



PRELIMINARY STATEMENT OF ENVIRONMENTAL EFFECTS

Residential Subdivision

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Preliminary Statement of Environmental Effects

Residential subdivision

Part Lot 184 Deposited Plan 1237400; Gurner Avenue, Austal

Prepared for



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GLN Planning Pty Ltd acknowledge the Traditional Custodians of the lands where we work and live. We acknowledge the ongoing connection that First Nations and Torres Strait Islander people have to this land and celebrate the diversity and their ongoing cultures and connections to the lands and waters of NSW.

We pay our respects to Elders past, present and emerging and acknowledge the Aboriginal and Torres Strait Islander people that contributed to the development of this tool/resource.



Date of final issue: 29 October 2021

File Path: C:\Users\Zack Wilson\Dropbox (GLN Planning)\Public\Projects\Active\11570 Landcom - BPA 14320 - Town Planner - Austral\Report

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Client: Landcom

Project Number: 11570

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Document History and Status

Version	Issue To	Qty	Date	Prepared by	Reviewed by
V1 Draft	S. Boukatos (Landcom) P. Neville (Landcom)	1-e	28/10/2021	Z. Wilson	M. Cooper
Final	Liverpool City Council	1-e	29/10/2021	Z. Wilson	



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Executive Summary

This Preliminary Statement of Environmental Effects has been prepared to accompany a development application lodged on behalf of Landcom seeking approval for residential subdivision of one existing allotment to create 92 Torrens title lots for future residential development over part Lot 184 in Deposited Plan 1237400; Gurner Avenue, Austral NSW 2179. The development application follows a separate development application over the land that will excise the proposed development from the remainder of the landholding to the west. This development application includes the removal of select vegetation, bulk earthworks and associated civil works including the construction of temporary on-site detention basins, stormwater drainage, new roads and installation of services.

The development application seeks approval for development that may not be carried out except with development consent pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979*. The land is zoned part R2 Low Density Residential, part SP2 Infrastructure (Local Drainage), part RE1 Public Recreation, part E4 Environmental Living, and the proposed development is permissible with consent pursuant to the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*. The proposed development complies with the other relevant plans and policies that apply to the land and the development.

The proposed development is categorised as 'Integrated development' pursuant to section 4.46 of the *Environmental Planning and Assessment Act 1979* requiring general terms of approval from:

- the NSW Office of Environment and Heritage pursuant to the section 90 of the *National Parks and Wildlife Act 1974*,
- the NSW Rural Fire Service pursuant to section 100B of the *Rural Fires Act 1997*, and
- the Natural Resource Access Regulator pursuant to section 91 of the *Water Management Act 2000*.

The proposed development is not considered 'Designated development' or 'State significant development' pursuant to the *Environmental Planning and Assessment Act 1979* or *Environmental Planning and Assessment Regulation 2000*. However, the development application is categorised as 'Crown development' in accordance with Division 4.6 of the *Environmental Planning and Assessment Act 1979*. As prescribed by Schedule 7(4) of the *State Environmental Planning Policy (State and Regional Development) 2011*, the capital investment value of the development is greater than \$5 million, and the development application would therefore be delegated to the Sydney Western City Planning Panel for determination.

The proposed development has been assessed against the relevant objectives of Liverpool Growth Centre Precincts Development Control Plan and is considered to meet the principles and objectives whilst providing a high level of amenity for future residents. This Preliminary Statement of Environmental Effects has considered the proposal pursuant to the requirements of section 4.15 of the *Environmental Planning and Assessment Act 1979* and Schedule 1 of the *Environmental Planning and Assessment Regulation 2000*. This Preliminary Statement of Environmental Effects describes the development, its likely impacts, and measures to be implemented to mitigate any impacts. All anticipated environmental impacts can be satisfactorily managed and mitigated to ensure no adverse environmental impacts are generated.

Following lodgement of the development application, this Preliminary Statement of Environmental Effects and supporting information will be updated as necessary following review and discussion with Liverpool City Council's Assessment Team.

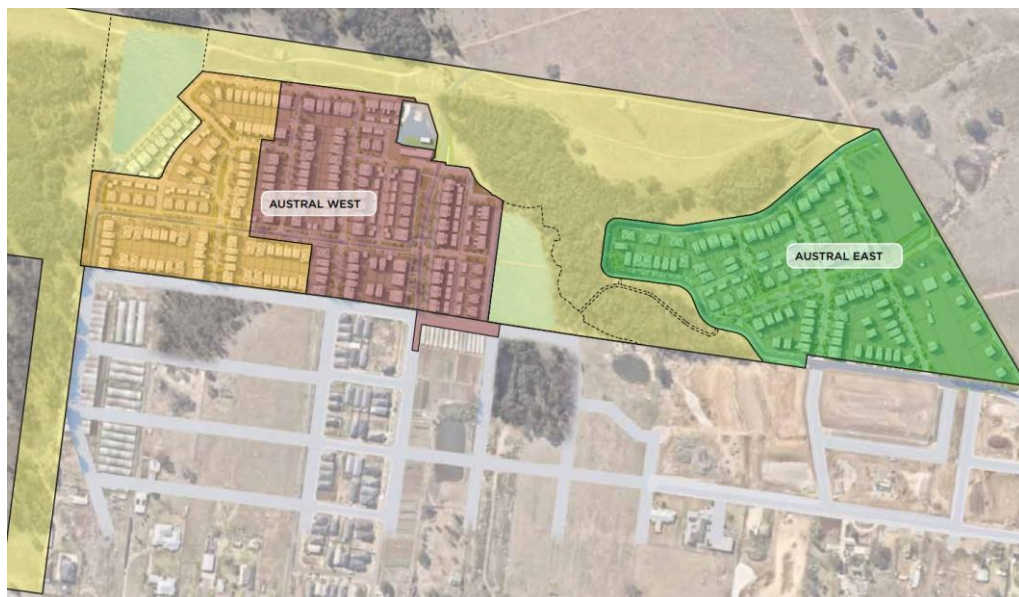
1 Introduction

1.1 Background

GLN Planning Pty Ltd (**GLN**) has been commissioned by Landcom (the **Applicant**) to prepare this Preliminary Statement of Environmental Effects (**SEE**). It accompanies a development application (**DA**) seeking approval for residential subdivision of one existing allotment to create 92 Torrens title lots for future residential development. The DA includes the removal of select vegetation, bulk earthworks and associated civil works including the construction of temporary on-site detention basins, stormwater drainage, new roads and installation of services.

The Applicant and the Office of Strategic Lands (**OSL**) have entered into a Project Delivery Agreement for a 48.77-hectare parcel located over Lot 184 in Deposited Plan (**DP**) 1237400; Gurner Avenue, Austral NSW 2179. The vision for the Austral Project is a new community that will seek to set the benchmark for the sustainable design of human-centred suburbs. Central to the vision is to create an affordable new community on the edge of Western Sydney Parklands that delivers a diverse range of housing sizes and options. It is also intended that the development pioneers the implementation of the new street design standards devised by the Western Sydney Planning Partnership to demonstrate best practice urban tree canopy, Water Sensitive Urban Design (**WSUD**) and urban cooling outcomes.

The Austral Project is split into two developable areas – east and west – divided by an unnamed tributary of Kemps Creek traversing through the centre of the land (refer to **Figure 1** below). Accordingly, a separate DA for staged residential subdivision over Lot 184 in DP 1237400; Gurner Avenue, Austral NSW 2179 is submitted concurrently with this DA to enable Liverpool City Council (**Council**) to assess the entire Site wholistically. The Austral West DA will excise a lot (proposed Superlot 102) specifically for the Austral East DA to apply to (the **Site**). In this regard, it is intended that the Austral East DA (this DA) follows the Austral West DA.



Source: E8 Urban Pty Ltd, 2021

Figure 1. Project stages

The Site is located within the Austral Precinct (**Precinct**) of the NSW Governments South West Growth Area (**SWGA**) designated by *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* (**Growth Centres SEPP**). The Precinct is undergoing significant transformation from the historical rural and rural residential uses to urban purposes since its rezoning in March 2013. Prior to rezoning, the Precinct was subject to extensive studies and consultation with the Department of Planning, Industry and Environment (**DPIE**), Council, community, stakeholders and agencies to inform the orderly development with the necessary infrastructure and services to accommodate the planned growth and change. The vision for the Precinct is that a range of housing types will be delivered to meet the needs of a diverse community, supported by local services, infrastructure, facilities and employment, in an environmentally sustainable manner.

Since the Precinct was rezoned, a number of issues have arisen which impacted on the implementation of the vision for the Precinct. As part of Council's review of the Indicative Layout Plan (**ILP**) which seeks to maximise the development potential of properties and minimise the need for variations, Council's detailed concept design for the stormwater and drainage network concluded that some of the zoned drainage land towards the eastern edge of the Site was surplus to requirements. The stormwater can be carried via pipes under the proposed roads, and the road itself can form part of an overland flow path in extreme events. Utilising roads as overland flow paths in extreme events are standard practice.

It was proposed that part of the extent of the drainage channel zoned SP2 Infrastructure (Local Drainage) would be rezoned to E4 Environmental Living, with other mapped development standards being carried over as per land adjacent. This is consistent with the land-use zoning for the surrounding land and would likely have been the underlying zone had the drainage infrastructure not been identified. Accordingly, a Council initiated amendment to the ILP, and maps adopted by the Growth Centres SEPP was formally made on 18 June 2021.

An extract from the ILP for the Precinct (refer to **Figure 2** over the page) nominates the Site for a variety of land uses including low density residential development. The ILP is supported by the relevant planning controls applying to the Site under the Growth Centres SEPP and the *Liverpool Growth Centre Precincts Development Control Plan* (as amended) (**DCP**).

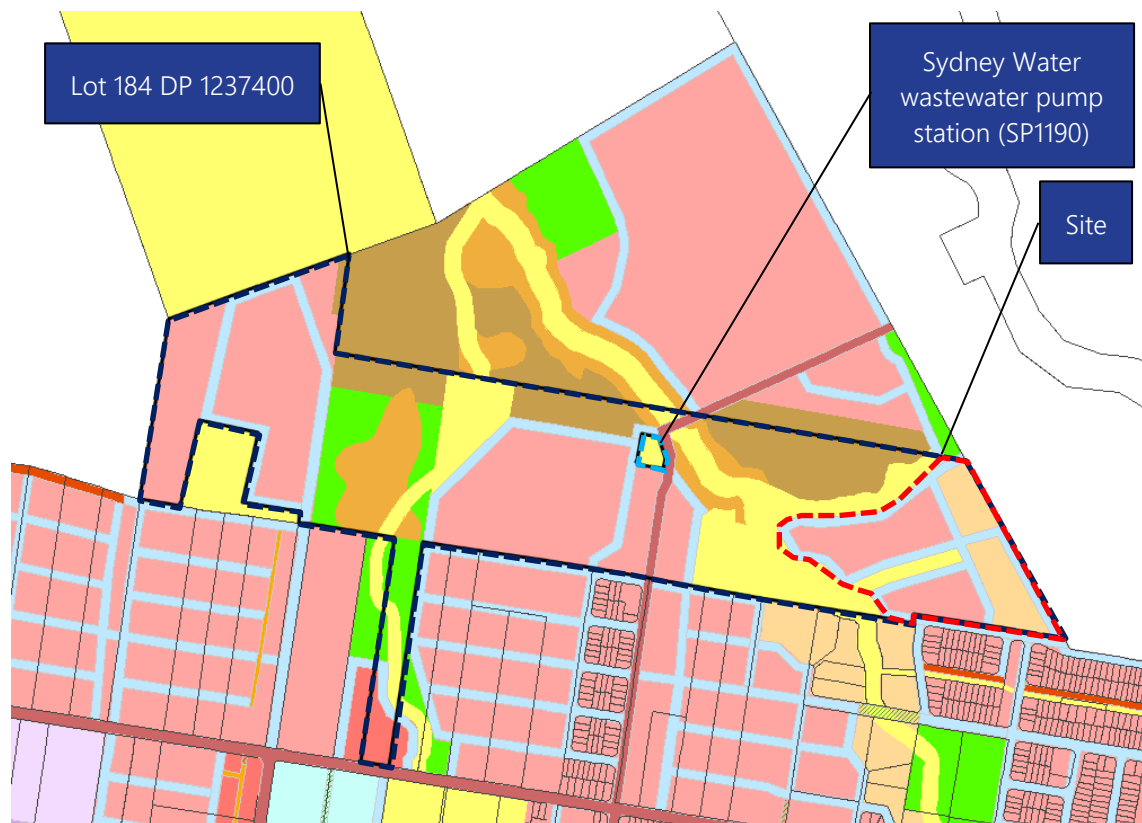
To ensure the orderly development and efficient use of lands, the released ILP and permitted land uses of adjoining lands need to be considered. **Error! Reference source not found.** over the page outlines the development context of the locality, identified using Council's online ePlanning Portal, that are considered to influence the proposed development, demonstrating the transition of a rural residential character to an urbanised environment. The development history of the adjoining lands serves to support the development of this Land, primarily by providing road access and connection to services. The Applicant has corresponded with the adjoining land owners to the north, south, east and west in an aim to coordinate the proposed development to enable a coherent development in the locality.

Table 1. Relevant applications

Application No.	Description	Address	Status
DA-1164/2015	Demolition of existing structures, and three staged Torrens title subdivision of 84 residential lots, including road construction and storm-water works.	35-37 Gurner Avenue, Austral	Approved by delegated/staff 25/05/2016

Application No.	Description	Address	Status
DA-1164/2015/A	The application seeks to modify Development Consent No. DA-1164/2015. Proposed modifications are sought to amend condition 69 which was added to the consent erroneously in that it did does not detail the staging of s94 contribution payments.	35-37 Gurner Avenue, Austral	Approved by delegated/staff 19/09/2017
DA-1273/2016	Bulk earthworks, roads and drainage construction and staged subdivision of the site comprising of three stages: Stage 1 – Subdivision to create one residue lot (lot 2) and one residential Torrens title lot Stage 2 – Subdivision of residue lot 2 into 80 residential Torrens title lots, 1 drainage reserve lot (lot 182), 1 easement for pipeline (lot 183) and 1 residue lot (lot 181) Stage 3 – Subdivision of residue lot 181 into two Torrens title lots.	Lot 3, 95 & 115 Eighteenth Avenue, Austral	Approved by delegated/staff 16/10/2017
DA-1273/2016/A	The application seeks to modify Development Consent No. DA-1273/2016/A.		Approved by delegated/staff 17/05/2018
DA-1273/2016/B	Modification to Development Consent DA-1273/2016 under Section 4.55 of the Environmental Planning and Assessment Act 1979 to amend condition of consent no.1 Subdivision plans to extend the size of two existing lots being lots 163 & lot 164 and remove the remaining one lot being lot 183.		Refused by delegated/staff 12/05/2020
DA-1273/2016/C	Modification to Development Consent DA-1273/2016 under Section 4.55 of the Environmental Planning and Assessment Act 1979 to amend the staging plans from 3 to 4 stages		Withdrawn by delegated/staff 11/09/2020
RZ-8/2018	Austral Indicative Layout Plan Amendment (Amendments to the Liverpool Growth Centres Precinct DCP, SEPP (Sydney Region Growth Centres) 2006, and the <i>Liverpool Contributions Plan 2014 (Austral and Leppington North Precincts)</i>)	Austral	Gazetted by Minister 29/06/2021
DA-376/2018	Demolition of existing structures, dam-dewatering, land remediation, subdivision of 2 lots into 30 Torrens title lots including integrated housing - construction of 9 abutting dwellings and 2 secondary dwellings, and a residue lot for future residential subdivision, and associated roads and drainage works	15 & 23 Gurner Avenue, Austral	Approved by delegated/staff 17/11/2020
DA-311/2019	Application for the staged increase the number of students from 600 to 1200 at Al-Faisal College Liverpool.	83-87 Gurner Avenue, Austral	Approved by delegated/staff 20/09/2019

Application No.	Description	Address	Status
DA-311/2019/A	Modification to Development Consent DA-311/2019 under Section 4.55 of the Environmental Planning and Assessment Act 1979, to remove a number of conditions - 5, 18, 70 and 71 pertaining to the construction of a roundabout and children's crossing prior to 2021 and bus bays	83-87 Gurner avenue, Austral	Application under assessment
DA-530/2020	Landfill for future residential development currently being assessed under DA-376/2018.	15 Gurner Avenue, Austral	Withdrawn
DA-1258/2021	Demolition of Existing Structures, Site Remediation, Subdivision of Existing Allotment into a Torrens Title Subdivision of 109 Residential Lots, and 2 residue lots Construction of Roads and associated Civil Works.	5 & 11 Gurner Avenue, Austral	Under review



Source: Council, 2021

Figure 2. Extract of the DCP ILP road layout

1.2 Purpose of Report

This SEE has been prepared in accordance with Schedule 1 of the *Environmental Planning and Assessment Regulation 2000* (**EP&A Regulation**) for the purposes of:

- demonstrating that the environmental impacts of the development have been considered, and
- outlining steps to be undertaken to protect the environment or to lessen any expected harm to the environment.

This SEE details the necessary information for the proposal to be assessed by the consent authority, including a description of the site and its surrounds and an assessment of the proposal against the relevant planning controls.

This SEE concludes that the proposed development is acceptable in that it is consistent with the relevant planning controls and will have minimal environmental impacts that can be satisfactorily managed.

1.3 Type of Development Application

The DA seeks approval for 'the carrying out of a work' and 'the subdivision of land' generally in accordance with the ILP and accordingly, constitutes 'development' as prescribed by section 1.5 of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**).

Pursuant to section 9.1 of the EP&A Act, the Minister for Planning and Public Spaces made the Local Planning Panels Direction – Development Applications. This Direction commenced on 1 March 2018 and applies to all councils in the Greater Sydney Region, Wollongong, and Central Coast as well as any other council that constitutes a local planning panel under the EP&A Act. The objective of this Direction is to identify the DAs that are to be determined by local planning panels. Based on the thresholds within Schedule 2 of the Direction, and subject to the outcomes of public notification, this DA would not be referred to the Liverpool Local Planning Panel for determination. In this regard, the DA:

- does not depart from any development standards within the Growth Centres SEPP,
- is not classified as 'sensitive development', and
- does not result in a conflict of interest.

The Applicant was formerly part of the Department of Housing (now NSW Land and Housing Corporation from 1986), now established as a State-Owned Corporation under section 5 of the *Landcom Corporation Act 2001* by vesting dated 1 January 2002. Its functions are essentially the same as the former Land Commission of NSW but with wider powers. It is a Government Trading Enterprise which operates on a commercial basis with the power to undertake and participate in residential, commercial and industrial developments.

Accordingly, the DA is categorised as 'Crown development' in accordance with Division 4.6 of the EP&A Act. As prescribed by Schedule 7(4) of the *State Environmental Planning Policy (State and Regional development) 2011*, the capital investment value of the development is greater than \$5 million, and the DA would therefore be referred to the Sydney Western City Planning Panel for determination. Development consent is sought pursuant to Part 4, section 4.16(1)(a) of the EP&A Act.

The Applicant has elected to lodge the DA as 'Integrated development' pursuant to section 4.46 of the EP&A Act given:

- Several registered and newly discovered Aboriginal objects and/or archaeological sites are located within or within close proximity/immediately adjacent to the Site. In accordance with section 90 of the *National Parks and Wildlife Act 1974* (**NP&W Act**), an Aboriginal Heritage



Impact Permit will be required if the Aboriginal objects and/or archaeological sites cannot be avoided by future development.

- The Site is mapped as bush fire prone land in accordance with section 10.3 of the EP&A Act and requires a Bush Fire Safety Authority to be obtained from the New South Wales Rural Fire Service (**RFS**) pursuant to section 100B(1) of the *Rural Fires Act 1997* (**RF Act**) 'for subdivision of bush fire prone land that could lawfully be used for residential or rural residential purposes'.
- There are a number of streams identified that traverse the Site, including first, second and third order tributaries. These unnamed streams stem from Kemps Creek, the major waterway in the region which runs approximately 950 metres to the west. Accordingly, works are located within 40 metres of the top of bank of a number of these tributaries and as such, a controlled activity approval (**CAA**) from the Natural Resources Access Regulator (**NRAR**) pursuant to section 91 of the *Water Management Act 2000* (**WM Act**) is required.

The DA is not considered to trigger any further potential for 'Integrated development' pursuant to section 4.46 of the EP&A Act. **Section 4.2** of this SEE provides further discussion regarding integrated development matters. The DA is not considered as 'Designated development' or 'State significant development' pursuant to the EP&A Act or EP&A Regulation.

Therefore, it is expected the DA will be notified and assessed by Council and determined by the Sydney Western City Planning Panel.

1.4 Referrals and Consultation

As discussed above, the proposed development is categorised as 'Integrated development' pursuant to section 4.46 of the EP&A Act and is to be referred to the NSW Office of Environment and Heritage, RFS and NRAR to obtain general terms of approval.

The eastern portion of the Site is encumbered by the Jemena Eastern Gas Pipeline which is a key natural gas supply artery between gas fields in Gippsland in Victoria and the major gas markets in NSW and the ACT. Further, an easement exists along the northern boundary of the Site approximately 60 metres wide (partly extending onto the adjoining lands) within which high voltage transmission lines on large steel stanchions owned by TransGrid and forming part of the Kemps Creek 500kV substation.

In accordance with clause 45 and 66C of the *State Environmental Planning Policy (Infrastructure) 2007* (**Infrastructure SEPP**), referral of the DA will be required to both Jemena and TransGrid for assessment and comment. The Applicant has begun initial consultation with Jemena to define their operational requirements for development in the vicinity of the gas pipeline.

1.5 Disclaimer

This SEE has been informed by a raft of technical discussions with the Consultant Team to assist in demonstrating that the environmental impacts of the development have been considered; and outlining steps to be undertaken to protect the environment or to lessen any expected harm to the environment.

Whilst these discussions have helped inform key parts of this SEE and give a high degree of certainty about expected outcomes, it is noted that all technical reports had not been fully completed and/or



reviewed in this version of the SEE. The Applicant is working with the consultant team to finalise the reports that will accompany the SEE. Accordingly, this SEE documents the understanding of the relevant issues and remedies in good faith to advance the assessment of the DA. However, GLN and its employees cannot guarantee that the final reports may not change some of the findings or accepted solutions. GLN does not accept liability however arising, including liability for negligence, for any loss from the use or reliance upon the information in this SEE until and unless all other reports have been complete and any consequential updating of this SEE is complete.

The Applicant is diligently working with the respective consultants to complete or finalise the outstanding reports to enable Council to assess the proposed development and these will be provided to Council in due course.

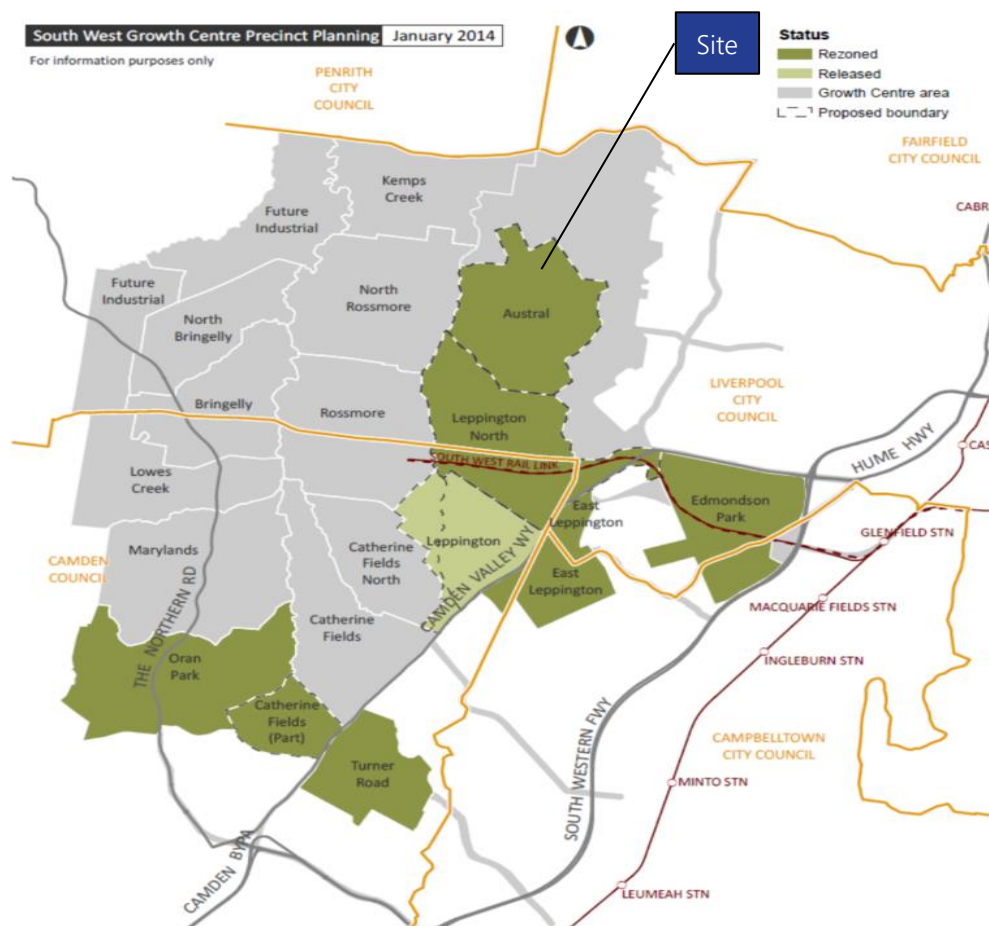
2 The Site and Locality

This section of the SEE describes the Site and its location. It defines the project area for the purpose of this SEE and provides a summary of the key features of the environment of the area, and the broader locality which may be impacted by physical works, and therefore provides the key factors considered as part of a site analysis of the land.

2.1 Site Location

The Site falls within the traditional country of the Cabrogal Clan of the Dharug Nation, who are the traditional custodians of the land that now resides within Council's boundaries, acknowledging that this land was also accessed by peoples of the Tharawal and Gandangara Nations.

The Site is situated in the Precinct, in the suburb of Austral, within a significant portion of the central part of the Liverpool City Council local government area (LGA) of the SWGA (refer to **Figure 3** below), which is intended to provide substantial land release areas for homes and employment in Sydney's south-west. Austral is bounded by a line consisting mainly of the transmission line in the north, the Sydney Water Supply Channel in the east, Bringelly Road in the south, and Kemps Creek in the west.



Source: Council, 2014

Figure 3. SWGA Precincts



A key purpose of the NSW Government's SWGA was to contribute to addressing the existing housing supply shortage and to accommodate the growing housing demands within the Sydney metropolitan basin. The Austral and Leppington North Precincts will make a significant contribution to achieving the land and housing objectives in Sydney's south-west. Combined, this area is expected to accommodate up to 17,350 new dwellings and over 50,000 new residents. In support of the development of these precincts, the NSW Government has made a significant investment in infrastructure including the South West Rail Line, major road upgrades and the first stage of lead in sewer mains.

In a regional context, the Precinct is located approximately 37 kilometres south west of the Sydney Central Business District, approximately 10 kilometres west of Liverpool regional centre and approximately 15 kilometres north of Campbelltown town centre. The Precinct benefits from close proximity to major roads including the M5 and M7 Motorways and open space facilities such as Western Sydney Parklands. The area is currently comprised of market gardens and rural residential land uses but the character of the Precinct, has and is, undergoing significant change following the rezoning of the Precinct for urban purposes and recent approvals that have enabled construction works for future urban development.

2.2 Site Description

The Site is located within a semirural suburban landscape and is legally identified as part Lot 184 in DP 1237400; Gurner Avenue, Austral NSW 2179. Lot 184 in DP 1237400 is an irregular shaped parcel located on the northern side of Gurner Avenue with a narrow strip (battle-axe handle) fronting Gurner Avenue (refer to **Figure 4** over the page).

The TransGrid Kemps Creek 500kV substation is located immediately north west of the Site with high voltage transmission lines on large steel stanchions traversing north east to south west across the western portion of the Site.

A Sydney Water wastewater pump station (pump reference SP1190) is located in the north central portion of the Site (Lot 2 in DP 1223501) and is removed from the proposed development.

The eastern portion of the Site is encumbered by the Jemena Eastern Gas Pipeline which is a key natural gas supply artery between gas fields in Gippsland in Victoria and the major gas markets in NSW and the Act. A Jemena gas substation is also located near the south east corner of the Site (within the Site).

The Site sits between two ridge lines, defined by the creeks lines that drain south to north. The Site generally comprises open fields with areas of remnant bushland existing along creek margins while the remaining land is comprised of low-lying grasses, shrubs, weeds and small areas of native regrowth.



Source: Nearmap, 2021

Figure 4. Aerial photograph of the Site and surrounding locality

2.3 Services and Easements

The Site comprises creek lines, vegetation corridors and various restrictive easements related to the adjacent electricity infrastructure and plant, Sydney Water pump station and gas pipeline infrastructure as follows:

- An easement along the northern boundary of the Site approximately 60 metres wide (partly extending onto the adjoining lands) within which are high voltage transmission lines on large steel stanchions,
- Easements near the eastern boundary of the Site for pipelines and above ground apparatus, right of carriageway and easement for services and easements for cathodic protection,
- An easement for access and services some 10 metres wide associated with Lot 2 in DP 1223501 owned by Sydney Water,
- A right of carriageway and easement for services along part of the southern boundary and part of the access handle to the Site,
- An easement associated with a gas pipeline runs along the eastern Site boundary with an associated 200-metre-wide exclusion zone around an associated vent outlet,
- A right of carriageway and easement for services 20 metres wide and variable along the access handle and extending north through the Site, and

- Proposed right of carriageway and easement for services 20 metres wide and variable along the access handle and extending north through the Site to benefit TransGrid.

2.3.1 Servicing

The proposed development will require service connections to the utility service mains. Stantec Australia Pty Ltd. on behalf of the Applicant has initiated feasibility applications with key utility providers to understand the required extent of servicing works required for the proposed development (refer to **Appendix A**). A summary of the proposed utility infrastructure that is available or to be augmented by the Applicant is outlined below (refer to **Table 2** below). It is also understood that Council routinely refers DAs to both Sydney Water and Endeavour Energy to confirm the availability of services.

Table 2. Summary of servicing requirements

Item	Summary
Sewer	<p>There is an existing sewer pump station within the Site. The pump station site must not be encroached upon.</p> <p>There is an existing access road to the pump station that passes through the Site and is within an easement. High-voltage power and a sewer rising main also exist within the easement. If relocation of the access is desired an alternate access must be provided and the power supply and rising main must be relocated.</p> <p>There is existing gravity sewer within the Site that may also require relocation pending the proposed subdivision layout.</p> <p>The central portion of the Site will be serviced via connection to either the existing pump station or to existing gravity infrastructure.</p> <p>The eastern portion of the Site will be serviced via connection to either existing infrastructure within the central portion of the Site or infrastructure that is currently being constructed to the south of the Site.</p> <p>In addition to the above, a future sewer rising main is proposed within the Site by Sydney Water. Design of the rising main is ongoing and must be considered in future engineering design</p>
Potable and recycled water	<p>There is no recycled water in the vicinity of the Site. It is unlikely that recycled water servicing of the Site will be possible.</p> <p>There is existing potable water in existing roads proximate to the Site. It is unlikely that existing infrastructure proximate to the Site has capacity to service the proposed development.</p> <p>Sydney Water are currently remodelling potable water main sizing in Austral. The requirement to perform offsite works will be dependent on the outcome of this remodelling. A Feasibility Letter was previously received from Sydney Water in 2018, however it did not provide useful guidance regarding water servicing of the Site.</p> <p>Typical potable water reticulation is required within the Site.</p>
Power	<p>There is existing TransGrid aerial transmission infrastructure within the Site that represents a key risk and constraint.</p> <p>It is likely that either the Hinchinbrook, Kemps Creek, or future zone substations can service the development. Timing of the development may influence the supply point.</p>

Item	Summary
	<p>It is unclear whether existing high-voltage feeders within and in the vicinity of the Site have capacity to service the development. It is possible that extension of feeders from the Site to the applicable zone substation will be required.</p> <p>Typical reticulation and on-site kiosk substations are required within the Site.</p>
Gas	<p>There is existing high-pressure gas transmission infrastructure within the eastern portion of the Site that represents a key risk and constraint.</p> <p>There is existing gas reticulation within and in close proximity to the Site that is capable of servicing the proposed development</p> <p>Typical reticulation is required within the Site</p>
Telecommunications	<p>There is existing NBN Co telecommunications infrastructure in development to the south of the Site that is likely capable of servicing the development.</p> <p>Typical reticulation is required within the Site.</p>

2.4 Surrounding Locality

Currently, the Site and the immediate locality is in the northern part of Austral, is mostly semi-rural in nature, but is zoned for a variety of urban development uses pursuant to the Growth Centres SEPP. Due to a number of approved and completed subdivision developments towards the eastern end of Gurner Avenue, the locality is considered land in transition.

The Site adjoins the Western Sydney Parklands which extends some 27 kilometres and covers more than 5,280 hectares of land in Sydney's west. The Western Sydney Parklands span from Quakers Hill in the north down to Bringelly Road, Leppington in the south. The *Southern Parklands Framework Plan 2018* envisages the area adjoining the Site as being developed in the future as an area for sport and structured recreation potentially accessed by the proposed collector road running through the Site under the ILP.

The surrounding locality of the Site varies greatly. To the north of the Site is land zoned for urban development separated by a band of rural transition land generally following the alignment of the high voltage transmission lines owned and managed by TransGrid. Further to the north is the major Kemps Creek Substation and Kemps Creek Nature Reserve which is part of the Western Sydney Parklands.

Land to the south comprises properties along the northern extent of Gurner Avenue progressively being redeveloped for urban purposes with a recent residential subdivision along Seoul Avenue in the south-east being typical of surrounding development.

Western Sydney Parklands is located to the east of the Site, with a major gas easement located on the eastern boundary of the Site. To the west of the Site is land within a residential zone and identified for electricity transmission purposes, earmarked for the future Snowy Hydro 2.0 project.

The Site is located approximately 4.8 kilometres north of Leppington Railway Station on the T2 Inner West and Leppington Line and T5 Cumberland Line. Approximately 2.8 kilometres south east of the Site is the junction with Cowpasture Road which provides access to the M7 Motorway in both directions (north and south).

3 Proposed Development

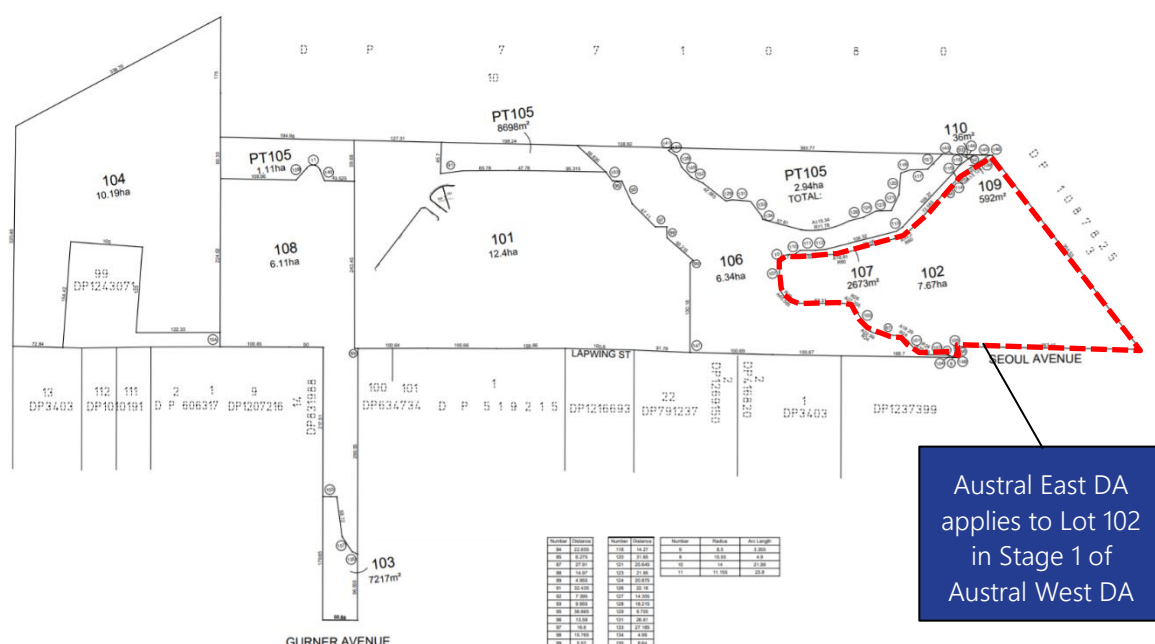
The DA seeks approval for residential subdivision of one existing allotment to create 92 Torrens title lots. The DA includes the removal of select vegetation, bulk earthworks and associated civil works including the construction of temporary on-site detention basins, stormwater drainage, new roads and installation of services.

Each component is described in more detail in the sections below.

3.1 Order of Development

As outlined in **section 1.1** of this SEE, the Austral Project has been divided into two development catchments (east and west) with each being the subject of a separate DA to allow an appropriate design to be devised to respond to the different features and constraints of the land. This DA is for Austral East. The DA for Austral West has been submitted concurrently so that Council can have a full appreciation of the design and development outcome intended to be delivered by the Applicant.

The Austral West DA involves an initial paper plan of subdivision stage to excise the Site from the Austral West development (refer to **Figure 5** below). In this regard, it is intended that this DA will follow the approval of the Austral West DA and registration of the preliminary subdivision stage.



Source: Project Surveyors Pty Ltd., 2021

Figure 5. Preliminary paper plan subdivision is Austral West DA

3.2 Sediment and Erosion Control

Prior to any earthworks commencing on Site, sediment and erosion control measures shall be implemented generally in accordance with the Civil Engineering Plans prepared by Calibre Consulting (NSW) Pty Ltd (**Calibre**) (refer to **Appendix B**). The measures illustrated on the Civil Engineering Plans are intended to be a minimum treatment only as the contractor will be required

to modify and stage the erosion and sediment control measures to suit the construction program, sequencing, and techniques. These measures will include but not limited to:

- a temporary site security/safety fence is to be constructed around the Site,
- sediment fencing provided downstream of disturbed areas, including any topsoil stockpiles,
- dust control measures including stockpiles, installing fence hessian and watering exposed areas,
- placement of hay bales or mesh and gravel inlet filters around and along proposed catch drains and around stormwater inlet pits, and
- stabilised site access at the construction vehicle entry/exits.

Any stockpiled material, including topsoil, shall be located as far away as possible from any associated watercourses or temporary overland flow paths. Sediment fences shall be installed to the downstream side of stockpiles and any embankment formation. All stockpiles and embankment formations shall be stabilised by hydroseeding or hydro mulching on formation.

3.2.1 Sediment basins

Initially the proposed bulk earthworks basins will be used as sediment basins during the construction of the civil works. Silt fences are to be erected around the outside of the disturbed areas to exclude silt and fencing around the basins to ensure access is restricted. It is proposed that the swales and sediment basins will manage sediments and pollutants off the Site during the construction process.

Protective erosion and sediment control measures are to remain in place and function as temporary sediment basins for the duration of the construction phase, or until sufficient upstream sediment controls have been installed. Access to the sediment basins is to be restricted throughout construction.

3.3 Vegetation Removal

The proposed development has purposely been designed to avoid impacts to the biodiversity values present, in particularly within the riparian corridors and E2 Environmental Conservation zoned land. However, minor impacts to vegetation identified in the Growth Centres SEPP a Native Vegetation Retention' (**NVR**) (0.03 hectares) will be required for essential infrastructure such as perimeter roads around the riparian corridors to adhere to bush fire risk management requirements. These impacts will be mitigated through the retention, revegetation, and management of native vegetation within the riparian corridors and through implementation of a Vegetation Management Plan (**VMP**).

In accordance with Eco Logical Australia Pty Ltd.'s (**ELA**) Biodiversity and Riparian Land Assessment, the VMP will stipulate measures for re-use of native plants such as collecting seeds from native vegetation proposed for removal for utilisation within the VMP area (refer to **Appendix C**). A pre-clearance and clearance survey will be undertaken within native vegetation proposed for removal prior to the felling of trees. Any identified native fauna will be relocated to the VMP area or, if injured, taken to the nearest vet or rescue facility.

3.4 Civil Works

The proposed development will include construction of an internal road network consisting of a combination of circulating roadways, local roads and laneways to support vehicle access to the



Precinct and associated services and stormwater drainage infrastructure, generally in accordance with the ILP road pattern.

Further details on each aspect of the proposed road and civil works are outlined in the following sections and detailed in the Civil Engineering Plans and Urban Design Report (refer to **Appendix B** and **D**).

3.4.1 Bulk earthworks

Bulk earthworks are proposed to be carried out over the Site (refer **Appendix B**). These earthworks and ground contouring are required to grade the Site to deliver the proposed road network and associated drainage infrastructure generally in accordance with the ILP and to provide building pads for each of the proposed residential lots.

The proposed development includes cut and fill to deliver the proposed levels. The cut and fill volumes provided are concept only and are subject to change pending final coordination and detailed civil design. Cut and fill options are based on the assumptions outlined in the Civil Works Plans and Stormwater Concept Plan and Flood Study (refer to **Appendix B** and **E**).

Any fill material will be classified at the source as being either Virgin Excavated Natural Material or Excavated Natural Material pursuant to the *Protection of the Environment Operations Act 1997* (**POEO Act**) and imported as required.

3.4.2 Stormwater quantity management

Calibre was further engaged by the Applicant to prepare a Stormwater Concept Plan and Flood Study to inform the proposed development and detail a stormwater management strategy based on WSUD principles (refer to **Appendix E**).

The stormwater quantity management strategy aims to match post-development peak runoff to the permissible site discharge in all storm events up to and including the 100-year storm event in accordance with Council's requirement for stormwater quantity. This will mitigate large scale flooding while maintaining the smaller channel forming flows and in-stream environments.

Modelling of the drainage network and overland flow paths demonstrate viability that the pipe and road drainage system can adequately convey storm events up to the 1% annual exceedance probability (**AEP**). The proposed external catchments have been included as part of the overflow path and pipe drainage assessment. The detailed design will include further modelling and refinement of the drainage network.

3.4.3 Regional basins

The Water Cycle Management for the Austral and Leppington Precinct identified two regional basins within the broader Site. The Austral East catchment, subject of this DA, does not drain to a regional basin and instead discharges directly to the unnamed tributaries that traverse the Site. Until such time as the regional basins are in operation to compensate/offset for this catchment, the proposed development will provide temporary water quality and detention basins. Two basins are proposed, with the basins nominated as Eastern Temp Basin 1 and Eastern Temp Basin 2 (refer to **Figure 6** below).



Source: Calibre, 2021

Figure 6. Catchments

3.4.4 Stormwater quality management

A temporary water quality treatment strategy is required to reduce stormwater pollutant loads until the regional stormwater management infrastructure is operational. The stormwater quality objectives established by Council will be achieved by treating frequent stormwater runoff flows. The treated flows will then drain to the creek.

The proposed Eastern Temp Basin 1 will provide a temporary bioretention basin, whilst a permanent bioretention swale will be located in the landscaped median. A bioretention basin will be utilised as part of the water quality treatment strategy for the Site and to receive flows from the minor drainage system. The proposed bioretention basin will be located clear of the core riparian zones. The bioretention basin incorporates an extended detention storage above the filter media. The bioretention will be complimented by additional raingardens within the road reserve as required where parts of the development do not drain to the bioretention basin.

3.4.5 Installation of services

To ensure that the future residential subdivision is capable of being serviced in a timely manner, Calibre on behalf of the Applicant has initiated preliminary investigations and consulted with essential utility service providers to confirm the availability of services to support the proposed development. Appropriate arrangements will be made with the relevant service authority for the provision of electricity, gas, sewer, telecommunications, and water.

3.4.6 Roads

Council will note some deviations from the recently adopted street cross sections in the DCP. Whilst Council's revised cross sections will improve streetscape outcome over the original cross sections, the design intent for this development has been to adopt the new street engineering standard

devised by the Western Sydney Planning Partnership (**WSPP**) that Council is part of and endorsed. In this vein, the Applicant intends for this development to pioneer the implementation of the new WSPP street design standards to demonstrate best practice in:

- shared road use with an emphasis on pedestrian and cyclist mobility,
- high quality public domain outcomes,
- increased urban tree canopy,
- water Sensitive Urban Design, and
- urban cooling outcomes through reduced pavements and increased planting.

Table 3 over the page provides a description of each of the road typologies to be delivered in the development. In detailing up the WSPP inspired road cross sections, the Applicant has cross referenced both Council's DCP and engineering specifications to ensure they meet key performance requirements. The Urban Design Report at **Appendix D** provides more detailed commentary regarding both the design intent and benefits from minor departures from the DCP cross sections.

The proposed development of the broader Austral Project will facilitate the safe movement of vehicles, pedestrians and cyclists within the residential subdivision by providing a more permeable and legible street network with more connecting points to the rest of the road network than anticipated by the ILP, including:

- Edmondson Avenue (Street Type A) extends through the western precinct as a collector road.
- East-West WSUD Spine (Street Type B) is an east-west spine that connects from Edmondson Avenue, which bisects the western precinct to enable efficient distribution.
- Edge Street (Street Type E) connects Seoul Avenue and extends on the western and northern boundary of the eastern precinct to provide accessibility.
- Multiple local streets and residential laneways provide permeability and accessibility across the two precincts. Four local streets including Edge Street (Street Type E), Shared Zones (Street Type C1) and Laneway connect the future planned road to the south of the western precinct while two Shared Zones (Street Type C1) and WSP Street (Street Type J) connect the existing Seoul Avenue with the eastern precinct.

Accordingly, the proposed transport network needs to cater for the travel characteristics of the proposed land uses as well as integrate appropriately with the surrounding network (refer to **Figure 7** over the page). The most important interface for the Site is with the existing and the planned road network to the south.

The Austral East development benefits from existing access via the existing Seoul Avenue, which further connects with Oslo Street, King Rock Road for a wider road network. It is noted that there are no connections for cars between the two precincts due to the riparian corridor and is consistent with the ILP.



Source: E8 Urban Pty Ltd

Figure 7. Street types

Table 3. Typical road sections

Road No.	Road type	Carriageway (m)	Road reserve (m)	Comment
Street E (edge street)	Local road	6.1	12.0-13.5	<p>The Edge Street has been developed to incorporate a wider carriageway for Bush fire access.</p> <p>Bush fire provisions requires an 8-metre clear road carriageway adjacent to vegetation that is deemed a bush fire hazard.</p> <p>In order to avoid the poor urban design outcomes that a road with an 8-metre carriageway would result in, the proposed development introduces a bi-directional cycle path on a raised shoulder that adjoins a 5.5 metre carriageway but is separated by a raised mountable kerb.</p>
C1 – Shared zone	Shared zone	5.5	13.6	<p>Shared zones make up the majority of the public streets within the proposed development. These streets have been carefully designed in the context of a low-density suburb.</p> <p>The shared zones incorporate driveways, on-street parking as well as large areas of verge and social spaces that promote community interactions.</p>

Road No.	Road type	Carriageway (m)	Road reserve (m)	Comment
				Individual parklets have also been incorporated into the proposed development to offer dedicated sheltered spaces for community interactions and informal children's play. A number of traffic calming strategies have also been deployed including, road narrowing, changes in horizontal road alignment and give-way pinch points.
Street G (Laneway 2 tree on one side)	Shared zone	5.5	7.0	Laneways provide both parking and servicing access to rear-loaded dwellings within the Site and a secondary circulate access for pedestrians.
Street H (swale street 1)	Shared zone	4.0	25.0 (variable)	This street typology has been developed to accommodate an overland flow path from the east draining to Kemps Creek.
Street I (swale street 2)		4.0 & 4.0	25.0	It is anticipated that this will generally be a dry-overland flow path, however it has been designed to also allow for WSUD to treat run-off from the local streets. The landscaped verge area will also accommodate a local park with play and social activation opportunities.
Street J (WSP street)	Local road with wide vegetated buffer	4.1m	6.2-7.8m (variable)	The local street with a wide verge or setback can be found centrally within the Site. Its purpose is to form a green spine between the two existing vegetation communities within the Site. The street is to have a dedicated parking lane with footpaths on both sides of the road reserve. Street verges are to include mature trees on either side of the footpath with complementary understorey planting to act as a buffer for residential buildings.

All the streets in the Austral East development have been designed as shared zones. Those shared zones and laneways provide permeability and connectivity across the internal street network. These streets incorporate traffic calming treatments along those shared zones such that vehicle speeds would be reduced, which provides a safer environment for cyclists and pedestrians across the Site.

As discussed in the Traffic and Access Study prepared by SCT Consulting Pty Ltd the proposed cross-sections generally maintain the features recommended by the *Western Sydney Street Design Guidelines* with deviations as justified in Table 5-1 (refer to **Appendix F**). It is considered the deviations have a limited impact on the road network and beneficial for site access and sustainable transport use.

3.5 Landscaping

Street tree planting is proposed within the road verges in accordance with the DCP. A range of proposed trees including locally occurring native species and exotic deciduous species are proposed for the intended purpose to provide seasonal colour, solar access in winter and shade in summer and have been selected from Council's preferred planting list in the DCP.

The proposed landscaping provides for a number of opportunities including street frontages and communal open space. The landscape design recognises the importance of greenery, and the scheme promotes the implementation of canopy trees with deeper soil zones where there are opportunities to do so. Details of the proposed street tree planting and public domain outcome are illustrated in the Landscape Plans prepared by Scape Design Pty Ltd. (refer to **Figure 8** below and **Appendix G**).



Source: Scape Design Pty Ltd.

Figure 8. Landscape master plan

3.6 Subdivision

The DA seeks approval for residential subdivision of one existing allotment to create 92 Torrens title residential lots and new local roads to be dedicated to Council and has been designed to tie in with adjoining subdivisions in accordance with the ILP.

The proposed subdivision design provides for a variety of allotment sizes with variation in frontages within each street and will encourage interesting streetscapes throughout the new residential community, ensuring high levels of diversity in housing product for the development as shown in the Plan of Subdivision (refer to **Appendix H**). The block orientations have been designed in accordance with the ILP to be consistent throughout the development providing an orderly streetscape by responding to the subdivision pattern to achieve a variety of dwelling designs within the suburban streetscape character anticipated by the DCP.

All proposed lots are generally rectangular in shape and have been designed to accommodate front loaded dwellings, with a mix of corner lots being wide enough to generally allow either front loaded, or side loaded garages. The residential lots on R2 Low Density Residential zoned land range in area between 268.5m² and 733m². Due to the irregular shape of several superlots and ILP, 2 battle-axe lots are proposed (Lots 570 and 571). All proposed battle-axe lots are at least 500m² in area (excluding the access handle). Again due to the irregular street blocks, a minimal number of fan-shaped lots are required.

The residential lots over the E4 Environmental Living zoned land range from 1,006m² to 5,458m² in size. In this regard, due to the affectation by the Jemena easement and location of Jemena plant, Lot 588 has an area of 5,458m² and with a dog leg configuration. Lot 543 has an area of 4,308m² and has a rectangular shape. The intention of this larger lot is to facilitate the retention of the easement and associated plant in two lots to avoid further fragmenting the easement and increasing any operational burden on Jemena.

Where lots are below 300m² in size, a Building Envelope Plan (**BEP**) forming part of the Urban Design Report (refer to **Appendix D**) have been prepared to demonstrate that these lots are able to accommodate a dwelling that can comply with either built form controls of the DCP or requirements of the *State Environmental Planning Policy (Exempt and Complying Codes) 2008 (Codes SEPP)*. Accordingly, the Urban Design Report acts as a Public Domain Plan to demonstrate how the public domain will be developed as a result of the proposed subdivision (refer to **Appendix D**) and ensure driveway and infrastructure locations do not compromise the ability for on street parking and delivery of street lighting and street trees (refer to **Figure 9** over the page).



E8 Urban, 2021

Figure 9. Axonometric view of the eastern precinct



4 Environmental Assessment

This section of the SEE assesses the proposed development against the planning framework and planning controls applicable to the site and the development, including:

- Threatened Species and Biodiversity Impacts (section 1.7 of the EP&A Act),
- Integrated development matters (section 4.46 of the EP&A Act),
- Bush fire prone land (section 4.14 of the EP&A Act), and
- Matters for consideration relating to DAs (section 4.15 of the EP&A Act).

4.1 Biodiversity and Threatened Species Impact

The EP&A Act contains provisions designed to ensure threatened species legislation as well as any approvals required under other legislation (known as 'Integrated development') are considered as part of a single development assessment process. The provisions as they apply to the proposed development are discussed below.

4.1.1 Biodiversity impacts

Section 1.7 of the EP&A Act requires consideration as to whether a proposed development will have a significant effect on threatened species, populations or ecological communities relating to terrestrial and/or aquatic environments as required under Part 7 of the *Biodiversity Conservation Act 2016* (**BC Act**) and Part 7A of the *Fisheries Management Act 1994* (**FM Act**).

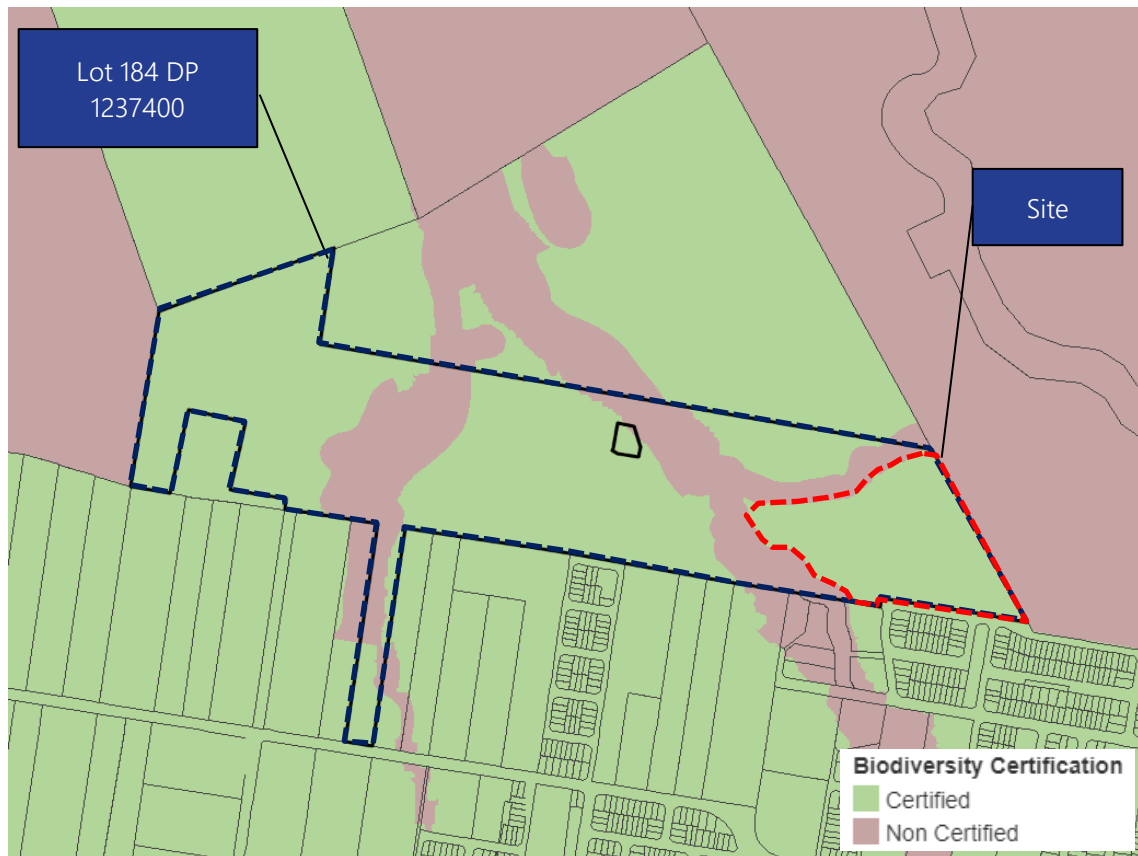
Biodiversity Conservation Act 2016

In accordance with the BC Act, consideration as to whether the proposal is likely to significantly affect threatened species or ecological communities, or their habitats is required in accordance with the test outlined in section 7.3 of Part 7 of the BC Act, and whether the Biodiversity Offsets Scheme (**BOS**) will be triggered.

The majority of the Site is 'subject land' according to Part 7 (*Biocertification of the Sydney Region Growth Centres SEPP and related EPIs*) of Schedule 7 of the *Threatened Species Conservation Act 1995* (**TSC Act**). This is also known as biodiversity certified land. In August 2017 the BC Act was gazetted and repealed the TSC Act. However, under Section 43 of the *Biodiversity Conservation (Savings and Transitional) Regulation 2017*, the repeal of the TSC Act does not affect the operation of Part 7 or 8 of Schedule 7 to the BC Act and therefore the majority of the Site remains biodiversity certified (refer to **Figure 10** over the page).

However, the Site also contains areas that are not biodiversity certified and contain areas mapped as Existing Native Vegetation (**ENV**), NVR and Riparian Protection Area (**RPA**) (refer to **Figure 10** over the page). As such, 'specific considerations apply on the removal of vegetation from within the Site in association with the ENV, NVR and RPAs mapped by the Growth Centres SEPP.

The proposed development has purposely been designed to avoid impacts to the biodiversity values present, in particularly within the riparian corridors and E2 Environmental Conservation zoned land. However, minor impacts to NVR (0.03 hectares) will be required for essential infrastructure such as perimeter roads around the riparian corridors to adhere to bush fire risk management requirements. These impacts will be mitigated through the retention, revegetation, and management of native vegetation within the riparian corridors and through implementation of a VMP.



Source: Liverpool City Council, 2017

Figure 10. Biodiversity Certification conferred land

As part of ELA's engagement in preparing a Biodiversity and Riparian Land Assessment (refer to **Appendix C**), a field survey was conducted by ELA ecologists on the 24 of September 2019 to verify the presence of native vegetation, threatened ecological communities, and threatened species and/or their habitat within non-biodiversity certified land. The field survey confirmed the presence of two Plant Community Types, which have been assigned to appropriate vegetation communities. Both of these vegetation communities are listed Threatened Ecological Communities under both the BC Act and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**).

An Assessment of Significance in accordance with Section 7.3 of the BC Act was undertaken and Significant Impact Criteria in accordance with the EPBC Act was applied to River-flat Eucalypt Forest, which both concluded that a significant impact to this vegetation community was unlikely. Accordingly, the BC Act requires DAs to be accompanied by a Biodiversity Development Assessment Report (**BDAR**) if the BOS is triggered. For a local development under Part 4 of the EP&A Act, the BOS may be triggered by the following means:

- Have a significant impact on biodiversity values in accordance with Section 7.3 of the BC Act.
- Area clearing threshold – exceeding the area clearing threshold associated with the minimum lot size for the property will trigger entry into the BOS.
- Whether the impacts occur on an area mapped on the Biodiversity Value Map.
- Impacting on an area of Outstanding Biodiversity Value.

Based on the assessment and advice from ELA, the proposed development does not trigger the BOS criteria and subsequently does not require the preparation of a BDAR. A summary of this advice is provided in **Table 4** below:

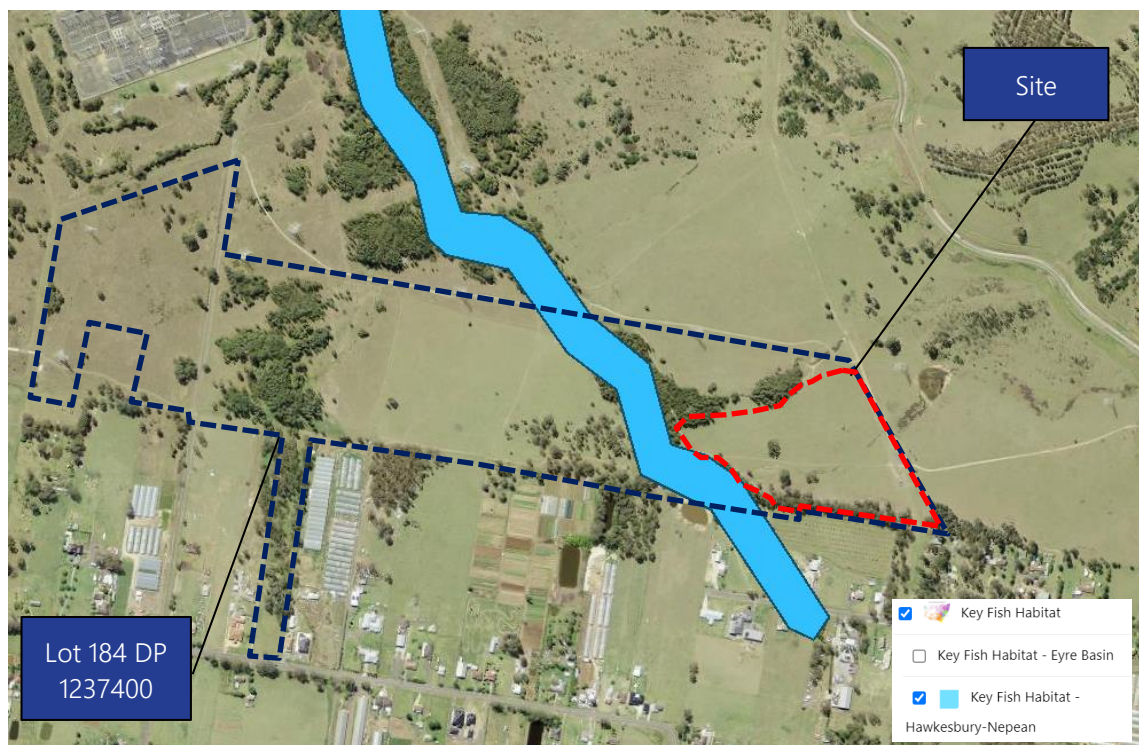
Table 4. BOS threshold assessment

BOS Trigger	Compliance
Significant Impact on Biodiversity Values	The biodiversity advice prepared by ELA includes a Test of Significance and concludes that the proposed development will not significantly impact upon threatened fauna or ecological communities and therefore will not have a significant impact on the biodiversity values of the land.
Area clearing threshold	The area clearing threshold is triggered when an area of native vegetation to be cleared reaches the thresholds for the relevant lot size. In accordance with the Growth Centres SEPP, the Site is partially covered with two specified minimum lot sizes, being 1,000m ² (E4 Environmental Living) and 20,000m ² (RU6 Rural Transition). Thus, as a precautionary approach, it was assumed that if the development proposed to clear more than 0.25 hectares of native vegetation in areas that are not biodiversity certified, a BDAR would be required. As only 0.03 hectares of native vegetation within non-biodiversity certified lands will be impacted by the development, this threshold is not triggered.
Impacts on land identified on the Biodiversity Values Map	The Biodiversity Value Map identifies land considered to have high biodiversity value as defined by the <i>Biodiversity Conservation Regulation 2017</i> . Whilst the non-certified lands contain vegetation shown on the Biodiversity Values Map, none of these areas would be impacted by the proposed development. Further, the Site does not contain any Areas of Outstanding Biodiversity Value.
Impacts on an area of Outstanding Biodiversity Values	The Site is not identified as containing an area of Outstanding Biodiversity Value in DPIE's <i>Register of Declared Areas of Outstanding Biodiversity Value</i> .

Fisheries Management Act 1994

The FM Act governs the management of fish and their habitat in NSW. The Schedules of the FM Act list key threatening processes and threatened species. The FM Act regulates the provision of permits required in relation to harm to protected marine vegetation (seagrass, macroalgae, mangroves and saltmarsh), dredging, reclamation or obstruction of fish passage on or adjacent to Key Fish Habitat (KFH). This includes direct and indirect impacts, whether temporary or permanent.

Kemps Creek and the third order tributary traversing the centre of the Site is mapped as KFH (refer to **Figure 11** over the page). Despite the mapping of KFH of the unnamed tributary, based on the advice prepared by ELA, the proposed development is not anticipated to impact on KFH, nor will it harm marine vegetation or involve dredging and reclamation of KFH. As such, it is not anticipated that there will be a requirement for a Permit to be obtained under Part of the FM Act.



Source: Department of Primary Industries, 2020

Figure 11. Key Fish Habitat

4.1.2 Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act aims to protect Matters of National Environmental Significance (**MNES**), including vegetation communities and species listed under the EPBC Act. If a development is likely to have a significant impact on MNES, it is likely to be considered a 'Controlled Action' by the Commonwealth and requires assessment and approval by the Commonwealth in order to proceed.

On 28th February 2012, the Commonwealth Minister for the Environment announced that the program of development activities within the North West and SWGAs was approved under the EPBC Act Strategic Assessment process. Specifically, all actions associated with the development of the North West and SWGA as described in the Sydney Growth Centres Strategic Assessment Program Report have been assessed at the strategic level and approved in regard to their impact on the following Matters of National Environmental Significance:

- World Heritage Properties,
- National Heritage Places,
- Wetlands of International Importance,
- Listed threatened species and communities,
- Listed migratory species.

These decisions indicate that the Commonwealth is satisfied that the conservation and development outcomes that will be achieved through the Western Sydney Growth Centres Program will satisfy their requirements for environmental protection under the EPBC Act.



Provided that development activity proceeds in accordance with the Growth Centres requirements (such as the Biodiversity Certification Order, the Growth Centres SEPP and DCPs, Growth Centres Development Code etc.) there is no requirement to assess the impact of development activities on MNES within the Growth Centres and no requirement for referral of activities to the Commonwealth Department of Environment.

The Site is therefore exempt from further assessment of threatened species and endangered ecological communities listed under the BC Act or EPBC Act.

4.2 Integrated Development

Section 4.46 and 4.47 of the EP&A Act requires a review of whether the proposed development on the land would trigger an approval under other environmental or related legislation. Such development is categorised as 'Integrated development'. The following provides brief commentary on whether any aspects of the development triggers a need for the consent authority to obtain General Terms of Approval from the relevant approval bodies.

Coal Mine Subsidence Compensation Act 2017

The *Coal Mine Subsidence Compensation Act 2017* establishes the provision for the payment of compensation for damage caused by subsidence arising from coal mining. The Site is not located within a mine subsidence district; therefore, no integrated approval is required to address this legislation.

Fisheries Management Act 1994

The FM Act contains several provisions for the protection of fish habitat and threatened species and aims 'to conserve, develop and share the fishery resources of the State for the benefit of present and future generations'. As per discussion in **section 4.1.1**, whilst the Site contains KFH, the development is not anticipated to impact on any KFH or involve the dredging or reclamation of KFH, a Permit under Part 7 of the FM Act is not anticipated to be required.

Heritage Act 1977

The *Heritage Act 1977* seeks to protect and conserve items of Local and State Heritage Significance through the operation and establishment of the Heritage Council of NSW and its associated functions under delegation by the Heritage Division, Heritage NSW. No works are proposed that are referred to pursuant to section 57 of the *Heritage Act 1977*. Therefore, no integrated approval is required to address this legislation.

Mining Act 1992

The *Mining Act 1992* aims to encourage and facilitate the discovery and development of mineral resources in NSW, having regard to the need to encourage ecologically sustainable development. No mining lease is being sought as part of this DA, noting this DA is for staged residential subdivision.

National Parks and Wildlife Act 1974

The purpose of the *National Parks and Wildlife Act 1974* is to conserve NSW's natural and cultural heritage, as well as foster public appreciation, understanding and enjoyment of NSW's natural and cultural heritage, and managing any lands reserved for the purposes of conserving and fostering

public appreciation and enjoyment of NSW's natural and/or cultural heritage. It is also the principal legislative instrument for the protection and management of Aboriginal cultural heritage places and objects in NSW.

Urbis Pty Ltd were engaged by the Applicant to provide an Aboriginal Objects Due Diligence and a Preliminary Historical Heritage Assessment for the Site (refer to **Appendix I**). Background research included a search of the Aboriginal Heritage Information Management System (**AHIMS**) database and a review of relevant reports and concluded that:

- There are five registered Aboriginal objects and/or archaeological sites located within the Site.
- There is one registered Aboriginal object located in close proximity/immediately adjacent.
- Two new Aboriginal objects were identified within the Site during the survey (AHIMS 45-5-5271 and 45-5-5272).
- AHIMS items 45-5-2560 may fall within an area of development works in this DA
- Most of the Site is determined to have moderate to high archaeological potential on the basis of the presence of registered Aboriginal objects, presence of landscape features with potential, the survey results and the low level of disturbance.

Based on the above conclusions, it is determined further archaeological investigation will be necessary. Accordingly, an Aboriginal Cultural Heritage Assessment (**ACHA**) is being prepared to inform a referral to the NSW Office of Environment and Heritage to obtain general terms of approval to impact on AHIMS item 45-5-2560 (if necessary) and any other items or areas that are identified through the ACHA.



Source: Urbis Pty Ltd., 2019

Figure 12. Area and items of Aboriginal archaeological significance



Petroleum (Onshore) Act 1991

The *Petroleum (Onshore) Act 1991* encourages and facilitates the discovery and development of petroleum resources in NSW. No production lease is being sought as a part of this DA, noting this DA is for staged residential subdivision.

Protection of the Environment Operations Act 1997

The POEO Act provides a single licensing arrangement to replace the different licences and approvals under existing separate Acts relating to air pollution, water pollution, noise pollution and waste management. The implementation of appropriate environmental protection works will ensure that no licence will be required.

Roads Act 1993

The *Roads Act 1993* makes provision for road boundaries and road levels, opening and closing of public roads, classification of public roads, road works, protection of public roads and traffic and other road management practices including procedural matters for the establishment of tollways and financial assistance for road authorities. Section 138 of the *Roads Act 1993* requires approval from the road's authority (either Council or Transport for NSW) for certain works to be carried out on, or over a public road, or connect to a classified road.

The proposed development will include the construction of an internal road network consisting of a combination of circulating roadways and local roads. However, section 4.46(3) of the EP&A Act operates to the effect that the proposed development seeks consent and subsequent approval pursuant of the *Roads Act 1993* from Council. Accordingly, under this legislation, the proposed development therefore does not trigger the DA as requiring an integrated approval.

Rural Fires Act 1997

The RF Act establishes the RFS, defines its functions and makes provisions for the prevention, mitigation and suppression of rural fires. Section 100B of the RF Act requires a Bush Fire Safety Authority to be issued by the Commissioner for:

- a. a subdivision of bush fire prone land that could lawfully be used for residential or rural residential purposes, or*
- b. development of bush fire prone land for a special fire protection purpose.*

A Bush Fire Safety Authority authorises development for a purpose referred to in subsection (1) to the extent that it complies with standards regarding setbacks, provision of water supply and other matters considered by the Commissioner to be necessary to protect persons, property or the environment from danger that may arise from a bushfire.

On 6 January 2021, the RFS issued revised Bush Fire Risk Maps for NSW. As such, the Site is identified as 'bush fire prone land' on the Liverpool Bush Fire Prone Land Map 2021. Section 4.46 of the EP&A Act requires a bush fire assessment of residential subdivision proposals on bush fire prone land following the process and methodology set out within section 100B of the RF Act, clause 44 of the *Rural Fires Regulation 2013* and the RFS document *Planning for Bush Fire Protection 2019 (PBP)*.

Accordingly, this DA constitutes 'Integrated development' and requires referral to the RFS to issue a Bush Fire Safety Authority in accordance with section 100B of the RF Act. To assist in obtaining a

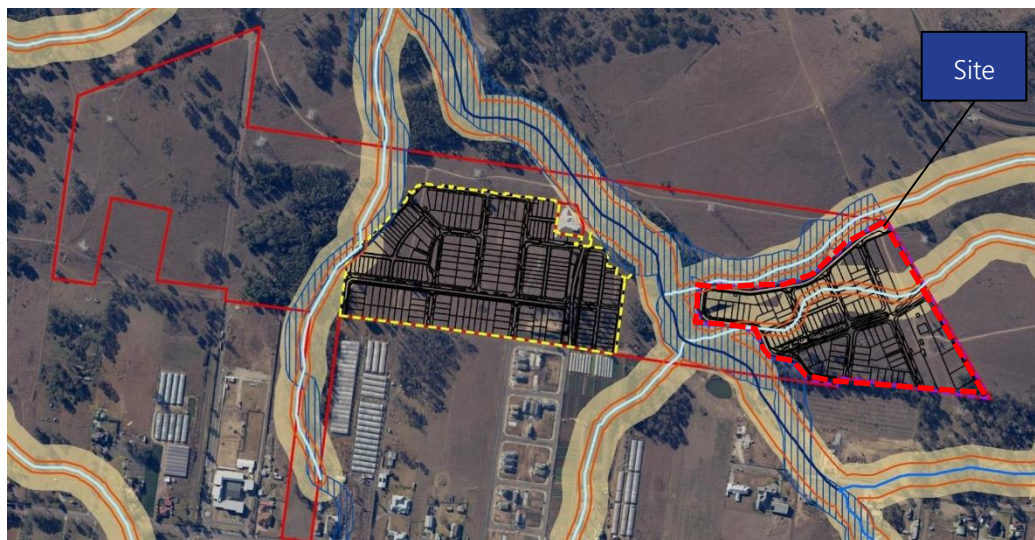
Bushfire Safety Authority and general terms of approval, a Bushfire Hazard Assessment has been prepared in support of the DA to demonstrate that the necessary Bushfire Protection Measures identified in PBP have been (or can be) accommodated within the development (refer to **Appendix J**).

Water Management Act 2000

The WM Act provides for the protection, conservation and ecologically sustainable development of the water sources of the State for the benefit of both present and future generations. A CAA is required to be obtained for any activity situated within 'waterfront land' (identified as being within 40 metres from the top of a river, lake or estuary) in accordance with section 91(2) of the WM Act.

There are a number of streams identified that traverse the land, including first, second and third order streams. As the proposed development is within waterfront land, the DA will likely require a CAA (refer to **Figure 13** for the location of watercourses). The majority of these areas are proposed to be retained and conserved, which is consistent with the ILP. The areas zoned as E2 Environmental Conservation and SP2 Infrastructure (Local Drainage) will also be protected or utilised for stormwater infrastructure, respectively as shown in the Biodiversity and Riparian Land Assessment prepared by ELA (refer to **Appendix C**). Where there are encroachments within inner and outer riparian corridor areas, further consultation with NRAR is required to confirm the suitability of this outcome. In this regard, the DA constitutes Integrated development and should be referred to the NRAR to obtain general terms of approval to inform a future CAA under the WM Act.

It should be noted that as part of the precinct planning process for Austral, the DPIE and former Department of Primary Industry - Water confirmed with DPIE that the southern east-west creek line could be realigned to provide a more linear connection back to the unnamed tributary and is reflected in the SP2 Infrastructure (Local Drainage) zone that was applied to this part of the Site (refer to **Figure 14** over the page). It could therefore be assumed that this watercourse will not be required to be retained. However, consultation with NRAR will confirm this.



Source: ELA, 2021

Figure 13. Mapped watercourses and waterfront land



Source: Council, 2021

Figure 14. Riparian corridor outcomes from precinct planning

4.3 Bush Fire Prone Land

Section 4.14 of the EP&A Act provides for the general consideration of bush fire hazard on land mapped as bush fire prone. The *Environmental Planning and Assessment Amendment (Planning for Bush Fire Protection) Regulation 2020* amended clause 272 of the EP&A Regulation and prescribed PBP 2019 for the purposes of section 4.14(1)(a) of the EP&A Act.

Pursuant to section 4.14 of the EP&A Act, development consent cannot be granted for the carrying out of certain types of development on bush fire prone land, unless the consent authority:

- a. *is satisfied that the development conforms to the specifications and requirements of the version (as prescribed by the regulations) of the document entitled Planning for Bush Fire Protection prepared by the NSW Rural Fire Service in co-operation with the Department (or, if another document is prescribed by the regulations for the purposes of this paragraph, that document) that are relevant to the development (the relevant specifications and requirements), or*
- b. *has been provided with a certificate by a person who is recognised by the NSW Rural Fire Service as a qualified consultant in bush fire risk assessment stating that the development conforms to the relevant specifications and requirements.*

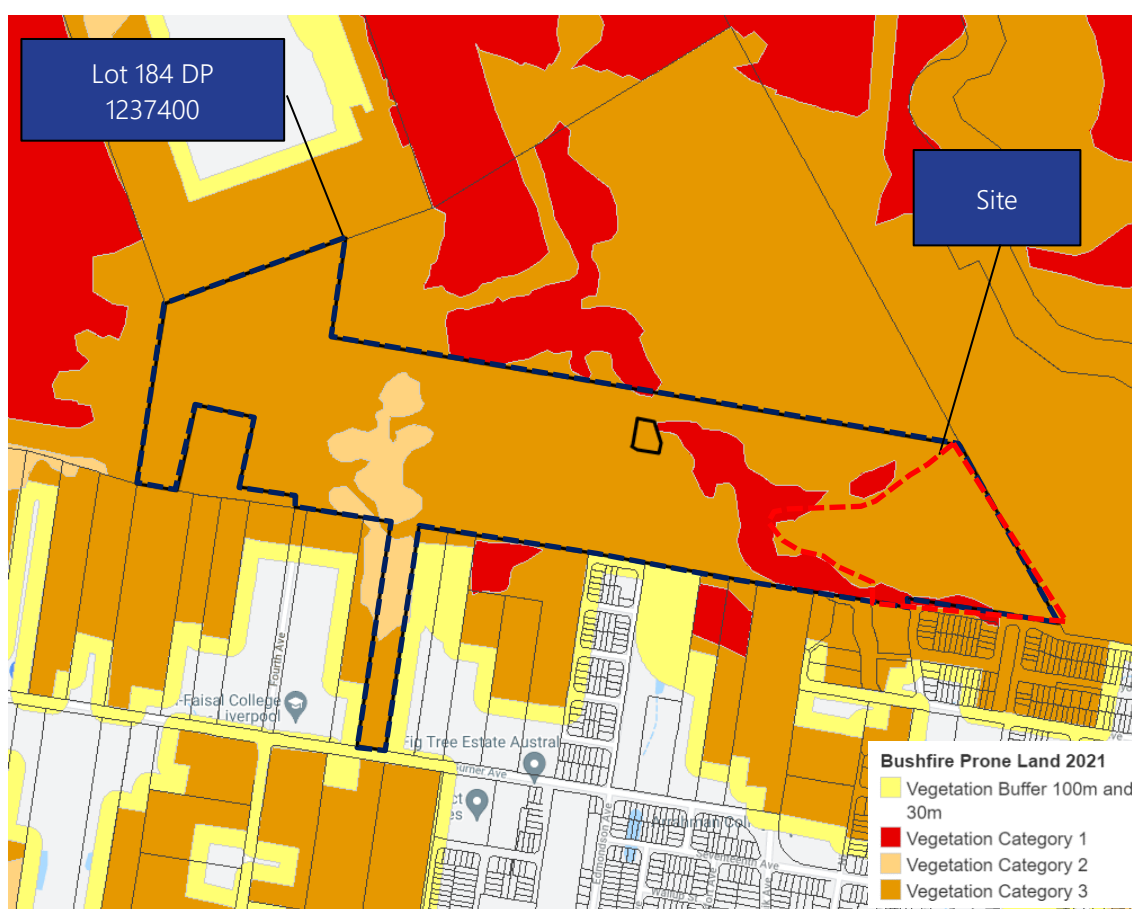
ELA were engaged by the Applicant to prepare a Bush Fire Hazard Assessment (refer to **Appendix J**). As illustrated in **Figure 15** over the page, there is bush fire prone vegetation internal and external to the Site. The external bush fire hazard is located to the north-east and east and consists of unmanaged grassland which is classified as 'grassland' in accordance with PBP. The effective slope under this bush fire hazard falls within the PBP slope category of 'all upslopes and flat land'.

The internal bush fire hazard is located within the riparian corridors which extend in a north-south direction along the western urban interface and an east-west direction along the northern urban interface. The vegetation within the riparian corridors is identified as 'Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion' which falls within the 'Coastal Floodplain Wetlands' vegetation class (Keith 2004) and classified as

‘forested wetland’ in accordance with PBP. The effective slope under this bushfire hazard falls within the PBP slope category of ‘>0-5 degrees downslope’.

There is a patch of woodland vegetation less than 1 hectare in area adjacent the south-eastern boundary of the proposed development. This vegetation is greater than 100 metres from Category 1 or 2 vegetation and has been excluded under Section A1.10(1) of PBP. The transmission line easement within the north of the proposed development and the underground gas easement which dissects the E4 Environmental Living zoned land within the east of the proposed development will be managed by the governing authority and is therefore not considered a bushfire hazard.

Accordingly, the Bush Fire Hazard Assessment provides bush fire protection measures including the dimensions of the required asset protection zones (**APZ**) where relevant and information on how the APZ is to be provided.



Source: Council, 2021

Figure 15. Bush fire prone land

4.4 Environmental Planning Instruments

Environmental Planning Instruments is the collective name for State Environmental Planning Policies (**SEPPs**), Regional Environmental Plans and Local Environmental Plans. The EP&A Act and the EP&A Regulation are also included in this classification.

4.4.1 State Environmental Planning Policy (Sydney Region Growth Centres) 2006

The Growth Centres SEPP is the statutory framework regulating land uses within the North West and SWGAs. An amendment to the Growth Centres SEPP, which formally rezoned the Austral and Leppington North Precincts for urban development purposes, commenced 15 March 2013.

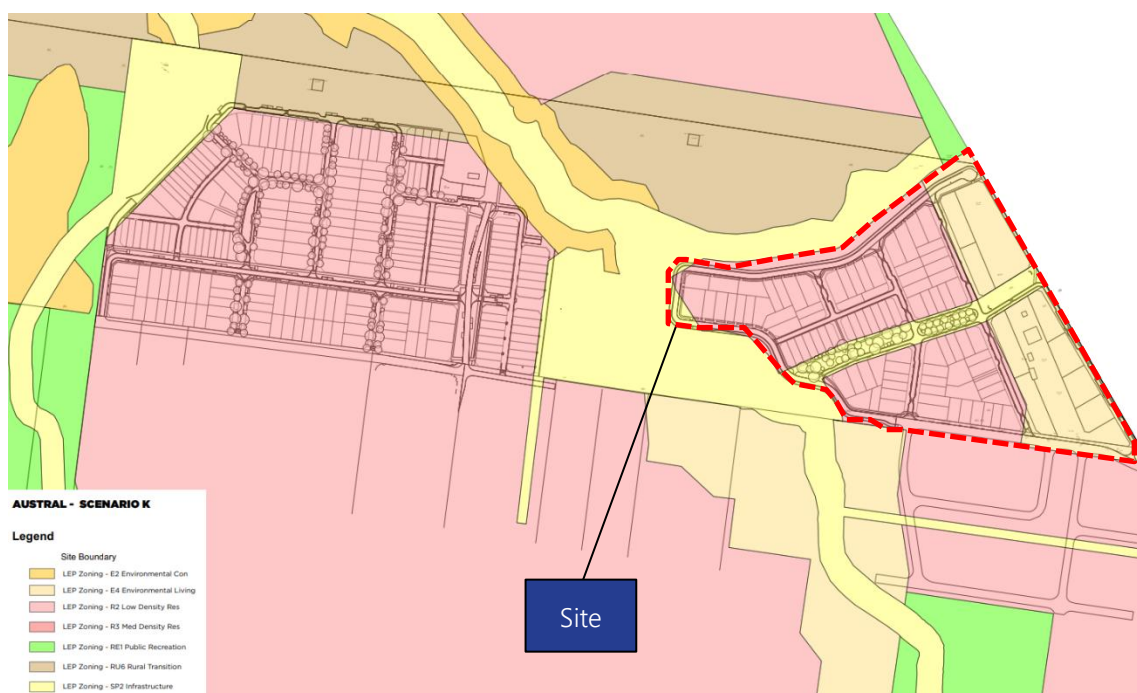
Part 2 Land use and other development controls resulting from precinct planning

Clause 7 of the Growth Centres SEPP transfers planning controls to Appendix 8 Liverpool Growth Centres Precinct Plan. The Liverpool Growth Centres Precinct Plan applies to land within the Austral Precinct, East Leppington Precinct and Leppington North Precinct as shown on the Land Application Map.

Appendix 8 Liverpool Growth Centres Precinct Plan

As prescribed by Appendix 8 Liverpool Growth Centres Precinct Plan, the Site is zoned part RU6 Transition, part R2 Low Density Residential, part R3 Medium Density Residential, part SP2 Infrastructure (Local Drainage), part RE1 Public Recreation, part E2 Environmental Conservation, part E4 Environmental Living (refer to **Figure 16**).

The DA seeks approval for residential subdivision of one existing allotment to create 92 Torrens title lots. The DA includes the removal of select vegetation, bulk earthworks and associated civil works including the construction of temporary on-site detention basins, stormwater drainage, new roads and installation of services.



Source: E8 Urban Pty Ltd, 2021

Figure 16. Land zoning

An assessment against the relevant provisions of Appendix 8 Liverpool Growth Centres Precinct Plan is provided in **Table 5** below.

Table 5. Assessment against the Growth Centres SEPP

Clause	Comment	Compliance
Part 1 Preliminary		
1.2 Aims of Precinct Plan	<p>The vision for the Site is to create an affordable new community on the edge of Western Sydney Parklands, with great landscaped streets and a diverse range of housing.</p> <p>The proposed development is consistent with the relevant aims of Appendix 8 Liverpool Growth centres Precinct Plan as it will:</p> <ul style="list-style-type: none"> Facilitate development generally in accordance with the ILP to develop the Site for urban purposes, Facilitate variety in housing choice through varied lot sizes, Provide for the use of land that is within close proximity to a number of current and future infrastructure assets including roads, services, transport, social and recreational facilities and centres, Ensures denser forms of residential development are located near open spaces and areas of highest amenity, Provide significant and diverse open spaces designed to integrate with the anticipated built form, Provide high quality open spaces and infrastructure to cater for a range of users in the community, Promote pedestrian and vehicle connectivity through the proposed road network, and Facilitate passive surveillance of public spaces through the effective and functional layout designs. 	Yes
Part 2 Permitted or prohibited development		
2.3 Zone objectives and Land Use Table	<p>The Site is zoned part RU6 Transition, part R2 Low Density Residential, part SP2 Infrastructure (Local Drainage), part RE1 Public Recreation, part E2 Environmental Conservation, part E4 Environmental Living and the proposed development is permitted with consent in the respective zones.</p> <p>The proposed civil works are ancillary to the future development of the Site for residential development and therefore permitted with consent. The works facilitate development generally in accordance with the ILP, zoning, and controls that apply to the Site and are consistent with the objectives of the zones that apply to the Site, being instrumental to delivering a development outcome in line with the Growth Centres SEPP.</p>	Yes
2.6 Subdivision – consent requirements	<p>The DA seeks approval for residential subdivision of one existing allotment to create 92 Torrens title lots and is permitted with consent.</p> <p>The proposed lot sizes are consistent with the relevant development controls that apply to the land and the ILP.</p>	Yes
Part 4 Principal development standards		
4.1	No minimum lot size applies to the R2 Low Density Residential, SP2 Infrastructure (Local drainage) or RE1 Public Recreation zones respectively.	Yes

Clause	Comment	Compliance
Minimum subdivision lot size	<p>The RU6 Transition zoned portion of the Site applies a minimum lot size of 2 hectares and the E4 Environmental Living zoned portion of the Site applies a minimum lot size of 1,000m².</p> <p>Accordingly, the proposed subdivision layout has been designed so that Lots 542 to 544 and 586 to 592 within the E4 Environmental Living zone have a minimum lot size of 1,000m², ranging from 1,006m² (Lot 592) to 5,458m² (Lot 588). Lot 588 has been purposefully sized to contain the existing Jemena infrastructure all within one lot rather than separating ownership of the infrastructure and associated easement that burdens this part of the Site.</p> <p>The remainder of the RU6 land is not proposed to be subdivided in this DA and will be excised from the development site as part of the Austral West DA.</p>	
4.1AA Subdivision resulting in lots between 225-300m ²	A total of 15 lots (Lots 508, 509, 524, 525, 535, 536, 537, 557, 558, 561, 568, 572, 573, 576 and 577) range in size from 268.5m ² to 292.8m ² . All lots have widths of at least 10 metres at the building line and depths ranging from 25 to 28 metres that can readily accommodate standard home designs. A BEP will be provided under separate cover to further substantiate the lots are of a suitable size to accommodate detached dwelling houses.	Yes
4.1AB Minimum lot sizes for residential development in Zone R2 Low Density Residential and Zone R3 Medium Density Residential	<p>The minimum lot size for a dwelling house on land zoned R2 Low Density Residential with a minimum dwelling density of 15 dwellings per hectare is 300m².</p> <p>The proposed development provides for 82 residential lots over R2 zoned land ranging in size between 268.5m² and 733m². 15 of the lots are below 300m² in size. Consistent with the requirements of clause 4.1AA, the 15 lots below 300m² in area are permissible under clause 4.1AD.</p>	Yes
4.1B Residential density	<p>A residential density of 15 dwellings per hectare applies to the R2 Low Density Residential zoned portion of the Site.</p> <p>Based on an approximate R2 Low Density Residential zone Net Developable Area of 5.189 hectares (by deduction) and yield of 82 lots, the proposed subdivision delivers a density of approximately 15.8 dwellings per hectare. A Net Developable Area Plan will be prepared and submitted under separate cover to confirm the minimum dwelling density is delivered.</p> <p>No residential density requirement applies to the E4 Environmental Living zoned land.</p>	Yes
4.2 Rural subdivision	The DA does not involve the subdivision of RU6 Transition zoned land. Proposed Lot 105 is to be created in Stage 1 of the Austral West DA.	Not applicable
Part 5 Miscellaneous provisions		

Clause	Comment	Compliance
5.1 Relevant acquisition authority	<p>A minor portion of land located within the north eastern corner of the Site is zoned RE1 Public Recreation (Local Open Space). Proposed Lot 110 is to be created in Stage 1 of the Austral West DA and as such is not relevant to this DA.</p> <p>There are a number of streams identified that traverse the Site, including first, second and third order streams associated with Kemps Creek zoned SP2 Infrastructure (Local Drainage).</p> <p>Council is the relevant authority to acquire land reserved for certain public purposes if the land is required to be acquired under Division 3 of Part 2 of the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> (the owner-initiated acquisition provisions).</p> <p>Accordingly, the subdivision layout generally corresponds with the zone boundaries with a series of residue lots proposed to be created to define these areas.</p>	Yes
5.9 Preservation of trees or vegetation	<p>Tree removal is proposed as part of the DA. The majority of trees to be removed are within the biodiversity certified lands. The removal of trees has been minimised due to the approach to site grading however some removal is still required to deliver the proposed road and drainage network and impacts are unavoidable. The impact of removing these trees is addressed in the biodiversity advice (refer to Appendix C).</p>	Yes
5.10 Heritage conservation	<p>The Site does not include any known European heritage items nor is it located within a heritage conservation area.</p> <p>Most of the Site is determined to have moderate to high archaeological potential on the basis of the presence of registered Aboriginal objects, presence of landscape features with potential, the survey results and the low level of disturbance. An ACHA is currently being prepared to further substantiate the potential significance across the land and assess any impacts. On this basis, the DA is to be referred to the NSW Office of Environment and Heritage to obtain general terms of approval under the NP&W Act that will likely include a requirement to obtain an AHIP.</p> <p>Refer to discussion in section 4.2 of this SEE.</p>	Yes
Part 6 Additional local provisions		
6.1 Public utility infrastructure	<p>To ensure that future residential development is capable of being serviced in a timely manner, Calibre on behalf of the Applicant has initiated preliminary investigations and consulted with essential utility service providers to confirm the availability of services to support the development of the Precinct.</p> <p>Appropriate arrangements for will be made with the relevant service authority for the provision of electricity, gas, sewer, telecommunications, and water.</p>	Yes
6.2 Development controls – native vegetation retention areas	<p>The proposed development has purposely been designed to avoid impacts to the biodiversity values present, particularly within the riparian corridors and E2 Environmental Conservation zoned land.</p> <p>However, minor impacts to NVR (0.03 hectares) will be required for essential infrastructure such as perimeter roads around the riparian corridors to adhere to bushfire risk management requirements. These impacts will be mitigated through the retention, revegetation, and</p>	Yes

Clause	Comment		Compliance
	management of native vegetation within the riparian corridors and through implementation of a VMP. Refer to Appendix C for further discussion.		
6.3 Development controls – existing native vegetation	No impacts to ENV are proposed. Refer to Appendix C for further discussion.		Yes
Maps			
Precinct Plan Maps and relevant clauses	Development Control Map	Part of the Site is identified as flood prone and major creeks land in line with the number of streams identified that traverse the land, including first, second and third order streams. Refer to Appendix E for further discussion.	Yes
	Floor Space Ratio Map	No Floor Space Ratio applies to the Site or the development.	N/A
	Heritage Map	The Site is not identified as containing a Heritage Item or being located within a Heritage Conservation Area. Refer to discussion in section 4.2 of this SEE.	N/A
	Height of Building Map	A maximum building height of 9 metres applies to the RU6 Transition, R2 Low Density Residential and E4 Environmental Living zoned portions of the Site, however, is not relevant to the proposed development.	N/A
	Land Application Map	The Site is identified as land to which the Liverpool Growth Centres Precinct Plan applies (Appendix 8, clause 1.3).	Yes
	Land Reservation Acquisition Map	Refer to discussion in Table 5 of this SEE.	Yes
	Lot Size Map	Refer to discussion in Table 5 of this SEE.	Yes
	Special Areas Map	The Site is not identified as a Special Area.	N/A
	Land Zoning Map	Refer to discussion in Table 5 of this SEE.	Yes
	Native Vegetation Protection Map	Part of the Site is mapped Native Vegetation Protection in line with the riparian corridors. Refer to discussion in Table 5 of this SEE.	Yes

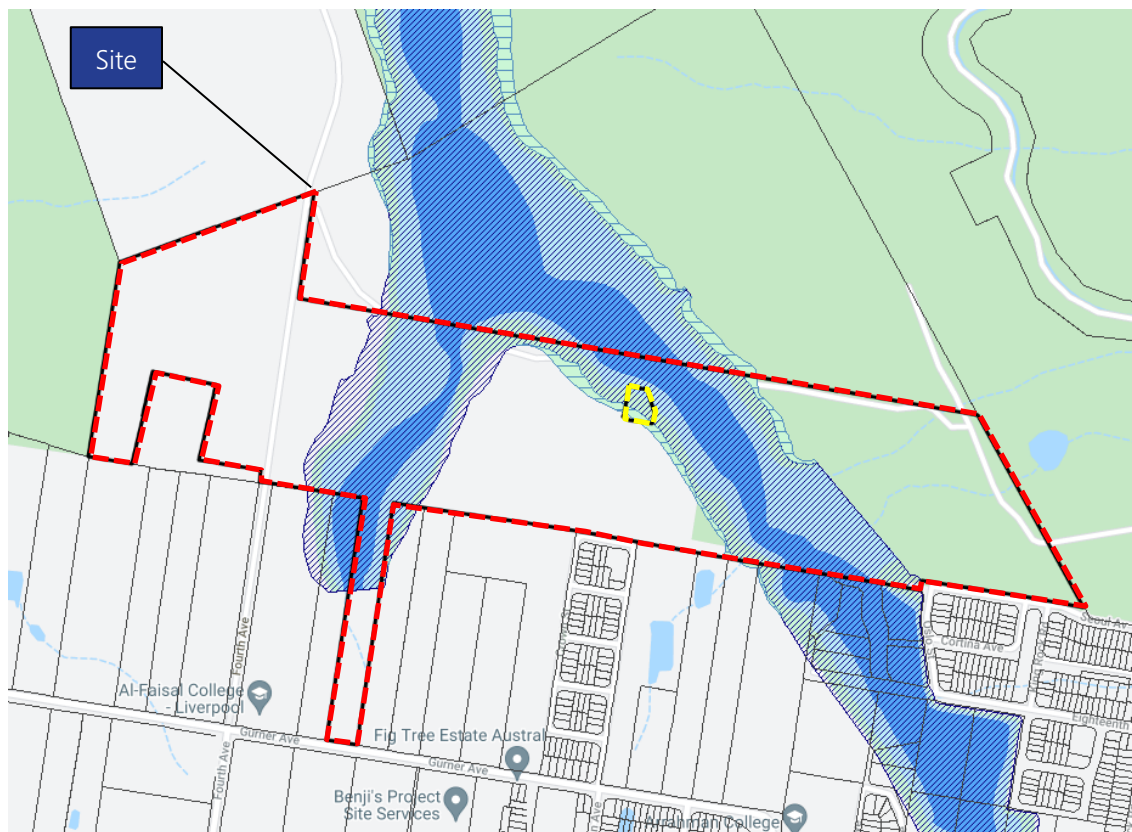
Clause	Comment		Compliance
	Precinct Boundary Map	The Site is identified as land to which the Liverpool Growth Centres Precinct Plan applies (Appendix 8, clause 1.3).	Yes
	Residential Density Map	The proposed development makes for the efficient use of land by delivering a density 'not less' than shown on the Residential Density Map in relation to the land and as such, is consistent with objective (b) of clause 4.1B.	Yes
	Riparian Protection Area Map	Part of the Site is mapped RPA in line with the riparian corridors. Refer to discussion in Table 5 of this SEE.	Yes
	Structure Plan	The Site is located within a walkable neighbourhood which is anticipated to be within a 400-metre radius from a local shop (or group of shops) or from another community focus (e.g., a community centre with a bus stop). The vision of OSL and the Applicant is to create an affordable new community on the edge of Western Sydney Parklands, with great landscaped streets and a diverse range of housing. Accordingly, the proposed development promotes an exciting spatial vision, delivering high quality urban design, considered place making and innovation above and beyond the current market expectations.	Yes

Part 5 Development Controls – flood prone and major creeks land

Clause 19 of the Growth Centres SEPP provides additional considerations for development on flood prone and major creeks land as identified by the South West Growth Centres Development Control Map. These provisions relate to flood risk management. The Growth Centres SEPP Development Control Map identifies part of the Site as flood prone and major creeks land (refer to **Figure 17** over the page).

The *Austral & Leppington North Precincts – Riparian Corridor and Flooding Assessment* (2011) prepared by Cardno presented a hydrologic and hydraulic assessment to define the potential extent of flood liable land, quantify the potential for the development of the precincts to impact on existing flood behaviour as well as the extent of the stormwater management infrastructure that would need to be implemented to mitigate any adverse flood impacts.

As part of the Stormwater Concept Plan and Flood Study, a flood model has been undertaken as part of the Precinct planning to ensure that the 1% AEP are confined within the waterway banks (refer to **Appendix E**).



Source: Council, 2021

Figure 17. Extent of flood planning

4.4.2 State Environmental Planning Policy (Infrastructure) 2007

The Infrastructure SEPP aims to facilitate the effective delivery of infrastructure across NSW and allows for a range of developments to be permitted with and without consent. It contains planning provisions for development of government infrastructure and utilities including requirements for proposals adjacent to sites containing or nominated as containing planned infrastructure. An assessment against the relevant provisions of the Infrastructure SEPP is provided in **Table 6** below.

Table 6. Assessment against the Infrastructure SEPP

Section	Requirement	Comment
Part 3 Development controls		
45	This clause applies to development that may affect an electricity transmission line.	
Determination of development applications – other development	<p>The Site comprises an easement along the northern boundary of the Site approximately 60 metres wide (partly extending onto the adjoining lands) within which are high voltage transmission lines on steel stanchions are located.</p> <p>Accordingly, it is proposed to always maintain the access to the existing electrical infrastructure on and adjacent to the Site.</p> <p>On this basis Council is required to refer the DA to TransGrid for a period of 21 days. Any requirements can be addressed as conditions of development consent.</p>	
66C	This clause applies to development that are licenced under the <i>Pipelines Act 1967</i> .	

Section	Requirement	Comment
Determination of development applications	As prescribed by clause 66C(3)(a), Jemena manages two licenced high-pressure pipelines (Trunk Main DN864mm High Pressure (Licence 1) located in a 24.385-metre-wide easement and Eastern Gas Pipeline DN457mm High Pressure (Licence 26) located in a 15.38-metre-wide easement) within the Site. Australian Standard AS2885 requires a risk review Safety Management Study of the pipeline operation where the land around a Pipeline and/or Facility has resulted in a change in land use and change in the risk exposure to the pipelines. It is anticipated Jemena will work with the Applicant and Council to ensure that a Pipeline Risk Assessment is included as part of the process for determining the suitability of the infrastructure. On this basis Council is required to refer the DA to Jemena for a period of 21 days. Any requirements can be addressed as conditions of development consent.	

4.4.3 State Environmental Planning Policy (Koala Habitat Protection) 2021

The *State Environmental Planning Policy (Koala Habitat Protection) 2021* (**Koala SEPP**) applies to the City of Liverpool City Council LGA which is located in the Central Coast Koala Management Area (Schedule 1). The Koala SEPP aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for *Phascolarctos cinereus* (Koala) 'to support a permanent free-living population over their present range and reverse the current trend of Koala population decline' (clause 3).

However, as a consequence of the execution of the Sydney Growth Centres Biodiversity Certification Order (refer to **section 4.1.1** of this SEE), Part 8 of the BC Act applies. As such, in accordance with section 6(3)(c) of the Koala SEPP, this Policy does not apply to 'land on which biodiversity certification has been conferred, and is in force, under Part 8 of the *Biodiversity Conservation Act 2016*'. Therefore, no assessment of the impact on biodiversity, including Koalas or their habitat, is required under Part 4 of the EP&A Act.

4.4.4 State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017

The *State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017* (**Vegetation SEPP**) provides a State-wide planning approach to protect the biodiversity values of trees and other vegetation in non-rural areas and to preserve the amenity of those areas through the preservation of trees and other vegetation.

Clause 7.2 of Vegetation SEPP provides that authority under this policy is not required where the land the subject of the proposed clearing is on 'Biodiversity Certified' land. To this extent, the area of works proposed is classified as 'Biodiversity Certified Land', and as a result, no further assessment under this policy is required.

Refer to discussion in **section 4.1.1** of this SEE.

4.4.5 State Environmental Planning Policy No. 19 – Bushland in Urban Areas

The *State Environmental Planning Policy No. 19 – Bushland in Urban Areas* (**SEPP 19**) seeks to preserve bushland in selected LGAs that is on land zoned or reserved for public open space. SEPP 19 applies to land in the Liverpool City Council LGA.

The majority of the Site is clear of any significant vegetation and 'Biodiversity Certified' under the BC Act and associated *Biodiversity Conservation (Savings and Transitional) Regulation 2017* which conferred biodiversity certification on the Growth Centres SEPP. This vegetation can be removed without the need for further assessment. Further this DA does not involve land zoned RE1 Public Recreation.

Refer to discussion in **section 4.1.1** of this SEE.

4.4.6 State Environmental Planning Policy No. 55 – Remediation of Land

The *State Environmental Planning Policy No. 55 - Remediation of Land* (**SEPP 55**) introduces state-wide planning controls for the remediation of contaminated land and aims to promote the remediation of any contaminated land for the purposes of reducing the risk of harm to human health and/or the environment.

Douglas Partners Pty Ltd (**DPs**) were engaged by the Applicant to prepare a Preliminary Site Investigation (**PSI**) to inform the proposed development (refer to **Appendix K**). The PSI was conducted to evaluate the contamination status of the Site, from a contamination perspective for the proposed development. The scope of the investigation comprised a site history review, review of previous investigations, site walkover, update of the preliminary conceptual site model, preparation of a data gaps assessment and preparation of a summary sampling and analysis quality plan.

Previous investigations concluded that the Site was generally free from overt indicators of gross and/or widespread contamination and considered that the likelihood of background contamination issues at the Site was low despite observations of uncontrolled filling and stockpiles with inclusions of demolition waste and suspected asbestos containing material fragments.

An inspection was undertaken by an Environmental Scientist to identify site activities, site features and any visible or olfactory indicators of potential contamination was carried out on 24 September 2019. The conclusions of the PSI are summarised as follows:

- Six potential areas of environmental concern (**PAEC**) were identified that require further investigation to characterise their contamination risk to the proposed development,
- PAEC observed are considered typical for the area and will not likely pose a constraint to the proposed development.

Accordingly, the PSI recommends that a Detailed Site Investigation for contamination is completed, targeting PAEC identified in the PSI to further quantify the potential for contamination and recommend any remediation works if necessary. An assessment against the relevant provisions of the SEPP 55 is provided in **Table 7**.

Table 7. Assessment against the SEPP 55

Clause	Assessment
7 Contamination and remediation to be considered in determining development application	
1. <i>A consent authority must not consent to the carrying out of any development on land unless:</i>	The scope of the PSI included a desktop study and a site walkover which informed an updated conceptual site model, data gaps assessment and a summary sampling and analysis quality plan. The PSI identified

Clause	Assessment
<p>a. <i>it has considered whether the land is contaminated, and</i></p> <p>b. <i>if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and</i></p> <p>c. <i>if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.</i></p>	<p>six PAEC that require further investigation to characterise whether or not they pose an actual contamination risk to the proposed development.</p>
<p>2. <i>Before determining an application for consent to carry out development that would involve a change of use on any land specified in subclause (4), the consent authority must consider a report specifying the findings of a preliminary investigation of the land concerned carried out in accordance with the contaminated land planning guidelines.</i></p>	<p>Based on the findings of the desktop study and the site walkover, the following PAECs have been overserved on the Site:</p> <ul style="list-style-type: none"> • S1: Areas of filling (including access roads), • S2: Stockpiles, • S3: Fly tipping/illegal dumping, • S4: Former low density agricultural land use/market gardens, • S5: Possible asbestos pipe network, and • S6: Electrical transmission fluids. <p>It is noted that the PAEC observed at the Site are typical for the region and are considered unlikely pose a contamination constraint to the proposed development at this time.</p>
<p>3. <i>The applicant for development consent must carry out the investigation required by subclause (2) and must provide a report on it to the consent authority. The consent authority may require the applicant to carry out, and provide a report on, a detailed investigation (as referred to in the contaminated land planning guidelines) if it considers that the findings of the preliminary investigation warrant such an investigation.</i></p>	<p>The PSI recommends that a Detailed Site Investigation is carried out to better define the actual contamination risks (if any) that the PAEC may pose on the development, and in turn inform the scope of any future remediation works, if required. This approach is consistent with both the SEPP 55 and NSW Environmental Protection Authority endorsed guidelines, including NEPC (2013). It is noted that DP has been engaged by the Applicant to undertake the Detailed Site Investigation.</p> <p>Depending on the findings of the Detailed Site Investigation, further investigation and/or a Remediation Action Plan (RAP) may be required. A RAP will be required if impact is identified at the Site that requires management and/or remediation.</p>
<p>9 Category 1 remediation work: work needing consent</p>	
<p>For the purposes of this Policy, a category 1 remediation work is a remediation work (not being a work to which clause 14(b) applies) that is:</p> <p>b. <i>development for which another State environmental planning policy or a regional environmental plan requires development consent.</i></p>	<p>As above.</p>



4.4.7 Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River

The Site is located within the catchment draining to the Hawkesbury-Nepean River system and as such the provision of the *Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (SREP 20)* applies as a deemed SEPP. The broad aim of the SREP 20 is to ensure the impact of urban development on the Hawkesbury-Nepean River is minimised by considering the catchment management, water quality and quantity, and protection and management of environmentally sensitive areas, flora and fauna and wetland habitats.

Accordingly, an assessment against the relevant provisions of the SREP 20 has been undertaken in **Table 8** below.

Table 8. Assessment against the SREP 20

Clause	Assessment
5 General planning considerations	
<i>a. the aim of this plan, and</i>	The SREP 20 aims to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context.
<i>b. the strategies listed in the Action Plan of the Hawkesbury-Nepean Environmental Planning Strategy, and</i>	The strategies listed in the Action Plan of the Hawkesbury-Nepean Environmental Planning Strategy have been applied to the proposed development and are discussed under clause 6 below.
<i>c. whether there are any feasible alternatives to the development or other proposal concerned, and</i>	The proposed development is considered appropriate, and no alternatives needing to be considered.
<i>d. the relationship between the different impacts of the development or other proposal and the environment, and how those impacts will be addressed and monitored.</i>	A Stormwater Management Strategy has been prepared forming part of the DA to improve the quality of expected stormwater discharge from the Site (refer to Appendix E).
6 Specific planning policies and recommended strategies	
1. Total catchment management	Environmental planning considerations through the Growth Centres SEPP have considered the impact of the Site which is zoned for urban development on the catchment.
2. Environmentally sensitive areas	<p>The Site contains areas that are non-biodiversity certified, which are also mapped as ENV, NVR and RPA in accordance with the Growth Centres SEPP.</p> <p>As the Precinct has already undergone the planning process, it is assumed that areas zoned as both SP2 Infrastructure (Local Drainage) and E2 Environment Conservation and also mapped as RPA will be conserved and rehabilitated.</p>

Clause	Assessment
3. Water quality	Refer to discussion in section 3.4.4 of this SEE and Appendix B and E .
4. Water quantity	Refer to discussion in section 3.4.2 of this SEE and Appendix B and E .
5. Cultural heritage	Refer to discussion in section 4.2 of this SEE.
6. Flora and fauna	Refer to discussion in section 4.1.1 of this SEE.
7. Riverine scenic quality	Not applicable.
8. Agriculture/aquaculture and fishing	Refer to discussion in section 4.1.1 of this SEE.
9. Rural residential development	New development on the Site will be a continuation of the new emerging character to the south. The subdivision layout and design and street grid will relate to the urban form set out in the ILP and also allow for a transition to the rural lands to the north of the Site.
10. Urban development	The Site is zoned for urban development purposes, and the proposed development provides a range of residential accommodation that are consistent with the objectives and controls contained in the Liverpool Growth Centres Precinct Plan.
11. Recreation and tourism	A number of interfaces are present on the Site edges, including roads, private property, open space and ecological areas. Accordingly, the Site has the potential to create new connections between open space with high quality pedestrian links, providing open space connections between the riparian corridors of Kemps Creek.
12. Metropolitan strategy	The proposed development is consistent with the Metropolitan Strategy by contributing to greenfield development in the SWGA.

The proposed development is considered to have a negligible impact on the Hawkesbury Nepean River system. The measures shown on the Erosions and Sediment Control Plan forming part of the Civil Engineering Plans (refer to **Appendix B**) are intended to be a minimum treatment only as the contractor will be required to modify and stage the erosion and sedimentation control measures to suit the construction program, sequencing and techniques. The works will be closely monitored during the activity period to ensure that all mitigation measures identified in the Erosion and Sediment Control Plan have been installed correctly and are working effectively throughout the construction of the project.

4.5 Proposed Environmental Planning Instruments

A review program for SEPPs to deliver a modern planning system is underway. The review is underpinned by the NSW Government's commitment to simplify the NSW planning system and reduce complexity without reducing the rigour necessary in considering matters of State and regional significance.



4.5.1 Remediation of Land State Environmental Planning Policy

The DPIE announced a draft Remediation of Land SEPP which will repeal and replace the current SEPP 55. An Explanation of Intended Effect (**EIE**) of the draft SEPP was placed on exhibition to 31 March 2018.

The core aims and structure of the SEPP 55 will be replicated in the new Remediation of Land SEPP, enabling the carrying out of remediation works, subject to certain restrictions and regulatory control. The Remediation of Land SEPP will still require consent authorities to consider contamination when determining DAs more generally. The same tests and requirements in clause 7 of the SEPP 55 will appear in the new SEPP. The draft SEPP will include transitional provisions so that DAs made prior to its commencement are regulated by the SEPP 55. Category 2 remediation works notified at the time of commencement will similarly proceed under the repealed provisions.

4.5.2 Environment State Environmental Planning Policy

The NSW Government has been working towards developing a new SEPP for the protection and management of our natural environment. This SEPP proposes to simplify the planning rules for a number of water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property.

The DPIE exhibited an EIE for the proposed the *State Environmental Planning Policy (Environment)* (**Environment SEPP**) from 31 October 2017 to 31 January 2018. The Environment SEPP seeks to consolidate a range of SEPPs and Regional Planning Instruments to reduce duplication in planning legislation. The relevant Environmental Planning Instrument being consolidated by the Environment SEPP in respect to this DA is SREP 20.

However, the EIE mentions that new savings provisions would be included in the proposed Environment SEPP. As the zoning of the site would not change and the proposal is generally consistent with the objectives of the zone, the management strategies and objectives are consistent with the proposed instrument.

4.5.3 Design and Place State Environmental Planning Policy

The Design and Place SEPP puts place and design quality at the forefront of development allocating shared responsibility to care for Country and sustain healthy, thriving communities underpinning the policy. The SEPP spans places of all scales, from precincts, large developments, and buildings to infrastructure and public space.

Public exhibition of the Design and Place SEPP EIE closed in April 2021. However, the draft Design and Place SEPP will go on public exhibition later in 2021 to provide more opportunities for feedback. The DPIE are developing supporting guidance and tools, drafts of which will also go on exhibition with the draft SEPP. These guides include revisions to the Apartment Design Guide and improvements to the Building Sustainability Index (BASIX), as well as the proposed Urban Design Guide, and Design Review Guide.

Modelled on the Apartment Design Guide, the new Urban Design Guide (**UDG**) will be created to provide design guidance and criteria for rezonings and large-scale greenfield and brownfield developments. The UDG is structured into the following areas: Understanding Place and Country; Structure; Grain; Form; and Environmental Performance.

The EIE indicates the Design and Place SEPP will have design criteria for precinct scale water detention and reuse strategies, providing adequate public space, connecting green corridors, and street network structures that achieve the street density and block length targets. As part of this, the SEPP will also contain specific metrics such as total public space area, average block size and maximum single block size. Accordingly, it is proposed transitional arrangements will be put in place for implementation of the proposed Design and Place SEPP to:

- Allow industry stakeholders to mobilise and get ready for any additional provisions that will be applied under the SEPP,
- Allow councils and other consent authorities to ensure appropriate skills are in place to meet the assessment requirements under the SEPP, and
- Ensure savings provisions are in place in relation to applications that have already been lodged and are being considered.

4.6 Development Control Plan

The following section discusses the relevant planning controls under the adopted DCP.

4.6.1 Liverpool Growth Centre Precincts Development Control Plan

This DCP has been prepared pursuant to the provisions of 3.43 of the EP&A Act to provide additional objectives, controls and guidance to applicants proposing to undertake development in the Liverpool Growth Centre Precincts, and for Council's reference in the assessment of DAs. The DCP outlines the planning, design and environmental objectives and controls to ensure orderly, efficient and sensitive development occurs in the Growth Centres Precincts.

The Growth Centres SEPP and the Liverpool Growth Centre Precincts Plan provide the statutory planning controls for development in the Precinct. This DCP is consistent with, and supports those controls, by providing more detail in relation to how development is to occur in the Precincts.

Sections 2 and 3 and Schedule 1 of the DCP relates to Precinct Planning outcomes and subdivision design. **Table 9** below provides a comprehensive assessment of the proposed development.

Table 9. Assessment against the DCP

Section	Requirement	Comment
2.0 Precinct Planning Outcomes		
2.2	The Indicative Layout Plan	<p>The proposed development represents a coordinated approach to development within the Precinct, through the efficient use of land for urban development, providing a variety in future dwelling configurations and housing choice which will support the significant investment by the NSW Government in public transport, open space and recreation areas, retail space, and improved connections.</p> <p>The DA includes bulk earthworks and associated civil works including the construction of roads, the installation of stormwater management infrastructure, services and landscaping generally in accordance with the ILP and provides for land uses consistent with the RU6 Transition, R2 Low Density Residential, SP2 Infrastructure</p>

Section	Requirement	Comment
		<p>(Local Drainage), E2 Environmental Conservation and E4 Environmental Living zoning of the Site.</p> <p>The proposed road network provides more permeability and more connecting points to the rest of the road network than anticipated by ILP (refer to discussion in section 3.4.6 of this SEE).</p> <p>Accordingly, the Site can gain access via the existing Seoul Avenue, which further connects with Oslo Street, King Rock Road for a wider road network.</p> <p>The proposed development provides compliant lot sizes applicable to the Site whilst delivering an equitable share of density to ensure the proposed development does not use a larger share of available infrastructure capacity in the Precinct. Lot widths and depths will achieve future built form that complies with Council's relevant development controls or the Codes SEPP.</p> <p>With higher levels of amenity and accessibility, the Site is considered to be well positioned to provide for a mix of dwelling typologies to cater for a variety of demographic groups.</p>
2.3	Site analysis	The various aspects of 'site analysis' under section 2.3 of the DCP is discussed below.
2.3.1	Flooding	<p>The Growth Centres SEPP Development Control Map identifies part of the Site as flood prone and major creeks land.</p> <p>Refer to discussion in section 4.4.1 of this SEE.</p>
2.3.2	Water cycle management	<p>The Stormwater Management Strategy has been designed in accordance with the DCP and Councils Engineering Design Specification to ensure site stormwater runoff is managed.</p> <p>Refer to discussion in section 3.4.2, 3.4.3 and 3.4.4 of this SEE.</p>
2.3.3	Salinity and soil management	<p>Reference to the <i>Map of Salinity Potential in Western Sydney</i>, indicates that soil along the creeks on the Site are mapped as having high salinity potential and known salinity. The salinity potential for the remainder of the Site is mapped as having moderate salinity potential, i.e. saline soils may be present but have not yet been assessed.</p> <p>Accordingly, DPs were engaged by the Applicant to prepare a Preliminary Geotechnical Assessment for further discussion and typical management techniques that can be applied to facilitate the proposed development (refer to Appendix L).</p>
2.3.4	Aboriginal and European heritage	Refer to discussion in section 4.2 of this SEE.
2.3.5	Native vegetation and ecology	Refer to Appendix C for further discussion.
2.3.6	Bushfire hazard management	Refer to discussion in section 4.2 and 4.3 of this SEE.
2.3.7	Site contamination	Refer to discussion in section 4.4.6 of this SEE.

Section	Requirement	Comment
2.3.8	Development on and adjacent to electricity and gas easements	The proposed development is located within an area affected by major infrastructure easements and has been designed to not impact on the continued operation of such infrastructure. Accordingly, the Applicant has begun consultation with Jemena and TransGrid and will continue as part of the DA.
2.3.9	Noise	The Site is not located in an acoustic sensitive area, albeit land to the west, and north west is zoned SP2 Infrastructure (Electricity Substation), and land within the central portion of the Site is zoned SP2 Infrastructure (Sewerage System), there is no existing or anticipated noise impact.
2.3.10	Odour assessment and control	An Odour Assessment for the Sydney Waterer Pump Station was completed during its concept design with the surrounding locality that was planned for residential development having been assessed as having a low odour nuisance from the wastewater infrastructure. This is due to the nature of wastewater in the catchment having low Biological Oxygen Demand and hydrogen sulphides, both of which can produce odour. Accordingly, it was considered the risk of odour generation during operation of the wastewater infrastructure to be low.
2.3.11	Air quality	The DA seeks approval for residential subdivision and associated works and does not propose employment or industrial land uses. Appropriate measure for dust suppression will be implemented to mitigate any air quality impacts during the construction period. This will include spraying down areas with water during windy conditions to reduce the spread of dust. Suitable conditions of development consent will be applied.
2.5	Crime Prevention through Environmental Design	<p>Crime Prevention through Environmental Design has been considered as part of the design of the proposed development. The proposed subdivision has been designed generally in accordance with the ILP with visible sight lines down the streets and regular shaped lots.</p> <p>The subdivision layout has been designed to facilitate the development of future dwellings that are orientated towards the street to provide surveillance of public areas and pedestrian footpaths. This will assist in achieving a sense of community ownership over this land with future occupants more likely to report any maintenance issues to ensure this space is well looked after.</p> <p>The proposed street network provides increased levels of permeability to ensure accessibility within the wider subdivision is maximised and encourages use of streets by pedestrians without fear or personal risk. Street lighting will be provided through the street network to ensure that there is acceptable visibility at night. The lighting will be designed in accordance with the relevant electricity provider's and Council's guidelines.</p>
2.6	Earthworks	Refer to discussion in section 3.4.1 of this SEE.
3.0 Neighbourhood and Subdivision Design		

Section	Requirement	Comment
3.1	Residential density and subdivision	The various aspects of 'residential density and subdivision' under section 3.1 of the DCP is discussed below.
3.1.1	Residential density	<p>All proposed lots are capable of future development for a range of detached dwelling designs. As per Figure 3-2 of the DCP, the proposed subdivision will deliver a mix of 'Garden Suburban' and 'Suburban' streetscape as anticipated in the areas with a density range of 15-20 dwellings per hectare. The proposed subdivision generally provides for detached dwelling houses that are capable of accommodating both single and two storey dwellings, consistent with the desired streetscape outcomes with an overall dwelling density over the R2 Low Density Residential zoned land of approximately 15.8 dwellings per hectare.</p> <p>Refer to discussion in Table 5 of this SEE.</p>
3.1.2	Block and lot layout	<p>Block Layout</p> <p>The proposed subdivision layout delivers a road layout that adopts the ILP road pattern and introduces additional north/south roads and laneways to achieve a finer grain and more permeable network for vehicles, cyclists and pedestrians. The additional roads do not result in any undue density impacts with the development delivering just above the minimum required by the clause 4.1B in the Growth Centres SEPP.</p> <p>The ILP identifies street blocks that are unconventional and that do not typically meet the minimum and maximum block depths and length. That said the subdivision design, through the introduction of additional roads, has been able to achieve a general grid structure with street block depths in the order of 60 to 82 metres (the later includes laneway width of 7 metres). Due to the awkward ILP footprint a portion of the westernmost street block has a depth of 45 metres that is unavoidable.</p> <p>Lot Layout</p> <p>The proposed allotments are generally rectangular in shape and comply with the minimum lot size provisions of the Growth Centres SEPP. Due to the non-linear road layout in the ILP and curved development/zone boundaries a minimal number of fan shaped lots have been required in order to achieve the minimum density required on the land. All fan lots have a suitable lot area and dimension at the building line to accommodate a suitable sized dwelling.</p> <p>Allotment orientation has also been a consideration so as to achieve solar access principles.</p> <p>For north facing lots, with the exception of three lots (Lots 501 to 503, discussed later), depths vary from 30 to 39 metres with minimum widths at the building line of 10 to 15 metres to ensure suitable dwellings can be positioned to achieve solar access to rear courtyards without overshadowing adjoining properties.</p> <p>South facing lots generally range in depth from 25 to 30 metres to ensure dwellings are afforded the greatest opportunity for solar access in the rear of lots. Lot widths range from 10 to 20+ metres.</p>

Section	Requirement	Comment
		<p>East and west facing lots range in depth from 28 to 36 metres and widths from 10 to 12.5 metres and benefit from optimum solar orientation.</p> <p>The subdivision provides for a variety of lot sizes and widths that will be suitable to accommodate a range of different home sizes and offer varying levels of market entry points and affordability through the development</p> <p>Lot areas range from 268.5m² to 733m². Where lots are less than 300m² is area, a BEP forming part of the Urban Design Report (refer to Appendix D) to demonstrate that these lots are able to accommodate a dwelling that can comply with either built form controls of the DCP or requirements of the Codes SEPP.</p> <p>Subdivision of Shallow Lots</p> <p>As discussed above, due to the irregular depth of the ILP street block on the western portion of the Site and associated bush fire planning constraints, three shallow lots (Lots 501 to 503) are proposed with a lot depth of 15 metres. This serves to minimise the number of compromised lots and allow the south facing blocks to achieve a minimum depth of 30 metres. For the three lots, the shallow lot depth is offset by having larger lot sizes with a greater width in the order of 28 to 35 metres. This will ensure these lots are able to accommodate a suitably sized home within the relevant rear and front setbacks and provide for amore unique and diverse streetscape outcome along this frontage (wider street presence with greater building spacing verses conventional 12.5 metres lots).</p>
3.1.3	Battle-axe lots	All proposed battle-axe lots exceed 500m ² in size (excluding the access handle). These lots are a consequence of the irregular shaped blocks of the ILP and recognised as an acceptable lot configuration in Figure 6-1 of the DCP.
3.1.4	Corner lots	The proposed development includes corner lots with a suitable width and depth to allow for a variety of dwelling typologies and provide appropriate articulation on both street frontages to contribute to an attractive streetscape.
3.1.5	Subdivision in the Environmental Living zone	<p>Part of the Site is zoned E4 Environmental Living. The subdivision layout proposes 10 lots (Lots 542 to 544 and 586 to 592) in the E4 Environmental Living zone. Accordingly, the proposed lots:</p> <ul style="list-style-type: none"> • have been designed so that the orientation, positioning, and layout of any future dwelling on the proposed lots will not have any significant impact on the visual character of the locality, • have been designed so that impacts on utilities easements will be avoided during subdivision works (refer to discussion in section 4.4.2 of this SEE).
3.2	Subdivision approval process	<p>The DA proposes to create 77 of the 92 residential lots equal to or larger than 300m². As such, the Subdivision Approval Process for these lots will be 'Pathway A1'.</p> <p>15 of the 92 lots are between 250m² and 300m². As such, BEPs forming part of the Urban Design Report (refer to Appendix D) are provided to demonstrate a dwelling can be accommodated on the lots in accordance with the requirements of 'Pathway A2'.</p>



Section	Requirement	Comment
		As there are a limited number of lots below 300m ² and they are more dispersed rather than concentrated, a typical Public Domain Plan is not considered to be necessary. Instead the BEPs will be prepared to demonstrate driveway locations, on street parking opportunities and street tree planting locations. This is further supplemented by an Urban Design Report (refer to Appendix C) that provides a comprehensive overview of all streetscape outcomes consistent with the intent of a Public Domain Plan.
3.3	Movement network	The various aspects of 'movement network' under section 3.3 of the DCP is discussed below.
3.3.1	Street network layout and design	<p>The proposed development will include construction of an internal road network consisting of a combination of circulating roadways and local roads. The street types proposed in the proposed development have been developed in line with the WSPP engineering specifications that have been endorsed by Council. Whilst they may not strictly reflect the road cross sections in the DCP, they have been designed with considerations to meet key performance requirements set out in the DCP and Council's engineering specifications. Refer to the Urban Design Report at Appendix C for additional detail.</p> <p>In particular the critical dimensions for road carriageways and service vehicle requirements have been incorporated. Within this framework a series of street types have been developed to provide a high-quality public domain system that:</p> <ul style="list-style-type: none"> • provide safe streets with high pedestrian amenity, • prioritises pedestrians over cars, • responds to the particular built form interfaces, • addresses climate and the need for shade, • creates a legible and safe environment, • allows for parking access, • provides ample on-street parking, • incorporate opportunities for WSUD, and • reflects the character and heritage of the local area. <p>The subdivision layout has been designed to ensure a clear and permeable street hierarchy with street blocks within the prescribed maximum length and depth generally in accordance with the ILP. The subdivision and road pattern have also been designed to allow the topography of the Site to convey stormwater.</p> <p>Signage, line marking, and road pavement surface treatments are proposed in order to provide appropriate warning to vehicles, traffic calming at key intersections and improve driver awareness in critical locations where sign distance is less than desired.</p> <p>The orientation of residential blocks has been designed in response to the surrounding road network and provides for a range of house types (various lot typologies, sizes and orientations) to meet the needs of a diverse community.</p> <p>Refer to discussion in section 3.4.6 of this SEE.</p>
3.3.2	Street furniture	A variety of road typologies are proposed as part of the development that aim to maximise improvements to street tree

Section	Requirement	Comment
		<p>canopy cover, WSUD, urban cooling and high-quality street environments focused on the pedestrian and cyclist experience streetscapes consistent with the objectives of the Street Furniture requirements. The designs deliver:</p> <ul style="list-style-type: none"> • street trees for all streets • use of endemic species where possible, • passively irrigated tree blisters • tree planting per lot equal to or in excess of the minimum requirements • landscaping that provides a buffer to native vegetation areas and riparian corridors, • a wide street with a central median to facilitate an overland flow path through the eastern portion of the Site, <p>All furniture and materials are to be selected within the <i>Liverpool Streetscape and Paving Guidelines (2005)</i>.</p>
3.3.3	Local area traffic management	Refer to the Transport and Access Assessment at Appendix F for further discussion on the operation of the road network.
3.3.4	Laneways	Two short laneway lengths are proposed in the centre of the Site. The use of the laneways does not result in any significant increase in yield but rather have been implemented to provide for rear loaded dwellings that provide for a direct interface with the overland flow path/riparian corridor. This further frees up additional land from being used for road to instead to be embellished for passive recreation uses. Refer to Transport and Access Assessment at Appendix F for further discussion on the operation of the laneways in the road network.
3.3.6	Pedestrian and cycle network	The subdivision layout has been designed to promote pedestrian and cycle connectivity, safety, and casual surveillance of future public lands through linking local destinations with the regional network. Pedestrian footpaths 1.5 metres wide will be provided to all proposed local roads.
3.4	Construction environmental management	As per the DCP, a Construction Environmental Management Plan will be prepared and submitted to Council prior to the issue of a Construction Certificate. Details of necessary erosion and sediment control measures have been provided in the Civil Engineering Plans included as part of the DA submission (refer to Appendix B).
Schedule 1 Austral and Leppington North Precincts		
2.1	Precinct planning vision	<p>The vision and design strategy for the proposed development is to create an affordable new community on the edge of Western Sydney Parklands, with great landscaped streets and a diverse range of housing.</p> <p>Accordingly, the proposed development is generally in accordance with the ILP and delivers a range of lot sizes to provide housing choice and supports the significant investment by the NSW Government in infrastructure in the Precinct.</p>
4.1	Development near or on gas easements	

Section	Requirement	Comment
4.2	Development near or on electricity easements	The proposed development addresses the known constraints while presenting a possible future outcome for the Site that aligns with the Applicants objectives. Further design development, feasibility testing, and stakeholder engagement will be required to take this concept to a level of resolution before the proposed development can gain statutory approvals and be determined.
4.3	Development in the Environmental Living zone	The eastern portion of the Site adjoining the Western Sydney Parklands and containing gas pipeline easements is zoned E4 Environmental Living pursuant to the Growth Centres SEPP. It can be seen as providing a transition between the Parklands and R2 Low Density Residential land and also providing some development opportunities compatible with the restrictions of the easements in this area.
4.4	Land adjacent to the Sydney Catchment Authority Upper Canal	The Site is not adjacent to the Sydney Catchment Authority Upper Canal.
4.5	Land adjacent to the Western Sydney Parklands	The subdivision layout has been designed to allow for future built form to integrate into of the wider ILP on surrounding lands. New streets will be pedestrian and cycle friendly with extensive planting to provide shade and reduce urban heat island effect. New regional active transport links provided to connect to the regional cycle network and Western Sydney Parklands.

4.7 Planning Agreements and Monetary Contributions

No Voluntary Planning Agreements (VPA) apply to the Site. Contributions towards the provisions of local infrastructure can be levied in accordance with *Liverpool Contribution Plan – Austral and Leppington North 2014 (Contribution Plan)*.

In this regard, the Contributions Plan nominates a network of stormwater management and open space facilities over parts of the Austral East and Austral West sites. The Applicant intends to dedicate the land to Council as part of these DAs and where feasible and possible, deliver infrastructure works with the intention to offset the development contributions that would be payable in a consent. **Figure 18** and **Table 10** over the page identify the land dedications and works located on the Site.

Following lodgement of the DA and general agreement on the subdivision layout, the Applicant intends to engage with Council's Infrastructure team to pursue appropriate arrangements and provide a formal letter of offer to facilitate this outcome.



Source: Council, 2015

Figure 18. Infrastructure Map

Table 10. Schedule of works and land dedications

CP Item No.	Description	Total area (ha)
Essential works and land		
DP11	District passive open space	2.6598ha (partly within Site)
	District passive open space embellishment	6.4326ha (partly within Site)
DC30	Trunk drainage channel	1.4446ha (mostly within Site)
	Stabilisation of existing watercourse	
DC32	Trunk drainage channel	3.1592ha (small portion within Site)
	Stabilisation of existing watercourse	
DC33	Trunk drainage channel	4.6023ha (mostly within Site)
	Stabilisation of existing watercourse	
DC36	Trunk drainage channel	0.7430ha (mostly within Site)

CP Item No.	Description	Total area (ha)
	Channel type 2	
B25	Trunk drainage basin	1.6643ha
B27	Trunk drainage basin	1.2901ha
E11b	Bioretention facility	0.0104ha
E13	Bioretention facility	0.0745ha
E16b	Bioretention facility	0.0060ha
E17c	Bioretention facility	0.0293ha
CC7	Channel crossing type 1	Works only

4.8 Environmental Planning and Assessment Regulation

There are no additional matters that previously considered in this SEE under the EP&A Regulation which would impact upon the consideration of the DA.

4.9 Likely Impacts of the Development

The likely environmental impacts of the proposed development have been discussed in previous sections of this SEE. The proposed development is not considered likely to result in any adverse impacts provided the mitigation measure described in this SEE and supporting appendices are implemented.

Further discussion in relation to waste management of the DA is discussed below.

4.9.1 Waste

Based on the existing uses on Site, there is no identified demolition works on Site and the disposal of contaminated material is unlikely, unless identified as an unexpected find. The management and disposal of material identified as such is addressed in the PSI.

Waste generated through the daily operations and running of the proposed development will be placed in appropriate bins for disposal or recycling. This includes food scraps, drink containers and paper waste. All site personnel will be advised of the appropriate disposal of this type of waste.

Any waste generated must be disposed of at licensed facilities approved to accept the various types of material. Where necessary, pre-approval from the waste receiving facility should be obtained.

Refer to **Appendix M** for further discussion.

4.10 Suitability of the Site

The Site has been rezoned for the urban purpose under the NSW Government Priority Land Release Policy (Growth Centre). The proposed development is generally consistent with the ILP and Council's



previous approvals and is suitable development of the Site consistent with the relevant zone objectives.

4.11 Submissions

The DA will be notified in accordance with Council's Community Participation Plan. The Applicant requests the opportunity to review and comment on any submission received.

4.12 Public Interest

The DA seeks approval for staged residential subdivision of one existing allotment to create 92 Torrens title lots. The DA includes the removal of select vegetation, bulk earthworks and associated civil works including the construction of temporary on-site detention basins, stormwater drainage, new roads and installation of services.

Accordingly, the DA is considered in the public interest for the following reasons:

- The Site is zoned for urban development purposes, and the proposed development provides a range of residential accommodation that are consistent with the objectives and controls contained in the Liverpool Growth Centres Precinct Plan.
- The proposal is consistent with both the SWGA Structure Plan and the Precinct Plan that supports the urban development of the Precinct.
- The proposed lots to be created under this DA meet a key purpose of the Growth Centre SEPP, which is to address the existing housing supply shortage and to accommodate the growth housing demand within the Sydney basin.
- The proposed lots are capable of supporting a range of housing products which will facilitate variety within the streetscape and support different housing types and range of market entry price points with a range of more affordable housing options.
- The proposed subdivision delivers a density consistent with the emerging character of future urban development within the Precinct.

The proposed development has been designed to pioneer the implementation and showcase of the new street design standards devised by the Western Sydney Planning Partnership to demonstrate best practice urban tree canopy, Water Sensitive Urban Design and urban cooling outcomes.

- The proposed development facilitates:
 - open space and drainage facilities along the Kemps Creek corridors providing a range of opportunities for outdoor amenity through the inclusion of walking paths, open lawns, social gathering and outdoor picnic spaces.
 - reservation and dedication of land in drainage corridors to enable construction of drainage facilities and effective ongoing management of those facilities.
 - community infrastructure in an efficient, timely and coordinated way to support the pattern of development; ensuring that services are available to residents as early as possible, and they are not disadvantaged through delays in delivery.



5 Conclusion

The DA seeks approval for residential subdivision of one existing allotment to create 92 Torrens title residential lots. The DA includes the removal of select vegetation, bulk earthworks and associated civil works including the construction of temporary on-site detention basins, stormwater drainage, new roads and installation of services

The proposed development has been assessed against the relevant provision of the EP&A Act, Growth Centres SEPP and DCP and have been found to be an acceptable form of development consistent with the future anticipated growth of the Precinct for urban development and is considered to meet the principles and objectives whilst providing a high level of amenity for future residents.

Based on the information contained in this SEE the proposed development should be granted consent, subject to appropriate conditions of consent.

6 Glossary

Abbreviation	
ACHA	Aboriginal Cultural Heritage Assessment
AEP	Annual Exceedance Probability
AHIMS	Aboriginal Heritage Inventory Management System
The Applicant	Landcom
APZ	Asset Protection Zone
BC Act	<i>Biodiversity Conservation Act 2016</i>
BDAR	Biodiversity Development Assessment Report
BEP	Building Envelope Plan
BOS	Biodiversity Offsets Scheme
CAA	Controlled Activity Approval
Calibre	Calibre Consulting (NSW) Pty Ltd
Contributions Plan	<i>Liverpool Contribution Plan – Austral and Leppington North 2014</i>
DA	Development Application
DCP	<i>Liverpool Growth Centre Precincts Development Control Plan</i> (as amended)
DP	Deposited Plan
DPIE	Department of Planning, Industry and Environment
EIE	Explanation of Intended Effect
ELA	Ecological Austral Pty Ltd
ENV	Existing Native Vegetation
Environment SEPP	<i>State Environmental Planning Policy (Environment)</i>
EP&A Act	<i>Environmental planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
FM Act	<i>Fisheries Management Act 1994</i>
GLN	GLN Planning Pty Ltd
Growth Centres SEPP	<i>State Environmental Planning Policy (Sydney Region Growth Centres) 2006</i>
ILP	Indicative Layout Plan
Infrastructure SEPP	<i>State Environmental Planning Policy (Infrastructure) 2007</i>
KFH	<i>Key Fish Habitat 1994</i>
Koala SEPP	<i>State Environmental Planning Policy (Koala Habitat Protection) 2020</i>
LGA	Local Government Area
MNES	Matters of National Environmental Significance
NP&W Act	<i>National Parks and Wildlife Act 1974</i>

Abbreviation	
NRAR	Natural Resource Access Regulator
NVR	Native Vegetation Retention
OSL	Office of Strategic Lands
PAEC	<i>Preliminary Area of Environmental Concern</i>
PBP 2019	<i>Planning for Bushfire Protection 2019</i>
Precinct	Austral Precinct in the South West Growth Area
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
PSI	Preliminary Site Investigation
RAP	Remediation Action Plan
RFS	Rural Fire Service
RF Act	<i>Rural Fires Act 1997</i>
RPA	Riparian Protection Area
SEE	Statement of Environmental Effects
SEPP	State Environmental Planning Policy
SEPP 19	<i>State Environmental Planning Policy No. 19 – Bushland in Urban Areas</i>
SEPP 55	<i>State Environmental Planning Policy No. 55 – Remediation of land</i>
The Site	Lot 184 in DP 1237400; 69-77 Gurner Avenue, Austral NSW 2179
SREP 20	<i>Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River</i>
SWGA	South West Growth Area
TfNSW	Transport for NSW
TSC Act	Repealed <i>Threatened Species Conservation Act 1995</i>
UDG	Urban Design Guide
Vegetation SEPP	<i>State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017</i>
VMP	Vegetation Management Plan
VPA	Voluntary Planning Agreement
WM Act	<i>Water Management Act 2000</i>
WSPP	Western Sydney Planning Partnership
WSUD	Water Sensitive Urban Design





APPENDIX A: CIVIL ENGINEERING & INFRASTRUCTURE DUE DILIGENCE REPORT



A.1: Civil Engineering & Infrastructure Due Diligence Report



APPENDIX B: CIVIL ENGINEERING PLANS



B.1: Civil Engineering Plans



APPENDIX C: BIODIVERSITY AND RIPARIAN LAND ASSESSMENT



C.1: Biodiversity and Riparian Land Assessment



APPENDIX D: URBAN DESIGN REPORT



D.1: Urban Design Report



APPENDIX E: STORMWATER CONCEPT PLAN AND FLOOD ASSESSMENT



E.1: Stormwater Concept Plans and Flood Assessment



APPENDIX F: TRAFFIC AND ACCESS STUDY



F.1: Traffic and Access Study



APPENDIX G: LANDSCAPE PLANS



G.1: Landscape Plans



APPENDIX H: PLAN OF SUBDIVISION



H.1: Plan of Subdivision



APPENDIX I: ABORIGINAL OBJECTS DUE DILIGENCE AND PRELIMINARY HISTORICAL HERITAGE ASSESSMENT



I.1: Aboriginal Objects Due Diligence and Preliminary Historical Heritage Assessment



APPENDIX J: BUSH FIRE PROTECTION ASSESSMENT



J.1: Bush Fire Protection Assessment



APPENDIX K: PRELIMINARY SITE INVESTIGATION



K.1: Preliminary Site Investigation



APPENDIX L: PRELIMINARY GEOTECHNICAL ASSESSMENT



L.1: Preliminary Geotechnical Assessment



APPENDIX M: WASTE MANAGEMENT PLAN



M.1: Waste Management Plan