



SPACE LAB
CREATING TIMELESS PLACES



STATEMENT OF ENVIRONMENTAL EFFECTS

LOT 5 DP 1199045

28 LONERGAN DRIVE, GREENLEIGH

June 2021 for PEET JUMPING CREEK PTY LTD



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PEET | SEE 001

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1.INTRODUCTION

1.0 INTRODUCTION

1.1 BRIEF

SPACELAB Studio Pty Ltd has been commissioned by **PEET JUMPING CREEK Pty Ltd** to prepare a Statement of Environmental Effects relating to proposed subdivision of 28 Lonergran Drive, Greenleigh at Jumping creek, Queanbeyan.

The DA seeks approval for:

- The subdivision of part Lot 5 DP 1199045, to create:
 - 218 residential lots;
 - 1 residual lot; and
 - Public road dedications.
- Design and construction of the proposed internal road network, including:
 - Internal local roadways;
 - On-street parking;
 - Pedestrian and cycle ways;
 - Road reserve landscaping; and
 - Services and stormwater drainage infrastructure.
- Provision of utility infrastructure such as stormwater drainage, sewerage, telecommunications and water;
- Grading of the site for final residential lots, landscape shaping, boundary interfaces and roadway levels;
- Construction of pedestrian/cycleway and maintenance trails;
- Construction of bio-retention basin, sedimentation basins and wetlands; and
- Associated vegetation removal, street tree planting, landscaping, lighting and embellishments.

1.2 SITE ANALYSIS

1.2.1 SITE LOCATION AND CONTEXT

The land proposed to be subdivided is legally described as **Lot 5 DP 1199045** and is located at 28 Lonergran Drive, Queanbeyan, within the Queanbeyan Palerang Local Government Area, also known as Jumping Creek. From herein the land proposed to be subdivided will be referred to as the site. It is located approximately 3 km south-east of the Queanbeyan City Centre adjacent to EDE and to the north of Queanbeyan River. The locational context of the site is shown at **Figure 1**.

The site is surrounded by undeveloped land (nature reserve) to the north, east and south. Greenleigh Estate (low-density residential development) and EDE are located to the north west. To the west is the suburb of Karabar and the eastern bank of the Queanbeyan River.





Figure 1 | Site and Context

1.2.2 EXISTING SITE CONDITIONS

The site has historically been cleared for grazing and mining with some significant areas of bushland located in the north east at the periphery of the Cuumbeun Nature Reserve. A brief description of the existing site conditions is provided below.

Most of the Jumping Creek site comprises vacant grassland with scattered mature trees. The precinct is bordered by riparian corridors along its western boundaries associated with Queanbeyan River, and an unnamed tributary which centrally bisects the site.

The elevation of the site ranges from approximately 565 m Australian Height Datum (AHD) along the Queanbeyan River to 685 m AHD on the hill in the north-east of the site. The slope varies across the site, falling sharply around Valley Creek, the unnamed tributary, and their associated tributaries. In general, the land falls from outside to the inside, forming a bowl shape in the middle.

The site has been modified by its history of varying land uses, including mining, quarrying, and grazing/agriculture. These historic activities have substantially degraded the ecological values of the site, which is now largely dominated by exotic plants and disturbed land. The site has also been impacted more recently by other human activities, including off road vehicles and dumping of rubbish (e.g. abandoned cars, refuse). The existing access tracks and stock fences are in poor condition.

1.2.3 ZONING

Pursuant to the provisions of the *Queanbeyan Local Environmental Plan 2012 (QLEP 2012)*, the site is zoned part **E2 Environment and Conservation**, **E4 Environmental Living**, and **RE1 Public Recreation** as depicted in **Figure 2** below.

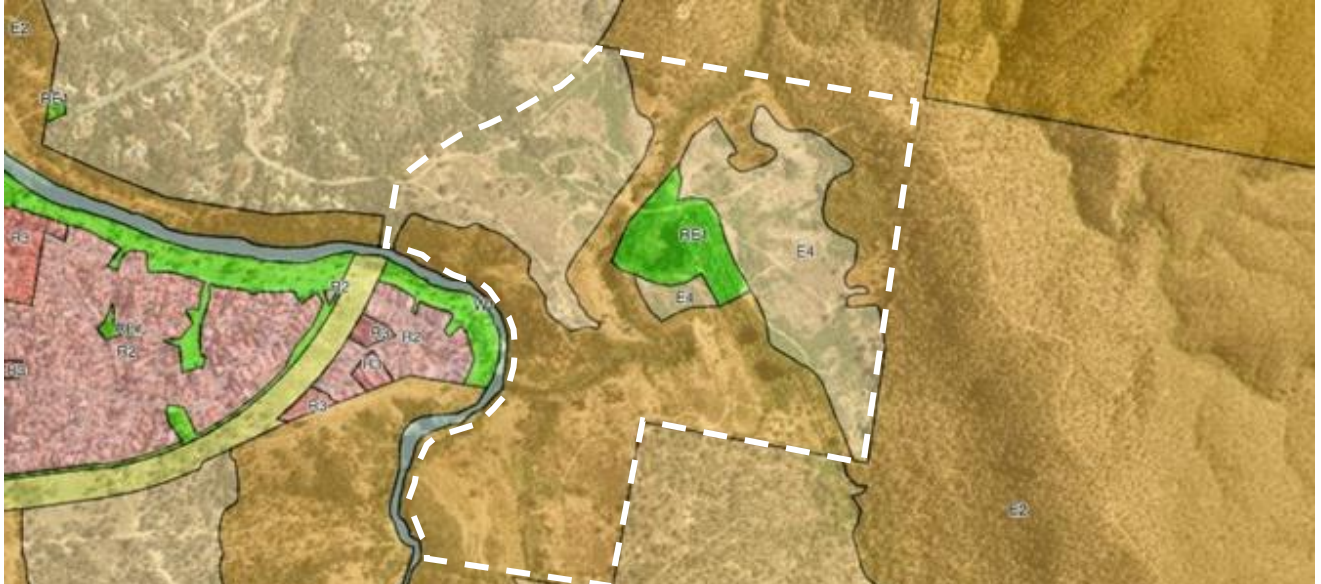


Figure 2 | Zoning Map

1.2.4 MINIMUM LOT SIZE

QLEP's lot size mapping identifies minimum lot of sizes of 600 m², 800 m², 1.5 ha and 40 ha for the site as set out in **Figure 3** below. A planning proposal has been submitted concurrent to this DA to reduce the minimum lot size for the part of the site that has been mapped with minimum lot size of AC.



Figure 3 | Minimum Lot Size



1.3 MAPPED CONSTRAINTS

1.3.1 TERRESTRIAL BIODIVERSITY

Parts of the site have been identified on the *QLEP's* Terrestrial Biodiversity Map. The identified areas correspond to those which retain a woody overstorey or which form part of the river or creek corridors as depicted in **Figure 4** below.



Figure 4 | Terrestrial Biodiversity

As mentioned before, the site has been utilised over an extended period for various purposes, including mining, quarrying and grazing/agriculture. As a result, much of it has been cleared and most of the vegetation which remains is highly modified and dominated by exotic species. There are some stands of relatively intact native vegetation within the site: these exist along sections of the riparian corridors, the higher elevated portions of the site, and the south-eastern boundary of the site. These areas support two Plant Community Types (PCTs).

- PCT1093 – Red Stringybark - Brittle Gum - Inland Scribbly Gum dry open forest of the tablelands, South Eastern Highlands Bioregion.
- PCT1334 – Yellow Box grassy woodland of the northern Monaro and Upper Shoalhaven area, South Eastern Highlands Bioregion.

Details of the existing vegetation communities and threatened species at the site are provided in the Ecological Report provided at **Appendix G**.

1.3.2 RIPARIAN LANDS AND WATERCOURSES

Under the *QLEPs* the site has been mapped as containing watercourses, being Jumping creek and Valley creek, which drain from catchments in the north and east of the site towards the Queanbeyan River. Based on information provided by Natural Resources Access Regulator (NRAR) NSW, the creek network flowing through the development consists of a 5th order stream and a 6th order stream prior to discharging into the Queanbeyan River, which is a 7th order stream.



Figure 5 | Riparian Lands and Watercourses

1.3.3 SCENIC PROTECTION

Under the *QLEP 2012* the north eastern corner of the site is subject to scenic protection.



Figure 6 | Scenic Protection



1.3.4 CULTURAL HERITAGE

The site has been mapped as containing archaeological values pursuant to *QLEP 2012*. Extensive studies of the Cultural heritage at the site and within the surrounding lands have been carried out for previous applications and the current application. As a result, a total of 59 Aboriginal recordings are listed on the Aboriginal Heritage Information Management System (AHIMS) around the site. A Cultural Heritage Assessment has been carried out by Navin Officer and is attached at **Appendix H**; this is a consolidated cultural heritage assessment report and considers previous assessments and archaeological surveys carried out by NSW Archaeology (2009) and Waters Consultancy (2016) for land around EDE Project. The 2016 study identified Valley Creek & Queanbeyan River Junction as a Resource Gathering and Camping Cultural Area and as a site of medium cultural heritage significance, the area was not precisely mapped but rather its general location was indicated by an elliptical shape drawn on an aerial photograph.

Further investigation including field survey was undertaken in September and October 2018 and recorded six new Aboriginal site locations, including five artefact locations and one scarred tree. Further detail is included in **Appendix H**.

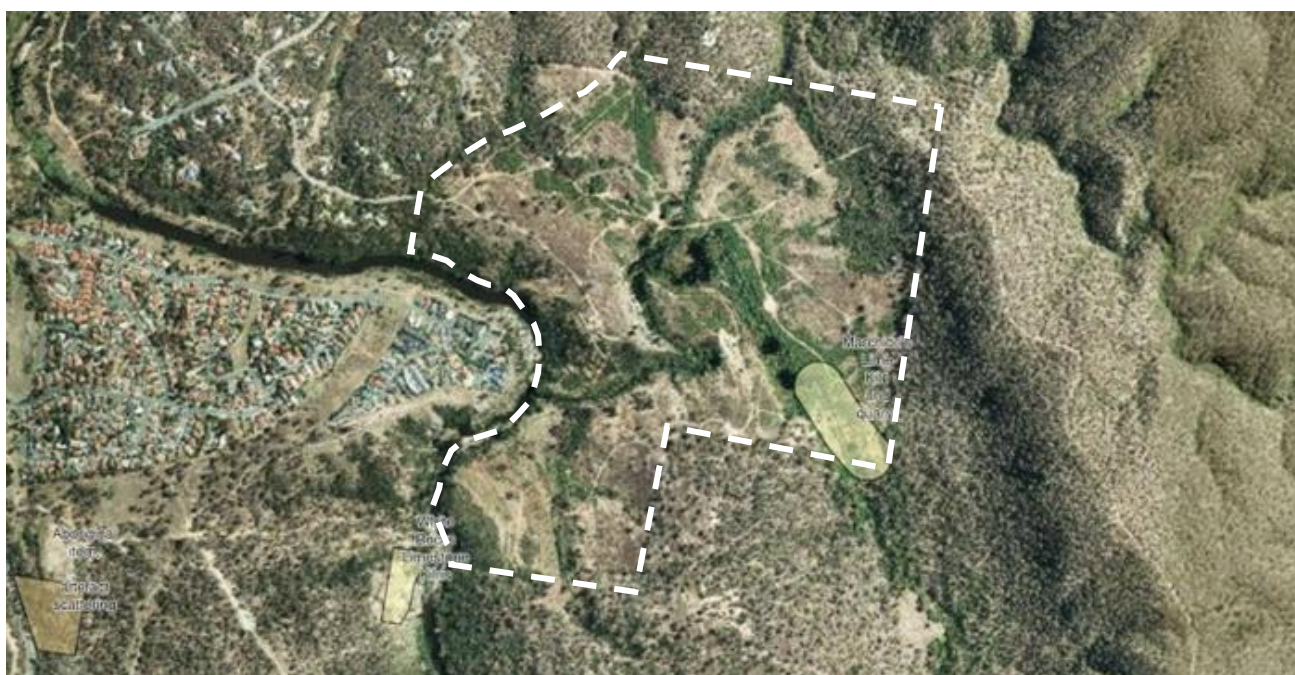


Figure 7 | Cultural Heritage

1.3.5 FLOOD PLANNING

Under the *QLEP 2012*, part of the site fronting the eastern bank of the Queanbeyan River is mapped as Flood Planning area. A Stormwater Management Strategy report including a flood modelling has been prepared by SPIIRE and is attached in **Appendix F**.

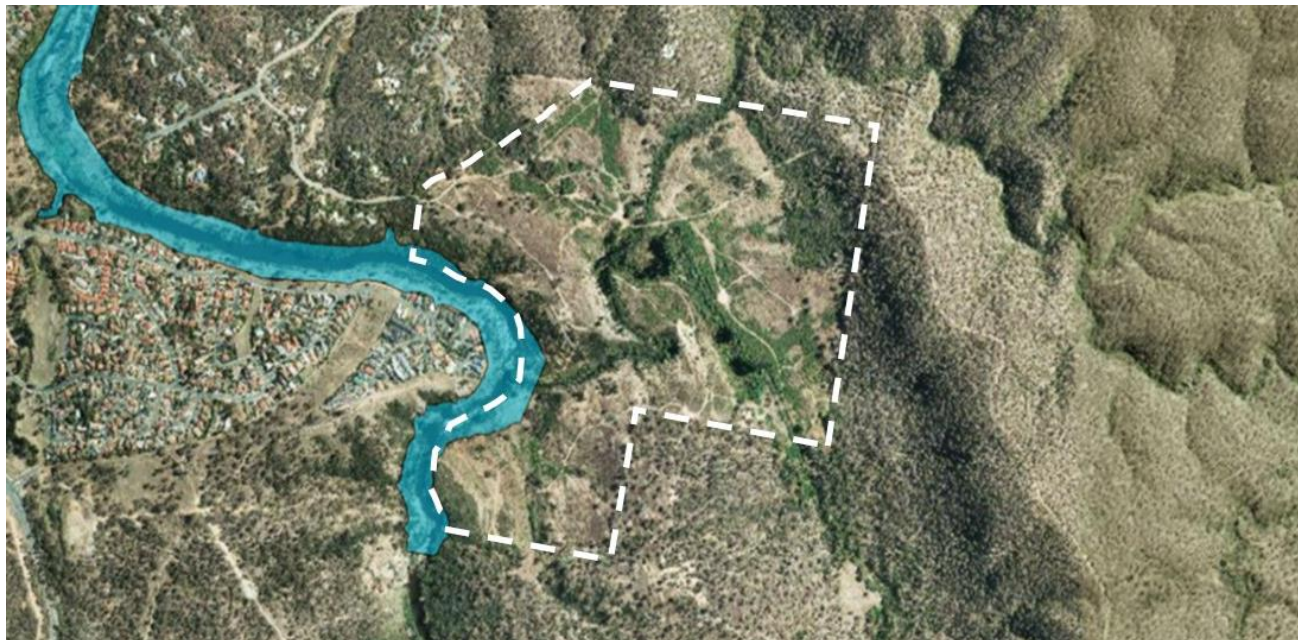


Figure 8 | Flood Planning

1.3.6 BUSHFIRE PRONE LAND

Pursuant to Council's mapping, the site has been mapped as containing vegetation category 1 and category 2.



Figure 9 | Bushfire Prone Land



The bushfire hazard within the site is predominantly associated with two vegetation groups: woodland vegetation to the northeast corner of the site, and grassland vegetation in the south and centre of the site, which comprises the gully systems of Jumping Creek, Valley Creek and the Queanbeyan River. Specific bushfire management, protection and mitigation strategies have been prepared and are discussed further in the Bushfire Protection Assessments (BPA) included at **Appendix I**.

1.3.7 CONTAMINATION

A site investigation has been conducted by Douglas Partners Pty Ltd to review all the existing reports and identify areas of contamination and Potential Areas of Environmental Concern (PAEC). Areas included for specific attention included:

- Mine sites 1, 3 and 4, consisting of mine shafts and waste rock and soil stockpiles;
- A former minerals processing area, which included rock and soil stockpiles and some remnant infrastructure;
- A former lime kiln, with remnant brick infrastructure; and
- A former sheep dip, which included remnant infrastructure.

Section 3.2 of this SEE contains an assessment of the proposal with respect to on-site contamination.

1.3.8 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 considers topographical and other physical features of the land.

1.3.9 COUNCIL PRE-LODGEEMENT MEETING

A formal pre-lodgement meeting for the subdivision of the site at Jumping Creek was held with Council on 12 December 2018, with a subsequent meeting on 31 January 2018. Council provided advice on the requirements of the development application, including deliverables required to satisfy council and planning instruments. Minutes from these meetings are provided at **Appendix M**.

1.4 APPROVALS SOUGHT

Approval for the proposed subdivision is sought pursuant to Part 4 of the *Environmental Planning & Assessment Act 1979*.

This application requires referrals and concurrences with other State agencies and departments under the *Environmental Planning and Assessment Act 1979* (EP&A Act) and other Environmental Planning Instruments (EPis) as outlined in following sections.

1.4.1 INTEGRATED DEVELOPMENT

The proposed development is “integrated development” in accordance with Section 4.46 of the EP&A Act. In addition to development consent, the development requires:

- Bushfire safety authority issued by the Commissioner of the Rural Fire Service (RFS), in accordance with Section 100B of the *Rural Fires Act 1997* (RFA 1997) since the proposal is on bushfire prone land;



- A controlled activity approval (CAA) may be required in accordance with section 91 of the *Water Management Act 2000* (WMA 2000), since the proposal involves works within “waterfront land” associated with the subdivision of land within 40m of a waterway. It is requested that the Department of Primary Industries - Water confirm the requirement of a CAA.
- An Aboriginal heritage impact permit issued by the Chief Executive under *Section 90* of *National Parks and Wildlife Act 1947* to allow impact on the existing aboriginal objects and sites.
- A permit issued by the Minister under *Section 219* of *Fisheries Management Act 1994* as the proposal involves construction of three creek crossings which may obstruct the free passage of fish.

1.4.2 DESIGNATED DEVELOPMENT

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

The use of rock walls for instream riparian stabilisation and creation of wetlands and stormwater detention areas along with a biofilter basin are artificial water bodies (schedule 1, clause 4.1); however, this proposal does not reach the surface area or volumetric limitations.

1.4.3 OTHER REFERRALS

Under Schedule 3 of State Environmental Planning Policy (Infrastructure) 2007 (ISEPP), the proposed development is defined as a traffic-generating development, since it proposes over 200 allotments and the opening of public roads. Under clause 104 of the ISEPP, the application is therefore required to be referred to Roads and Maritime Services (RMS).

1.5 ADVERTISING / NOTIFICATION

It is anticipated Council will undertake advertising of the proposal, pursuant to provision of *Queanbeyan Development Control Plan 2012*.

1.6 CONSENT AUTHORITY

Part 4 Regionally significant development of State Environmental Planning Policy (State and Regional Development) 2011 identifies certain classes of development as regional development for which the appointed Regional Planning Panels (RPPs) is the consent authority. Schedule 7 identifies that development with a capital investment value of more than \$30 million is regional development. The proposal has a capital investment value of \$31 million and accordingly is regional development with the Regional Planning Panels as the consent authority.





2. PROPOSED DEVELOPMENT

2.0 PROPOSED DEVELOPMENT

2.1 GENERAL OVERVIEW

This application seeks approval for the following development:

- The subdivision of part Lot 5 DP 1199045, to create:
 - 218 residential lots;
 - 1 residual lot; and
 - Public road dedications.
- Design and construction of the proposed internal road network, including:
 - Internal local roadways;
 - On-street parking;
 - Pedestrian and cycle ways;
 - Road reserve landscaping; and
 - Services and stormwater drainage infrastructure.
- Provision of utility infrastructure such as stormwater drainage, sewerage, telecommunications and water;
- Grading of the site for final residential lots, landscape shaping, boundary interfaces and roadway levels;
- Construction of pedestrian and maintenance trails;
- Construction of bio-retention basins, wetlands and sedimentation basins; and
- Associated vegetation removal, street tree planting, landscaping, lighting and embellishments.

Subdivision layout drawings detailing the proposed development are included at **Appendix B**.

2.2 SUBDIVISION AND LOT MIX

The proposed subdivision will create 218 residential lots in total, including 6 lifestyle large blocks and 212 standard residential blocks. Any subsequent dwellings on these lots will be subject to separate approvals. The area of each proposed lot is shown on the Subdivision Plans at **Appendix B**.

The lot layout has been informed by comprehensive analysis of the landform and its characteristics as described in chapter 1 of this report. The proposed lots are simple in shape with boundaries that are parallel or perpendicular to the slope of the land. The lot layout captures site opportunities such as desirable views, natural drainage patterns and slope. No Battle-axe lots are proposed.

The subdivision is proposed to be staged, as described below.

– Stage 1

The Stage 1 Deposited Plan is a subdivision of Lot 1 in DP1249543 created as part of the subdivision for EDE. The Stage 1 Deposited Plan creates 27 residential lots, various public roads and a large residual lot which will be utilised for future subdivision

– Stage 2A



The Stage 2A Deposited Plan is a subdivision of the residual lot created in the Stage 1 subdivision, described above. The Stage 2A Deposited Plan creates 18 residential lots, various public roads and a large residual lot which will be utilised for future subdivision

- **Stage 2B**

The Stage 2B Deposited Plan is a subdivision of the residual lot created in the Stage 2A subdivision, described above. The Stage 2B Deposited Plan creates 55 residential lots, various public roads and a large residual lot which will be utilised for future subdivision

- **Stage 3A**

The Stage 3A Deposited Plan is a subdivision of the residual lot created in the Stage 2B subdivision, described above. The Stage 3A Deposited Plan creates 43 residential lots, various public roads and a large residual lot which will be utilised for future subdivision.

- **Stage 3B**

The Stage 3B Deposited Plan is a subdivision of the residual lot created in the Stage 3A subdivision, described above. The Stage 3B Deposited Plan creates 63 residential lots, various public roads and a large residual lot which will be utilised for future subdivision.

- **Stage 3C**

The Stage 3C Deposited Plan is a subdivision of the residual lot created in the Stage 3B subdivision, described above. The Stage 3C Deposited Plan creates 12 residential lots, various public roads and a large residual lot which will be dedicated to the public as public reserve.

The components of each stage are depicted in **Figure 10** below.



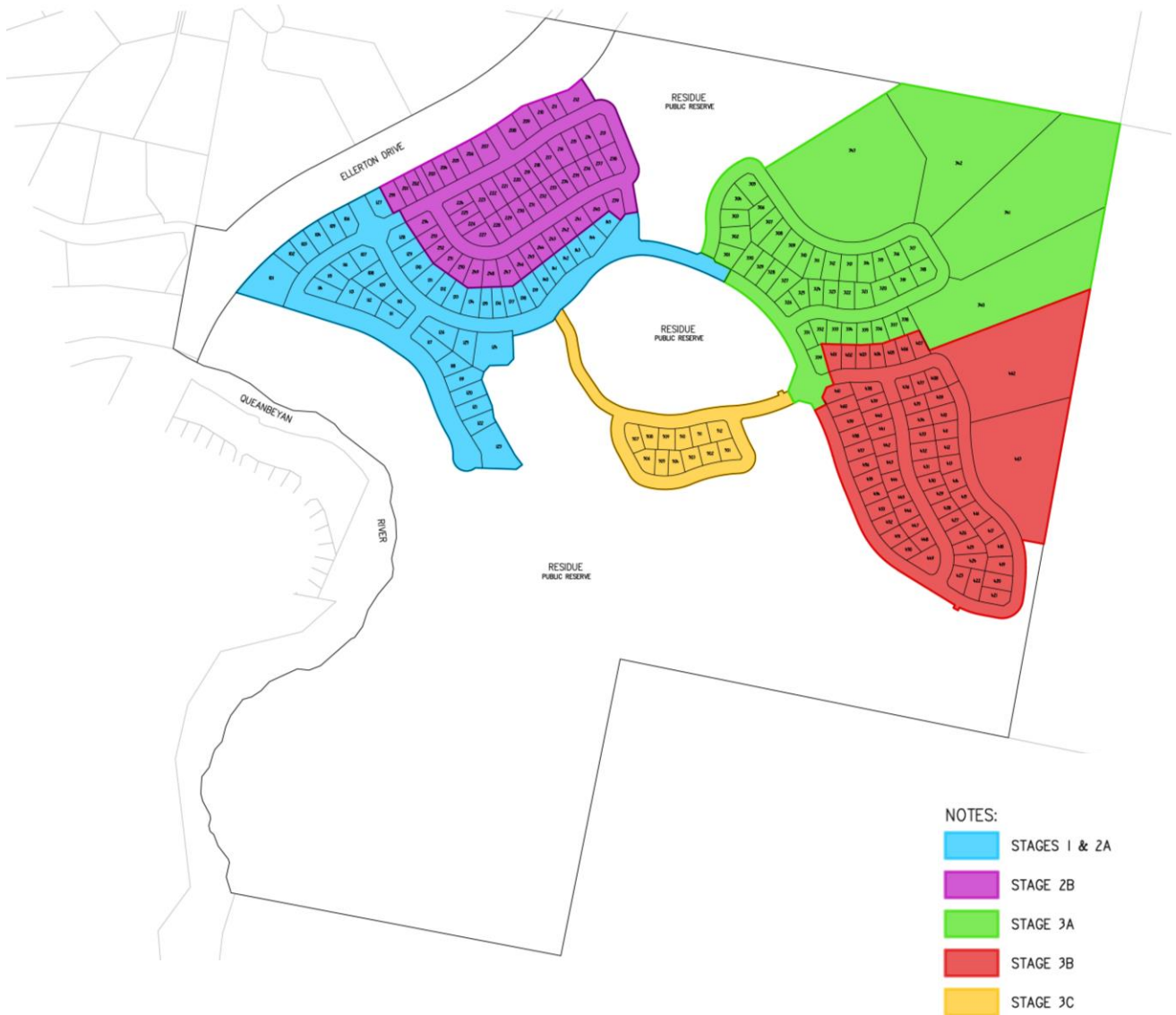


Figure 10 | Concept Staging Plan

2.3 BUILDING ENVELOPE

Areas for building envelopes (of at least 2,000 m²) are positioned within each proposed large residential lot. These areas are sufficient to accommodate a dwelling footprint, out buildings and APZ's. A dwelling envelope will be located within the building envelope and setback as necessary to provide required APZ for a BAL29 dwelling.

The exact location of future building footprints will be subject to future development applications. The building envelope areas have been located on land that:

- does not have a slope greater than 20%
- avoids areas identified for biodiversity purposes
- is outside of the buffer areas for creek lines
- is outside of the Q 100 flood zone

- is not identified as comprising Aboriginal artefacts, items or sites.

All lots are sized to accommodate asset protection zones (APZs) outside of a dwelling envelope, as required to comply with bushfire standards.

The subdivision has been designed to avoid Aboriginal sites and items, significant trees, and areas of significant biodiversity for minimal impact.

An area around the dwelling envelopes has been proposed to allow for vegetation management and to be utilised as an asset protection zone (APZ) for the lifestyle lots.

2.4 SITE GRADING

Civil Engineering Plans prepared by SPIIRE illustrating the final levels of the site are included at **Appendix F**.

In general, roads have been positioned to respect the constraints of the land and follow natural topography, minimising the extent of earthworks. Whilst cut and fill has been minimised in the design, the secondary connection point with EDE (Road 002), has resulted in significant fill to this area of the development. The level of EDE was fixed by others, and the requirement for a secondary egress for bushfire could not be avoided. Compliant intersection spacing has resulted in the location of the Road 002/EDE intersection. Road 003 has been graded to 14% (just under the maximum allowable percentage in accordance with Table D1.1) and designed with appropriate vertical curves, k-values and site distances, which has driven the starting point for Road 003. Working back up the hill from the existing creek level and allowing for discharge of stormwater pipes, has resulted in the levels of Road 001 and Road 011. As a result, there are isolated pockets of deep fill to ensure no irregular low points occur.

The remainder of the site incorporates cut and fill in the order of 1 to 2 m, apart from some isolated areas. Retaining walls have been proposed in isolated locations to prevent excessive batter spill; however, it was preferred not to overengineer the outcome and respect natural drainage patterns.

2.5 ACCESS AND MOVEMENT

The proposed layout and road typologies are shown below in **Figure 11**.

The main access to the site is provided from EDE. Roads have been positioned to respect the constraints of the land and follow natural topography to minimise the extent of earthworks.

The local roads, for which consent is sought by this DA, will be dedicated to Council as public roads. An overview of the proposed road type and design is provided in the Civil Engineering Plans included at **Appendix F**.

A 1.5 m footpath has been allowed for on one side of all roads within the development as required by QPRC design standards. Connections will be provided to the 2.5 m shared path on the Northern side of EDE. This shared path utilises a pedestrian underpass installed as part of EDE to access Jumping Creek Estate. No on-road cycle, or shared bike paths are proposed within Jumping Creek Estate.





Figure 11 | Road Typology

2.6 SERVICES

Consultation with relevant utilities service providers has been undertaken in the preparation of this DA. Proposed service connections are detailed below:

– Electricity

Electricity will be provided to the site via an extension of the overhead network from Lonergan Drive and Ellerton Drive.

– NBN

NBN has confirmed that it can service the development from via connecting to the existing network at the end of Lonergan Drive.

– Gas

Gas is not proposed to service the development due to existing network constraints and the availability of supply.

– Water

Discussions with Council Sewer & Water Section have confirmed that a 200mm diameter watermain will need to be installed in Ellerton Dr connecting to the Greenleigh water reservoir.

– Sewer



It is proposed to construct a sewer pump station that will then transfer the estates sewerage via a rising main to a receiving gravity manhole to be constructed on the existing main in Lonergan Drive. It is proposed that section of the existing 150mm main along the Queanbeyan River is upgraded to 225mm before connecting to the existing 600mm diameter main in Beston Place.

2.7 DRAINAGE AND STORMWATER MANAGEMENT STRATEGY

Stormwater and drainage measures for the site include the proposed construction of culvert road crossings, supplementary erosion and sediment controls, bioretention basins and wetlands. A stormwater management strategy has been designed to convey 5-year ARI flows via a piped drainage system and Gap flows (100-year ARI – 5-year ARI) through the proposed road reserves. Detailed analysis of the maximum depth of flow of 200mm and maximum depth x velocity product of $0.4\text{m}^2/\text{s}$ will be undertaken during detailed design and pipe sizes adjusted accordingly to comply with Council requirements.

Existing and proposed 1 in 100-year ARI flood models have been prepared for the central area where Jumping and Valley Creeks converge. In order to convey 1 in 100-year ARI flows through Jumping and Valley Creeks in the central area of the development, three crossing arrangements have been proposed:

- **Jumping Creek Culvert Crossing:** 5 x 3000 mm x 3000 mm RBC's
- **Valley Creek Culvert Crossing:** 5 x 2400 x 2400 mm RBC's
- **Valley Creek Bridge Crossing:** 19m span bridge, downstream of creek confluence

Concept designs for the proposed crossings are included in the **APPENDIX F**.

Due to the existing state of the site including the area containing existing creek network, rehabilitation of the riparian corridor is required. As part of the required creek rehabilitation, a creek diversion has been proposed to minimise short circuiting which is currently occurring due to scour and erosion, and to provide sufficient space for water quality treatment of development flows prior to discharge into the downstream network.

The proposed water quality treatment measures for the site include the following:

600m² sedimentation basin discharging into a 470m² bioretention basin prior to discharging into the downstream creek network to treat Catchment A

600m² sedimentation basin discharging into a 520m² bioretention basin prior to discharging into the downstream creek network to treat Catchment B

Gross pollutant trap to treat minor Catchment C (1.7ha) flows

Further detail regarding the proposed stormwater management strategy is provided within **APPENDIX F**.

An erosion and sediment control plan have been prepared for approval by NRAR as part of the Controlled Activity Approval for the creek crossing. Further detailed design will be prepared at construction certificate stage.

2.8 CREEK REHABILITATION AND REALIGNMENT

The existing creeks within the site are in a highly degraded form due to creek scour and erosion, and significant infestation of weeds leading to a build-up of debris and organic matter. This area of the site has also been



subjected to extensive unauthorised vehicle access resulting in areas of concentrated erosion of gullies and the dumping of used car bodies.

Due to the extensive rehabilitation work required to remove the weed species, make the area safe for residents, and removal of dumped items (such as car bodies) the area in the middle of the site is proposed to be rehabilitated to ensure creek flows remain within the creek corridor, and erosion is mitigated. As such, work is proposed within the extent of the Riparian Corridor where required, and the riparian corridor is to be re-instated to have a higher ecological value as part of the development.

Due to the extensive degradation, the area in the middle of the site is proposed to be rehabilitated to ensure creek flows remain within the creek corridor, and erosion is mitigated. As such, work is proposed within the extent of the riparian corridor where required, and the riparian corridor is to be re-instated as part of the development to raise its ecological value. Please refer to **APPENDIX G** for further information.

2.9 VEGETATION REMOVAL

This application seeks consent for the physical works relating to vegetation removal to allow for residential development of the site.

As identified throughout this report, the location of the proposed development is largely dictated by the slope and therefore development is proposed within areas of flatter topography. Furthermore, the proposed development footprint is best suited to parts of the site which have been historically subject to human impact. As a result, only 7.24 Ha of native vegetation is proposed to be removed as part of the proposal. The extent of native vegetation clearance has been depicted in **Figure 12** below with a black dashed line.



It is noted several large exotic trees present within the riparian corridor are proposed to be removed as part of the creek and riparian restoration program. Please refer to **APPENDIX D** for the Tree Management Plan.

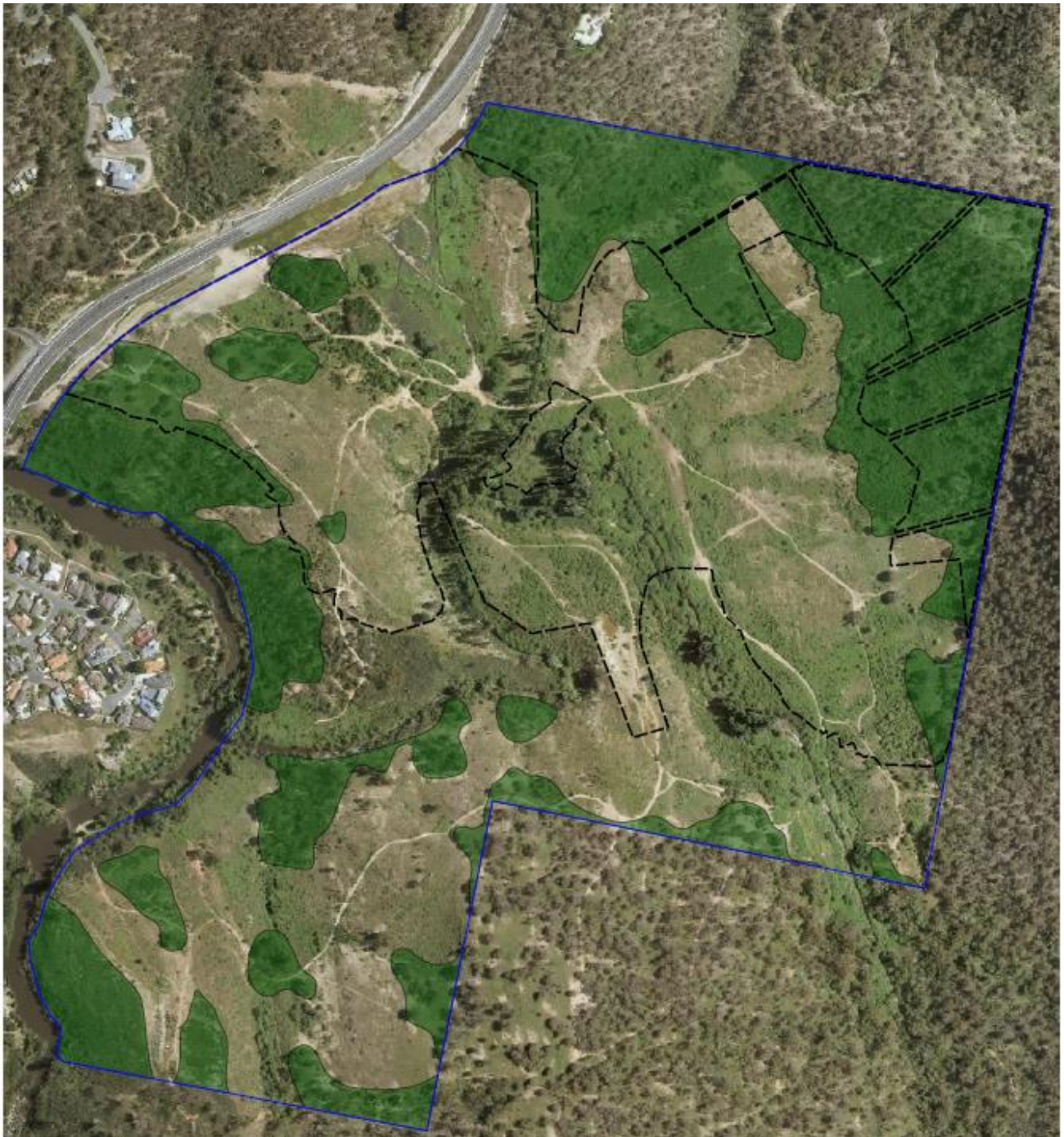


Figure 12| Native vegetation clearing

2.10 LANDSCAPING

2.10.1 STREET TREE PLANTING

Landscaping of the road reserve is proposed as part of this application. Streetscapes have been designed to respond to road hierarchy, including their scale and function in relation to dwellings and open spaces. Proposed street tree species are proven to reliably perform well within the region's climate and soil profile, and they all are low maintenance and resilient tree species.

The proposed landscape strategy utilises both native and deciduous street trees to create a sympathetic result with the existing biodiversity area and the adjoining development, delivering a memorable streetscape which provides wind buffering, summer shade and solar access in winter, and visual interest throughout the seasons. By using several street tree species to create variety, colour and textural interest is provided along each road, and by organising the species according to road hierarchy, the trees provide a legible neighbourhood which is memorable and easy to navigate.

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.

Refer to **APPENDIX C** for the Landscape Master Plan and associated schedule of species for further details.

2.10.2 DRAINAGE RESERVE

The proposed drainage reserve landscape design will ensure interconnecting existing and proposed drainage systems will be supported and viable in the long-term whilst meeting objectives of the VMA by facilitating the VMA's prescribed land management methodologies: to improve and maintain the site, manage water runoff and water quality, increase native habitat and ecological richness and connectivity over time. Further detailed design will be prepared at construction certificate stage.

The Landscape Master Plans propose to:

- stabilise eroding soil using low groundcover plants and trees, including grassing, which will guard against future erosion across the site - especially at gully heads and their banks;
- slow and filter sediment associated with overland water runoff using native wetland plant species, ensuring water quality requirements are met; this will be done in conjunction with the proposed civil engineering design;
- create habitat for native fauna, especially threatened species known to occur on the site, using native and deciduous tree species. The master plan shows plants in groups in order to achieve best practice of stratified canopies with an understorey;
- increase site (and contextual) biodiversity value and strengthen ecological corridors by choosing plant species associated with key native vegetation communities.

Refer to **APPENDIX C** for the Landscape Master Plan and associated schedule of species for further details. Refer to **APPENDIX G: VEGETATION MANAGEMENT PLAN** for drainage reserve assessment and recommendations.

2.11 DEMOLITION

No demolition is proposed as part of this application.



2.12 CONSTRUCTION MANAGEMENT

Construction activities would be undertaken between 7:00 am and 6:00 pm Monday to Friday and 8:00 am to 1:00 pm Saturday. No work is to take place on Sunday or public holidays. Any construction work outside of these hours will be subject to prior consultation with Council.

Further details on construction management will be provided in a Construction Management Plan to be completed prior to the commencement of works.

2.13 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.





3. STATUTORY ASSESSMENT

3.0 STATUTORY ASSESSMENT

The following provides an assessment of the proposed development in accordance with the matters under Section 4.15(1) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The DA's consistency and compliance with the relevant statutory plans and policies is located in Table 5 below.

3.1 NSW STATE LEGISLATION

3.1.1 Fisheries Management Act 1994

Under section 219 of the *Fisheries Management Act 1994*, a permit is required to:

(a) set a net, netting or other material, or (b) construct or alter a dam, floodgate, causeway or weir, or (c) otherwise create an obstruction, across or within a bay, inlet, river or creek, or across or around a flat.

The proposed development includes the construction of three vehicle crossings across Jumping Creek and Valley Creek. The box culvert at the creek crossing point will also allow for water flows and the passage of fish and other aquatic organisms. It is noted that the proposed creek crossings have been designed in accordance with the *NSW Office of Water Guidelines for watercourse crossings on waterfront land (July 2012)*.

It is noted that the proposal will be referred to NSW Fisheries for approval.

3.1.2 National Parks and Wildlife Act 1974

Section 90 of the *National Parks and Wildlife Act 1974* (NP&W Act) sets out the process to apply for, and obtain, an Aboriginal Heritage Impact Permit (AHIP) for certain works that may harm or potentially harm Aboriginal objects or places.

The proposal includes development (subdivision and subdivision works) affecting land that has been identified as having potential for Aboriginal artefacts, objects or items. An Archaeological and Aboriginal Cultural Heritage Assessment has been carried out by Navin Officer Heritage Consultants to address all requirements relating to Aboriginal objects or places which satisfies the requirements of the NP&W Act.

Refer to Section 3.3 of this report for a consolidated assessment in relation to Aboriginal Heritage.

It is noted the proposal will be referred to the NSW Office of Environment and Heritage for approval.

3.1.3 WATER MANAGEMENT ACT 2000

15th and 6th order streams traverse the site. Since the proposal involves works within 'waterfront land' associated with the subdivision of land and within 40 m of a waterway, a controlled activity approval is sought in accordance with Section 91 of the *Water Management Act 2000* (WMA 2000).

As described in Chapter 2 of this report, the proposal will assist to protect and enhance the riparian qualities of Jumping Creek and Valley Creek, involving creek stabilisation and management works which will assist in vegetation regrowth and stabilisation of creek banks.

The introduction of culvert crossings and associated engineering works at the crossing points will also assist to control erosion and sedimentation. These measures will ensure any exposed areas of bank are protected, and any areas carrying concentrated flows from the road easement are reinforced and stabilised. An erosion and sediment control plan has been prepared for approval by the NRAR as part of the Controlled Activity Approval.



Refer to assessment in **Appendix F** for a discussion of the proposal's impacts on waterways.

3.1.4 RURAL FIRES ACT 1997

A bushfire safety authority issued by the Commissioner of the RFS is sought in accordance with Section 100B of the *Rural Fires Act 1997* (RFA 1997), since the proposal is on land that is bushfire prone. Refer to **Section 3.3** below for further assessment.

3.2 STATE ENVIRONMENTAL PLANNING POLICIES

3.2.1 STATE ENVIRONMENTAL PLANNING POLICY 55 – REMEDIATION OF LAND

An updated Contamination Assessment has been carried out by Douglas Partners, detailing the review of existing reports, results of the site inspection visit and assessing the need for further field-based environmental investigations or remediation works. The report concludes:

“Following review of previous environmental reports, review of available site history and site inspections, several sources of contamination were identified. The sources of contamination were associated with mining activities and pastoral use of the site.

[Douglas Partners] understands that RAPs have been prepared for the site to manage the identified contamination in the sheep dip area, Mine Site 3 and Mine Site 4. The findings of the Site Audit Report and Site Audit Statement indicated that subject to the implementation of the remediation outlined in the RAPs, the site would be suitable for the following uses:

- Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry;*
- Day care centre, preschool, primary school;*
- Secondary school; and*
- Park, recreational open space, playing field.”*

It is noted remediation activities have not yet commenced on site. It is expected a condition of consent will be included in the Notice of Decision, requiring remediation of Areas of Environmental Concern prior to issue of construction certificate for each stage.

3.2.2 STATE ENVIRONMENTAL PLANNING POLICY (INFRASTRUCTURE) 2007

Clause 102 – Impact of road noise or vibration on non-road development

This clause applies to residential development on land in or adjacent to the road corridor for a freeway, a tollway or a transitway, or any other road with an annual average daily traffic volume of more than 20,000 vehicles.

Clause 102 (3) states:

“If the development is for the purposes of a building for residential use, the consent authority must not grant consent to the development unless it is satisfied that appropriate measures will be taken to ensure that the following LAeq levels are not exceeded:

(a) in any bedroom in the building – 35 dB(A) at any time between 10 pm and 7 am,

(b) anywhere else in the building (other than a garage, kitchen, bathroom or hallway) – 40 dB(A) at any time.”

The proximity of the site to EDE and the volume of traffic using this route warrants consideration of clause 102 of the SEPP.



Consequently, road traffic noise modelling was undertaken for the proposed development to determine the impact of the traffic noise on the lots adjoining EDE.

The assessment found that allotments which are next to EDE are likely to be “noise affected” by traffic.

The assessment concluded that, to achieve the internal traffic noise criteria, specific acoustic treatments would not be required for any conventionally-constructed dwelling on any allotment, other than closed windows to habitable rooms for a small number of allotments, which subsequently impacts on ventilation requirements to those rooms. Precise building constructions can be determined by way of a specific road traffic noise intrusion assessment or it would be acceptable to use the Category 1 “deemed-to-satisfy” constructions based on the DoP Guideline.

Further details and road traffic noise modelling results are provided under **APPENDIX J: ACOUSTIC REPORT**.

Schedule 3 Traffic-generating development to be referred to Roads and Maritime Services

The proposed development is defined as a traffic-generating development under Schedule 3 of the ISEPP, since it involves the subdivision of land for more than 200 allotments and includes the opening of public roads. As such, it is understood the application will be referred to RMS.

3.3 LOCAL ENVIRONMENTAL PLAN

3.3.1 QUEANBEYAN LOCAL ENVIRONMENTAL PLAN 2012

Clause 2.1 – Land Use Zones

The relevant zones for the subject land are **E2 Environmental Conservation**, **E4 Environmental Living** and **RE1 Public Recreation**. Pursuant to the provisions of the *Queanbeyan Local Environmental Plan 2012*, the objectives of the zones are as follows:

E2 Environmental Conservation:

- *To protect, manage and restore areas of high ecological, scientific, cultural or aesthetic values.*
- *To prevent development that could destroy, damage or otherwise have an adverse effect on those values.*
- *To protect threatened species and rivers, creeks and gully ecosystems within Queanbeyan.*
- *To identify and protect escarpment areas that enhance the visual amenity of Queanbeyan and possess special aesthetic or conservational value.*
- *To protect water quality by preventing inappropriate development within catchment areas.*

The proposed subdivision is consistent with the objectives of the **E2 Environmental Conservation** zone through protecting high value landscape and steep slope from residential development. The Subdivision will also restore riparian vegetation and creek beds, remove weeds and debris choking the waterways and enable the water quality of the catchment to be improved prior to its confluence with the Queanbeyan River. Residential blocks and road infrastructure are thoughtfully located to ensure future built form will set beneath prominent ridgelines and vistas.

E4 Environmental Living:

- *To provide for low-impact residential development in areas with special ecological, scientific or aesthetic values.*
- *To ensure that residential development does not have an adverse effect on those values.*



- *To encourage development that is designed to recognise the bushland character of the locality where appropriate and to minimise the impact of urban development, particularly on the edge of the urban area.*
- *To ensure that rural residential development provides for integrated rural residential communities in its design.*

The proposed subdivision is consistent with the objectives of the **E4 Environmental Living** zone through the provision of low-density residential lots that is in accordance with the minimum lot size requirements of the *QLEP 2012*. It is noted that the minimum lot size has been determined through a detailed planning proposal investigation which is based on an extensive site constraint analysis, ensuring the residential footprint has minimal impact on ecological, scientific or aesthetic values of the site.

Spatial buffers are provided within the development footprint to ensure appropriate transition occurs from built form to the adjoining natural environment.

RE1 Public Recreation

- *To enable land to be used for public open space or recreational purposes.*
- *To provide a range of recreational settings and activities and compatible land uses.*
- *To protect and enhance the natural environment for recreational purposes.*

The proposed subdivision is consistent with the objectives of the RE1 Public Recreation zone through provision of a central open space; this will include restored creek beds and riparian corridors which connect the centre of the estate to adjacent bushland through new and upgraded walking trails.

The proposal is also in accordance with a previous in principle Council resolution and agreement to the proposed subdivision and acceptance of residual E2 and RE1 zoned land at Jumping Creek for future ownership and management, subject to that land being improved and remediated, consistent with plans to be approved by Council.

Clause 2.6 – Subdivision – Consent Requirements

Development consent is sought for the proposed subdivision, as required by Clause 2.6.1.

Clause 2.7 Demolition requires development consent

No demolition is proposed as part of this application.

Clause 4.1 – Minimum subdivision lot size

The site is identified as having four (4) minimum lot sizes, which are 600 m², 800 m², and 1.5 ha for **E4 Environmental Living Zone** and 80 ha for **E2 Environment Conservation** zone. There is no minimum lot size for **RE1 Public Recreation**.

Proposed development is compliant with the requirements of the minimum lot size map, with the exception of the residual lot. The residual lot includes the entirety of the land that is zoned E2 and has an 80 ha minimum lot size as well as the land zoned RE1. It is noted that area of the land with the minimum lot size of 80 ha on site is only 55.54 ha. It is noted a planning proposal to vary the minimum lot size from AC (80 ha) to AB3 (20 ha) and minor change to the shape of area mapped as Y has been lodged to Council to facilitate creation of the residual lot, to be subsequently dedicated to Council. This is also in accordance with a previous in principle Council resolution and agreement for the proposed subdivision, and acceptance of residual E2 and RE1 zoned land at



Jumping Creek for future ownership and management, subject to that land being improved and remediated, consistent with plans to be approved by Council.

Clause 5.10 – Heritage Conservation

Heritage conservation matters under QLEP and the *National Parks and Wildlife Act 1974* have been considered in the preparation of the subdivision and lot layout plans.

The proposal, as far as possible, seeks to preserve and celebrate the site's heritage. Many of the potential or identified archaeological items/sites are located outside of proposed development areas (i.e. within the residual lot). In some locations, however, the proposed development will result in the direct or indirect impact of some Aboriginal items or sites, involving disturbance or potential disturbance.

The Archaeological and Aboriginal Cultural Heritage Assessment prepared by Navin Officer Heritage Consultants Pty Ltd provides recommendations with respect to the proposal's impacts on these Aboriginal sites and items. It has been prepared in accordance with guidelines of the OEH and to satisfy Part 5 of the EP&A Act. Where impacts to Aboriginal sites or items are likely, a range of mitigation actions have been recommended. The mitigation actions primarily involve collection of surface and subsurface artefacts. A potential scarred tree (Site JC) was identified during the 2018 site visit. The layout has been amended to avoid impact on the tree as recommended by the Archaeological and Aboriginal Cultural Heritage Assessment. The layout has also been amended to include a conservation area in the Jumping Creek and Valley Creek confluence portion of the project area. This conservation area limits harm to areas of identified archaeological deposit and surface artefact scatters. This will ensure that the archaeological deposits and subsurface artefacts in this area will be left in-situ and be retained ensuring intergenerational equity.



An Aboriginal Heritage Impact Permit (AHIP) is to be obtained from the OEH to ensure approval is granted prior to the collection of artefacts and commencement of proposed site works. **Figure 13** shows the extent of the development and all the identified aboriginal recorded sites.

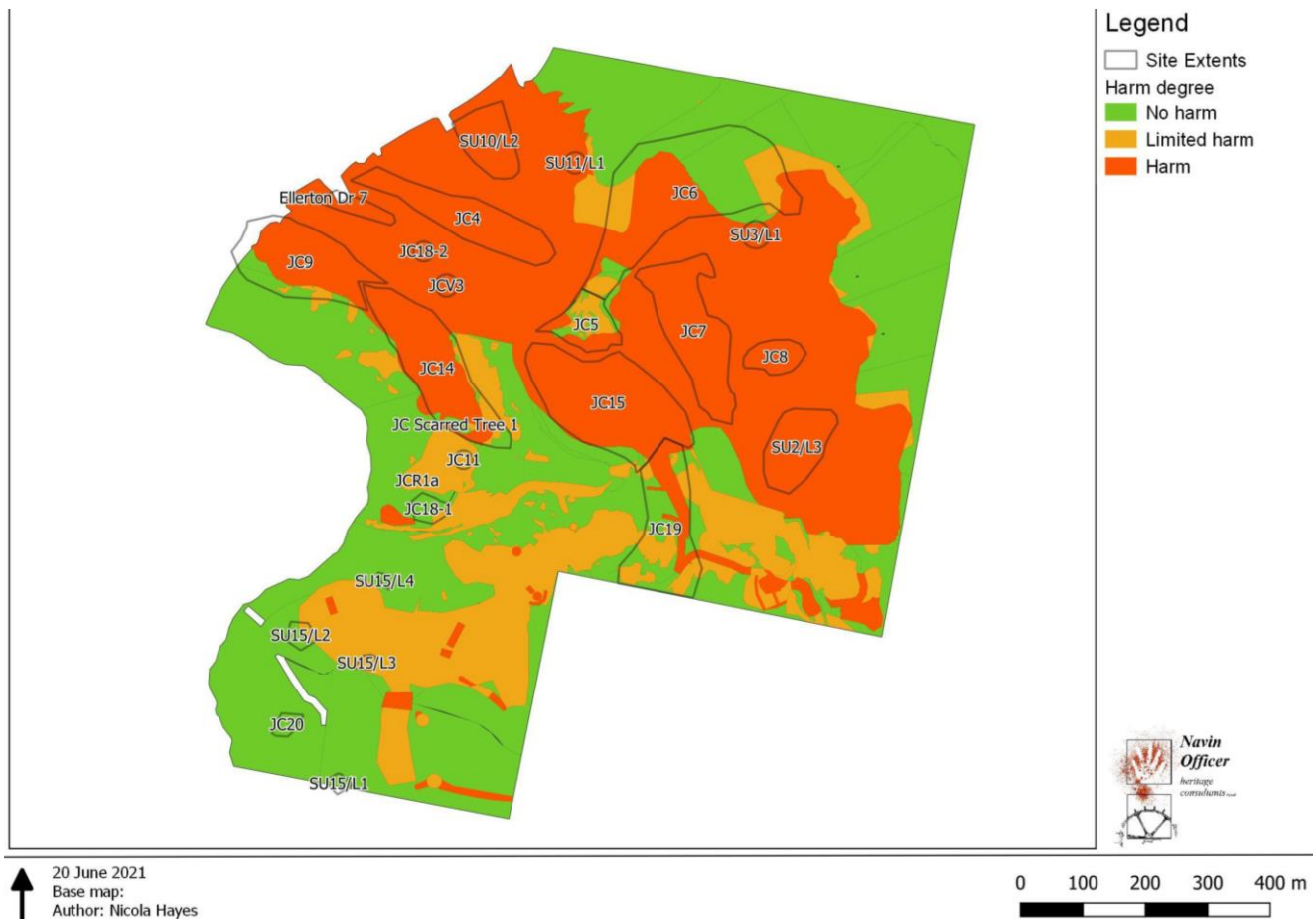


Figure 13 | Extent of harm and identified aboriginal recorded sites

Clause 5.11 – Bushfire hazard reduction

The Jumping Creek development site is identified as bushfire prone land. A Bushfire Safety Authority from the RFS is therefore required in relation to the proposed development (subdivision), in accordance with Section 100B of the *Rural Fires Act 1997*. A Bushfire Protection Assessment (BPA) has been prepared by Ember consultants and is included at **Appendix I**. The BPA concludes that, subject to the implementation of the recommendations, an adequate standard of bushfire protection will be provided for the proposed development. As such, the proposal is consistent with the aims and objectives of the PBP and appropriate for the issue of a Bushfire Safety Authority.

– Asset Protection Zones (APZs)

Using the vegetation and slope data, APZs suitable for residential subdivision have been calculated based on a worst-case hazard scenario. The minimum APZs range from 12 m up to 54 m (refer to **Figure 14**). All the APZs are located on the road reserve or inside the block boundaries. All lots can accommodate the minimum required APZ and a dwelling outside of the APZ, based on a worst-case scenario hazard assessment.

Within lifestyle blocks, the APZ sits outside of the 2000 m² nominated building envelope. The vegetation clearing associated with these areas are taken into consideration as part of the ecological study.

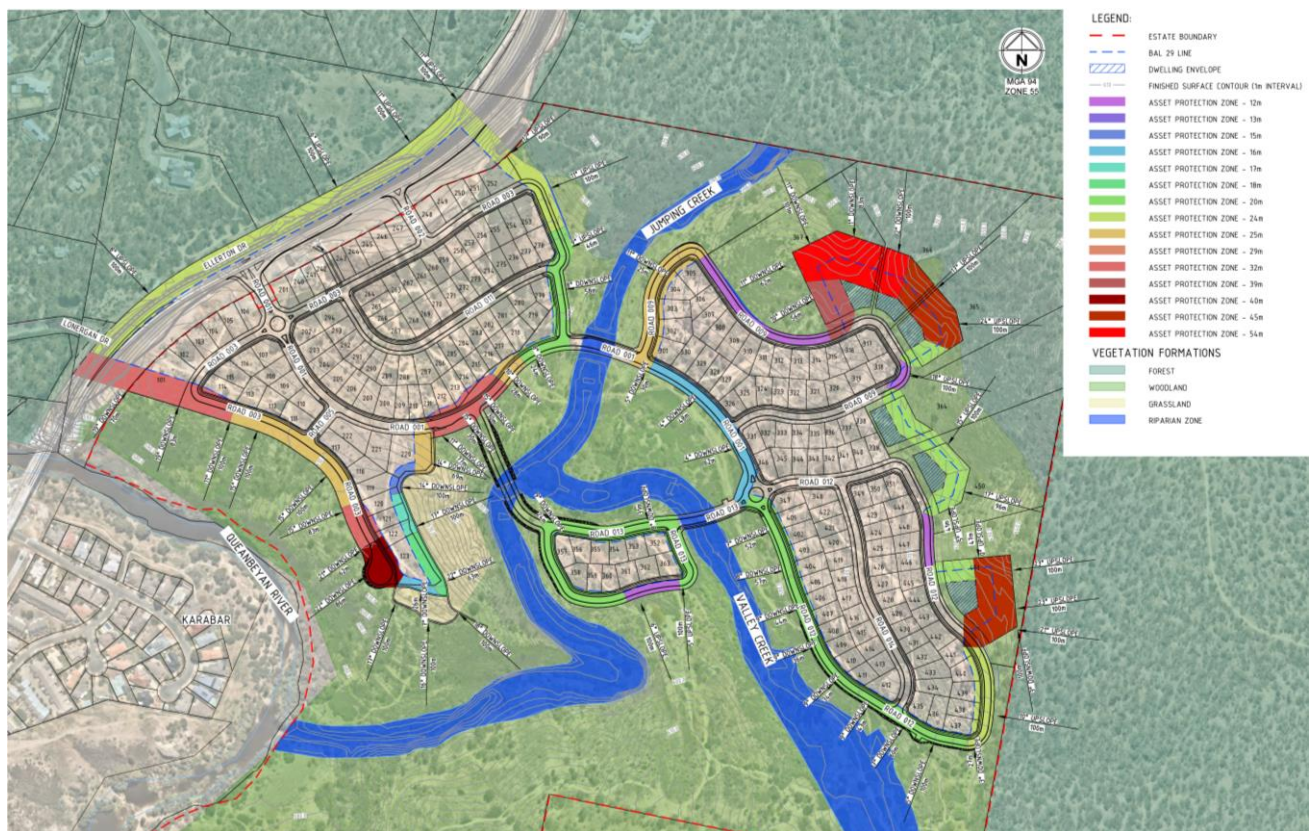


Figure 14 | Asset Protection Zones (APZs)

— Access

PBP requires an access design which enables safe evacuation away from an area whilst facilitating adequate emergency and operational response to the area requiring protection. In addition, all bushfire prone areas should have an alternate access or egress option depending on the bushfire risk, the density of the development and the chances of the road being cut by fire for a prolonged period. It is noted that as part of preliminary discussions with the RFS, the layout was amended to allow a secondary point of access to the site from the EDE. As a result of further discussions with RFS, an additional link road (including bridge) was included in the layout to allow the public road access throughout the whole subdivision.

The proposed street network design satisfies PBP as it allows for appropriate emergency fire response and evacuation. All public roads meet the design and construction standards of PBP.

Clause 7.1 –Earthworks

The subdivision layout has been designed to follow the natural topography and minimise 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. Please refer to **APPENDIX F JUMPING CREEK CIVIL ENGINEERING REPORT**.

Clause 7.2–Flood Planning



The proposal is designed in consideration of flood-prone areas. A Stormwater Management Strategy has been prepared for the development which analyses the impact of the proposal with respect to existing watercourses and the proposed post development overland flow paths.

The proposed development has been designed to convey 5-year ARI flows via a piped drainage network through the development prior and discharge into the proposed treatment measures for the site. In addition, preliminary stormwater design for the development accommodates Gap flows (100-year ARI to 5-year ARI) by distribution through the proposed road reserves. Detailed analysis of the maximum depth of flow (200 mm) and the maximum *depth x velocity* product of 0.4 m²/s will be undertaken during detailed design and pipe sizes adjusted accordingly to comply with Council requirements.

Existing and proposed 1 in 100-year ARI flood models have been produced for the central area where Jumping and Valley Creeks converge. In addition, the location of creek crossings/culverts has been considered in the post development flooding scenario, with culvert sizes determined based on the extent of flood impact.

Clause 7.3 – Terrestrial Biodiversity

Biodiversity has been considered in the design of the proposed development - in particular, by siting the proposed subdivision and building envelopes to avoid impacts on the biodiversity area.

The supporting Biodiversity Development Assessment Report (BDAR) contains a description of the observed flora and fauna species and associated habitat occurring on/near the site. The report provides an assessment of the proposal and its impact on biota listed as threatened under the *NSW Biodiversity Conservation Act 2016* (BC Act). This BDAR also includes assessment of the potential impacts of the proposed development on Matters of National Environmental Significance (MNES) listed pursuant to the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The report provides recommendations for avoidance and reduction of potential impacts on flora and fauna.

The assessment was supported by field investigations undertaken on several occasions in the second half of 2018.

A summary of the assessment processes, outcomes and conclusions is provided below:

NATIVE VEGETATION

The subject land supports two Plant Community Types (PCTs). See **Figure 15** below:

- a) PCT1093 – Red Stringybark - Brittle Gum - Inland Scribbly Gum dry open forest of the tablelands, South Eastern Highlands Bioregion.
- b) PCT1334 – Yellow Box grassy woodland of the northern Monaro and Upper Shoalhaven area, South Eastern Highlands Bioregion.



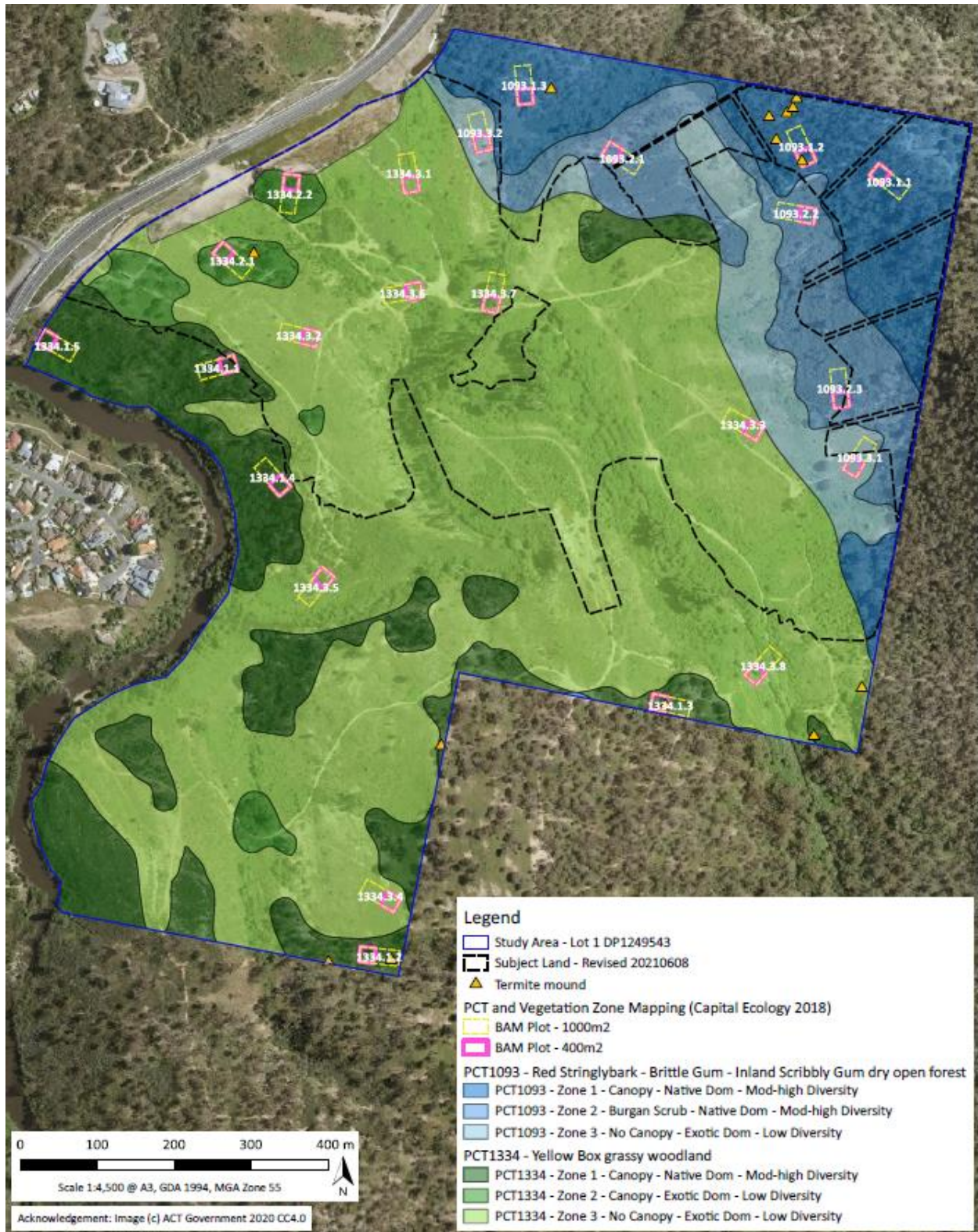


Figure 15 |BAM vegetation mapping

THREATENED ECOLOGICAL COMMUNITIES



PCT1334 is identified as the potential threatened ecological community (TEC) White Box Yellow Box Blakely's Red Gum Woodland (BC Act) and White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (EPBC Act). Assessments of structure and floristic composition determined that the vegetation zone PCT1334 Zone 1 meets the listing criteria for the EPBC Act listed TEC, and that the vegetation zones PCT1334 Zones 1 and 2 meet the listing criteria for the BC Act listed TEC.

THREATENED SPECIES

- The historic activities which have occurred across much of the subject land have substantially degraded the habitat value for flora and fauna. As a result, no threatened flora or fauna species were recorded within the subject land. Due to the low number of hollow bearing trees, the subject land is unlikely to be of value as breeding or nesting habitat for threatened birds. Despite substantial survey effort, no threatened flora species or pink-tailed worm-lizards were recorded on the subject land or study area.

IMPACTS

- The proposed development will impact 38.14 ha of vegetation, 6.90 ha of which meets the BC Act definition of native vegetation. Of this, 0.77 ha meets the listing criteria for EPBC Act Box-Gum Woodland, and 2.74 ha meets the listing criteria for BC Act Box-Gum Woodland. The proposed development will not result in any other direct impacts on native vegetation or habitat.
- The subject land supports PCT1334; accordingly, the proposed development could result in a serious and irreversible impact (SAIL) on a BC Act listed entity. However, the proposed removal of 2.74 ha of BC Act listed Box-Gum Woodland is unlikely to constitute an SAIL as the impact is small and on vegetation that is already fragmented and partially degraded.
- Despite above, the subject land contains vegetation with a vegetation integrity score that requires offsetting for impacts on ecosystem credits, including vegetation which meets the definition of a TEC.
- The proposed development will not impact any threatened species.
- The proposed development is unlikely to result in biodiversity impacts that are unforeseen or uncertain.

COMMONWEALTH EPBC ACT REQUIREMENTS

The proposed development does support EPBC Act listed Box-Gum Woodland. However, as described in the EPBC Act Significant Impact Criteria Assessment, the removal of 0.77 ha of this ecological community is unlikely to have a significant impact on the EPBC Act listed TEC.

As such, referral of the proposed action to the Commonwealth Minister for the Environment and Energy is unwarranted.

NSW BC ACT BIODIVERSITY OFFSET CREDIT REQUIREMENTS

The proposed development will involve the clearance of 3 vegetation zones which generate ecosystem credits.

This vegetation clearance will generate a total of 96 ecosystem credits with an estimated obligation of \$468,807.25 (incl.GST).

For further detail please refer to **APPENDIX E**.

Clause 7.4 – Riparian Land and Watercourses



This proposal will assist to protect and enhance the riparian qualities of Jumping Creek and Valley Creek. As described in Chapter 2 of this SEE, due to the existing state of the site, including the area containing existing creek network, rehabilitation of the riparian corridor and management works which will assist in vegetation regrowth and help to stabilise the creek banks is required.

As part of the required rehabilitation, a creek diversion has been proposed to combat significant scouring and erosion occurring at the creek convergence point due to the water course's currently foreshortened path of travel. The creek diversion will broaden distribution of water flow over exposed surfaces and slow existing velocities flowing through this section of creek to prevent further erosion. In addition, this diversion will allow sediment basins, wetlands and a bio retention basin to be located downstream of the proposed development to treat water to best practice treatment requirements prior to discharge into the Queanbeyan River, and provide landscape amenity and enhanced habitat value to the riparian corridor.

Native planting along the creek banks (in accordance with a Vegetation Management Plan) will contribute to the stabilisation of the watercourse and improved habitat values. Weed control measures are prescribed within the Vegetation Management Plan.

In combination, these proposed measures will help to protect and enhance the quality of the riparian areas.

Please refer to **APPENDIX G: VEGETATION MANAGEMENT PLAN** Appendix F: CIVIL ENGINEERING DRAWINGS AND REPORT for further detail.

Clause 7.5 – Scenic protection

The objectives of this clause are as follows:

- a) to recognise and protect the natural and visual environment of the land to which this clause applies,*
- b) to ensure development on land to which this clause applies is located and designed to minimise its visual impact on those environments.*

The scenic protection area falls within E2 land zoning, as depicted on the QPRC LEP 2012 scenic protection map, represented in **Figure 6**. This area within Jumping Creek comprises of a scenic ridgeline which forms a visual backdrop for nearby residential suburbs, including Jumping Creek.

The proposed subdivision design addresses the objectives of Clause 7.5 by preserving scenic views to ridgeline. Meeting the requirement is achieved through:

- a) consideration of existing landform. To reiterate Section 1.2.2 Existing Site Conditions: “in general, the land falls from outside to the inside, forming a bowl shape in the middle.” The difference in relative level between proposed Jumping Creek, which is situated within the bowl, and its elevated surrounds will minimise the vertical profile of built form within Jumping Creek, thus permitting continued uninterrupted views to the scenic protection area.
- b) proposed design: including the landscape master plan, lot layout, nominated building envelope locations, grading and building height limitations (maximum 8.5 m height as prescribed in the DCP). In conjunction with verge and open space tree plantings, buildings will visually recede into the landform of the valley when viewed from EDE or adjacent Greenleigh. Where Jumping Creek development is visible from the suburb of Karabar, buildings will be visually screened by proposed supplementary plantings and an existing vegetation buffer adjacent the Queanbeyan River.

It should be noted no building is proposed on E2 land.



The proposed development is therefore in accordance with Scenic Protection requirements and complies with QLEP. Please refer to **APPENDIX C: VISUAL IMPACT ASSESSMENT**.

Clause 7.7 – Development in Areas subject to Aircraft Noise

2) This clause applies to development that:

(a) is on land that:

(i) is near the Canberra Airport, and

(ii) is in an ANEF contour of 20 or greater, and

(b) the consent authority considers is likely to be adversely affected by aircraft noise.

An Acoustic assessment for noise has been prepared to demonstrate the proposed subdivision is not affected by Aircraft Noise, please refer to **APPENDIX J- ACOUSTIC REPORT**.

Clause 7.9 – Essential Services

The proposal provides for all essential services including reticulated water, sewer, electricity, stormwater drainage, telecommunication connection and vehicle access. Please refer to **APPENDIX F** for further detail.

Clause 7.12 – Access to Jumping Creek

Vehicle access to Jumping Creek is via the Edwin Land Parkway–Ellerton Drive extension; there are 2 access points to the estate from the EDE which are detailed in **APPENDIX F - JUMPING CREEK CIVIL ENGINEERING REPORT**.

3.4 DRAFT ENVIRONMENTAL PLANNING INSTRUMENT

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

3.5 DEVELOPMENT CONTROL PLAN

3.5.1 QUEANBEYAN DEVELOPMENT CONTROL PLAN 2012

Section 4.15(1) of the act requires a consent authority to take into consideration the provisions of any development control plan, as relevant to the proposal, in determining a development application. Queanbeyan Development Control Plan 2012 (QDCP) is the only development control plan applicable to the site.

QDCP applies to all development that may only be carried out with development consent. However, not all sections of the QDCP are relevant to the proposed development. The most relevant sections to this proposal are:

- part 6 – rural and environmental zones
- part 2 – all zones.

The proposed development has been designed to satisfy the aims, objectives and controls of the QDCP. Those sections of QDCP of relevance to the proposed development are extracted in table below, together with an assessment of the proposal's compliance. General controls, controls that provide explanatory information only or background information, are not included in the assessment.



CRITERIA	COMMENTS
Part 2 ALL ZONES	
2.1 Introduction	
	Noted
2.2 CAR PARKING	
	Not relevant to subdivision DA
2.3 ENVIRONMENTAL MANAGEMENT	
	Not relevant to subdivision DA
2.4 CONTAMINATED LAND MANAGEMENT	
	Refer to Section 3.2.1 of this SEE for details of the proposal's adherence to SEPP No. 55.
2.5 FLOOD MANAGEMENT	
2.5.6 LAND WITHIN FLOOD PLANNING AREA	
a) All development shall be subject to the following conditions: i) Stream Flow Forces - A certificate from a suitably qualified Engineer will be required to show that all piers and other portions of the structure which are subject to the force of flowing water or debris has been designed to resist the stresses thereby induced. ii) Foundations - A certificate from a suitably qualified Engineer will be required to show that forces transmitted by supports to the ground can be adequately withstood by the foundations and ground conditions existing on the site. iii) Hydraulic Effects - A certificate from a suitably qualified Engineer will be required to show that the structure as designed will have virtually no effect on the flood levels at or upstream from the site of the structure and have no increase in stream velocity downstream of any part of the structure which will cause erosion or instability to any other structure or to the ground surface. If scour occurs the method of controlling such scours is to be documented. b) Commercial/Industrial c) Residential including Motels i) Floor Levels – All residential units shall be constructed so that their floor levels are at or above flood planning level. ii) Access – All residential units shall be provided with an access at a level no lower than the 800mm below the flood planning level to firm ground at the same level at a place where rising ground access is available to flood free areas. In	Flood modelling and stormwater management is detailed in APPENDIX F: JUMPING CREEK CIVIL ENGINEERING DRAWINGS AND REPORTS



CRITERIA	COMMENTS
the event that a raised path is provided, a guide rail or handrail shall be provided thereto. d) Residential development – extension to existing dwelling e) Existing buildings other than residential buildings set at levels below the flood planning level shall not be extended unless such extensions comply with this policy. f) No site shall be filled to a level higher than 2 metres below the flood planning level of such site. g) Dangerous Substances – The following items and products are extremely vulnerable to flood conditions. Their use in quantities, other than for isolated or occasional household use, is prohibited from a designated flood area. Industrial, storage and retailing businesses dealing with these products shall not be permitted within the designated flood area: Acetone, Celluloid, Magnesium, Ammonia, Chlorine, Nitric Acid, Benzine, Petrol, Phosphorus, Sodium, Sulphur, Potassium, Carbon, Disulfide, Hydrochloric Acid. h) In the event of a dwelling or residential flat building located within floodway areas being destroyed by fire or flood, the Council will consider an application for the rebuilding, only if sufficient funds are not available to purchase the subject land by Council. In determining the value of the land, Council will seek to derive a land value which will assist the landowner in acquiring an alternated flood free building site. i) Should the building be damaged, even significantly, Council would permit their rebuilding and repair.	
2.5.7 FLOODWAYS	
	Not relevant to subdivision DA. No buildings are proposed within a floodway. Please refer to APPENDIX B: SUBDIVISION PLANS.
2.6. LANDSCAPE	
	Noted. Refer to Section 2.10 of this SEE for landscaping details.
2.7 EROSION AND SEDIMENT CONTROL	
2.7.2 Erosions and Sediment Control Plans	
	Complies: A concept sediment and erosion control strategy (ESC) plan has been prepared for the site and is shown on Drawings 305492CA800 to 305492CA804 of APPENDIX F: JUMPING CREEK CIVIL ENGINEERING DRAWINGS AND REPORTS.



	Due to the close proximity to the creek, and works in the creek, it will be imperative that appropriate measures are adopted to ensure that sediment does not wash into the waterway. Final sediment and erosion control management plan (ESCMP) will be prepared by the Contractor as part of the Construction Management Plan (CMP) prior to commencement on site. The ESCMP will be in accordance with Managing Urban Stormwater, Soils & Construction March 2004. The ESC concept strategy aims to minimise the extent of disturbed area, whilst maximising the size of the sediment basins to maximise the effectiveness of the controls. Each of the sediment basins have been indicatively sized for the 90th percentile event in accordance with Managing Urban Stormwater, Soils & Construction.
2.7.3 Soil and Water Management Plans	
	A concept soil and water management plan has been prepared for the site and is shown on Drawings 305492CA800 to 305492CA804 of APPENDIX F: JUMPING CREEK CIVIL ENGINEERING DRAWINGS AND REPORTS. These drawings to be read in conjunction with STORMWATER MANAGEMENT STRATEGY in APPENDIX F and APPENDIX G: VEGETATION MANAGEMENT PLAN.
2.8. Guidelines for Bushfire Prone Areas	
	Refer to Section 3.3.1 (assessment against Clause 5.11 – Bush fire hazard reduction of the QLEP 2012) of this SEE for bushfire management details. This to be read in conjunction with APPENDIX I: BUSHFIRE PROTECTION ASSESSMENT
2.9 SAFE DESIGN	
	Not relevant to subdivision DA
2.10 SUBDIVISION	
2.10.6 GENERAL DESIGN	
a) Consent must not be granted to a subdivision of land unless Council is satisfied that the density of the allotments to be created reflects the land capability, natural constraints and hazard of the land and is consistent with and enhances the character of the surrounding residential development. b) Land should not be divided: - in a manner which would prevent the satisfactory future division of land, or any part thereof; - if the proposed use is likely to lead to undue erosion of the land and land in the vicinity thereof; - unless wastes produced by the proposed use of the land can be managed so as to prevent	a) The density is less than was anticipated by the planning proposal (2018) as the 250 lots are reduced to 218 lots. In keeping with the E4 zone character there are no multiunit, dual occupancy or apartment lots created or identified in the estate. There are only 212 small (600 and 800 m²) lots and 6 large (1.5ha) lots proposed for single dwellings. b) The proposed development is for a residential subdivision of 218 residential lots and a single residual lot for associated open space areas which does not fall into categories i) to ix).



- pollution of a public water supply or any surface or underground water resources;
- iv) unless the development achieves the most efficient use of existing utility services (such as water supply and sewerage services), roads and streets. Where connection to sewer is not possible, the allotment shall be suitable for on-site effluent disposal without adverse effect on ground or surface water quality.
 - v) if the size, shape and location of, and the slope and nature of the land contained in each allotment resulting from the division is unsuitable for the purpose for which the allotment is to be used;
 - vi) where the land is likely to be inundated by floodwaters;
 - vii) where the proposed use of the land is the same as the proposed use of other existing allotments in the vicinity, and a substantial number of allotments have not been used for that purpose; and
 - viii) if the division and subsequent use is likely to lead to the clearance of one or more significant trees.
 - ix) where any lot being created in a subdivision is of mixed title, the land held under Old System Title within that lot shall be brought under the Real Property Act.

2.10.7 LOT SIZE AND DESIGN

- | | |
|--|--|
| <ul style="list-style-type: none"> a) The density of allotments should maintain and promote the residential character of the area for infill subdivisions. b) Lot sizes should be compatible with the character of the surrounding area and are to comply with Clauses 2.6, 4.1, 4.1B, 4.2 and 4.2A in the Queanbeyan Local Environmental Plan 2012 and the minimum area requirement as specified on the Lot Size Map. c) Lot sizes and lot layouts in urban release areas should take account of the environmental constraints of the area and be designed to conserve agricultural productive land (where applicable) and the retention of any significant natural features of the site. d) Lot sizes and lot layouts in urban release areas which increase potential resident density shall be sited in close proximity to public transport nodes and to commercial/community facilities. e) Lot size and lot layouts should reflect the servicing capacity of the area. | <ul style="list-style-type: none"> a) The proposed development is for a residential subdivision of 218 lots and associated open space area. The proposed density is in line with envisaged character for the site. b) The proposed lot sizes are compatible with the character of the surrounding area and comply with the minimum area requirement under the Lot Size Map. c) Not Applicable. The proposed development is not mapped as urban release areas under the QLEP. d) The proposed development is not mapped as urban release areas under the QLEP. e) The proposed lot size and lot layout were designed and determined with the consideration of servicing capacity of Jumping Creek Estate and the city of Queanbeyan. |
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2.10.8 FLORA AND FAUNA

- | | |
|--|---|
| <ul style="list-style-type: none">a) Submission to Council of a biodiversity development assessment report which complies with the NSW Biodiversity Conservation Act 2016.b) Application of any measures or amelioration measures identified in the NSW Biodiversity Conservation Act 2016.c) Implementation of design and construction measures to achieve the relevant provisions of the applicable LEP.d) Native vegetation which adds to the visual amenity of the locality and /or which is environmentally significant should be preserved in the design of the subdivision proposal. | Please refer to the BDAR in APPENDIX E |
|--|---|

2.10.9 NATURAL HAZARDS

- | | |
|--|---|
| <ul style="list-style-type: none">a) Application of measures which minimises risks to future development and users from slip, bushfire, flood and other natural hazards.b) Implementation of design and construction measures designed to achieve and comply with the relevant provisions of the Queanbeyan LEP 2012. | All measures to reduce natural hazards has been taken into consideration during design process. |
|--|---|

2.10.10 CONTAMINATION

- | | |
|--|---|
| <ul style="list-style-type: none">a) Where required Implementation of measures designed to remediate land to a standard suitable for occupation.b) Implementation of measures designed to achieve and comply with the relevant provisions of the applicable local environmental plan. | Please refer to APPENDIX L: CONTAMINATION ASSESSMENT for hazardous material and site remediation planning. |
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2.10.11 STORMWATER MANAGEMENT AND DRAINAGE

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|---|--|
| <ul style="list-style-type: none">a) Stormwater and drainage systems shall be designed and engineered to meet the Objectives. | Flood modelling and stormwater management is detailed in the Stormwater report in APPENDIX F: JUMPING CREEK CIVIL ENGINEERING REPORT. |
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2.10.12 ABORIGINAL & EUROPEAN HERITAGE

- | | |
|--|--|
| <ul style="list-style-type: none">a) Subdivision layouts which respect the heritage significance or heritage items or sites within heritage conservation areas.b) Subdivisions which are designed to preserve archaeological sites or potential archaeological deposits by siting them in future public areas away from works likely to adversely affect them.c) Measures undertaken as part of the subdivision to ensure compliance with any applicable statutory requirements. | Please refer to APPENDIX H: CULTURAL HERITAGE ASSESSMENT. |
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2.10.13 ROADS, TRAFFIC (VEHICLES, CYCLISTS & PEDESTRIANS) AND ACCESS



a) Subdivisions designed so that allotments along a main and arterial road have access from a local or secondary road. b) Subdivisions designed to maximise the safety of pedestrians using the road reserve. c) Subdivisions which are designed to comply with any applicable legislative requirements. d) Provision of footpaths in accordance with the Queanbeyan Section 94 Contribution Plan 2012. e) Provision of an off road cycleway where required in accordance with the Queanbeyan Section 94 Contribution Plan 2012. f) Compliance with the Queanbeyan Palerang Regional Council design and engineering specifications applicable to roads, crossings, footpaths, cycleways, bus shelters and the like. g) Provision shall be made for coinciding physical and legal access to all proposed lots.	Internal roads are designed are per council specifications except where otherwise identified on the engineering plans or within the engineering report. Please refer to APPENDIX F: JUMPING CREEK CIVIL ENGINEERING REPORT.
2.10.14 SOLAR ACCESS AND LOT ORIENTATION	
a) Subdivision blocks and allotments which are orientated and have lengths and widths which provide opportunities for maximum solar efficiency when developed.	Each lot enjoys orientation and exposure to sun ensuring the lot complies. However, the dwelling design will need to ensure solar access provision are met.
2.10.15 SERVICE PROVISION	
a) Provision of all essential services including facilities for stormwater and sewerage disposal. b) Use of shared trenches. c) Use of infrastructure which reduces greenhouse gas emissions. d) Use of infrastructure which reduces water consumption. e) Subdivisions (and subsequent buildings) should allow for the incorporation of infrastructure for the use of digital and smart technology as an integral part of the overall design process.	Provision for services are shown on the Engineering Plans and within the engineering report. Sewer, stormwater, electricity, telecommunications and water have been provided for. Please refer to APPENDIX F JUMPING CREEK CIVIL ENGINEERING REPORT.
2.11 AIRSPACE OPERATIONS AND AIRPORT NOISE	
2.11.3 AIRSPACE OPERATIONS	
	Not relevant to this DA; the site is located outside of the area subject to aircraft noise, as shown on the ANEF map as produced in Queanbeyan City Council's Aircraft Noise Assessment Information Sheet.
2.12 TREE AND VEGETATION MANAGEMENT	
	Refer to APPENDIX E: BIODIVERSITY DEVELOPMENT ASSESSMENT REPORT and APPENDIX D: TREE MANAGEMENT PLAN for vegetation removal and management
PART 5. RURAL ENVIRONMENTAL AND R5 LARGE LOT RESIDENTIAL ZONES	
5.1.2 Aims of this Part	



Aims of this part of the DCP are to: - Highlight to landowners and developers the need for full and proper consideration of environmental constraints and servicing requirements in relation to proposed development; - Provide guidance to landholders for the protection of biodiversity values within the LGA; and - Establish criteria to be applied which will determine the allotment density achievable in any area with regard to the subdivision of land.	Noted. This chapter of the DCP has been addressed below. The proposed development generally complies with the desired allotment density.
5.1.3 Objectives applicable to the Rural and Environmental and R5 Large Lot Residential Zones	
- Ensure that development maintains the rural character of the locality and minimises disturbance to the landscape and the environment generally. - Ensure land use is ecologically sustainable, taking into account the environmental capabilities of the land and based on best management practices. - Ensure that development does not create or exacerbate soil erosion. - Ensure that the wider community does not bear the cost of servicing rural residential development. - Ensure agricultural production is not jeopardised by the intensification of development in the rural areas. - Encourage a flexible approach to subdivision of land where appropriate to ensure that large lot productive holdings are not unnecessarily fragmented. - Ensure that dwelling house lots are suitably located so as to have minimum impact on agriculture in the locality and are not clustered to the extent that they form rural residential communities in inappropriate locations. - Ensure that allotments created in subdivisions have a suitable building envelope taking into consideration the potential for surface and ground water pollution and the risk of damage by bushfires or flooding. - Ensure that all allotments created by subdivision have coinciding legal and physical access to a road maintained by Council. - Minimise the creation of vehicular access points to major roads. - Ensure that development is based on catchment management principles and does not have an unsustainable impact on surface and groundwater resources. - Preserve prime agricultural land for long term sustainable production.	The proposal meets the objectives of the E2, E4 and RE1 zones – Refer to Section 3.3.1 of this SEE for further justification. In response to 5.1.3 of QDCP: - The proposal is a rural residential development sited to respect the topographical, environmental and scenic features of the landscape. - The land capability and ecological constraints of the site has been assessed as part of the subdivision design (Appendix E). - Erosion control measures will be required for all future development as conditions of consent, and as part of Controlled Activity Approvals from the Office of Water. - The site is able to be serviced without additional cost to the community. - N/A- The site has no agricultural capabilities - N/A- The site has no agricultural capabilities - The site has no agricultural capabilities. Building envelope areas have been sited on unconstrained portions of land within each proposed lot. - As above. - Access to all lots have been provided. - There are only two access points to EDE. - The catchment has been assessed as part of the stormwater management strategy. - N/A- The site has no agricultural capabilities



5.1.4 Relationship with other Plans, Council Policies and the Like

Noted. All relevant clauses of QLEP and other relevant sections of the DCP have been assessed.

5.2 SUBDIVISION

Additional Requirements:

The following broad restrictions on development apply. Council may vary the restrictions or apply more specific restrictions after consideration of the environmental review and supporting documentation:

- a) Mature native trees are to be protected, especially Yellow Box (*Eucalyptus melliodora*) which provide habitat for the Regent Honeyeater.
- b) Council may require fencing of selected clumps of native trees to allow for regeneration.
- c) Subdivisions proposals must allow for the protection of woodland and forested area and appropriate vegetated corridors.
- d) Development within areas of significant vegetation communities, (particularly natural grasslands, secondary grassland or grassy woodlands), identified in the environmental review is to be restricted to light grazing (preferably with no winter/spring grazing) or restricted to low impact recreation. Buildings or roads should not be constructed within areas supporting other vegetation communities identified as significant in the environmental review (eg. wetlands and riparian environments, or native pastures). A key factor in the assessment of significance is whether the vegetation communities are of high or low ecological quality as assessed in the review.

Protection of native vegetations has been considered from the initial stage of the design. The layout has been designed to have minimal impact on ecological values of the site. A Biodiversity Development Assessment Report (BDAR) has been prepared for the proposal which identifies and assess the significance of the impacts that the proposed development will have on the biodiversity values of the site and recommends mitigation /offset measure.

Please refer to **APPENDIX E: BIODIVERSITY DEVELOPMENT ASSESSMENT REPORT**.

5.2.1 ROADS

- Applicants for developments will be required to provide new and upgraded roads within subdivisions based on the number of lots served and the traffic that will be generated.
- Applicants will also be required to address impacts of new development on the existing road(s) leading to the development. This will involve:
 - i. Upgrading the existing road(s) to a higher order road type when the development causes a level of extra traffic that together with the existing traffic will exceed the maximum traffic volumes allowed for the particular road type;
 - ii. Paying a contribution under Council's Section 94 Plan towards upgrading of access roads leading to developments where existing roads are deficient in alignment pavement, drainage or

Internal roads are designed are per council specifications except where otherwise identified on the engineering plans or within the engineering report.

Please refer to **APPENDIX F JUMPING CREEK CIVIL ENGINEERING REPORT and DRAWINGS**.



safety aspects to cater for the new development; and iii. Sealing of sections of existing gravel roads where extra traffic generated will cause the need to address dust impacts adjacent to existing or proposed dwellings.	
5.2.2 ON-SITE EFFLUENT DISPOSAL	
	Not applicable. All proposed lots will be connected to reticulated sewer.
5.2.3 MANAGEMENT OF FLORA AND FAUNA	
A suitably qualified person must prepare a preliminary flora and fauna report which determines whether the proposed development is likely to significantly affect threatened species, populations or ecological communities or their habitats. The report must be prepared in accordance with the provisions of section 5 of the Environmental Planning and Assessment Act 1979.	Please refer to APPENDIX E BIODIVERSITY DEVELOPMENT ASSESSMENT REPORT prepared by an accredited BAM assessor.
5.2.4 ABORIGINAL HERITAGE	
The NSW Office of Environment and Heritage (OEH) and the Local Aboriginal Land Council should be consulted before a subdivision application is made. Unless the OEH advises to the contrary, a survey of the land proposed to be subdivided, conducted by a qualified archaeologist in consultation with the Local Aboriginal Land Council, must be submitted with the subdivision application.	Please refer to APPENDIX H: CULTURAL HERITAGE ASSESSMENT . It is anticipated that the application will be referred to OE&H prior to subdivision consent and again when an AHIP is made.
5.2.5 BUSH FIRE MANAGEMENT	
1) A Bush Fire Safety Authority request must be supplied with the Development Application. A Bush Fire Report must be prepared in accordance with the following requirements: 2) a statement that the site is bush fire prone land, 3) the location, extent and vegetation formation of any bushland on or within 100 metres of the site, 4) the slope and aspect of the site and of any bush fire prone land within 100 metres of the site, which may determine the likely path of any bush fires, 5) any features on or adjoining the site that may mitigate the impact of a high intensity bush fire on the proposed development, 6) a statement assessing the likely environmental impact of any proposed bush fire protection measures, 7) whether any building is capable of complying with AS 3959/2009 in relation to the construction level for bush fire protection.	Please refer to APPENDIX I: BUSHFIRE PROTECTION ASSESSMENT which satisfies the requirements of RFS and Planning for Bushfire Protection (2019).
5.3 DESIGN PRINCIPLES FOR SUBDIVISION	
a) Natural Environment Wetlands, water bodies and other sensitive habitats identified in the environmental review must be taken	a) A detailed site analysis including all opportunities and constraint mapping has been undertaken for the site which informed the lot layout. As much as practical, the development footprint sits clear of areas of significant



into account in the selection of building envelopes, access tracks and driveways, road locations and boundary fences. Development should be located as far as possible away from significant areas of native vegetation. The integrity of remnant vegetation areas and wildlife corridors must be preserved and enhanced where possible through fencing and/or supplementary planting.

b) Historic Relics and Places

Areas of Aboriginal archaeological or European heritage significance must be protected, and subdivisions should be designed to accommodate the preservation of heritage sites wherever possible. If an Aboriginal relic that is known to exist on land will be destroyed, defaced or damaged, consent will be required from the NSW Office of Environment and Heritage and the proposal will be integrated development.

c) Visual Impact

to minimise the visual impact of the subdivision, visually prominent locations such as scenic hilltops, escarpments, and ridges should be avoided, and tree cover preserved wherever possible.

d) Lot Design

- i. Subdivisions must be in accordance with the relevant provisions of the QLEP 2012 in regard to minimum lot sizes.
- ii. Lot boundaries should relate to land features such as creeks.
- iii. Boundaries should be located parallel or perpendicular to the slope but not diagonally across it.
- iv. Existing fences should be used for lot boundaries where this does not result in inappropriately shaped lots.
- v. Long narrow lots are to be avoided. The width of the lots shall not be less than 100m and the depth of the lot shall not exceed the width of the lot by more than 4:1.
- vi. Battle axe allotments should be kept to a minimum, but when incorporated within a subdivision the following restrictions shall apply:
 - a) the maximum length of access corridor shall be 250m
 - a) the maximum width of access corridor shall be 15m

vegetation, steeply sloping land, scenic protection areas and environmentally sensitive sections of the site.

- b) Please refer to **APPENDIX H: CULTURAL HERITAGE ASSESSMENT** which will be the basis of a future AHIP application to OEH. In general, the subdivision design seeks to avoid impact on Aboriginal sites and objects as far as possible.
- c) A visual impact assessment has been carried for the proposed development and its relationship with adjacent E2 lands and the scenic protection area. All areas with scenic value are protected and preserved in the biodiversity area or the residue lot. Please refer to **APPENDIX C: LANDSCAPE and VISUAL IMPACT ASSESSMENT**.
- d) Proposed development is compliant with the requirements of the minimum lot size map, with the exception of the residual lot. The residual lot includes the entirety of the land that is zoned E2 and has an 80 ha minimum lot size as well as the land zoned RE1. It is noted that area of the land with the minimum lot size of 80 ha on site is only 55.54 ha. A planning proposal to vary the minimum lot size from AC (80 ha) to AB3 (20 ha) has been lodged to Council to facilitate creation of the residual lot, to be subsequently dedicated to Council. This is also in accordance with a previous in principle Council resolution and agreement for the proposed subdivision, and acceptance of residual E2 and RE1 zoned land at Jumping Creek for future ownership and management, subject to that land being improved and remediated, consistent with plans to be approved by Council.

All proposed lots are generally compliant with requirements of this section and have been designed in simple shapes with boundaries that follow the landform. Long narrow lots have been avoided. It is noted that these controls are generally written for larger rural residential blocks and are not applicable to 600 m²-800m² allotments. No battle axe blocks are proposed as part of this development. All allotment have road frontage.
- e) Each large lot has a nominated Building Envelope of 2,000m². The location of building envelopes is determined by the topography and extend of native vegetation as well as other constraints such as scenic protection and bushfire management. All the building envelope areas are all of at least 2,000m² and
 - do not have a slope greater than 15%



vii. Wedge shaped allotments are to be kept to a minimum, but when incorporated within a subdivision shall have a minimum road frontage of 15m and shall achieve a minimum width of 100m at a maximum distance of 100m from the subdivision road boundary.

viii. Each proposed lot shall be provided with legal access to a public road.

e) Building Envelopes

Every lot must contain at least one building envelope free of major environmental and servicing constraints and having good solar access. The location of building envelopes should reflect the findings of the various investigations carried out in the preparation of the subdivision application including the flora and fauna and effluent disposal reports. Where possible building envelopes should be located in areas that have previously been disturbed and should be selected in the context of house sites on adjoining and nearby lots to maximise privacy and maintain the rural character of the area. Ridge tops should be avoided, as should flood plains, drainage depressions, areas with poor foundation conditions, extreme fire risk, erosion and other natural hazard areas. Building envelopes within which a house, ancillary buildings (other than animal shelters with a floor area of not more than 25m²), and the like could be located shall:

- i. be a minimum size of 2,000m²,
- ii. have a slope not greater than 15 percent,
- iii. take into account the constraints identified in the environmental review,
- iv. be located a minimum setback of 50m from the front boundary,
- v. be located a minimum side and rear setback of 15m for lots with an area of 2-4 hectare,
- vi. be located a minimum side and rear setback of 25m for lots with an area greater than 4ha,
- vii. be accessible by a track which does not have a grade exceeding 15 per cent (unless it is proposed to be constructed and sealed by the applicants, in which case the grade must not exceed 20 per cent), and it does not traverse terrain with a grade exceeding 20 per cent,
- viii. Properties that are identified on a bushfire prone land map will be required to satisfy the aims and objectives of Planning for Bushfire Protection 2006 (see clause 2.8.5), including providing an appropriate asset protection zone around buildings.

- avoid areas identified with high ecological value
- are outside of the buffer areas for Jumping Creek
- are outside of the Q 100 flood zone

It is noted that the depth of lots and the location of native vegetation does not provide for 50m setbacks from the road for any of the larger lots. To achieve a distinct character from the small lots established by the 600m² - 800 m² lots a 9m front setback and 3m side setback are applied to large lots (1.5ha).

Given the uniqueness of the estate being an Environmental living zone estate with a residential zone single dwelling scale (derived from the minimum lot size map), Compliance with the setbacks for the building envelope as prescribed by the DCP is not possible. A variation to the standard is therefore respectfully requested.



The access track should avoid areas of significant vegetation and large waterways. The length of driveways and soil disturbance should be minimised. Where a major creek crossing cannot be avoided, the developer shall provide a stable crossing, to the satisfaction of Council. In the event that crossing a prescribed stream is necessary, the NSW Office of Water will have to be consulted as the development may be integrated.

f) Erosion and Sedimentation

Construction on slopes in excess of 15 per cent should be avoided. Natural drainage systems should be preserved and vegetation removal during construction must be minimised. All construction debris must be contained and disturbed areas must be stabilised and revegetated. All exposed batters and table drains must be stabilised, re-planted and/or top dressed and slope stability on all earthworks must be maintained. Council will require an erosion and sediment control plan to be submitted with the development application. Farm dams proposed to be built as part of the subdivision should be constructed in the initial stages so that they may act as sediment retention ponds during the construction phases.

g) Greenway and Road Reserves

Applicants should consult with the Council concerning any proposed or existing Greenway networks in the area. A Greenway may consists of a horse trail or pedestrian links etc. If applicable the subdivision design should provide links to existing Greenways on adjoining land or provide links in accordance with the proposed future development of the network. Where not required as part of the Greenway network or for other community purposes all Crown Road Reserves within the subdivision shall be closed and consolidated with the allotments being created. Greenway areas must form part of a Community Association for the purpose of public use and not limited to resident's use only.

h) Extension of Surrounding Developments

Logical, efficient and environmentally sensitive extensions to electricity supply networks should be planned in consultation with relevant energy authority. Roads should be extended logically from existing roads so that development will create a road hierarchy. Conflict with major arterial and distributor roads should be avoided. Extension to existing development shall facilitate social cohesion and provide for recreation facilities in consultation with Council.

i) Design of Effluent Disposal System

f) All natural drainage areas and systems are preserved, with box culverts proposed for road crossings and building envelope areas located outside of flood areas, water courses or drainage areas. Please refer to **APPENDIX G: VEGETATION MANAGEMENT PLAN** and **APPENDIX F: JUMPING CREEK CIVIL ENGINEERING REPORT and DRAWINGS** for further detail.

g) N/A

h) The Road Hierarchy has been designed to fit in with the surround road network, linking the estate to EDE. the development has been surrounded by nature reserve to the east and north and Queanbeyan river to the south. No further development will occur on these fronts.



An effluent disposal report must be prepared by a suitably qualified consultant for the development. System selection must be consistent with the findings of the effluent report. Effluent should not be disposed on areas supporting significant native vegetation or where run-off to these areas is possible. Consideration should be given to alternative treatment systems in particularly sensitive areas. Advice should be sought from Council's Sustainability and Better Living Section.	i) N/A
j) Non-potable Water Supply Before granting consent to the subdivision of land, Council must be satisfied that all allotments have the potential to obtain an adequate non-potable water supply. The provision of a reticulated non-potable water supply from a communal source (water storage dam or bore) represents a far more efficient use of limited surface and groundwater resources and can avoid potential groundwater contamination problems associated with the proliferation of bores in closely settled rural residential areas. The benefits of such schemes are recognised by the NSW Office of Water as well as Council. Subdivision proposals involving five or more lots must include a reticulated non-potable water supply system capable of providing 0.75 megalitres per annum to each lot at the rate of 0.5 litres per second, unless it is proven that the provision of such a system is not practical. For subdivisions creating less than five lots (or where it is proven that a reticulated system is not practical) each lot must have the potential for either:	j) N/A
k) Provision of Services Soil and vegetation disturbance should be minimised by coordinating the placement of driveways, telecommunications, underground electricity and other infrastructure in the one area.	k) Indicative driveway locations are identified in the subdivision layout plan. Details will be finalised at CC stage. All efforts will be made to coordinate placement of services during construction.
l) Fencing The developer shall provide a stock proof fence to all boundaries, road frontages and public open space areas to the following standard unless Council agrees to a variation prior to erection: ix. Fence height of 1.2m. x. Strainers spaced 100m to 120m depending on terrain. xi. Steel post at 6m centres. xii. Steel droppers, one at centre of span between steel posts. xiii. One 2.5mm high tensile wire on top. xiv. One carry 2.5mm high tensile wire. xv. One bottom 2.5mm high tensile wire.	l) Given the uniqueness of the estate being an Environmental living zone estate with single dwelling scale (derived from the minimum lot size map), Compliance with this control will result in an undesirable streetscape. A variation to the standard is therefore respectfully requested.



xvi. 8/90/30 hinged joint netting each horizontal wire tied to each post and dropper. This is not required for internal boundary fences. xvii. One standard galvanised steel farm gate with steel mesh (minimum 3.65m) at approved entrance. xviii. A post and rail fence on the front boundary shall have a maximum height of 1.2m. xix. Use of a colorbond fence as a windbreak will not be supported. m) Electricity High tension power shall be provided by the developer to the boundary of all additional lots created in accordance with the requirements of relevant energy supplier, Council may require the electricity mains to be underground where visual intrusion or public safety necessitate. If the route identified requires clearing Council's Sustainability and Better Living Division must be consulted before work commences. n) Dwelling houses Internal connections to the dwelling house site should be underground except in cases where tree removal is not required and overhead lines do not visually detract from the landscape. The relevant energy supplier should be contacted regarding the ability to service the land in an early stage of the application.	m) Noted. Refer to Chapter 2 of this SEE. n) Complies.										
5.4 BUILDING SETBACKS AND FENCING											
a) Setbacks which are prescribed as part of a building envelope prevail over any other controls set out below. b) Building setbacks from the front boundary setback shall be a minimum of 50m. Where this cannot be achieved due to the physical dimensions or constraints of any property, the front setbacks shall be assessed on merit and having regard to the objectives of this clause. c) Building setbacks from the side and rear boundaries shall have careful regard to the impact of proposed structures on adjoining landowners, and be consistent with the minimum setbacks set out below: – Table 1 – Minimum Setback Requirements (not including Greenleigh Estate) <table data-bbox="188 1832 778 2029"> <tr> <th>Lot Size</th><th>Setback</th></tr> <tr> <td>Less than 2ha</td><td>6m</td></tr> <tr> <td>Less than 4ha</td><td>15m</td></tr> <tr> <td>Between 4ha and 80ha</td><td>25m</td></tr> <tr> <td>Greater than 80ha</td><td>50m</td></tr> </table>	Lot Size	Setback	Less than 2ha	6m	Less than 4ha	15m	Between 4ha and 80ha	25m	Greater than 80ha	50m	N/A No building is proposed as part of this proposal
Lot Size	Setback										
Less than 2ha	6m										
Less than 4ha	15m										
Between 4ha and 80ha	25m										
Greater than 80ha	50m										



5.5 HEIGHT	
	N/A No building is proposed as part of this proposal
5.6 MATERIAL AND APPEARANCE	
	N/A No building is proposed as part of this proposal
5.7 EROSION AND SEDIMENT CONTROL ON BUILDING SITES	
	N/A No building is proposed as part of this proposal
5.8 WATER SUPPLY	
a) Non-potable Water – Council considers that a suitable non-potable water supply is necessary for land management purposes. A suitable supply is one that provides a storage capacity of 0.75ML or that can deliver 0.75ML per annum at the rate of 0.5 litres per second. b) Potable Water – Minimum potable water supply storage of 90,000 litres shall be provided on site for each dwelling erected on an allotment. Above ground water tanks shall be sited, coloured, and suitably landscaped so as to minimise their visual impact. c) Fire Fighting Resources – With regards to fire fighting reserves a minimum water supply of 20,000 litres should be maintained with an accessible location to fire vehicles. This can be in the form of: i. Above or underground tanks; ii. Permanent dam; iii. Permanent creek,/river; and/or iv. Swimming pool – Above or underground tanks used for domestic supply shall provide for the refilling of fire tankers through an access hole at least 200mm diameter. An access hole of 200mm is required for underground tanks and 65mm storz fitting is to be provided to above ground tanks.	Provision for water supply is shown on the Engineering Plans and detailed within APPENDIX F: JUMPING CREEK CIVIL ENGINEERING REPORT. Water Supply is proposed to be via a connection to a new 200mm watermain along Ellerton Drive that connects to the Greenliegh Reservoir.
5.9 WASTE MANAGEMENT	
a) An average household produces about one tonne of solid waste per year. Approximately one half to two thirds of domestic waste by weight is organic. Another one third is potentially recyclable. Council encourages the minimisation of waste and composting/use of worm farms to reduce the amount of household and commercial waste going into landfill. Items for recycling may be taken to the recycling areas of Council's Waste Resource	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.



Recovery facility. On site waste disposal is not permitted in the rural and environmental zones.	
5.10 INTERNAL DRIVEWAYS	
a) Internal driveways shall be constructed in accordance with the Queanbeyan Palerang Regional Council Engineering Design Specifications and the Queanbeyan Palerang Regional Council Engineering Construction Specifications. A maximum grade of 1 in 10 (10 per cent) applies from the intersection with the access road to the lot boundary. Development approval is required for constructed access tracks other than access tracks on holdings having an area of 80 ha or more. Approval for the internal access should be sought at the dwelling house development application stage, unless the access was approved when the lot was created. Council's Sustainability and Better Living Section should be consulted prior to any construction commencing on site.	N/A

The proposed subdivision will be carried out in accordance with the requirements of the *Queanbeyan Development Control Plan 2012*. The subdivision has been designed to be consistent with the aims and prescriptions detailed within this document. The proposed layout is considerably designed and sensitive to the surrounding environment. All site constraints noted within Section 1 of this document have been taken into account as part of the subdivision design, including the capacity for compliant building envelopes to be achieved on each lot.

3.6 ANY MATTERS PRESCRIBED BY THE REGULATIONS

3.6.1 CLAUSE 92(1)(B) APPLICATION FOR DEMOLITION

No demolition is proposed under this DA.

3.7 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 attached 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.

3.8 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 accordance with the character



and forms of development envisaged for the site within *QPRC LEP 2012* and the Council's *resolution February 2019*.

The site is zoned for residential purposes and contains land suitable for residential development. The proposal complies with all relevant State and Local Environmental Planning Instruments and the NSW Government's and Queanbeyan Palerang Regional Council's planning policies. As highlighted throughout this report and within the attached specialist reports, there are no site constraints which would preclude residential development. The site is suitable for the proposed development.

3.9 SUBMISSIONS

Queanbeyan Palerang Regional Council will need to consider any submissions made in accordance with the Act or Regulations.

3.10 THE PUBLIC INTEREST

The development is in the public interest through the contribution to land supply in Queanbeyan. The proposal will provide a range of residential housing options to meet housing demand.

The proposal facilitates a substantial area of the land with significant ecological and heritage to be preserved, rehabilitated and managed appropriately, with public pathways allowing for appropriate access and recreation activities to take place.





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 *QPRC LEP 2012* and relevant chapters of the *QPRC DCP 2012*. 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.

The proposed development seeks approval for the subdivision of land within the Jumping Creek site to form 218 residential allotments, construction of associated roads, pedestrian pathways and maintenance trails, provision of associated utilities infrastructure and associated vegetation removal.

This SEE provides a detailed assessment of the proposal against the relevant matters under section 4.15(1) of the EP&A Act. The application is recommended for approval for the following reasons:

- The proposed development is consistent with the aims and objectives of the Queanbeyan LEP and DCP as well as the relevant State Environmental Planning Policies;
- The proposed development will allow for the provision of appropriate residential dwellings in the Jumping Creek site, aligned with the previous planning proposal and relevant strategic directions;
- Supporting technical studies which accompany this DA confirm environmental impacts associated with the proposal are generally positive and will not give rise to any adverse impacts; and
- The proposed development is suitable for the site and is in the public interest.





5.0 APPENDICES



Appendix A: SURVEY PLAN



Appendix B: PROPOSED SUBDIVISION PLANS



Appendix C: LANDSCAPE MASTER PLAN AND VISUAL IMPACT ASSESSMENT



Appendix D: TREE MANAGEMENT PLAN



Appendix E: BIODIVERSITY DEVELOPMENT ASSESSMENT REPORT



Appendix F: JUMPING CREEK CIVIL ENGINEERING DRAWINGS & REPORT



Appendix G: VEGETATION MANAGEMENT PLAN AND EROSION AND SEDIMENT PLAN



Appendix H: CULTURAL HERITAGE ASSESSMENT



Appendix I: BUSHFIRE PROTECTION ASSESSMENT



Appendix J: ACOUSTIC REPORT



Appendix K: GEOTECHNICAL ASSESSMENT



Appendix L: CONTAMINATION ASSESSMENT



Appendix M: DEVELOPMENT COORDINATION REVIEW - MEETING MINUTES



