	D14	700.0 m²	G6	742.2 m²	I5	715.2 m²	J14	700.7 m²
A15	700.0 m²	C4	705.4 m²	E1	952.3 m²	G7	708.4 m²	I6	699.4 m²	J15	765.5 m²
A16	704.8 m²	C5	700.3 m²	E2	911.5 m²	G8	721.9 m²	I7	699.8 m²	J16	756.6 m²
A17	700.6 m²	C6	701.3 m²	E3	706.3 m²	G9	700.3 m²	I8	700.5 m²	J17	700.3 m²
A18	707.0 m²	C7	701.3 m²	E4	714.8 m²	G10	701.0 m²	I9	700.5 m²	J18	700.9 m²
A19	700.0 m²	C8	701.3 m²	E5	700.0 m²	G11	701.4 m²	I10	700.9 m²	J19	700.1 m²
A20	700.0 m²	C9	701.3 m²	E6	700.0 m²	G12	700.2 m²	I11	700.0 m²	J20	700.1 m²
A21	700.0 m²	C10	701.3 m²	E7	700.0 m²	G13	700.6 m²	I12	701.4 m²	J21	700.5 m²
A22	700.0 m²	C11	701.3 m²	E8	700.0 m²	H1	732.0 m²	I13	700.3 m²	J22	700.2 m²
A23	700.0 m²	C12	701.3 m²	E9	700.0 m²	H2	701.1 m²	I14	700.1 m²	J23	700.6 m²
A24	700.0 m²	C13	752.8 m²	E10	749.0 m²	H3	700.6 m²	I15	725.3 m²	J24	700.1 m²
A25	700.0 m²	C14	716.8 m²	E11	700.4 m²	H4	700.5 m²	I16	725.0 m²	J25	700.0 m²
A26	700.0 m²	C15	779.2 m²	E12	700.4 m²	H5	700.7 m²	I17	700.0 m²	J26	750.8 m²
A27	700.0 m²	C16	700.3 m²	E13	701.8 m²	H6	701.3 m²	I18	700.2 m²	K1	726.1 m²
A28	700.0 m²	C17	700.0 m²	E14	700.1 m²	H7	700.6 m²	I19	700.3 m²	K2	717.8 m²
A29	700.0 m²	C18	700.0 m²	F1	775.0 m²	H8	701.1 m²	I20	700.3 m²	K3	706.1 m²
A30	700.0 m²	C19	700.9 m²	F2	730.1 m²	H9	701.7 m²	I21	700.3 m²	K4	700.7 m²
A31	700.0 m²	C20	701.4 m²	F3	710.5 m²	H10	700.3 m²	I22	700.3 m²	K5	700.9 m²
B1	853.4 m²	C21	702.0 m²	F4	704.4 m²	H11	703.1 m²	I23	700.3 m²	K6	700.2 m²
B2	711.8 m²	C22	702.6 m²	F5	721.3 m²	H12	700.4 m²	I24	700.4 m²	K7	700.3 m²
B3	913.9 m²	C23	703.2 m²	F6	737.1 m²	H13	700.1 m²	I25	700.2 m²	K8	700.1 m²
B4	700.0 m²	C24	700.9 m²	F7	746.4. m²	H14	700.1 m²	I26	700.0 m²	K9	700.1 m²

LOT	AREA	LOT	AREA	LOT	AREA	LOT	AREA	LOT	AREA	LOT	AREA
K10	700.1 m²	L18	702.0 m²	N5	700.2 m²	O7	763.5 m²	R2	713.0 m²	T5	711.3 m²
K11	700.4 m²	L19	710.0 m²	N6	700.2 m²	O8	794.1 m²	R3	714.1 m²	T6	701.5 m²
K12	704.5 m²	M1	700.5 m²	N7	700.0 m²	O9	771.0 m²	R4	705.2 m²	T7	700.7 m²
K13	701.3 m²	M2	700.3 m²	N8	700.2 m²	O10	739.2 m²	R5	705.2 m²	T8	701.8 m²
K14	700.0 m²	M3	700.7 m²	N9	700.2 m²	O11	771.6 m²	R6	701.5 m²	T9	701.7 m²
K15	712.7 m²	M4	700.7 m²	N10	700.2 m²	O12	755.7 m²	R7	749.2 m²	T10	757.4 m²
K16	700.2 m²	M5	700.7 m²	N11	700.2 m²	O13	717.6m²	R8	725.4 m²	T11	1118.0 m²
K17	700.3 m²	M6	700.5 m²	N12	700.2 m²	O14	704.1 m²	R9	700.3 m²	T12	714.4 m²
K18	700.5 m²	M7	700.6 m²	N13	711.9 m²	P1	700.4 m²	R10	700.3 m²	T13	725.6 m²
K19	700.7 m²	M8	700.6 m²	N14	701.3 m²	P2	700.5 m²	R11	700.3 m²	T14	739.6 m²
K20	701.0 m²	M9	700.6 m²	N15	705.3 m²	P3	700.8 m²	S1	700.0 m²	T15	701.4 m²
K21	700.6 m²	M10	700.8 m²	N16	705.9 m²	P4	700.2 m²	S2	700.0 m²	T16	701.7 m²
K22	700.2 m²	M11	700.8 m²	N17	703.6 m²	P5	700.2 m²	S3	700.0 m²	T17	700.8 m²
K23	701.1 m²	M12	700.8 m²	N18	706.5 m²	P6	700.3 m²	S4	700.0 m²	T18	701.5 m²
L1	709.3 m²	M13	832.1 m²	N19	700.9 m²	P7	700.5 m²	S5	700.0 m²	T19	708.4 m²
L2	700.4 m²	M14	700.3 m²	N20	700.9 m²	P8	700.4 m²	S6	700.0 m²	T20	709.1 m²
L3	700.6 m²	M15	701.4 m²	N21	700.9 m²	P9	700.4 m²	S7	700.0 m²	T21	704.3 m²
L4	700.6 m²	M16	700.7 m²	N22	700.9 m²	P10	890.8 m²	S8	700.0 m²		
L5	700.6 m²	M17	700.7 m²	N23	700.9 m²	P11	732.7 m²	S9	700.0 m²		
L6	700.6 m²	M18	700.6 m²	N24	700.9 m²	P12	946.3 m²	S10	700.0 m²		
L7	700.6 m²	M19	700.8 m²	N25	700.9 m²	P13	700.3 m²	S11	700.0 m²		
L8	700.6 m²	M20	700.7 m²	N26	700.9 m²	P14	700.4 m²	S12	700.0 m²		
L9	700.6 m²	M21	700.7 m²	N27	700.8 m²	P15	700.1 m²	S13	700.0 m²		
L10	764.0 m²	M22	700.7 m²	N28	700.4 m²	P16	700.2 m²	S14	700.0 m²		
L11	707.3 m²	M23	701.1 m²	N29	700.2 m²	P17	700.4 m²	S15	700.0 m²		
L12	700.9 m²	M24	700.6 m²	O1	706.2 m²	P18	700.5 m²	S16	811.3 m²		
L13	700.9 m²	M25	700.6 m²	O2	702.8 m²	P19	700.1 m²	S17	1607.1 m²		
L14	700.9 m²	N1	700.9 m²	O3	701.3 m²	P20	700.6 m²	T1	702.6 m²		
L15	700.6 m²	N2	700.4 m²	O4	703.0 m²	P21	700.2 m²	T2	702.6 m²		
L16	700.4 m²	N3	700.1 m²	O5	703.6 m²	P22	700.5 m²	T3	745.3 m²		
L17	700.7 m²	N4	700.2 m²	O6	753.4 m²	R1	702.4 m²	T4	719.0 m²		

2.3 SERVICES

A review of existing services has been undertaken for the site which confirms that all required services can be provided via an extension to existing utility infrastructure.

Utilities (electricity, gas and telecommunications) infrastructure will be provided from Mary's Mount Road. Details will be provided at the time of Construction Certificate. Designs will be provided by utility providers. Detail has been provided under APPENDIX F: ENGINEERING ASSESSMENT. Stormwater ties will be provided for every block. WSUD measures are explained in APPENDIX G: WATER CYCLE MANAGEMENT STUDY.

The design team have liaised with AGL (gas), Telstra (telephone), Country Energy (electricity) and Council (water and sewer) or other accredited provider as to the availability of these services, prior to submission of the development applications. Sewerage and water supply design are in accordance with the Standards for Engineering Works, July 1996. Rainwater tanks are to be provided in accordance with Council Policy.

2.4 SITE PREPARATION, EARTHWORKS AND CONSTRUCTION

Earthworks associated with the proposal relate to the creation of lots and grading of roadways. Preliminary road grades have been designed in accordance with Goulburn Mulwaree Council D1: Geometric Road Design (Urban and Rural). Please refer to APPENDIX F: ENGINEERING ASSESSMENT for detail.

Grading on lots has been minimised to reduce the amount of disturbed soil and the potential for site erosion, individual lot grading will be investigated further during the Construction Certificate phase. Final earthwork and management procedures will be determined at the Construction Certification phase of the project.

All site preparation and earthworks shall be designed in accordance with Council's Standards for Engineering Works, July 1996. All site preparation and earthworks will be supervised by a Chartered Civil Engineer. All works will comply with Auspec #2 Construction specification.

All physical works, construction stockpiles, materials and waste, vehicles and personnel can be accommodated within the site. Appropriate traffic controls will be employed to protect pedestrian and vehicle safety in the public roads during construction works as required.

Noise and vibration impacts on surrounding properties will be minimized by all works being undertaken between 7.30am and 6.00pm, Monday to Friday, and between 8.00am to 2.00pm on Saturdays or Sundays. No work will be undertaken on Public Holidays.

Other measures to be implemented as part of the development, include:

- provision of site signage in a prominent position at the site prior to the construction commencing;
- protection of existing Council assets during construction; and
- all construction works and service provision will be undertaken in accordance with the provisions of the *National Construction Code* and adopted Australian Standards.

2.5 DRAINAGE AND STORMWATER MANAGEMENT STRATEGY

The site consists of six (6) major catchment areas and features existing, well-defined drainage paths. Further detail regarding the proposed stormwater management strategy is provided within APPENDIX G: WATER CYCLE MANAGEMENT STUDY and APPENDIX H: SOIL AND WATER MANAGEMENT PLAN

Soil erosion and sedimentation controls will be implemented on and around the site during works in accordance with an Erosion and Sediment Control Plan, prepared in accordance with the Goulburn Mulwaree Council *D7 Erosion Control and Stormwater Management* and in consideration of the Gu.idelines *Managing Urban Stormwater: Soil and Construction*, 4th edition.

2.6 VEGETATION REMOVAL AND PLANTING

As illustrated in **APPENDIX E: FLORA AND FAUNA ASSESSMENT** and **APPENDIX D: TREE MANAGEMENT PLAN**, the proposed development has been designed in a manner that will allow the retention of all of the significant remnant trees within the study area, together with all but one of the non-significant remnant trees. Approximately 2.1 Ha of moderate grassland is proposed to be removed as part of the proposal. Further detail has been provided within **APPENDIX E: FLORA AND FAUNA ASSESSMENT.**

2.7 OPEN SPACE AND LANDSCAPING

A Landscape Plan has been prepared by **SPACE**LAB to set out the landscaping elements proposed for the site. Key elements of the Landscape Plan are described below.

2.7.1 Drainage reserve

The drainage reserve facilitates passive and active recreation alongside water flow management and water quality control functions. The pedestrian path network connects residents through the open space to Mary's Mount Road and adjoining neighbouring property to the east. Seating nodes along the path network, provide opportunities to people rest and enjoy the landscape. Three recreation/play-space areas along the corridor provide opportunities for informal active recreation with ample opportunity for passive surveillance from the road. Reshaping and revegetation of the drainage line will improve environmental functions whilst creating an aesthetically pleasing outlook for residents. Opportunities for interaction with the pond are provided in one single location to minimise inappropriate use and to control access to the water body. The strategic location of the reserve also provides convenient emergency and maintenance access/egress as and a pleasant interaction to Mary's Mount Road.

2.7.2 Street trees

The proposed landscape strategy utilises both native and deciduous street trees to create a sympathetic result on the existing biodiversity area and the adjoining development as well as providing a memorable streetscape that provides interest throughout the seasons, with autumn colour and summer shade, while maximising solar access in winter.

Street trees have been proposed in all verges at the minimum rate of one tree per lot with the goal of achieving more than one wherever possible.

Streets fronting the protected Box Gum Woodland will be planted with native species in harmony with the existing vegetation. The proposed street tree planting scheme for these roads features *Eucalyptus melliodora* along central Road 01, which is a key tree species in the existing Box Gum Woodland site.

The rest of the streetscape is characterised by exotic trees set in a grassed verge. Visual interest is provided along each road by the use of different deciduous tree species which will change colour throughout the seasons.

Refer to **APPENDIX C: LANDSCAPE MASTER PLAN** and Table 3 on the following page for further details.

*Table **3**/Proposed plant species*

SPECIES LIST		
LOCATION	**SPECIES**	**SIZE (H X W)**
Road 01	*Eucalyptus melliodora*	25 x 15
Road 02	*Zelkova serrata (Green Vase)*	14 x 10
Road 03	*Quercus coccinea*	18 x 12
Road 04	*Acer truncatum x platanoides,*	10 x 6
	Pyrus calleryana (chanticleer),	11 x 5
	Zelkova serrata (Green Vase)	14 x 10
Road 05	*Eucalyptus melliodora*	25 x 15
	Ulmus parvifolia (Chinese Elm),	10 x 11
	, Zelkova serrata (Green Vase)	15 x 10
Road 06	*Pyrus calleryana (chanticleer)*	11 x 5
Road 07	*Zelkova serrata (Green Vase)*	14 x 10
Road 08	*Fagus sylvatica*	12 x 8
Road 09	*Acer truncatum x platanoides,*	10 x 6
	Fraxinus pennsylvanica,	15 x 8
	Zelkova serrata (Green Vase)	14 x 10
Open Space	*Eucalyptus blakelyi,*	20 x 15
	Brachychiton populeneus	12 x 8
	Casuarian cunninghamiana	18 x 12
Drainage line	Eucalyptus stellulata	10 x 10
	Eucalyptus amplifolia	25 x 12
	Casuarina cunninghamiana	20 x 10
Drainage line/ open space shrubs*	Chrysocephalum semipapposum	0.3 x 0.8
	Dianella revoluta	0.8 x 0.8
	Grevillea ramosissima subsp. Ramosissima	2 x 3
	Hakea microcarpa	2 x 3
	Hardenbergia violacea	
	Lomandra longifolia	1 x 1
	Microlaena stipoides	0.3 x 0.3
	Poa labillardierei	1 x 0.8
	Poa sieberiana	1 x 0.8
	Westringia eremicola	1.5 x 1.5
Retention Basin*	Carex fasciculris	1 x 0.8
	Juncus flavidus	1 x 1
	Melaleuca thymifolia	1.5 x 1.5
	Lomandra longifolia	1 x 1

*Open space and retention basin species are indicative only and shall be further refined through consultation with local land care groups and Council during detail design.

2.7.3 Entry feature

An entry feature is proposed for the entry to the estate at the intersection of Road 01 and Mary's Mount Road. It provides an opportunity to highlight the estate entry and delivers visual variety along the Mary's Mount Road corridor. It will be comprised of a stone wall structure with steel signage featuring the estate name. This will be integrated within the open space along Mary's Mount Road and highlighted by shrub planting and feature tree plantings. The entry feature is to be approximately 10m in total length. The estate name text is to be approximately 4m x 0.6m.

2.8 DEMOLITION

No demolition is proposed as part of this application.

2.9 ROAD LAYOUT

The proposal includes the construction of all internal roads. The proposed subdivision will have its main access from the south west corner of the site and off Mary's Mount Road (Road 01). Road 01 will also provide road linkage with potential future residential development to the east (129 Mary's Mt Road).

Road 01, being a trunk road as per provisions of *GMDCP 2009* have been designed to provide sufficient carriageway width to accommodate buses.

All internal roads have been designed as either Access Roads or Local Roads in accordance with the applicable Goulburn Mulwaree Council road categories. The applicable road categories have been determined based on the number of serviced lots. All roads within the site have been designed to achieve pedestrian friendly, localised streetscapes.

Roadways will incorporate definitive green edges and pedestrian pathways to promote slow vehicle traffic speeds.

- Road 01 (north –south) has been designed with a 19m road reserve, comprising 7m verge and 9m carriageway. Road 01 will form the main bus route for the site, providing a generous 7m verge accommodating dense planting and a 2.5m wide shared path on the eastern side of the road.
- Road 01 (east – west) has been designed with a 19m road reserve, comprising 5m verges and 9m carriageway.
- Roads 02 and 04 has been designed as an access, providing a 6m carriageway and a 4.5m verge.
- Roads 03, 05, 06 and 09have been designed with a road reserve width of 17.5m, comprising 6m carriageway and 5.75m verges on each side.
- A 1.5m wide footpath is proposed on both sides of all internal roads.

Further details and road cross sections are provided under APPENDIX F: ENGINEERING ASSESSMENT.

2.10 WASTE MANAGEMENT PLAN

It is proposed to provide on street collection for all bins at kerbside. It will be the responsibility of each owner/tenant to take and remove their bins from the kerbside on the relevant collection days. It is noted that all proposed roads meet Council's engineering requirements and are capable of accommodating a truck and turning facilities. Blocks A16-A18, C23-C24, C17-C18 and S1-S2 will bring their bins to the kerb side for collection. Walking distance to the kerb is less than 30m for all of these blocks.

2.11 INTERNAL DRIVEWAY ACCESSES

All lots will be accessed from internal roads within the estate. The locations of driveway access points to each lot have been shown on APPENDIX C: LANDSCAPE MASTER PLAN.

3 STATUTORY ASSESSMENT

3.0 STATUTORY ASSESSMENT

The following provides an assessment of the proposed development in accordance with the matters under Section 79 C(1)(a) of the *Environmental Planning & Assessment Act 1979*.

3.1 STATE ENVIRONMENTAL PLANNING POLICIES

3.1.1 State Environmental Planning Policy 55 – Remediation of Land

The site history review and walkover indicated that the land has been used for agricultural activities since 1892. The site was occupied by the main house with associated outbuildings, and the cottage from 1950s. Based on the information provided, we acknowledge that the land has been used for Agricultural Activities which are listed in Table 1 as an activity that may cause contamination. The review of historical information however, indicated that the land has only been used for the grazing of sheep and cattle and has not had in operation a sheep dip or any other potentially contaminating activities set out in the *ANZECC/NHMRC Guidelines* for the Assessment and Management of Contaminated Sites. Development of the site will not raise any issues regarding contamination. Further assessment in accordance with *SEPP 55 – Remediation of Land* is not required.

3.1.2 State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011

It is understood the proposal will be forwarded to the New South Wales Office of Water for assessment. Please refer to **APPENDIX F: ENGINEERING ASSESSMENT** for music modelling and NorBe assessment.

3.2 LOCAL ENVIRONMENTAL PLANS

3.2.1 Goulburn Mulwaree Local Environmental Plan 2009

Clause 2.1 – Land Use Zones

The subject land is zoned part **R2 Low Density Residential** pursuant to the provisions of *Goulburn Mulwaree LEP 2009.* The objectives of the zones are as follows:

- To provide for the housing needs of the community within a low density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To maintain the economic strength of commercial centres by limiting the retailing of food and clothing.

The proposed subdivision is consistent with the objectives of the **R2 Low Density Residential** zone through provision of a mix of low density residential lots which will accommodate a variety of housing types and is consistent with the envisaged residential character along Mary's Mount Road.

A portion of the subject land is zoned **RU6 Transition** pursuant to the provisions of the *Goulburn Mulwaree LEP 2009*. The objects of the zone are as follows:

- To protect and maintain land that provides a transition between rural and other land uses of varying intensities or environmental sensitivities.
- To minimise conflict between land uses within this zone and land uses within adjoining zones.

The RU6 Transition zoned land is an isolated pocket of land, an offshoot of a much larger **RU6 Transition** lot to the north, and is surrounded to the east and south by **R2 Low Density Residential** land. The zoned land falls below the 20

Ha minimum lot size. Stage 1 of the development includes the subdivision of the site into two (2) blocks to create a 20 Ha lot and a residual block. The 20 Ha lot includes the entirety of **RU6 Transition** zone.

Clause 2.6 – Subdivision – Consent Requirements

Development consent is sought for the proposed subdivision, as required by *Clause 2.6.*

Clause 4.1 – Minimum subdivision lot size

The site is identified as having two (2) minimum lot sizes, which are 700m^2 for **R2 Low Density Residential** Zone and 20 Ha for **RU6 Transition** zone. The proposed subdivision creates lots ranging from 20 Ha to 700m^2. The 20 Ha Block (Lot U1) contains the entirety of **RU6 Transition** zoning of the land.

Clause 5.3 Development near zone boundaries

During pre-application discussion with Council, the initial consideration for the development was to use the *Draft LEP Amendment No 8* which provides flexibility under clause 4.1 and allows subdivision of land that is within more than one zone. Under this clause, a residual block smaller than the minimum lot size can be created.

This approach (*Option 1)* would have resulted IN a 13.8 Ha block, including the existing house and the entire of **RU6 Transition** zoned land. This would have created a 48.5 Ha development block, of which 42.4 Ha is developable land. After careful consideration, it was decided to not use this clause as this may result in fragmentation of native vegetation on site and may have a detrimental impact on views and vistas of the heritage item on site.

The alternative approach (*Option 2*) then was to create a 20 Ha block which included the entire **RU6 Transition** and the biodiversity area. This design option has been depicted in **Figure 5**. Due to the form of land and the site constraints, some developable land is sandwiched between the **RU6** zoned land and the biodiversity area. Although being 100% compliant with provisions of the *GMLEP 2009* and staying clear from the high quality native vegetation, the **RU6** zoned land and the 'Teneriffe's Curtilage' area, *Option 2* was considered not to be the best urban design outcome.

In order to create a better urban design and planning outcome, the design team decided to use clause 5.3 of the *GMLEP 2009* and using the give and take principals (Option3).

The objective of this clause is to provide flexibility where the investigation of a site and its surroundings reveals that a use allowed on the other side of a zone boundary (within the 50m from each boundary) ***would enable a more logical and appropriate development of the site*** and be compatible with the planning objectives and land uses for the adjoining zone.

Clause 5.3 (4) of the *GMLEP2009* states:

"Despite the provisions of this Plan relating to the purposes for which development may be carried out, development consent may be granted to ***development of land*** *to which this clause applies for* ***any purpose*** *that may be carried out in the adjoining zone, but only if the consent authority is satisfied that:*

(a) the development is not inconsistent with the objectives for development in both zones, and

(b) the carrying out of the development is desirable due to compatible land use planning, infrastructure capacity and other planning principles relating to the efficient and timely development of land.

As depicted in ***Figure 6***, the area of developable R2 zoned land given to the residual block (highlighted in green), is approximately 31,500 m^2. The taken area (highlighted in blue), is less than half the amount of the given developable R2 zoned land and approximately 14,800m^2.

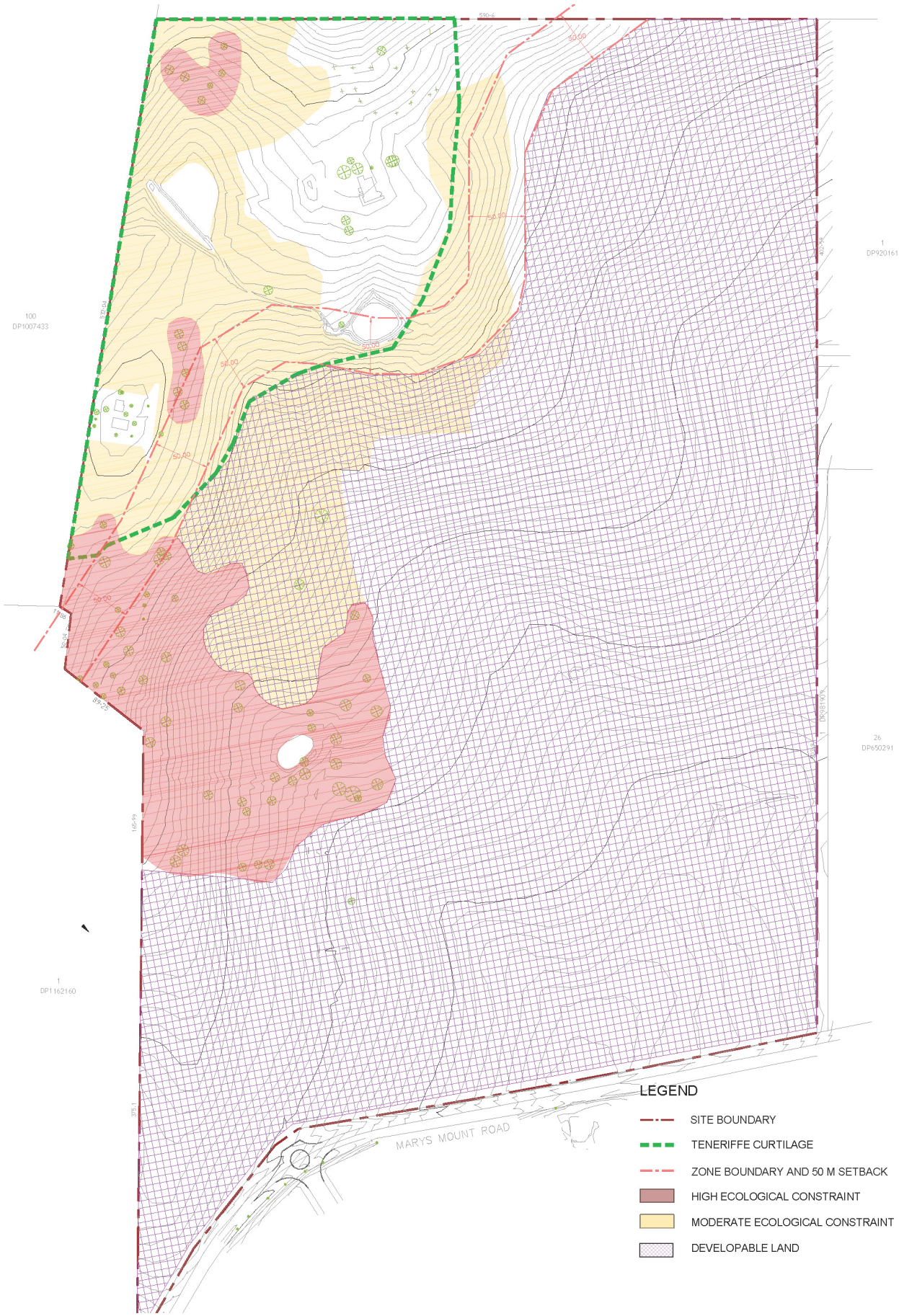

Figure 5|Development Concept Option 2

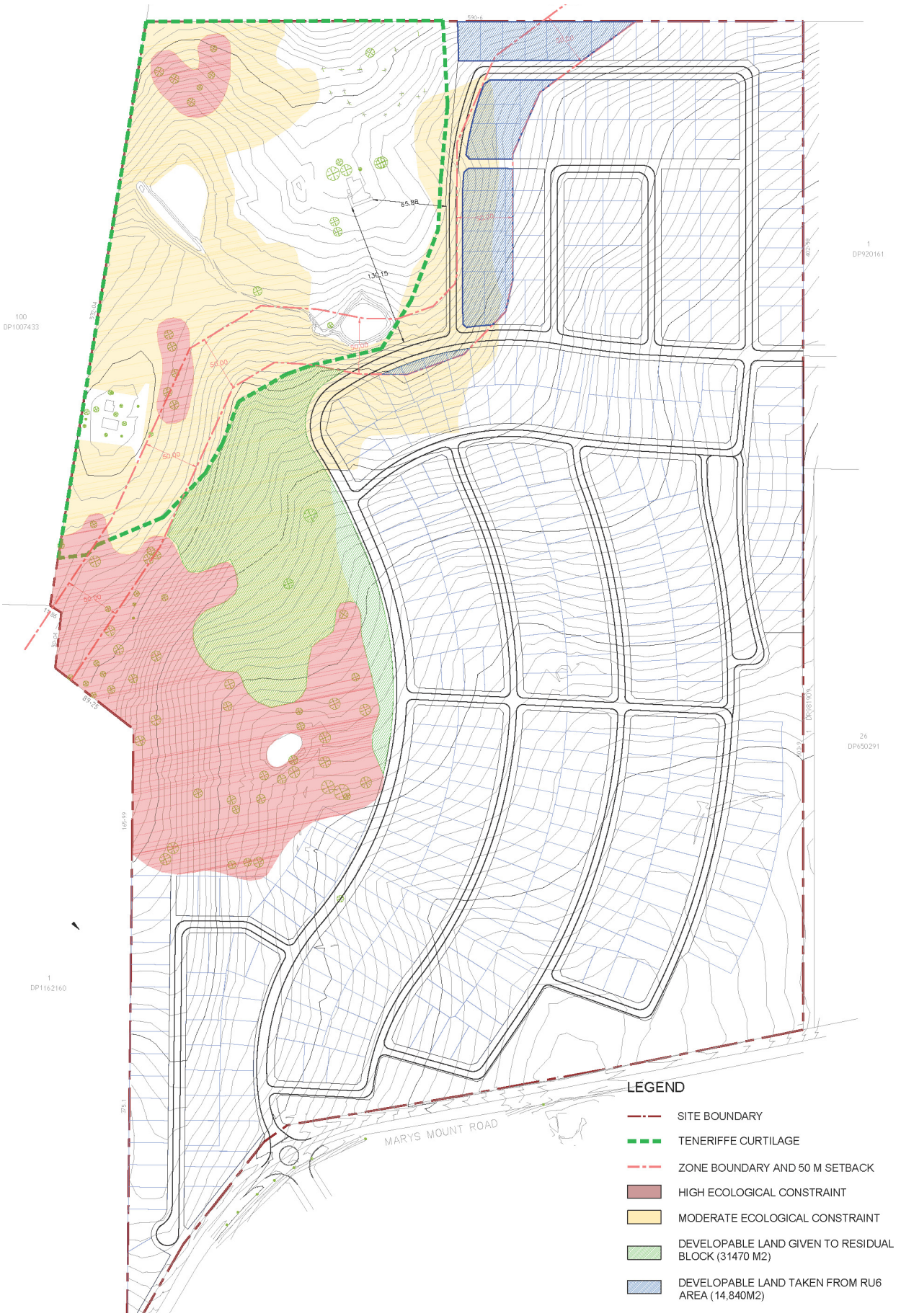

Figure 6 | Development Concept Option 3

This proposal seeks consent to use Clause 5.3 to encroach to a small portion of land zoned **RU6 Transition**. As depicted under **Figure 6**, utilising Clause 5.3 enables a more rational and sustainable development of the site, takes into consideration the heritage value of the land, including the views and vistas of the existing house, biodiversity values, bushfire protection and also, best practice urban design.

It is important to note encroachment to **RU6 Transition** in Option 3 does not create extra yield for the development. Given the above, it is considered the proposed encroachment is not inconsistent with the objectives of the **RU6 Transition** zones due to the location of the site and the adjoining property zoning. The main objective of the **RU6 Transition** is *"to protect and maintain land that provides a transition between rural and other land uses of varying intensities or environmental sensitivities".* Option 3 provides the following design benefits:

1. Provides a continuous Edge Road along the biodiversity area and the heritage item. This ensures blocks will face the biodiversity area rather than backing onto the reserve. This outcome is far superior and carefully considers biodiversity management, bushfire protection and urban design best practice.
2. Limits development along the main views and vistas of the Heritage Item, and therefore maintains the dominance of the existing house as a landmark for the site.
3. Keeps higher value vegetation connected.

Clause 5.9 – Preservation of trees or vegetation

The objective of this clause is to preserve the amenity of the area, including biodiversity values, through the preservation of trees and other vegetation. The proposed development has been designed in a manner that will permit the retention of all the significant remnant trees within the study area, together with, all but 1 of the non-significant remnant trees. All areas mapped as high value biodiversity will be kept as part of the 20 Ha block to minimise the clearance of significant native vegetation. Please refer to **APPENDIX E: FLORA AND FAUNA ASSESSMENT** and **APPENDIX D: TREE MANAGEMENT PLAN** for further detail.

Clause 5.10 - Heritage Conservation

- **European heritage**

The site is mapped as containing item No. 238 "Teneriffe" under the Schedule 5 of the *GMLEP2009*.

The proposed design is compliant with recommendations of the management strategy and provides appropriate buffers to the heritage item in order to protect the heritage significance of the site. The proposed development stays clear from the heritage curtilage of heritage item. The closest property to the heritage item is at least 80m. The proposal therefore, does not have any detrimental impact on the heritage value of the site. Please refer to **APPENDIX J: CONSERVATION MANAGEMENT STRATEGY.**

- **Aboriginal heritage**

An extensive search of the AHIMS database was conducted for the site. The search identified 17 Aboriginal archaeological sites within a 5km search area, centred on the site. None of these registered sites are located within the site. Given that stone artefacts have been recorded in close proximity to the site, the project area has potential to contain Aboriginal sites and objects. As such, a detailed heritage assessment and filed inspection was undertaken by Biosis in November 2017.

This assessment identified the entire site has low archaeological potential as the site had been subjected to past land clearance and agricultural use, and stream flow has caused erosion and aggradation. The soil landscapes also indicate that the potential for cultural material and potential archaeological deposits to remain is low.

During the field inspection, two (2) Aboriginal stone artefacts were recorded. However, they were located in a highly disturbed context and were likely imported into the study area along large amounts of building materials and rubble. This portion of the development will be retained as a residential lot, therefore, no impacts will occur to these sites.

The report concludes, no further archaeological assessment is required. Please refer to **APPENDIX I: ABORIGINAL HERITAGE DUE DILIGENCE ASSESSMENT.**

Clause 5.10 Bush fire hazard reduction

Pursuant to Council's mapping, the site has not been nominated as containing bushfire prone vegetation. Despite this, due to the presence of remnant vegetation, a Bushfire Protection Assessment has been prepared for the site. Please refer to APPENDIX K: BUSHFIRE ASSESSMENT REPORT for further detail.

Clause 6.2 Public Utility infrastructure

The proposal provides public utility infrastructure such as roads, easements, water, sewer, electricity and telecommunications. An assessment of these provisions will be carried out as a part of the development assessment.

Clause 7.1 – Flood Planning

The site has not been identified as being within a "Flood Planning Area".

Proposed stormwater quantity and quality management has been detailed within **APPENDIX F: ENGINEERING ASSESSMENT.** This report confirms that stormwater can be appropriately managed to ensure minimal impact on surrounding land and the receiving waterways.

Clause 7.1A – Earthworks

The subdivision layout has been designed to follow the natural topography and minimise the amount of earthworks. During the construction phase, measures will be taken to ensure the site is stripped in a manner which prevents erosion and will protect the natural environment.

3.3 DRAFT ENVIRONMENTAL PLANNING INSTRUMENT

There are no draft environmental planning instruments applying to the site.

3.4 DEVELOPMENT CONTROL PLAN

3.4.1 Goulburn Mulwaree Development Control Plan 2009

The proposal is subject to the provisions of the *GMDCP 2009.* Following is an assessment against the relevant sections:

CRITERIA	COMMENTS
3 GENERAL DEVELOPMENT CONTROLS	
3.3 LANDSCAPING	
3.3.1 LANDSCAPE PLAN DESIGN REQUIREMENTS	
For new release urban areas, the provision for appropriate street tree planting taking into account the image and role of the street, solar access requirements, soils, selection of appropriate species and services	**Complies** Proposed street tree planting creates desirable and memorable streetscapes. The street trees provide for good solar access in winter and shades the footpaths, verge and road carriageways in summer. Refer to **APPENDIX C: LANDSCAPE MASTER PLAN** for further detail.
The site layout and building design enables the use of features of the site such as views, existing vegetation and landmarks.	**Complies** The subdivision layout has been designed to follow the natural topography and feature the sites natural attributes such as views and existing vegetation. Design considerations has been given to the heritage values of the exiting house on site and appropriate buffers are provided to protect it.
3.6 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN	
3.6.1.1 LANDSCAPING	
Trees and shrubs that are inappropriately located can easily reduce surveillance opportunities and provide entrapment spots and blind corners. The following CPTED requirements for landscaping apply: 1. avoid medium height vegetation with concentrated top to bottom foliage. Plants such as low hedges and shrubs, creepers, ground covers and high-canopied vegetation are good for natural surveillance 2. trees with dense low growth foliage should be spaced or crown raised to avoid a continuous barrier 3. use low ground cover or high-canopied trees with clean trunks 4. avoid vegetation, which conceals the building entrance from the street 5. avoid vegetation screening of all public use toilets 6. avoid vegetation that impedes the effectiveness of public and private space lighting 7. use 'green screens' (wall hugging vegetation that cannot be hidden behind) if screening large expanses of fencing to minimise graffiti.	**Complies** Proposed tree and shrubs are located so as not to adversely impact safety (surveillance, entrapment, blind corners). The proposed trees and shrub design complies with CPTED requirements: 1. Medium height vegetation is sparingly utilized along and within the drainage reserve/linear park to minimize negative impacts from the Road. Further information to be provided at detailed design showing clearances etc. 2. All proposed tree species can be under-pruned at installation and as they mature to avoid low growth foliage. 3. All proposed tree species can be under-pruned at installation and as they mature to avoid low growth foliage. 4. Noted. 5. N/A 6. Noted. 7. Noted.
3.7 FLOOD AFFECTED LANDS	
Not applicable	

CRITERIA	COMMENTS
3.8 TREE AND VEGETATION PRESERVATION	
Noted. Please refer to APPENDIX E: FLORA AND FAUNA ASSESSMENT.	
3.9 DRYLAND SALINITY	
Not applicable	
3.10 WATERBODY AND WETLAND PROTECTION	
Not applicable	
3.11 GROUNDWATER	
Not applicable	
3.12 BASIC LANDHOLDER RIPARIAN RIGHTS FOR SUBDIVISION	
Not applicable	
3.13 BIODIVERSITY MANAGEMENT	
Not applicable	
3.14 STORMWATER POLLUTION	
– New development should incorporate perforated pavement materials, such as paving with wide bands of gravel aggregate, to allow the water to be absorbed into the ground. – Ensure large development sites 'fit' as much as possible, within the hydrology of the natural system. Reduce the possibility of pollutants entering the stormwater system, increase stormwater detention and reduce erosion and sedimentation. – Stormwater infrastructure in large developments should provide maximum infiltration and retardation of peak stormwater flows. – Where open spaces are integrated as part of a large development, investigate their dual use for site drainage by means of infiltration and/or delayed release to the stormwater system. – On-site detention, especially when used on unpaved or grass surfaces, can trap and remove contaminants from stormwater and increase infiltration into the ground. – Ensure compliance with Part 5 of the Drinking Water Catchment REP. – Reference should also be made to 3.15 following, which outlines the requirements for developments in the drinking water catchment and current recommended practices and performance standards endorsed or published by the Sydney Catchment Authority that relate to the protection of water quality.	– The development has minimized the amount of impervious areas by reducing road widths to a minimum. The increase verge width will be grassed to allow water to be absorbed into the ground. – A Water Cycle Management Study and Soil and Water Management Plan Report has been prepared to ensure the development fits as much as possible, within the hydrology of the natural system. Reduce the possibility of pollutants entering the stormwater system, increase stormwater detention and reduce erosion and sedimentation. – Rain Gardens and a Wetland have been designed to provide maximum infiltration and retardation of peak stormwater flows. – The wetland, including its OSD component, has been designed for delayed release to the stormwater system. – Rain Gardens and a Wetland has been designed to . trap and remove contaminants from stormwater and increase infiltration into the ground. – A Water Cycle Management Study and Soil and Water Management Plan Report has been prepared to ensure the development complies with Part 5 of the *Drinking Water Catchments Regional Environmental Plan No 1*. – A Water Cycle Management Study and Soil and Water Management Plan Report has been prepared to ensure the development complies with requirements for developments in the Drinking Water Catchment and current recommended practices and performance standards endorsed or published by the

CRITERIA	COMMENTS
	Sydney Catchment Authority that relate to the protection of water quality.
3.15 IMPACTS ON DRINKING WATER CATCHMENTS	
For development within the Sydney Drinking Water Catchment, applicants should address the relevant provisions of Part 5 the *Drinking Water Catchments Regional Environmental Plan No 1*, where applicable. Any development or activity proposed to be carried out on land to which this plan applies should incorporate any current recommended practices and performance standards endorsed or published by the Sydney Catchment Authority that relate to the protection of water quality (the Authority's current recommended practices and standards). 1. In this clause: Sydney Drinking Water Hydrological Catchment means the land identified on the Sydney Drinking Water Hydrological Catchment Map (Figure 3.12). Chief Executive means the Chief Executive of the Sydney Catchment Authority. 2. Recommended practices and performance standards of the Sydney Catchment Authority. 3. Development consent cannot be granted unless neutral or beneficial effect on water quality. A consent authority must not grant consent to the carrying out of development under Part 4 of the Act on land in the hydrological catchment unless: – it has considered whether the proposed development will have a neutral or beneficial effect on water quality, and – it is satisfied that the carrying out of the proposed development would have a neutral or beneficial effect on water quality. 4. Development that needs concurrence of Chief Executive. 5. This clause does not apply if the consent authority is satisfied that the proposed development: – has no identifiable potential impact on water quality, or – will contain any such impact on the site of the development and prevent it from reaching any watercourse, waterbody or drainage depression on the site, or – will transfer any such impact outside the site by treatment in a facility and disposal approved by the consent authority (but only if the consent authority is satisfied that water quality after treatment will be of the required standard). 6. For the purposes of subclause (3), site means the site of the proposed development. A consent authority must forward a copy of its determination of a development application which required concurrence of the Chief Executive to the Chief Executive within 10 days after the determination is made	A Water Cycle Management Study and Soil and Water Management Plan Report has been prepared to ensure t the development complies with the relevant provisions of Part 5 the *Drinking Water Catchments Regional Environmental Plan No 1*, where applicable. Please refer to **APPENDIX G: WATER CYCLE MANAGEMENT STUDY** and **APPENDIX H: SOIL AND WATER MANAGEMENT PLAN** for further detail.

CRITERIA	COMMENTS
3.16 BUSHFIRE RISK MANAGEMENT	
Not applicable	
3.18 CHANGE OF USE INVOLVING "EXISTING USE" PROVISIONS	
Not applicable	
4. PRINCIPAL DEVELOPMENT CONTROLS – URBAN	
4.1 RESIDENTIAL DEVELOPMENT	
4.1.17 SUBDIVISION	
4.1.17.1 MINIMUM LOT SIZES IN RESIDENTIAL AREAS (LEP 2009)	
– R1 General Residential and R2 Low Density Residential – 700m²; – R5 Large Lot Residential – 2,000m²; – R5 Large Lot Residential – 2 hectares; – RU5 Village – 1,500m².	Complies All proposed blocks are 700m² or greater.
4.1.17.2 GENERAL PROVISIONS	
SITE AREA – Battleaxe lots are generally not supported. In calculating the area of a battleaxe allotment, the accessways, which includes any rights-of-carriageway/access, are to be excluded. – Allotments should be able to accommodate a building envelope of 150m² with the minimum dimensions of 10m by 15m, within a 6m front building setback and a 1m side and rear setback and clear of any easements.	Complies – Only one battleaxe lot is proposed. This is due to the odd shape of the south west corner of the site where access in close proximity to the roundabout at Mary's Mount Road is not desirable. The subject block, being Lot T11, has a battleaxe access from Road 02 with frontage to the Road 01 and Mary's Mount Road. – All 700m² and greater allotments are capable of accommodating a 150m² building envelope and compliant setbacks.
LOT ORIENTATION The following design techniques are to be adopted to maximise opportunities for solar access to allotments and to allow for the consequent design and siting of energy efficient houses: – align streets east-west and north-south. Aim for north-south streets within 20o west and 30o east of true north and east-west streets within 30o south and 20o north. – allotments on east-west orientated streets need to have greater depth and width to make best use of solar access. – allotments on south side of street should be sufficient depth so buildings can be set well back to allow north facing rooms to look onto larger front yards.	Complies – Solar access has been maximised for all allotments through optimal orientation of street alignments and provision of appropriately sized and regular allotments. – Optimal passive surveillance has been achieved through maximizing the number of lots facing towards the drainage reserve and all other open spaces. For further details, please refer to **APPENDIX B: PROPOSED SUBDIVISION PLANS.**

CRITERIA	COMMENTS
– allotments on north-south streets to be of sufficient width to allow for private open space on the north side and for houses to be built on the south boundary. – taking into account views and topography, lot orientation and layout should enable the majority of dwellings to be designed so that the main living area receives not less than 4 hours of sunlight per day between 9am and 3pm. – Regular rectangular shaped allotments maximises siting opportunities and increases potential lot yield. – On sloping sites, north-facing sites improve opportunities for solar access. Lots shall face toward public open space areas, vegetation conservation areas and public roads to encourage passive surveillance from dwellings over these public spaces to assist with safety and security.	
BICYCLE AND PEDESTRIAN MOVEMENTS – Provision for bicycle and pedestrian movements are to be provided throughout the subdivided area. – Cyclists can be integrated into the road network through a combination of on and off road measures together with bike parking at clusters of community and commercial facilities (refer Council's Bicycle Strategy 2007). – To encourage cycling as an easy transport alternative, on-road and off-road cycle networks will be clearly highlighted with signposting and pavement logos. Engineering works, including signposting and line marking must comply with the appropriate engineering standards. – Paved footpaths are to be provided in accordance with Council's Standards for Engineering Works, July 1996, and the hierarchy of roads (e.g. both sides for higher order roads, single side only on lower order roads).	Complies – 2.5m wide shared footpath has been provided along Road 01 connecting to the eastern neighboring property to facilitate bicycle movement. – Noted. – Noted. – Noted.
RETENTION OF SIGNIFICANT ENVIRONMENTAL FEATURES Where significant environmental features such as natural landforms, remnant native vegetation, wetlands or natural drainage lines or water courses occur on a development site, they shall be conserved and or enhanced. Subdivision design shall incorporate these elements as much as can practicably be achieved. This	Complies The subdivision has been designed to be responsive to site constraints and surrounding land uses. The proposed design does not detract from the amenity or visual quality of any natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas.

CRITERIA	COMMENTS
may necessitate larger lot sizes in order to maintain these features.	The remnant vegetation, as well as the heritage item on site will be retained in a large block (20 ha) with a sufficient buffer.
ROAD RESERVES – Should remnant vegetation be located in either existing or proposed road reserves it shall be conserved in the design and construction process. – Access to new lots should be located in an alternate position or to take advantage of existing road reservations where they exist. Council will require that access to lots (driveways) be nominated in Section 88(b) instruments in order to protect existing vegetation and to reduce their visual impact. – Service infrastructure is also to be located in such a way as to ensure minimal environmental disturbance.	Noted.
LANDSCAPE EMBELLISHMENT A condition of Council's subdivision approval will be to carry out landscape treatment of lots and public road reserves with the objective of enhancing vegetation and specifically native vegetation in the locality. The landscape treatment shall be designed to mitigate the: – environmental impact of the development; – Visual obtrusiveness of new development and enhance the visual connection of the newly created landscape with any remnant native vegetation in the locality.	Complies A *Landscape Master Plan* has been prepared for the site to provide an attractive and environmentally responsible development. The road reserve areas are appropriately sized for street trees and embellishments to be constructed. The landscape strategy seeks to use native and deciduous trees and vegetation in open space plantings to create attractive, low maintenance "natural" open spaces.
STREET TREES Street tree planting is required where new or existing lots are developed in order to create a consistent theme. Street trees add to the areas character and reduce the visual impact of new development. They have environmental benefits of reducing the impacts of sun in the summer months; reducing global warming and when natives are used providing possible habitat for native fauna. Important Street Tree principles are: – Preserve vistas to and from significant heritage buildings and to rural areas; – Reinforce traditional exotic planting themes and prominent gardens where they exist;	Complies Proposed street tree planting provides order to the street network, reinforcing road hierarchy. Proposed species are deciduous to reduce the impacts of summer sun whilst facilitating solar access in winter. Street tree planting is provided on all verges adjacent to residential lots. The mature spread and spacing of street trees has been designed to minimise the heat island effect and to improve the immediate microclimate. Streets fronting the protected Box Gum Woodland will be planted with native species in harmony with the existing vegetation (*Eucalyptus melliodora*). The proposed street trees are in line with the Important Street Tree Principles.

CRITERIA	COMMENTS
– Retain and enhance significant existing trees and remnant native areas; – Reinforce the planting themes of the central town or village area.	For further details, please refer to **APPENDIX C: LANDSCAPE MASTER PLAN**.
4.2 NON-RESIDENTIAL DEVELOPMENT	
Not applicable	
5.PRINCIPAL DEVELOPMENT CONTROLS – RURAL	
Not Applicable	
6.SPECIAL DEVELOPMENT TYPES	
Not Applicable	
7. ENGINEERING REQUIREMENTS	
7.1 UTILITY SERVICES	
– Applicants are to provide connections to the following services where available to the site – water, sewerage, gas, telephone and electricity, on site. – Applicants are advised to liaise with the AGL (gas), Telstra (telephone), Country Energy (electricity) and Council (water and sewer) or other accredited provider as to the availability of these services, prior to submission of development applications. – Sewerage and water supply design to be in accordance with the Standards for Engineering Works, July 1996. Rainwater tanks are to be provided in accordance with Council Policy. – Council is not averse to applicants supplying their own power supply, provided that Country Energy approve the alternate power source. – Council may require as a condition of its consent, prior to release of Certificates or plans, that satisfactory arrangements be made for the provision of a reticulated electricity supply, telephone services and a reticulated natural gas supply.	Complies Service provision to the proposed allotments is part of the development. Reticulated water, sewer, electricity, gas and telecommunications will be extended from Mary's Mount Road and will be designed and constructed in accordance with Council's and relevant service provider's requirements.
7.2 ROADS	
7.2.1 URBAN	
Residential development shall be designed to: 1. Council's Standards for Access Driveways and Parking Areas 2001. 2. ensure satisfactory and safe operation within the adjacent road system 3. take into account water sensitive road design practices	Complies 1. All access driveways and parking areas are in accordance with Council's Standards for *Access Driveways and Parking Areas 2001*. 2. Safe and practical operation of the adjacent road system has been taken into consideration while designing the subdivision layout.

CRITERIA	COMMENTS
4. have regard to contours and avoid large cuts and fills, steep slopes, prominent hilltops and creeks	3. Water Sensitive Urban Design has been taken into account while designing the road layout.
5. avoid long dead ends and cul-de-sac heads on the down slope end of roads	4. The subdivision has been designed to be responsive to site constraints, including the exiting topography. The site is relatively flat and minimal cut and fill is proposed. In the north western corner the topography is steeper. This has been incorporated to the 20 Ha lot to eliminate any excessive cut and fill.
6. ensure that drainage lines are not impeded	5. The proposal only includes one Cul-de-sac as the result of the odd shape of the site on the south west corner. The Cul-de-sac head however, has an open end providing pedestrian access to Mary's Mount Road.
7. stabilise, replant and/or top dress exposed batters and table drains and improve slope stability on all earthworks	6. The subdivision has been designed to be responsive to the major drainage system and follow drainage lines. It is understood that any drainage line with less than $3m^3$ of flow can be incorporated into an engineering solution.
8. when using rear public and private laneways for vehicle access in dual occupancy and multi unit development the engineering design shall:	7. N/A
– make provision for bitumen sealed laneway construction, the provision of passing bays, drainage, sediment control etc from the development site to the closest public road. In the event that the above requirements cannot be achieved, for whatever reason the laneway is not to be used and access is to be provided from the public road frontage.	8. Blocks A16-A18, C23-C24, C17-C18 and S1-S2, get their access via a public laneway. Sealed driveways are provided for all of these lots.
9. All proposed road, splay and road widening shall be dedicated to Council, free of cost as public roads.	9. All roads will be dedicated to Council, free of cost, as public roads.
10. Where the design of the access road involves realignment, provided the Council agrees to acquire any adjoining land, which may be necessary to effect such realignment, the applicant shall bear full cost of such acquisition.	10. N/A
11. The use of decorative paving such as brick, interlocking pavers or coloured concrete is encouraged as these materials can enhance the appearance of the street and signify to motorists its residential function and corresponding appropriate driver behaviour.	11. Noted. Threshold treatments will be used on intersections to emphasis the street hierarchy and slow down the traffic on the intersection of Road 03 and Road 04, Road 09 and Road 04 and Road 01 and Road 05. For details please refer to **APPENDIX C: LANDSCAPE MASTER PLAN**
12. Where cul-de-sacs are included in road design, when all other options are considered, alternative cul-de-sac heads that may be considered are square offset, T-Heads and Y-Heads.	12. Noted.
13. Include appropriate traffic calming devices on the collector roads.	13. Note. See Item 11 above.
14. Roads should be placed between houses and open space areas/vegetation conservation areas to provide a buffer separation for fire management and vegetation preservation along with passive surveillance benefits.	14. Edge roads are used along all open space/vegetation conservation areas to provide appropriate buffers and passive surveillance.

7.2.2 RURAL

Not Applicable

7.2.3 HEAVY VEHICLE HAULAGE DEVELOPMENT ROUTES

CRITERIA	COMMENTS
Not Applicable	
7.3 DRAINAGE AND SOIL AND WATER MANAGEMENT	
7.3.1 DRAINAGE (URBAN)	
Adequate measures designed in accordance with Council's Standards for Engineering Works, July 1996, must be made during construction to ensure the land is stabilised and erosion is controlled, until the site is satisfactorily landscaped. A plan identifying the location of stabilisation methods such as stacked hay bales and sedimentation fences or geotech fabric may be required by Council prior to the release of any plans. Applicant shall have regard to the Stormwater Management Plan, April 2000. A copy is available for perusal at Council. Relevant matters to be considered are: – urban run-off – interlot drainage – design criteria – erosion sedimentation – floodways and retention basins – stormwater runoff from roofs and paved areas is to be collected on-site and retained where appropriate or disposed of to the street drainage system, drainage easement, natural drainage course or infiltration trenches to the satisfaction of Council.	Complies A Water Cycle Management Study and Soil and Water Management Plan Report has been prepared to ensure that the development complies with Council's Standards for Engineering Works, July 1996, A Water Cycle Management Study and Soil and Water Management Plan Report has been prepared to ensure the development identifies the location of stabilisation methods such as stacked hay bales and sedimentation fences or geotech fabric. A Water Cycle Management Study and Soil and Water Management Plan Report has been prepared to ensure the development complies with the Stormwater Management Plan, April 2000. A Water Cycle Management Study and Soil and Water Management Plan Report has been prepared and all relevant matters have been considered. For further details please refer to **APPENDIX G: WATER CYCLE MANAGEMENT STUDY AND SOIL** and **APPENDIX H: WATER MANAGEMENT PLAN REPORT**
7.3.2 WATER SENSITIVE URBAN DESIGN (URBAN)	
1. Principles of water sensitive urban design to be incorporated into subdivision design. 2. Development must comply with the neutral or beneficial effect on water quality test (Drinking Water Catchments Regional Environmental Plan No. 1) 3. Drainage lines are to focus on the "natural" or existing drainage lines and integrated into the open space network. 4. Drainage design is to minimise run off into vegetation conservation areas to assist with ongoing preservation. 5. Drainage corridors are to be dedicated as drainage reserves at the developers cost and free of charge to Council. Drainage reserves are classified as "operational" land under the Local Government Act 1993. 6. Detentions basins are required upstream of development (eg. Mary's Mount Road) to regulate	Complies 1. See **APPENDIX G: WATER CYCLE MANAGEMENT STUDY** and **APPENDIX H: SOIL AND WATER MANAGEMNET PLAN** for details on Stormwater control and management strategies. The report assesses the effect of the proposed development on water quality and provides recommendations to satisfy the requirements of the *State Environmental Planning Policy (Sydney Drinking Water Catchments) 2011* (SEPP). 2. Stormwater modelling has been undertaken for the site which has recommended the use of rainwater tanks, rain garden systems and water quality ponds as part of the Stormwater management within the site to achieve a neutral or beneficial effect on water quality within the catchment. 3. /4/5. The drainage reserve (to be dedicated to council upon subdivision of the land) is to be maintained as a "natural" open channel utilizing grassed batters,

CRITERIA	COMMENTS
and control the runoff back to rates equal with "natural" runoff. Detention basins may also be required to regulate and control runoff to rates equal with "natural" runoff. 7. Detention ponds and other stormwater treatment devices are to be "offline" and "at source" to ensure stormwater runoff is treated prior to entering these areas. 8. Use of rainwater tanks will assist with minimising runoff associated with minor rainfall events. 9. Stormwater drainage systems are to be designed in accordance with Council's Engineering Standards for Engineering Works 1996. 10. The piped drainage system to be designed for a 1 in 5 year storm event. Higher order storms events to be based on overland flow systems along "natural" drainage lines.	quarried rock and the integration of water quality improvement ponds. 6. Detention basin facilities are proposed to be contained within the drainage reserve in the form of the water quality ponds having a dual purpose. 7. Large bio-retention basins are proposed to be "offline" from the upstream external catchments. 8. Rainwater tanks are proposed for all new dwellings. 9. /10. All Stormwater design is proposed to be in accordance with the Goulburn Mulwaree Council's *Development Design Specification: D05 Stormwater Drainage Design*.
7.3.3 SOIL AND WATER MANAGEMENT	
1. Development proposals where the area of disturbance is less than 2500m² require an Erosion and Sediment Control Plan (ESCP) (written document and site diagrams) that indicates measures to minimise erosion and sedimentation. 2. Development proposals where the area of disturbance is 2500m² or greater should be accompanied by a Soil and Water Management Plan (SWMP) (written document and site diagrams), prepared by a suitably qualified person(s), that clearly identifies the constraints of soil erosion, sediment pollution and stormwater pollution. 3. The SWMP should contain appropriate Best Management Practices that recognise site constraints and support ESD principles. The plan should include: – soil conservation and pollution/nutrient control measures to be installed prior to clearing and earthworks and maintained until landscaping measures are complete – protection measures for site access and exits . – catchment drainage characteristics of existing and proposed drainage patterns – protection of existing overland flow paths, watercourses, stormwater kerb inlets and drains. – upslope clean surface runoff diversions around the disturbed areas – staggered site works to minimise disturbance	1. **N/A -** The area of disturbance is more than 2500m². 2. **Complies -** A concept SWMP has been prepared for the development and documented under **APPENDIX G: WATER CYCLE MANAGEMENT STUDY.** 3. **Complies -** As per item 2. 4. **Complies -** The SWMP for construction is to be implemented in accordance with the best practice guidelines *"Managing Urban Stormwater: Soil and Construction"*. 5. N/A 6. Noted. 7. Complies - Proposed plant species are non-invasive Refer Section 2.6 Vegetation removal and planting. 8. N/A

CRITERIA	COMMENTS
– rehabilitation and stabilisation of the disturbed areas – measures to minimise the impacts of agricultural practices (such as the use of fertilisers, cultivation practices, tree clearing and pasture management) 4. The SWMP should detail means to achieve no net increase in pollution of downstream waters through the use of Best Management Practices. 5. The Plan should balance the management of runoff between farm dam storage and the needs of the downstream environment. 6. Development of slopes greater then 20% should be avoided. Lands with slopes greater than 20% and having soil landscapes with a moderate to high soil erosion hazard are considered as sensitive areas. Development should minimise disturbance to these areas by minimising areas of cut and fill to depths of 1m. Development proposals within these areas should be accompanied by: – an evaluation of the site stability (i.e. a geotechnical report) – a schedule of earthworks – details or appropriate construction techniques 7. Plant species which are non-invasive to bushland should be used in landscaping and soil and water management works. 8. All development proposals on potentially agricultural land should be accompanied by an assessment of the agricultural capability of soils on the property and the effect of the development on the agricultural capability of these soils.	
7.4 SITE SPECIFIC PROVISIONS	
Not Applicable	
7.5 EASMENTS	
Easements shall be required pursuant to section 88B of the Conveyancing Act 1919, as follows: 1. sewerage and water supply easements shall be created over all existing and proposed sewer and water lines 2. where applicable, easements for batter and support shall be created over lots in accordance with approved engineering plans	Complies Easements will be provided as required and will be detailed at Construction Certificate stage.

CRITERIA	COMMENTS
3. all existing and proposed rights of carriageway shall be legalized. 4. easements for electricity purposes, if required, shall be created over existing and proposed electricity lines 5. drainage reserves (or easements in exceptional circumstances) shall be created over proposed stormwater drainage lines (including floodways), in accordance with the Council's standards 6. easements and reserves shall be dedicated to Council free of cost and appropriately indicated on the plan of subdivision The final plan of survey and other associated instruments plus six copies, suitable for registration with the Department of Lands, shall be submitted to Council for endorsement prior to the development commencing operation.	
7.6 STAGING OF DEVELOPMENT IN URBAN RELEASE AREAS	
Not Applicable	
8 SITE SPECIFIC PROVISIONS	
8.1 MARY'S MOUNT	
8.1.2 Constraints	
8.1.2.1 EUROPEAN HERITAGE	
In the LEP 2009, Schedule 5 the following heritage items have been identified: – 133 Mary's Mount Road; and – 38 Mary's Mount Road. All development proposals involving these sites are subject to clause 5.10 of LEP 2009. It will also be necessary to impose design guidelines for future residential development in the vicinity of these items to ensure that the new development does not compromise the elements of heritage significance. The Ledgerville property also has some local heritage value and a similar approach is to be taken.	Complies The site is mapped as containing item No. 238 "Teneriffe" under the Schedule 5 of the *GMLEP2009*. A Conservation Management Strategy has been created for the site and is documented under **APPENDIX J: CONSERVATION MANAGEMENT STRATEGY.** The proposed design is compliant with recommendations of the management strategy and provides appropriate buffers to the heritage item in order to protect the heritage significance of the site. The proposed development stays clear from the heritage curtilage of heritage item. The closest property to the heritage item is at least 80m.
8.1.2.2 ABORIGINAL HERITAGE	
According to the studies completed for Goulburn on Aboriginal archaeology and site location, no aboriginal sites have been identified in the Mary's Mount area. However, there may be potential for some sites near the Wollondilly River.	Noted Please refer to **Appendix I: ABORIGINAL HERITAGE DUE DILIGENCE REPORT** for further details.
8.1.2.3 CONTAMINATION	
Not Applicable	
8.1.4 SUBDIVISION REQUIREMENTS	
8.1.4.1 SITE AREA	
1. Battleaxe lots are generally not supported. In calculating the area of a battleaxe allotment, the	Complies

CRITERIA	COMMENTS
access way, which includes any rights-of-carriageway/access, are to be excluded. 2. Allotments should be able to accommodate a building envelope of 150m2 with the minimum dimensions of 10m by 15m, within a 6m front building setback and a 1m side and rear setback and clear of any easements. 3. Minimum lot size is 700m². 4. Minimum lot size does not apply to the subdivision of individual lots in a strata or community title scheme or individual lots that are to be used for attached dwellings, multi dwelling housing or semi-detached dwellings.	1. Only one battleaxe lot is proposed. This is due to the odd shape of the south west corner of the site where access in close proximity to the roundabout at Mary's Mount Road is not desirable. The subject block, being Lot T11, has a battleaxe access from Road 02 but frontage to the Road 01 and Mary's Mount Road. 2. All 700m^2 and greater allotments are capable of accommodating a 10m x 15m building envelope and compliant setbacks. 3. All blocks are 700m^2 or greater. 4. Noted.
8.1.4.2 LOT ORIENTATION	
a. SOLAR ACCESS The following design techniques are to be adopted to maximise opportunities for solar access to allotments and to allow for the consequent design and siting of energy efficient houses. i. Align streets east-west and north-south. Aim for north-south streets within 20 west and 30 east of true north and east-west streets within 30 south and 20 north. ii. Allotments on east-west orientated streets need to have greater depth and width to make best use of solar access. iii. Allotments on the south side of a street should have a sufficient depth so that buildings can be set well back to allow north facing rooms to look onto larger front yards. iv. Allotments on south-north streets to be of sufficient width to allow for private open space on the north side and for houses to be built on the south boundary. v. Taking into account views and topography, lot orientation and layout should enable the majority of dwellings to be designed so that the main living area receives not less than 4 hours of sunlight per day between 9am and 3pm. vi. Regular rectangular shaped allotments maximise site opportunities and increases potential lot yield vii. On sloping sites, north-facing sites improve the opportunities for solar access. *b. PASSIVE SURVEILLANCE* i. Lots shall face toward public open space areas, vegetation conservation areas and public roads. Where this cannot be achieved	Complies a. Solar access has been maximized for all allotments through optimal orientation of street alignments and the provision of appropriately sized and regular allotments. Optimal passive surveillance has been achieved through maximizing the number of lots facing towards the drainage reserve and all other open spaces. b. All lots have frontage to public roads or public open space. On street parking, wide verges and regular street planting are used to define human scale in all streets and provide a safe and predictable environment for all users including cars and pedestrians.

CRITERIA	COMMENTS
open style fencing is required to promote passive surveillance of public open space and public road area with some landscape screening to provide privacy. ii. Visually contain the carriageway to promote steady, predictable traffic speeds by: – Encouraging hedging or front fences; – Using upright kerbs; – Provide on-street parking; – Providing wide verges; – Planting street trees at regular spacing within the carriageway or verge; – Only use narrow streets, when lot frontages are wide (at least 15m).	
8.1.4.3 BICYCLE AND PEDESTRIAN MOVEMENTS	
1. Provision for bicycle and pedestrian movements are to be provided throughout the area. 2. Provide footpaths on both sides of the street. They must be provided in accordance with Council's Standards for Engineering works. 3. Cyclists can be integrated into the road network through a combination of on and off-road measures together with bike parking and clusters of community and commercial facilities (Refer to Council's Bicycle Strategy 2008-2018). 4. On -road and off-road cycle networks will be clearly highlighted with signposting and pavement logos.	Complies 1. 2.5m wide shared footpath is provided on the eastern verge of Road 01 that will connect to the neighboring property to the east. 2. 1.5m footpaths are provided on each side of all roads. 3. 2.5m wide shared footpath is provided on the eastern verge of Road 01 along the drainage reserve. 4. Noted.
8.1.4.4 STREETSCAPE	
1. A 5m landscape buffer area is to be provided along each side of Mary's Mount Road. Dedication of this land to Council will attract offsets as provided for in the Section 94 Plan. This area will be planted with suitable native tree species to promote reestablishment of threatened or endangered species. A list of preferred planting species tree species is included in Appendix B. 2. Existing trees are to be retained where possible and appropriate. 3. Existing trees should be located near boundaries of proposed allotments to avoid conflict with proposed building envelopes (refer to Council Policy- Bushfires and Vegetation Controls). 4. Streetscape planting themes are to be developed based on native tree species suitable for the locality in an urban context.	Complies 1. 5m landscape buffer has been provided along Mary's Mount Road. 2. No mature trees but one(1) is to be removed as part of this application. 3. Noted. 4. Variation sought – native tree species are only proposed for the streets facing the protected Box Gum Woodland. Native trees will not provide adequate solar access to adjacent lots, the exotic trees proposed are not invasive and are proven to be suitable to the urban conditions of street verges. The proposed exotic street trees will have lower maintenance and replacement requirements than native tree species in the verge conditions. Street trees have not been proposed for verges fronting the

CRITERIA	COMMENTS
5. Use robust tree guards to protect immature trees. 6. Dwellings situated on major roads may require some separation from the carriageway to protect their amenity. Dwellings, rather than rear fences, should face all types of roads to increase their visual appeal. Separation may be provided by a slip road that provides access along Mary's Mount Road. 7. As an alternative, increased separation may also be provided along Mary's Mount Road by providing an increased landscaped buffer of up to 10ms (Refer to Section 8.1.5.2 Collector Roads). 8. Extensive landscaping to arterial and collector roads in order to soften their appearance and create a more attractive environment for users. 9. Landscaping of arterial with slip roads should include major trees within a central median, in a landscaped strip between	open space to allow the native open space trees to be planted up to the edge of the road reserve. 5. All street trees are located in the verge, appropriate staking and tree guards will be specified during detailed design. 6. No dwelling is proposed as part of this application. Proposed lots however, have minimum depth of 30m which will provide for generous rear and front setbacks. Only five (5) blocks facing the Mary's Mount road. Please refer to **APPENDIX C: LANDSCAPE MASTER PLAN** for detail of proposed fencing. 7. Noted. 8. Noted. 9. Noted.
8.1.4.5 OPEN SPACE	
a. Open space should be dispersed throughout the locality to ensure equity of access for residents. b. Areas identified as being a drainage line shall be set aside as a drainage reserve and the open space network shall be focused on these drainage lines. c. Drainage lines are to be re-established as 'natural' watercourses largely through revegetation with native species. d. Environmental Management plans for natural areas are to be prepared particularly for the watercourses and areas of remnant vegetation. e. Council's Leisure- Recreation and /social Planning Study identifies that there is sufficient active recreational reserves and sports grounds provided elsewhere in the City. f. Goulburn Mulwaree Contributions Plan details community facilities and open space requirements.	Complies a. All proposed lots have good access to open space/the drainage reserve. b. The eastern open space is focused on the drainage reserve. c. The subdivision has been designed to be responsive to the major drainage system and follows drainage lines. It is understood that any drainage line with less than $3m^3$ of flow can be incorporated into an engineering solution. d. Noted. e. Noted. f. Noted. All proposed blocks have at least one(1) open space within 400m radius walking distance.
8.1.4.6 SITES OF VISUAL IMPORTANCE	
Subdivision design must address sites of visual importance and demonstrate how they will be protected or enhanced. The sites that have been identified, include: a) Monastery Hill; b) Ridgelines;	Not applicable.

CRITERIA	COMMENTS
c) Vegetated hilltops.	
8.1.4.7 WATER SENSITIVE URBAN DESIGN	
a. Development must comply with the neutral or beneficial effect on water quality test (NorBE) (Refer to State Environmental Planning Policy Sydney Drinking Water Catchment 2011). b. Drainage lines are to focus on the 'natural' or existing lines and integrated into the open space network. c. Drainage design is to minimise run off into vegetation conservation areas to assist with ongoing preservation. d. Drainage corridors are to be dedicated as drainage reserves at the developers cost and free of charge to Council. Drainage reserves are classified as 'operational' land under the Local Government Act 1993. e. Detention basins are required upstream of Mary's Mount Road to regulate and control the runoff back to rates equal with 'natural' runoff. Detention basins may also be required to regulate and control runoff to rates equal to with 'natural' runoff. f. Detention ponds and other stormwater treatment devices are to be 'offline' and 'at source'. g. Stormwater drainage systems are to be designed in accordance with Council's Engineering Standards for Engineering Works 1996. h. The piped drainage system to be designed for a 1 in 5 year storm event. Higher order storm events to be based on overland flow systems along 'natural' drainage lines.	Complies a. A Water Cycle Management Study has been prepared to demonstrate the developments achievement of NorBE. b. Overland flow paths typically follow natural flow paths and have been integrated into the open space network. c. Drainage design has been carried out to divert all runoff through treatment devices. d. Drainage corridors, will be dedicated as drainage at the developers cost and free of charge to Council. Drainage reserves are classified as 'operational' land under the *Local Government Act 1993*. e. A combined wetland OSD pond has been designed upstream of Mary's Mount Road to regulate and control the runoff back to rates equal with 'natural' runoff. Detention basins may also be required to regulate and control runoff to rates equal with 'natural' runoff. See **APPENDIX G: WATER CYCLE MANAGEMENT STUDY** for details on Stormwater control and management strategies. The report assesses the effect of the proposed development on water quality and provides recommendations to satisfy the requirements of the *State Environmental Planning* Policy (*Sydney Drinking Water Catchments*) *2011* (*SEPP*).
8.1.5 GENERAL ROAD PROVISIONS	
All access and road layouts will generally conform to the Indicative Road Layout Plan Figure 8-4, Transport Movement Hierarchy Figure 8-5 and: a. Give consideration to NSW Road Noise Policy (July 2011); b. Give consideration to Council's Standards for Access Driveways and Parking Areas (2001); c. Be designed and constructed in accordance with Council's Standards for Engineering Works (July 2009); d. Should border all open space areas to provide a buffer separation;	Complies a. Noted. b. All access driveways and parking areas are in accordance with Council's Standards for *Access Driveways and Parking Areas 2001*. c. Design adheres to Council Standards for engineering works. d. All open spaces have an edge road e. Noted. f. N/A g. WSUD practices taken into account by layout, crossfalls and relationship to drainage reserve. h. Noted.

CRITERIA	COMMENTS
e. All proposed road, splay and road widening shall be dedicated to Council, free of cost as public roads; f. Where the design of the access road involves realignment, provided the Council agrees to acquire adjoining land, which may be necessary to affect such realignment, the applicant shall bear full cost of such acquisition; and g. Take into account Water Sensitive Road Design Practices (Refer to Chapter 8.1.4.7). h. All roads will provide upright kerbs to prevent informal use of verges for car parking.	
8.1.5.2 COLLECTOR ROADS	
a. Collector roads will provide reference to the Indicative Road Layout Plan (Figure 8-4) b. Collector roads need to be designed to enable easy-way finding. They must demonstrate connectivity by generally being more direct than access roads. c. Collector roads are to have a minimum road reserve width of 30ms and a minimum pavement width of 10ms (Refer to Table 8.1 – Road Hierarchy). d. Entry statements (such as signage marking the 'gateway' to an estate) should be avoided or temporary (e.g. for the sales period only) as it effectively isolates the development. e. Collector roads must be designed to enable uses by buses and bus stops and should be located where there is likely to be passive surveillance at most times of the day and night (e.g. outside dwellings rather than in open space). f. Must provide street trees in line with Council's Standards for Engineering Works (July 2009). g. Street parking must be provided in the carriageway and in line with Council's Standards for Access Driveways and Parking Areas (2001). h. A minimum of 5ms of land should be provided to Mary's Mount Road to achieve an overall road reserve width of 30ms. This provides the necessary width required to provide for the carriageway, footpaths, bicycle path and landscaping. i. Direct access to Mary's Mount Road from private property is prohibited. j. Mary's Mount Road is part of the stock route network connecting Chinaman's Lane/Crookwell Road to Middle Arm Road. This	Complies a. Collector Road provided as per **Figure 8-4**. Connection for future development to the east provided for. b. N/A – No Collector Road is proposed as part of this application. c. N/A – No Collector Road is proposed as part of this application. d. Noted. e. N/A – No Collector Road is proposed as part of this application. f. Noted. g. No specific street parking provided, parking on carriageway. h. Noted. i. No block has direct access from Mary's Mount Road. j. N/A

CRITERIA	COMMENTS
can be provided as part of the landscaped roadside verge area.	
8.1.5.3 ACCESS ROADS	
a. Access roads should prioritise pedestrians and cyclists- they should provide a pleasant environment that encourages walking and social interaction. b. Houses on access road corners should address both street frontages. c. Avoid cul-de-sacs wherever possible. If they are used: – Limit their length so the end point is visible from the access point; – Provide access to 10 house at the most – Avoid cul-de-sac at activity centres (i.e. near shops) & where they would limit direct access to transport. d. Level 1 Access Roads are roads servicing more than 15 lots and that have direct access to a collector road are to have a minimum road reserve width of 20ms and a pavement width of 9ms, unless the road has: – Trees in the verge, a pavement width of 9.6m are required; – With trees in the carriageway + verge, a pavement width of 9.6m is required; – With parking bays, a pavement width of 10.4m is required; – With trees in the carriageway and swales, a pavement width of 9.6m is required. e. Level 2 Access roads are roads servicing more than 15 lots are to have a minimum road reserve width of 18ms and a pavement width of 9ms, unless the road has: – Trees in the verge, a pavement width of 9.6m are required; – With trees in the carriageway + verge, a pavement width of 9.6m is required; – With parking bays, a pavement width of 10.4m is required; – With trees in the carriageway and swales, a pavement width of 9.6m is required. f. Level 3 Access Roads are roads servicing less than 15 lots are to have a minimum road reserve width of 15ms and a pavement width of 6ms.	Complies a. Generous verges and footpaths are provided across the estate that encourages walking and social interaction. b. No dwelling is proposed as part of this DA. c. Variation sought – The proposal only includes one Cul-de-sac as the result of the odd shape of the site on the south west corner. The Cul-de-sac head however, has an open end providing pedestrian access to Mary's Mount road. d. Variation sought – the trunk road has been designed with a road reserve width of 19m comprising 9m carriageway and 5m verges on each side. While facing the open space the verge increases to 7m wide on eastern side and 3m on western side. The 7m verge incorporated 2.5m wide shared path. e. Variation sought – the access road has been designed with a road reserve width of 17.5m comprising 6m carriageway and 5.75m verges on each side. The generous verges are to slow down the traffic and provide pedestrian friendly streets. The deep verges also allow parking on the driveways that reduces the need for wide carriage way. Indented parking spots to be incorporated to the verge. f. Complies.

CRITERIA	COMMENTS
8.1.5.4 INTERSECTIONS	
a) Design intersections to reflect street hierarchy. b) On collector and access roads use four-way intersections where possible. c) Avoid roundabouts wherever possible by: – ensuring the design indicates the presence of the intersection on all approaches; and – using short block lengths (<70metres) on access roads.	a) **Complies –** Street hierarchy has been taken into consideration while designing the intersections. b) **Complies -** Threshold treatments will be used on intersections to emphasise the street hierarchy and slow down the traffic on the intersection of Road 03 and Road 04, Road 09 and Road 04 and Road 01 and Road 05. For detail please refer to **APPENDIX C: LANDSCAPE MASTER PLAN.** c) **Complies –** No roundabout has been proposed as part of this application.
8.1.5.5 Road Hierarchy	
a) Figure 8-4 & 8-5 illustrate the arterial roads, cycle-ways, existing and future collector roads. b) All developments in the precinct are required to contribute towards the upgrading of collector and arterial roads.	a) Noted. b) Noted.
8.1.8.2 OVERALL LANDSCAPE STRATEGY	
a) Figure 8.3 shows the areas that need protection and enhancement for the Mary's Mount precinct. They include: i. ridgelines and steep land; ii. remnant vegetation areas; iii. riparian area; iv. drainage reserve areas; v. neighbourhood riverside park; and vi. cycle ways b) Chapter 3.3 of this plan sets out detailed landscaping requirements c) Stage one residential release area is affected by extensive drainage reserves and Stage Two residential release area is affected by steep land. d) All developments in the precinct are required to contribute towards the enhancement of drainage reserve areas, cycle-ways and the neighbourhood riverside park.	a) **Complies –** As stated previously, only one major drainage line crosses the south eastern corner of the site which will be enhanced through re-establishment. b) Noted. c) Noted. d) **Complies –** The proposal provides for a network of open space and connections to the adjoining developments' recreation and open space area. A 2.5m wide shared path also runs along the trunk road contributing to the network of the cycle-ways along Mary's Mount Road precincts. Proposed shared path connects to the similar path on 129 Mary's Mount Road to the east and the cycle path along the drainage reserve on 164 Mary's Mount Road connecting to the riverside park. e) **Complies.**
8.1.8.3 PASSIVE AND ACTIVE RECREATION AREAS	
a) Figure 8.3.2 shows the recreation network consisting of: i. drainage reserves to be used as passive and active recreation areas; ii. cemetery reserve iii. passive remnant vegetation areas to be protected and enhanced; and iv. the precincts active neighbourhood riverside park site. b) Stage 1 of the residential release area is directly affected by extensive drainage reserves and stage 2 by the cemetery reserve. Drainage reserves are subject to the provisions of Chapter 7.3 of this plan.	a) Complies – Refer **APPENDIX C: LANDSCAPE MASTER PLAN.** i. Passive and active recreation opportunities are provided along the drainage reserve. ii. N/A. iii. Complies. iv. N/A. b) Noted. c) N/A

CRITERIA	COMMENTS
c) The part of stage 2 (figure 8-3) that is the cemetery reserve extension should be excluded from potential residential development. Dedication of such land by future applications would be treated as a 'material public benefit' for the purpose of Goulburn Mulwaree s94 Development Contributions Plan 2009.	

The proposed subdivision will be carried out in accordance with the requirements of Council's DCP. The subdivision has been designed in keeping with the aims and prescriptions detailed within this document. The proposed layout is considerately designed and sensitive to the surrounding environment. All of the site constraints noted within Section 1 of this document have been taken into account as part of the subdivision design, and appropriate building envelopes can be achieved on each lot. Council will impose conditions of consent relating to the required subdivision works required on-site.

3.4.2 Section 94 Plan

Section 94 of the *New South Wales Environmental Planning and Assessment Act 1979* enables council to levy development contributions towards the cost of providing public services and amenities which will meet demands generated by new development.

3.5 ANY MATTERS PRESCRIBED BY THE REGULATIONS

3.5.1 Clause 92(1)(b) Application for Demolition

No demolition is proposed under this DA.

3.6 LIKELY IMPACTS OF THE DEVELOPMENT

The proposal is unlikely to result in any significant adverse impacts on the existing natural or built environment. The site constraints and potential environmental impact have been discussed throughout this report and supporting specialist studies. Standard conditions of development consent adequately address potential impact of the proposal.

All essential services are available to the site, and no adverse impacts are considered likely in relation to the amenity of future adjoining residential allotments. The proposal demonstrates compliance with the relevant provisions of Council. Where variation has been sought, demonstrated compliance with principles and objectives of the control provides evidence that no adverse impacts are likely to occur.

3.7 SITE SUITABILITY

It is submitted that the subject site possesses sufficient capacity and characteristics to accommodate the proposed development. The proposal has been designed in association with the character and forms of development envisaged for the site within *GMDCP 2009.*

The site is zoned for residential purposes and contains land suitable for residential development. The proposal complies with all State and Local Environmental Planning Instruments relevant to the site, and also complies with the NSW Government's and Goulburn Mulwaree Council's planning policies. As highlighted throughout this report and

within the attached specialist reports, there are no site constraints that would preclude residential development. The site is suitable for the proposed development.

3.8 SUBMISSIONS

Goulburn Mulwaree Council will need to consider any submissions made in accordance with the Act or Regulations.

3.9 THE PUBLIC INTEREST

The development is considered to be in the public interest through the contribution to land supply in Goulburn. The proposal will provide a range of residential housing options to assist meeting housing demands.

The proposal will also protect and facilitate a large drainage reserve area. By providing landscaping, pedestrian and bicycle access to this reserve, the proposal will encourage active travel, walking and also recreational opportunities for residents and those in the broader community.

The subdivision layout has been designed considering the site constraints and adjoining land. The proposal is considered to be in the public interest.

4 CONCLUSION

4.0 CONCLUSION

As reflected in this Statement of Environmental Effects, the proposal is unlikely to result in any significant adverse impact on the environment. The proposed development is generally consistent with all relevant statutory planning requirements and is permissible with the consent of the Consent Authority. In particular, the development satisfies the objectives *GMLEP 2009* and relevant chapters of the *GMDCP 2009*. Having regard to the above considerations and others within this submission, it is submitted that the grant of Development Consent in relation to the proposed development is warranted.

SPACELAB Studio

November 2017

5 APPENDICES

5.0 APPENDICES

Appendix A: SURVEY PLAN

Appendix B: PROPOSED SUBDIVISION PLANS

Appendix C: LANDSCAPE MASTER PLAN

Appendix D: TREE MANAGEMENT PLAN

Appendix E: FLORA AND FAUNA ASSESSMENT

Appendix F: ENGINEERING ASSESSMENT

Appendix G: WATER CYCLE MANAGEMENT STUDY

Appendix H: SOIL AND WATER MANAGEMENT PLAN

Appendix I: ABORIGINAL HERITAGE DUE DILIGENCE REPORT

Appendix J: CONSERVATION MANAGEMENT STRATEGY

Appendix K: BUSHFIRE ASSESSMENT REPORT

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